



State of Minnesota

GIS Pandemic Needs Analysis Report

Appendices Addendum



Advancing Public Health Outcomes Through Information Technology

This report was prepared for the

State of Minnesota

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**State of Minnesota
GIS Pandemic Needs Analysis Report Appendices Addendum
September 2007 – Final**

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1.0 MEOP Supplement

The State of Minnesota's Highly Pathogenic Avian Influenza (HPAI) and Pandemic Influenza MEOP Supplement (version 2/9/07) can be found at the end of this PDF document.

2.0 Executive Order 04-04, Assigning Emergency Responsibilities to State Agencies

The State of Minnesota's Executive Order (Governor Tim Pawlenty) 04-04 can be found at the end of this PDF document.

3.0 Essential Business Functions

BUSINESS FUNCTION	DESCRIPTION
Notification & Warning	Detect events, send notifications, and warn impacted geographies and populations.
Incident Management	Control the State's response actions during the event as a single enterprise.
Public Information	Provide notification, updates, and publish advisories for the media and the general public.





BUSINESS FUNCTION	DESCRIPTION
Accident/Damage Assessment	Assess the impact of the event, its ramifications, and provide recommendations.
Search & Rescue	Identify targets, develop access strategies, and conduct logistical support during search and rescue missions.
Health Protection	Protect the public's wellbeing through proactive, mitigative, and reactive actions.
Medical Services	Provide essential medical services, which may include transportation, prophylaxis and treatment distribution, quarantine, triage, and treatment services.
Fire Protection	Ensure fire safety during pandemic activities, which may include fire protection measures for understaffed buildings and support during carcass destruction.
Evacuation/Traffic Control/Security	Support orderly movement of populations; ensure safety of resources, supplies, and people.
Mass Care, Housing, and Human Services	Provide logistical support to effected populations in human services matters.
Debris Management	Support carcass disposal and other potentially contagious materials.
Public Works/Utilities Restoration	Ensure access to basic utility services and government priority functions, e.g., computer network maintenance for remote access during social distancing control measures.
Environmental Hazard Response	Coordinate and execute containment and response measures to environmental hazards, which may include containing a wildlife habitat or other measures.
Resource Management	Manage deployment, maintenance or replenishment, and prioritization of resource usage.

4.0 Governor's Executive Order 05-04

The State of Minnesota's Executive Order (Governor Tim Pawlenty) 05-04 can be found at the end of this PDF document.



5.0 ITAAM Phases

ITAAM PHASE	ASSOCIATED TASKS	OUTCOMES
Introductory & Discovery	<ul style="list-style-type: none"> Kickoff Meeting Develop/Customize data collection instruments Interviews and data collection Review existing documents Document and distribute interviews 	<ul style="list-style-type: none"> Kickoff presentation Data collection instruments Documented/Edited interviews
Needs & Requirements Assessment	<ul style="list-style-type: none"> Assess existing processes Assess support structure Analyze and categorize issues across groups (if applicable) Investigate relevant national public health initiatives Prepare Needs & Requirements portion of the Final Report 	<ul style="list-style-type: none"> Illustrate and describe existing process Illustrate and describe existing technical environment Issues assessment and analysis Discuss relevant national public health initiatives Deliver Needs and Requirements portion of the Final Report
Conceptual Design	<ul style="list-style-type: none"> Isolate key areas of focus Assess data flow alternatives Assess IT infrastructure alternatives Prepare Conceptual Design portion of the Final Report 	<ul style="list-style-type: none"> Conceptual procedural design alternatives Conceptual technical design alternatives Deliver Conceptual Design portion of the Final Report



ITAAM PHASE	ASSOCIATED TASKS	OUTCOMES
Final Report	Develop recommendations relative to issue categories Develop an estimated phased implementation plan with specific tasks / objectives Create final report Create final presentation	Final report Final presentation

6.0 Interviewee List

This appendix lists the interviewed stakeholders of the GIS Pandemic Analysis study. Representation comes from all stakeholder agencies identified in the MEOP HPAI and Pandemic Supplement, with two exceptions, Finance and Employment and Economic Development.

NAME	TITLE	INTERVIEW DATE	AGENCY
James Aars	State Safety Program Coordinator	May 30, 2007	Minnesota Department of Employee Relations
David Arbeit	Director	May 30, 2007	Land Management Information Center
Donna J. Baker	Business Continuation Coordinator	May 24, 2007	Department of Revenue
James Aars	State Safety Program Coordinator	May 30, 2007	Minnesota Department of Employee Relations
David Arbeit	Director	May 30, 2007	Land Management Information Center
Donna J. Baker	Business Continuation Coordinator	May 24, 2007	Department of Revenue
Don Beckering	State Director, Fire/EMS/Safety Training/Compliance	May 29, 2007	Minnesota State Colleges and Universities



NAME	TITLE	INTERVIEW DATE	AGENCY
Adam Benedix	Network Manager	May 17, 2007	Minnesota Department of Administration, Plant Management Division
Philip Blue	Risk Management Division	May 17, 2007	Minnesota Department of Administration, Pandemic Influenza Planning Group
David Bucher	IT Specialist	June 4, 2007	Minnesota Department of Human Services, Child Safety and Permanency Division
Michelle Carstensen Powell	Wildlife Health Program Coordinator	May 21, 2007	Minnesota Department of Natural Resources, Division of Fish & Wildlife
John Cavanaugh	Emergency Management Planner	May 22, 2007	Minnesota Department of Transportation
Todd Christenson	State Safety Program Coordinator	May 30, 2007	Minnesota Department of Employee Relations
Chris Cialek	GIS Clearinghouse Supervisor	May 29, 2007 May 30, 2007	Land Management Information Center
Alisha Cowell	Assistant to the Assistant Commissioner	May 17, 2007	Minnesota Department of Administration, Pandemic Influenza Planning Group
Lucinda Dahlberg	Information Technology Specialist	May 21, 2007	Department of Agriculture Board of Animal Health
Bob Dahm	State Fire Marshall	May 24, 2007	Fire Marshall Office
Mike Dolbow	GIS Coordinator	May 18, 2007 May 21, 2007	Minnesota Department of Agriculture, Information and Technology Division
Nancy J. Doucette	Infectious Disease Planner	May 23, 2007	Minnesota Department of Human Services
Denise Dunn	Pandemic Planning Facilitator	May 31, 2007	Minnesota Department of Health, Immunization, TB, & International Health Section



NAME	TITLE	INTERVIEW DATE	AGENCY
Kris Eide	Director, HSEM	May 18, 2007	Homeland Security and Emergency Management
Dave Fielding	Plant Management Division Director	May 17, 2007	Minnesota Department of Administration, Pandemic Influenza Planning Group
Robert W. Fischer	Pupil Transportation Specialist	May 23, 2007	Minnesota Department of Children, Families and Learning
Captain Tom Fraser	Captain; RNC Coordinator	May 17, 2007	Minnesota Department of Public Safety, Highway Patrol
Scott Freburg	GIS Administrator	May 23, 2007	Minnesota Department of Education
Bill French	OTSS, DPS	May 18, 2007	
Nicky Giancola	Assistant Commissioner	May 17, 2007	Department of Administration, Pandemic Influenza Planning Group
William Glesener	Firewise Community Specialist	June 4, 2007	Department of Natural Resources
Kari Goldz	HSEM	May 18, 2007	HSEM
Onalee-Grady Erickson	HSEM	May 18, 2007	HSEM
Jeffrey Haase	Project Manager, Energy Facility Permitting	May 21, 2007	Minnesota Department of Commerce
William L. Hartmann	Executive Director	May 18, 2007	Minnesota Board of Animal Health
Barb Hearley	Operations Director	May 24, 2007	Minnesota Department of Health, Information Systems and Technology Division
Cathy Hockert	State Pandemic Planning Coordinator	May 30, 2007	Minnesota Department of Employee Relations





NAME	TITLE	INTERVIEW DATE	AGENCY
Alden L. Hoffman	OSHA Management Team Director	May 22, 2007	Minnesota Department of Labor and Industry, Occupational Safety and Health Division
John Hoshal	GIS Services Supervisor	May 29, 2007 May 30, 2007	Minnesota Department of Administration, Land Management Information Center
Jeff Isakson	Director, OSHA Compliance	May 22, 2007	Minnesota Department of Labor and Industry, Occupational Safety and Health Division
Jim Jagow	Metro EMS Specialist	May 17, 2007	Minnesota Emergency Medical Services Regulatory Board
Brian Johnson	GIS Manager	June 12, 2007	Minnesota Department of Health, Environmental Health Office
Siri Johnson	Business Continuity Team Lead	May 25, 2007	Office of Enterprise Technology
Heidi Kassenborg	Disease Investigation and Emergency Response Director	May 18, 2007	Minnesota Department of Agriculture, Dairy and Food Inspection Division
Ber Kroiss	Real Estate Services	May 17, 2007	Department of Administration, Pandemic Influenza Planning Group
Terry Lahti	Safety Administrator	May 21, 2007	Minnesota Department of Natural Resources, Facilities and Operations Support
Dale Lauer	Director MN Poultry Testing Laboratory, UofM, BAH	May 21, 2007	Board of Animal Health
Stephen Lee	Supervisor, Emergency Response Team	June 11, 2007	Pollution Control Agency



NAME	TITLE	INTERVIEW DATE	AGENCY
Aggie Leitheiser	Director of Emergency Preparedness	May 24, 2007	Minnesota Department of Health
Kevin C. Leuer	Director of Preparedness Branch Planning, Training & Exercise	May 18, 2007	Minnesota Department of Public Safety
Emily Litt	Coordinator, Pandemic Influenza	May 31, 2007	Minnesota Department of Health, Immunization, TB, & International Health Section
Tim Loesch	GIS Manager	May 21, 2007	Minnesota Department of Natural Resources
Fred Logman	Consultant	May 30, 2007	Minnesota Department of Administration, Land Management Information Center
Ruth Ellen Luehr	Pandemic Preparedness Planner	May 23, 2007	Minnesota Department of Education
Audrey Kaiser Manka	Assistant Attorney General	May 23, 2007	Minnesota Attorney General's Office
Karen Martin	Epidemiologist	May 24, 2007	Minnesota Department of Health, Infectious Disease, Epidemiology, Prevention & Control
Toby McAdams	Office of Emergency Preparedness Webmaster	May 29, 2007	Minnesota Department of Health, Office of Emergency Preparedness
Bill McNally	DLan Coordinator	May 18, 2007 May 23, 2007	Minnesota Department of Public Safety
John Moreland	IT Infrastructure Manager	May 29, 2007	Minnesota Department of Transportation
Tim Morse	Travel Management Division Director	May 17, 2007	Minnesota Department of Administration, Pandemic Influenza Planning Group





NAME	TITLE	INTERVIEW DATE	AGENCY
Lucas Muller	Systems Administrator	May 17, 2007	Minnesota Department of Administration, Plant Management Division
Bruce Olsen	DWP Source Water Supervisor	June 12, 2007	Minnesota Department of Health, Environmental Health Office
Glenn Olson	Safety Administrator	May 25, 2007	Minnesota Department of Human Services
Kristen Olsrud	SEMA4 HR Services, Analyst	May 30, 2007	Minnesota Department of Employee Relations
Tonja Orr	Assistant Commissioner for Housing Policy	May 22, 2007	Minnesota Housing Financing Agency
Nancy Rader	GIS Data Coordinator	May 29, 2007	Land Management Information Center
Dan Ross	Transportation Engineering Application, Development Supervisor	May 29, 2007	Minnesota Department of Transportation
LTC Chad Sackett	Counterdrug Coordinator Joint Force Headquarters	June 26, 2007	Department of Military Affairs
Ray Scheierl	Information Technology Specialist	May 18, 2007 May 21, 2007	Minnesota Department of Animal Health
Jim Schwartz	Communications Officer	May 17, 2007	Minnesota Department of Administration, Commissioner's Office
Jeffrey Shaw	OEP Staff; SNS/CRI	May 30, 2007	Minnesota Department of Health, Office of Emergency Preparedness
Nancy Spooner-Mueller	Pandemic Plan Coordinator	May 21, 2007	Minnesota Department of Natural Resources





NAME	TITLE	INTERVIEW DATE	AGENCY
Linc Starkey	Systems Supervisor	May 17, 2007	Minnesota Department of Administration, Plant Management Division
Michael Starkey	Department Emergency Response Coordinator	May 18, 2007	Minnesota Department of Agriculture, Office of the Commissioner
Meghan Thompson	Hospital Preparedness Planner	May 22, 2007	Minnesota Department of Health
Kent Treichel	Research Analyst	May 22, 2007	Department of Revenue
Tyler Treichel	Safety Officer for DOA, Department of Human Services	May 17, 2007	Minnesota Department of Administration, Pandemic Influenza Planning Group
Ron Wencil	USGS Geospatial Liaison	May 22, 2007	U.S. Department of the Interior, U.S. Geological Survey
Karen White	Epidemiologist/Business Analyst	May 24, 2007	Minnesota Department of Health, Infectious Disease, Epidemiology, Prevention & Control
Sue Wickham	Human Resources Director	May 17, 2007	Minnesota Department of Administration, Pandemic Influenza Planning Group
Brenda Willard	Assistant Director Materials	May 30, 2007	Department of Administration, Materials Management Division
Tracy Worsley	Emergency Preparedness Manager	May 29, 2007	Minnesota State Colleges and Universities





7.0 Document List

This appendix lists the documents reviewed during the course of the GIS Pandemic Needs Analysis study. Additionally, personal communications and screening of published papers and presentations on the topic were processed in the study.

DOCUMENT TITLE	AGENCY AND NAME
Highly Pathogenic Avian Influenza and Pandemic Influenza MEOP Supplement	Department of Public Safety Department of Public Safety, Division of Homeland Security and Emergency Management
WHO Global Influenza Preparedness Plan	World Health Organization
WHO Checklist for Influenza Preparedness Planning	World Health Organization
HHS Pandemic Influenza Plan	U.S. Department of Health and Human Services
Emergency Preparedness Resource Inventory (EPRI)	U.S. Department of Health and Human Services
Pandemic Influenza Business Continuation Plan	Board of Animal Health
Minnesota Highly Contagious Animal Disease Response Plan	Board of Animal Health
Minnesota Surveillance and Response Plan for Highly-pathogenic H5N1 Avian Influenza Virus in Wild Birds	Department of Natural Resources
Avian Influenza Guide for Consumers	Department of Agriculture
Flu Plan Test Status Office Memorandum	Department of Agriculture
Minnesota Food Related Response Plan	Department of Agriculture
Spatial Representation of Livestock Premises and Databases in Minnesota	Department of Agriculture
Seasonal Flu Poster	Department of Agriculture
Energy Emergency Plan 2007	Department of Commerce



DOCUMENT TITLE	AGENCY AND NAME
Minnesota Department of Health Pandemic Influenza Plan	Department of Health
Minnesota State Patrol – Pandemic Service Continuation Plan	Department of Public Safety Minnesota State Patrol
Pandemic Survey	Department of Public Safety Minnesota State Patrol
Fact Sheets on Pandemic Preparedness for Illinois, Michigan, North Dakota, Indiana, Minnesota, Ohio, Wisconsin, Ontario	Department of Public Safety Department of Public Safety, Division of Homeland Security and Emergency Management
Office of Enterprise Technology Continuity of Operations Plan, Infectious Disease Supplement	Office of Enterprise Technology
Minnesota State GIS Enterprise Conceptual Architecture Design	Minnesota Governor’s Council on Geographic Information
The Case for a Minnesota GIS Enterprise	Minnesota Governor’s Council on Geographic Information
A Foundation for Coordinated GIS	Minnesota Governor’s Council on Geographic Information
Online Resource: Minnesota Geographic Data Clearinghouse (Data Catalog, Map Gallery)	Department of Administration Land Management Information Center
Organizational Charts	Several agencies
Map Products, System Screenshots	Several agencies
Service Continuity Plan, School Pandemic Plan, Worksheets for preparedness planning	Department of Education
Minnesota Department of Revenue Continuity of Operations Plan, Pandemic Flue Annex	Minnesota Department of Revenue
Pandemic Response Plan	Department of Transportation
MNTrac Overview and User Guide	Department of Health



DOCUMENT TITLE	AGENCY AND NAME
Testing the Montana Critical Infrastructure Data Model During the Northern Exposure Pandemic Flu Exercise	Geodata Services, Inc.
USG FLU PREP	US DHHS
Health Websites: http://www.health.state.mn.us/divs/idepc/diseases/flu/pandemic/index.html http://www.health.state.mn.us/divs/idepc/diseases/flu/pandemic/plan/plan.html http://www.health.state.mn.us/divs/eh/index.html	MDH
Pan Flu Annex to the Department of Administration COOP Plan	Department of Administration Office of Geographic and Demographic Analysis





8.0 Pandemic and GIS Contact List

This appendix lists the contact staff within each stakeholder agency identified in the MEOP HPAI and Pandemic Supplement. This listing will need to be updated regularly as it may change. The date as of compilation is July 25, 2007.

8.1 Administration

CONTACT	INFORMATION
Initial Agency Contact	Name: Nicky Giancola Title/Function: Asst. Commissioner of the Dept. of Administration Address 1: 200 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2561 Email Address: nicky.giancola@state.mn.us
Primary HPAI and/or Pandemic Influenza Contact	Name: Sue Wickham Title/Function: Human Resources Director Current Address: 114 Administration 50 Sherburne Ave. Effective 6/4/07 HR will be located: 3rd floor Centennial Office Bldg 658 Cedar St. City: St. Paul State: MN Zip: 5515 Phone: 651-201-2609 Email Address: susan.wickham@state.mn.us



CONTACT	INFORMATION
Primary GIS Contact	<p>Name: David Arbeit Title/Function: Director of GDA Address 1: 300 Centennial Office Bldg Address 2: 658 Cedar St. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2460 Email Address: david.arbeit@state.mn.us</p>
Primary IT Contact	<p>Name: Lucas Muller, Adam Benedix, Linc Starkey Title/Function: Plant Management Division Address 1: G-10 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: Lucas: 651-201-2317; Adam: 651-201-2319; Linc: 651-296-6190 Email Address: lucas.muller@state.mn.us; adam.benedix@state.mn.us; linc.starkey@state.mn.us</p>



CONTACT	INFORMATION
Additional Contacts – Specify:	<p>Name: Brenda Willard Title/Function: Materials Management Asst. Director Address 1: 112 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2402 Email: brenda.willard@state.mn.us</p>
Additional Contacts – Specify:	<p>Name: Dave Fielding Title/Function: Plant Management Director Address 1: G-10 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2350 Email: dave.fielding@state.mn.us</p>
Additional Contacts – Specify:	<p>Name: Tyler Treichel Title/Function: DHS and Dept. of Admin Safety & Health Officer Address 1: Dept. of Human Services Address 2: 540 Cedar St. City: St. Paul State: MN Zip: 55155 Phone: 651-431-4256 Email: tyler.treichel@state.mn.us</p>





CONTACT	INFORMATION
Additional Contacts – Specify:	<p>Name: Jim Schwartz Title/Function: Dept of Admin Communications Director Address 1: 200 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2558 Email: jim.schwartz@state.mn.us</p>
Additional Contacts – Specify:	<p>Name: Bev Kroiss Title/Function: Real Estate Services Director Address 1: 309 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2540 Email: bev.kroiss@state.mn.us</p>
Additional Contacts – Specify:	<p>Name: Tim Morse Title/Function: Travel Management Director Address 1: 296 Chester St. Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-201-2511 Email: tim.morse@state.mn.us</p>





CONTACT	INFORMATION
Additional Contacts – Specify:	Name: Phil Blue Title/Function: Risk Management Division Director Address 1: 309 Administration Address 2: 50 Sherburne Ave. City: St. Paul State: MN Zip: 55155 Phone: 651-201-2585 Email: phillip.blue@state.mn.us

8.2 Agriculture

CONTACT	INFORMATION
Initial Agency Contact for MDA Continuity of Operations	Name: Russ Havir Title/Function: Human Resources Director Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6584 Email Address: rhavir@mda.state.mn.us



CONTACT	INFORMATION
Primary HPAI and/or Pandemic Influenza Contact	<p>Name: Heidi Kassenborg Title/Function: Disease Investigation and Emerg. Response Director Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6625 Email Address: heidi.kassenborg@state.mn.us</p>
Primary GIS Contact	<p>Name: Mike Dolbow Title/Function: GIS Coordinator Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6497 Email Address: mike.dolbow@state.mn.us</p>
Primary IT Contact	<p>Name: Larry Palmer Title/Function: IT Director Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6347 Email Address:</p>



CONTACT	INFORMATION
Additional Contacts – Specify:	<p>Name: Michael Starkey Title/Function: Emergency Planning Director Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6286 Email: mstarkey@mda.state.mn.us</p>
Additional Contacts – Specify:	<p>Name: Ben Miller Title/Function: GIS resource for Dairy and Food Division Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6670 Email: bmiller@mda.state.mn.us</p>
Additional Contacts – Specify:	<p>Name: Ted Radintz Title/Function: Livestock Premise Coordinator Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6541 Email: tradintz@mda.state.mn.us</p>



CONTACT	INFORMATION
Additional Contacts – Specify:	Name: Anthony Becker Title/Function: Safety Officer Address 1: 625 Robert Street South Address 2: City: St. Paul State: MN Zip: 55115 Phone: 651-201-6640 Email: anthony.becker@state.mn.us

8.3 Animal Health

CONTACT	INFORMATION
Initial Agency Contact:	Name: Bill Hartmann Title/Function: Executive Director Address 1: 625 Robert Street North Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-201-6825 Email Address: bill.hartmann@bah.state.mn.us





CONTACT	INFORMATION
Primary HPAI and/or Pandemic Influenza Contact	Name: Dale Lauer Title/Function: Director Minnesota Poultry Testing Laboratory Address 1: 622 Business Hwy71 NE Address 2: City: Willmar State: MN Zip: 56201 Phone: 320-231-5170 Email Address: dale.lauer@bah.state.mn.us
Primary GIS and Primary IT Contact	Name: Ray Scheierl Title/Function: Information Technology Specialist Address 1: 625 Robert Street North Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-201-6833 Email Address: ray.scheierl@bah.state.mn.us
GIS and Primary IT Contact	Name: Lucinda Dahlberg Title/Function: Information Technology Specialist Address 1: 622 Business Hwy71 NE Address 2: City: St. Paul State: MN Zip: 56201 Phone: 320-231-5170 Email Address: lucinda.dahlberg@bah.state.mn.us





8.4 Attorney General

CONTACT	INFORMATION
Initial Agency Contact	Name: Audrey Kaiser Manka Title/Function: Assistant Attorney General Address 1: 445 Minnesota St., Suite 1200 Address 2: City: St. Paul State: MN Zip: 55101-2130 Phone: 651-297-5930 Email Address: audrey.manka@state.mn.us

8.5 Commerce

CONTACT	INFORMATION
Initial Agency Contact	Name: Jeffrey Haase Title/Function: Demand Efficiency Supervisor / HSEM Liason Address 1: 85 7th Place East, Suite 500 Address 2: City: St. Paul State: MN Zip: 55101 Phone: 651-297-5648 Email Address: jeffrey.haase@state.mn.us
Primary HPAI and/or Pandemic Influenza Contact	Name: Laura Sengil Title/Function: HR Director Address 1: 85 7th Place East, Suite 500 Address 2: City: St. Paul



CONTACT	INFORMATION
	State: MN Zip: 55101 Phone: 651-296-7106 Email Address: laura.sengil@state.mn.us
Primary GIS Contact	Name: Jeffrey Haase Title/Function: Address 1: Address 2: City: State: Zip: Phone: Email Address:
Primary IT Contact	Name: Catherine Hennessey Title/Function: CIO Address 1: 85 7th Place East, Suite 500 Address 2: City: St. Paul State: MN Zip: 55101 Phone: 651-282-6406 Email Address: catherine.hennessey@state.mn.us
Additional Contacts – Specify:	Name: Alberto Quintela Title/Function: Assistant Commissioner Address 1: 85 7th Place East, Suite 500 Address 2: City: St. Paul State: MN



CONTACT	INFORMATION
	Zip: 55101 Phone: 651-297-2117 Email: alberto.quintela@state.mn.us

8.6 Education

CONTACT	INFORMATION
Initial Agency & Pandemic Influenza Contact	Name: Ruth Ellen Luehr Title/Function: Pandemic Preparedness Planner Address 1: Address 2: City: St. Paul State: MN Zip: Phone: 651-582-8403 Email Address: ruthellen.luehr@state.mn.us
HPAI and/or Pandemic Influenza Contact	Name: Robert W. Fischer Title/Function: MDE SEOC Representative Address 1: Address 2: City: St. Paul State: MN Zip: Phone: 651-582-8776 Email Address: bob.w.fischer@state.mn.us
Primary GIS and IT Contact	Name: Scott Freburg Title/Function: GIS Administrator Address 1:





CONTACT	INFORMATION
	Address 2: City: St. Paul State: MN Zip: Phone: 651 582 8789 Email Address: scott.freburg@state.mn.us

8.7 EMS Regulatory Board

CONTACT	INFORMATION
Initial Agency Contact Jim Jagow	Name: Jim Jagow Title/Function: Metro Specialist Address 1: 2829 University Ave S/E Address 2: Suite 310 City: Minneapolis State: MN Zip: 55306 Phone: 651-201-2810 Email Address: jim.jagow@state.mn.us
Primary IT Contact	Name: Hong Yan Title/Function: Information Technology Administrator Address 1: 2829 University Ave S/E Address 2: Suite 310 City: Minneapolis State: MN Zip: 55306 Phone: 651-201-2811 Email Address:



8.8 Employee Relations

CONTACT	INFORMATION
Initial Agency Contact	Name: Todd Christenson Title/Function: State Safety Program Coordinator Address 1: Address 2: City: St. Paul State: MN Zip: Phone: 651-259-3830 Email Address: todd.christenson@state.mn.us

8.9 Employment and Economic Development

CONTACT	INFORMATION
Initial Agency Contact	Name: Paul A. Moe Title/Function: Deputy Commissioner Address 1: 1st National Bank Bldg. Address 2: 332 Minnesota St SE, Ste. E200 City: St. Paul State: MN Zip: 55101 Phone: 651-259-7111 Email Address: paul.e.moe@state.mn.us
Primary HPAI and/or Pandemic Influenza Contact	Name: Mary Oman Title/Function: Director, Human Resources Address 1: 1st National Bank Bldg. Address 2: 332 Minnesota St SE, Ste. E200





CONTACT	INFORMATION
	City: St. Paul State: MN Zip: 55101 Phone: 651-259-7099 Email Address: mary.oman@state.mn.us
Primary GIS Contact	Name: Bob Isaacson Title/Function: Director, Information and Marketing Address 1: 1st National Bank Bldg. Address 2: 332 Minnesota St SE, Ste. E200 City: St. Paul State: MN Zip: 55101 Phone: 651-259-7181 Email Address: bob.isaacson@state.mn.us
Primary IT Contact	Name: Ed Valencia Title/Function: Chief Information Officer Address 1: 1st National Bank Bldg. Address 2: 332 Minnesota St SE, Ste. E200 City: St. Paul State: MN Zip: 55101 Phone: 651-259-7007 Email Address: ed.valencia@state.mn.us



8.10 Health

CONTACT	INFORMATION
Initial Agency Contact	Name: Emily Litt Title/Function: Pandemic Influenza Coordinator Address 1: 625 Robert Street N. Address 2: City: St. Paul State: MN Zip: 55164 Phone: 651-201-5556 Email Address: emily.litt@health.state.mn.us
Additional Contacts – Specify: Leadership	Name: Aggie Leitheiser Title/Function: Address 1: See Above Address 2: City: State: Zip: Phone: 651-201-5711 Email Address: aggie.leitheiser@health.state.mn.us
Primary IT Contact	Name: Barb Hearly Title/Function: Address 1: See Above Address 2: City: State: Zip: Phone: 651-201-5030



CONTACT	INFORMATION
	Email Address: barb.hearly@health.state.mn.us
Primary IT Contact	Name: Karen White Title/Function: Address 1: See above Address 2: City: State: Zip: Phone: 651-201-5561 Email Address: karen.white@health.state.mn.us
Additional Contacts – Specify: IT	Name: Toby McAdams Title/Function: Address 1: See above Address 2: City: State: Zip: Phone: 651-201-5730 Email: toby.mcadams@health.state.mn.us
Additional Contacts – Specify: MnTrac	Name: Megan Thompson Title/Function: Address 1: See above Address 2: City: State: Zip: Phone: 651-201-5728 Email: megan.thompson@health.state.mn.us



CONTACT	INFORMATION
Additional Contacts – Specify: SNS	Name: Jeff Shaw Title/Function: Address 1: See Above Address 2: City: State: Zip: Phone: 651-201-5705 Email: jeff.shaw@health.state.mn.us
Additional Contacts – Specify: Surveillance	Name: Karen Martin Title/Function: Address 1: See above Address 2: City: State: Zip: Phone: 651-201-5537 Email: karen.martin@health.state.mn.us
Additional Contacts – Specify: Pan Flu	Name: Denise Dunn Title/Function: Address 1: Address 2: City: State: Zip: Phone: 651-201-5560 Email: denise.dunn@health.state.mn.us



8.11 Human Services

CONTACT	INFORMATION
Initial Agency & Pandemic Influenza Contact	<p>Name: Nancy Doucette</p> <p>Title/Function: Infectious Disease Preparedness Planner, Pandemic Planner</p> <p>Address 1: 540 Cedar</p> <p>Address 2: Elmer L Andersen Building</p> <p>City: St. Paul</p> <p>State: MN</p> <p>Zip: 55104</p> <p>Phone: 651-431-3019</p> <p>Email Address: nancy.doucette@state.mn.us</p>
Primary GIS Contact	<p>Name: Glenn E Olson</p> <p>Title/Function: Safety & Health Officer</p> <p>Address 1:</p> <p>Address 2: Elmer L. Andersen Building</p> <p>City:</p> <p>State:</p> <p>Zip:</p> <p>Phone: 651-431-2992</p> <p>Email Address: glenn.e.olson@state.mn.us</p>





CONTACT	INFORMATION
Primary IT Contact	Name: Anna Lattu Title/Function: Division Director, Information Management Address 1: 444 Lafayette Address 2: City: St. Paul State: MN Zip: Phone: 651-431-3717 Email Address: anna.lattu@state.mn.us

8.12 Labor and Industry

CONTACT	INFORMATION
Initial Agency Contact	Name: Jeff Isakson Title/Function: Director, MNOSHA Compliance Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5310 Email Address: jeff.isakson@state.mn.us



CONTACT	INFORMATION
Primary HPAI and/or Pandemic Influenza Contact	<p>Name: Michael Houliston Title/Function: DLI Deputy Commissioner Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5366 Email Address: michael.houliston@state.mn.us</p>
Primary GIS Contact	<p>Name: Cindy Valentine Title/Function: DLI ITS Chief Information Officer Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5602 Email Address: cindy.valentine@state.mn.us</p>
Primary IT Contact	<p>Name: Cindy Valentine Title/Function: DLI ITS Chief Information Officer Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5602 Email Address: cindy.valentine@state.mn.us</p>



CONTACT	INFORMATION
Additional Contacts – Specify:	Name: Gail Krieg Title/Function: DLI Human Resources Director Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5263 Email Address: gail.d.krieg@state.mn.us
Additional Contacts – Specify:	Name: Mary Murck Title/Function: DLI Safety Director Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5155 Email Address: mary.murck@state.mn.us
Additional Contacts – Specify:	Name: Debbie Leithauser Title/Function: DLI Business Continuation Coordinator Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5610 Email Address: debbie.leithauser@state.mn.us





CONTACT	INFORMATION
Additional Contacts – Specify:	Name: Alden Hoffman Title/Function: MNOSHA Health Director Address 1: 443 Lafayette Road North Address 2: City: St. Paul State: MN Zip: 55155-4307 Phone: 651-284-5158 Email Address: alden.hoffman@state.mn.us

8.13 Military Affairs

CONTACT	INFORMATION
Initial Agency Contact	Name: LTC Chad Sackett Title/Function: Counterdrug Coordinator, JFHQ Address 1: Address 2: City: St. Paul State: MN Zip: Phone: 651 268 8936 Email Address: chad.sackett@us.army.mil

8.14 Natural Resources

CONTACT	INFORMATION
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CONTACT	INFORMATION
Initial Agency Contact	<p>Name: Terry Lahti Title/Function: Safety Administrator Address 1: 500 Lafayette Rd Address 2: City: St Paul State: MN Zip: 55155 Phone: 651-259-5471 work, 763-498-1404 cell Email Address: terry.lahti@dnr.state.mn.us</p>
Primary HPAI Contact	<p>Name: Michelle Carstensen Powell Title/Function: Wildlife Specialist Address 1: 5463-C West Broadway Address 2: City: Forest Lake State: MN Zip: 55025 Phone: 651-296-2663 Email Address: michelle.powell@dnr.state.mn.us</p>
Primary GIS Contact	<p>Name: Tim Loesch Title/Function: GIS Specialist Address 1: 500 Lafayette Rd Address 2: City: St Paul State: MN Zip: 55155 Phone: 651-259-5475 Email Address: tim.loesch@dnr.state.mn.us</p>



8.15 Office of Enterprise Technology

CONTACT	INFORMATION
Primary HPAI and/or Pandemic Influenza Contact	Name: Siri Johnson Title/Function: BCM Team Leader Address 1: 658 Cedar Street Address 2: Room G56A City: St. Paul State: MN Zip: 55155 Phone: 651-201-1147 Email Address: siri.johnson@state.mn.us

8.16 Pollution Control

CONTACT	INFORMATION
Initial Agency Contact	Name: Stephen Lee Title/Function: Supervisor, Emergency Response Team Address 1: 520 Lafayette Road Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-297-8610 Email Address: stephen.lee@pca.state.mn.us



CONTACT	INFORMATION
Primary HPAI and/or Pandemic Influenza Contact	Name: John Holck (Pandemic issues) Title/Function: Assistant Division Director/HR Director Address 1: 520 Lafayette Road Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-297-7568 Email Address: john.holck@pca.state.mn.us
Primary GIS and IT Contact	Name: Ed Meyer Title/Function: Information Systems Section Manager Address 1: 520 Lafayette Road Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-297-8365 Email Address: edward.meyer@pca.state.mn.us

8.17 Public Safety – Minnesota State patrol

CONTACT	INFORMATION
Initial Agency Contact	Name: Michelle Tuchner Title/Function: Major Address 1: 444 Cedar ST Address 2: Ste 130 City: St. Paul State: MN



CONTACT	INFORMATION
	Zip: 55101-5130 Phone: 651-201-7108 Email Address: michelle.tuchner@state.mn.us
Primary HPAI and/or Pandemic Influenza Contact	Name: Tom Fraser Title/Function: Captain Address 1: B S State Capitol Address 2: City: St. Paul State: MN Zip: 55155 Phone: 651-282 5432 Email Address: tom.fraser@state.mn.us
Primary GIS Contact	Name: Craig Hendrichson Title/Function: Captain Address 1: 444 Cedar St. Address 2: Ste. 130 City: St. Paul State: MN Zip: 55101-5130 Phone: 651-201-7118 Email Address: craig.hendrichson@state.mn.us
Primary IT Contact	Name: Craig Hendrichson Title/Function: same as GIS Contact Address 1: Address 2: City: State: MN Zip:





CONTACT	INFORMATION
	Phone: Email Address:

8.18 Revenue

CONTACT	INFORMATION
Initial Agency Contact	Name: Donna Baker Title/Function: Business Continuation Coordinator Address 1: 600 North Robert St. Address 2: City: St. Paul State: MN Zip: 55146 Phone: 651-556-4001 Email Address: donna.baker@state.mn.us
Primary HPAI and/or Pandemic Influenza Contact	Name: Donna Baker Title/Function: Business Continuation Coordinator Address 1: 600 North Robert St. Address 2: City: St. Paul State: MN Zip: 55146 Phone: 651-556-4001 Email Address: donna.baker@state.mn.us
Primary GIS Contact	Name: Kent Treichel Title/Function: Tax Research Address 1: 600 North Robert St. Address 2:



CONTACT	INFORMATION
	City: State: Zip: Phone: 651-556-6150 Email Address: kent.treichel@state.mn.us
Primary IT Contact	Name: Lee Ho Title/Function: Director ISD Address 1: Address 2: City: State: Zip: Phone: 651-556-6266 Email Address: lee.ho@state.mn.us

8.19 Transportation

CONTACT	INFORMATION
Initial Agency Contact	Name: Sonia Morpew-Pit Title/Function: Director HSEM for Mn/DOT Address 1: 395 John Ireland Boulevard Address 2: MS 400 City: St. Paul State: MN Zip: 55155 Phone: 651-366-3364 Email Address: sonia.pitt@dot.state.mn.us
Primary HPAI and/or Pandemic Influenza	Name: John Cavanaugh





CONTACT	INFORMATION
Contact	Title/Function: Pandemic Planner Address 1: 1123 Mesaba Ave Address 2: City: Duluth State: MN Zip: 55811 Phone: 218-725-2722 Email Address: john.cavanaugh@dot.state.mn.us
Primary GIS Contact	Name: Dan Ross Title/Function: Supervisor Trans. Eng. App. Development Address 1: 395 John Ireland Blvd. Address 2: MS 240 City: St. Paul State: MN Zip: 55155 Phone: 651-366-4077 Email Address: dan.ross@dot.state.mn.us
Primary IT Contact	Name: John Moreland Title/Function: Systems Supervisor Address 1: 395 John Ireland Blvd Address 2: MS 240 City: St. Paul State: MN Zip: 55155 Phone: 651-366-5646 Email Address: john.moreland@dot.state.mn.us



9.0 Interview Notes

This supplement provides a comprehensive summary of all interviews conducted with stakeholders of the GIS Pandemic Analysis study. Representation comes from all stakeholder agencies identified in the MEOP HPAI and Pandemic Supplement, with two exceptions, Finance and Employment and Economic Development.

9.1 Administration

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 17, 2007		
Organization represented	Department of Administration, Pandemic Influenza Planning Group		
STC interviewers	Reno Fiedler		
GDA PM staff present	None		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Nicky Giancola	Assistant Commissioner	651-201-2561	nicky.giancola@state.mn.us
Jim Schwartz	Communications Director	651-201-2558	jim.schwartz@state.mn.us
Tim Morse	Travel Management Division Director	651-201-2511	tim.morse@state.mn.us





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Sue Wickham	Human Resources Director	651-201-2609	susan.wickham@state.mn.us
Dave Fielding	Plant Management Division Director	651-201-2350	dave.fielding@state.mn.us
Phillip Blue	Risk Management Division	651-201-2585	phillip.blue@state.mn.us
Bev Kroiss	Real Estate Services	651-201-2540	bev.kroiss@state.mn.us
Tyler Treichel	Safety Officer for DOA, Department of Human Services	651-431-4256	tyler.treichel@state.mn.us
Alisha Cowell	Assistant to the Assistant Commissioner	651-201-2627	alisha.cowell@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>With respect to the MEOP Supplement, the priority services of the Department of Administration include: maintaining and managing 22 facilities and surrounding grounds (primarily the Capitol Complex), providing insurance assistance and claims processing through the RMD, managing mail services, vital records, procurement of goods and services, leased and real property, and state-owned vehicles.</p> <p>For the purpose of pandemic preparedness, several category 1 and 2 service functions are defined as per the draft Pan Flu Annex to the Department of Administration COOP Plan (collected by RF, see there).</p> <p>The interviewees represent the Department of Administration's pandemic planning group.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
Currently, all DOA GIS functions are delivered by GDA, LMIC.			



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An effort is under way to collect GPS coordinates of buildings to support flood zone assessments and insurance. Tom Heber of DNR supported the initial data collection with GPS equipment.

Data from FEMA is being used to assess the location of buildings in relationship to official flood zone extents. LMIC did support the mapping of buildings. However, at this point in time the coverage of buildings is spread across multiple systems and not 100% complete.

Part 3—Description of any provided documents

An unofficial draft of the Pan Flu Annex to the Department of Administration COOP Plan was collected.

Part 4—User requirements and “wish list”

The Department of Administration recognizes the benefit of operating under one database for a complete dataset on all assets to enhance ongoing operations; however, currently the individual divisions of Administration operate under different databases including: ARCHIBUS and Maximus Fleet Focus M5, amongst others. Additionally, with respect to buildings, 22 agencies currently own property and each has its own real property information management methods and tools. Inventory and tracking is disconnected and disparate, ranging from paper, to spreadsheets, to automated systems. There is an effort underway, not yet funded that would consolidate all state real property information in an enterprise-wide system. Until that occurs, statewide real property management and decision making is impossible.

Mapping agencies’ needs for services and supplies as delivered by DOA would be beneficial for decision making. Relating risks to location would support risk assessment and mitigation for state agencies. DOER datasets would also be useful.

Part 5—Systems or other developments anticipated between 2007 and 2010

Recent selection of ARCHIBUS as the tool for consolidating data on state-owned facilities; however, it is not yet funded. ESRI supported an evaluation re the utility of the contained information for spatial representation in the future.

The Travel Management Division is currently implementing Maximus Fleet Focus M5, a fleet management system. Presently, there is no GIS element in that system, but could possibly be added in the future.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 6—Additional comments or information	
The representative from the Materials Management Division, Brenda, was otherwise engaged.	

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 30, 2007		
Organization represented	Department of Administration, Materials Management Division		
STC interviewers	Reno Fiedler		
GDA PM staff present	None		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Brenda Willard	Assistant Director Materials	651-201-2402	brenda.willard@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>During emergencies, Materials division will continue to manage city, county, and state purchasing contracts. There are about 1400 standing contracts for State Agencies to buy from and many of these contracts are available to governmental entities as defined by Minn. Stat. 471.59.</p> <p>Material Management has approx. 60 staff.</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

In case of incapacity of vendors is established, MMD will try to post on the MMD website, alternative sources for critical items, even though those sources may not be pre-approved.
 Data is maintained on website driven by database. Location of vendor is not essential, usually.
 Construction and similar contracts are somewhat regional. Contracting decisions include considerations of coverage.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Part 3—Description of any provided documents

Part 4—User requirements and “wish list”

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information, additional contacts

Dorothy Lovejoy is surplus division, may need interviewed. They have physical inventory.
 Office supplies division also has a distribution component to their work.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 17, 2007
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GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Organization represented	Department of Administration, Plant Management Division		
STC interviewers	Reno Fiedler		
GDA PM staff present	None		
Status	Draft:	Reviewed: x	Final: x
Individuals in Meeting			
Name	Title	Telephone	E-mail
Linc Starkey	Systems Supervisor	651-296-6190	linc.starkey@state.mn.us
Adam Benedix	Network Manager	651-201-2319	
Lucas Muller	System Administrator	651-201-2317	
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>The security of the Capitol complex is provided by DPS. Plant Management is DOA division but works in DPS facilities and has complete responsibility for uptime and emergency shutdown of any electrical or other utility system (air handlers etc). PM has access to all video surveillance feeds, DVR, etc. The utility network is a UL network, Scata system with a graphic user interface for easy identification and complete control of each device on the network.</p> <p>Network, backoffice, and user application functions are all managed in-house due to special requirements that OET may not be able to deliver yet.</p> <p>Emergencies:</p> <ul style="list-style-type: none"> • During emergencies operations can be relocated to a backup site. 			



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

- Operations can be shut down within minutes.
- Plant Management will be asked to provide status of all utility related equipment.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Plant Management maintains a work order management system, Archibus, vendor: ADSI. It is a data management system built on top of AutoCAD. Extensions exist or are planned to support real property management for the government and to support emergency preparedness. Archibus has a state user group with participants from Plant Management, Human Services, Commerce, Home Services. It is accessible through a website login.

Part 3—Description of any provided documents

None

Part 4—User requirements and “wish list”

Security cameras can be rerouted to a handheld device.

Part 5—Systems or other developments anticipated between 2007 and 2010

Emergency Preparedness Module add-on to Archibus.

Part 6—Additional comments or information

A site visit was conducted with a review of DPS monitoring facilities and utility network user interface.



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 29, 2007		
Organization represented	Land Management Information Center		
STC interviewers	Reno Fiedler		
GDA PM staff present	John Hoshal		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
John Hoshal	GIS Services Supervisor	651-201-2482	john.hoshal@state.mn.us
Nancy Rader	GIS Data Coordinator	651-201-2489	nancy.rader@state.mn.us
Chris Cialek	GIS Clearinghouse Supervisor	651-201-2481	chris.cialek@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>LMIC Clearinghouse</p> <p>GIS and data development has a long history in MN. In the 80s much data was developed, specifically in the raster world. A robust raster GIS processing toolkit, EPPL, was developed during that time.</p> <p>Additionally, much data was made available in the 90s. The concept of a clearinghouse emerged from the need to better distribute this data. The FDGC metadata content standard was used for the Minnesota Geographic Metadata Guidelines (MGMG), which are now adhered to by many agencies. The GeoGateway is the clearinghouse metadata search application that serves LMIC data as well as other's.</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

It adheres to the FGDC z39.50 server model. Data is available through online listing and services; protected data is listed with access contact points and instructions. Data catalogs are available for several agencies, Mn/DOT, Metro GIS, counties, USGS, etc. In total, more than 3,400 geospatial data sets for Minnesota are served through the GeoGateway.

The GeoGateway structure is distributed, linked by metadata. Today's changes involve moving beyond a FTP-based approach to online interactive maps for preview and exploring. Some grants are used for add-on modules, e.g., clipping tools for aerial photography. Storage is quite efficient and optimized through compression which drives to a large degree timely accessibility online.

The Clearinghouse also offers is a map gallery to view map products without necessarily providing data for the maps.

LMIC has historically provided a home for "orphan" data sets. More recently, LMIC's role has increasingly focused on promoting standardization and access to information across the government enterprise. Data development is now more in the hands of each department. LMIC must still figure out how to be the integration hub across state and local government. Current successful examples include representing the state in federal programs that benefit local, state and private projects, for example, acquisition of aerial photography. The next statewide orthoimagery project is scheduled in 2008.

LMIC works with DNR and Army Corps of Engineers to acquire LIDAR data for detailed elevation models.

One of the challenges currently faced by LMIC is how can project based data collection be coordinated into "global" data sets.

FEMA provided funds for a customer-driven online data inventory project in 2005-6 monitoring orthoimage and elevation data. It is called SEII (Statewide Elevation and Imagery Inventory) and operates as a clearinghouse for proposed, in-progress and completed data collection efforts in Minnesota. Marketing skills are needed to promote this facility to potential contributors and end users.

A second online inventory resource developed as a joint project between Mn/DOT and LMIC is the Statewide Parcel Management Inventory which provides information about parcel related data from a centralized location. The interface is useful as starting point to find the data. Software is provided with this parcel inventory system to the users to create a metadata record to include information about any local data into the overall clearinghouse.

DLan hits on ArcWeb Geocoding Services to generate a map location from a provided address. A block of 100,000 has been purchased as part of implementation.

LMIC has worked well with other agencies to identify external existing data sets. The development and identification of new data needs and formats/structures was not as successful which really is more a challenge of the whole geospatial data using community. LMIC may some day be taking on this role, but policies that direct all agencies will need to be put into place to make it so. That effort is taking form in the strategic planning efforts that LMIC is leading under the aegis of the Governor's Council on Geographic Information.



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

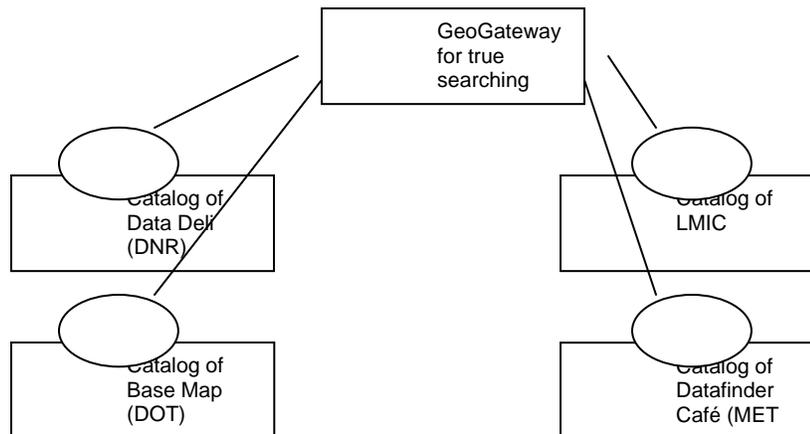
The knowledge of data preparation from source to generally useful data sets is underestimated. Often data is requested without understanding the preparatory process and making allowance for it.

Another challenge facing LMIC is that federal agencies and private entities collect data, yet it is unknown how to get to it, how to understand what it is. The reverse is true also, the difficulty to identify what is not being collected.

LMIC also functions in the area of organizing and re-organizing census data into more accessible format. This means the skills have been developed in-house to manipulate external data and create more generally usable data layers from it.

Firewise is a generic data collection tool for all types of facilities, community effort to collect infrastructure data. Up to 250,000 data points collected, with some shortcomings re attributes and verification. Despite the ambiguity in this data collection effort it is part of federated data collection effort.

Data Deli was developed prior to Clearinghouse, yet Clearinghouse is umbrella. The general structure of data clearinghouses in MN state government is as follows:



LMIC coordinated the mechanisms to “glue” the independent components together. Standardization to GOS formats. Metadata is published to external clearinghouses also.

Currently, LMIC conducts some experimentation with WFS (feature services). The ultimate consumption by end users not yet clear. Currently, the focus is on the development of technical know-how to stay one step ahead.

Successful data examples by LMIC (among others): soils data, streets/roads are getting better but still





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

need more integration work.

LMIC does not create much original data anymore, only when a project requires it. Metadata efforts are key to current efforts.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Most servers are Linux based with HSEM support required to offer a Microsoft based server. There are two inventory systems maintained, one for aerial data and another for parcel data.

LMIC hosts the Dlan map services with links to ESRI WebServices for geocoding functions.

Part 3—Description of any provided documents

Screenshot of GeoGateway, list of LMIC catalog data sets

Part 4—User requirements and “wish list”

- Funding must match expected responsibility of LMIC.
- Pull GIS more closely into federal grant cycles to supplement current PPE focus.
- Data needs by responder agencies are often talked about but rarely detailed.
- Project work is often pro-bono for other agencies, including HSEM, needs more financial security to match expectations.
- Development of marketing skills, for instance for the inventory
- Invitation to future table top exercises should be extended to LMIC to learn about critical data needs
- Knowledge of what data layers are needed by agencies by type of event (scenarios), including accuracy needs
- Broker services for geoprocessing services not just for data.
- Data shortcomings addressed:
 - facilities coverage needs to be increased,
 - high res elevation data for flood plans ER and other hydrological modeling is needed,



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

- land use/ownership coverage has multiple uses currently underserved

Part 5—Systems or other developments anticipated between 2007 and 2010

- Revise content standard of metadata to be better compliant with ISO standards.
- Technical mechanisms to provide data security and control data access based on roles through clearinghouse. Metadata information already there.
- Phase I of geospatial services brokerage.

Part 6—Additional comments or information, additional contacts

- Check for update on MEOP Supplement
- Funding for this cycle is higher than previous but less than needed.
- Check for vision statement for broker service by Council.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 30, 2007
Organization represented	LMIC
STC interviewers	Reno Fiedler
GDA PM staff present	N/A
Status	Draft: x Reviewed: Final:





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Individuals in Meeting

Name	Title	Telephone	E-mail
David Arbeit	Director		david.arbeit@state.mn.us
John Hoshal	GIS Services Supervisor	651-201-2482	john.hoshal@state.mn.us
Fred Logman	Consultant		fred.logman@state.mn.us
Chris Cialek	GIS Clearinghouse Supervisor	651-201-2481	chris.cialek@state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

Historically, LMIC has taken coordinating role despite lack of official mandate. LMIC was initiated as project based support agency prior to ESRI emergence as GIS leader. 1977 LMIC emerged from a land management project. Throughout the 80s, LMIC was only GIS group supporting DNR. Developed in-house raster processing software. Early on required ESRI software (lic 40).

Agencies started to develop internal capabilities. LMIC still fills project needs, orphan projects.

LMIC contracted two studies in 1990, completed by Plangraphics, for DNR and for state, respectively.

Outcome recommendations: LMIC would take on policy functions; develop a project services group; planning function (to be moved into the planning agency), which would have led to splitting the agency. There are shortcomings to the splitting in that planners removed from technologists may lead to decay of understanding of technology by planners.

LMIC has changed home several times in re-organizations. Some places were a lesser fit. Overall budget has decreased over time significantly between 90s and today.

Current status: no mandated coordinating function for LMIC, e.g., emergency response. LMIC is not officially consulted in preparation for use of GIS. Yet, human network demonstrates need. LMIC is seen at least as an un-official coordinating entity. Earlier involvement may solve/prevent business problems.

Strategically, the resources in the various departments must be unlocked into a common operating picture. LMIC has capabilities to provide this service and already moves toward that direction. Funding for agency is supplemented by grants to implement this vision over time.





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OET role in enterprise is legislatively better defined and has room to include the back office view of GIS. Current OET strategic plan identifies GIS as a key enterprise technology with possibly creating centers of excellence within the government with significant guidance by LMIC. The overall vision sees GIS as a federated model for the enterprise. OET has three tiers: network for all, shared services managed as centers of excellence, agency unique services. State CIO has identified LMIC as the state resource for GIS. OET provides umbrella contracts that encourage use for capital investments and project financing.

Council strategic planning retreat includes state government, local government, and external partners. One question is where should LMIC functions be housed in government.

This project is subset of larger coordination of all hazard use of GIS for planning, reaction, and recovery. It is meant to identify the status of coordination between agencies. It is a part of a puzzle of multi-tiered enterprise planning.

LMIC performs coordinating functions in consulting on data investments and spatial analysis. Lead to coordinate funding on Lidar 2008.

Council is a policy advisory group based strictly on volunteer work, no mandated role, no budget, no authority, it performs a community function, promotes coordination. It provides opinion, recommendation, and guidance. For example, the data clearinghouse was a recommendation by the council resulting from a 2-year study on data availability and issues to be implemented by LMIC which provides rationalization for LMIC's role in coordinating data availability. A more recent examples is the writing of letters to support GIS community in Minnesota and nationally.

LMIC could become a "vocational education" center. At the same time, moving people may disrupt work progress. It worked in the past with project based finite engagement. Once the need in the organization grows large enough, internal capacities will be built with the expectation to be the advocate within the department for growing capacities.

National Association for State CIOs, identifies every year the 10 highest priorities to pay attention to. Minnesota CIO is very active in this organization. www.nascio.org

Part 2—Description of current GIS and IT environment (inventory of data sets)

Part 3—Description of any provided documents





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 4—User requirements and “wish list”	
Create a statutory mandate for the coordinating role of enterprise GIS of the MN government.	
Part 5—Systems or other developments anticipated between 2007 and 2010	
Part 6—Additional comments or information, additional contacts	
<p>Acquire copy of the 1990 strategic plan Acquire copy of the 2007 OET strategic plan Acquire copies of previous projects, approaches, policies</p> <p>LMIC may be better housed with OET. Yet, OET has to prioritize enterprise services and GIS may not be first choice and therefore reduce impact on government. Proper timing of any transition must be considered. Staffing skills and level is not ready yet. Nationally, the model is to have a GIO function/office within enterprise technology office. DNR may be another fit due to history. Budget is often the issue as to home and acknowledgement of importance of GIS to business functions. Still, the need for strong GIS capability within all agencies is nonetheless paramount.</p>	

9.2 Agriculture and Board of Animal Health

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 18, 2007
Organization represented	Department of Agriculture Board of Animal Health
STC interviewers	Reno Fiedler





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

GDA PM staff present	none
Status	Draft: Reviewed: x Final: x

Individuals in Meeting

Name	Title	Telephone	E-mail
Heidi Kassenborg	Disease Investigation and Emergency Response Director, DOAg	651-201-6625	heidi.kassenborg@state.mn.us
Michael Starkey	Department Emergency Response Coordinator, DOAg	651-201-6286	michael.starkey@state.mn.us
Mike Dolbow	GIS Coordinator, DOAg	651-201-6497	mike.dolbow@state.mn.us
William L. Hartmann	Executive Director, BAH	651-201-6825	bill.hartmann@bah.state.mn.us
Ray Scheierl	Information Technology Specialist	651-201-6833	ray.scheierl@state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

BAH

- BAH is responsible for the surveillance of all domestic animals, including poultry in backyard flocks, swine, and others. It does not include wildlife animals, which are managed by DNR.
- BAH has approx. 45 staff.
- All animal facilities are recorded but a unified ID system does not yet exist. There are approx. 6-800 poultry premises recorded. The data was collected from lists of dealers and other sources. All are



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mapped.

- The USDA has an APHIS office in St. Paul.
- BAH uses base data from DNR for mapping purposes.
- BAH conducts surveillance on turkeys since the 80s (two weeks prior to market and in slaughter plants) and on chickens (live bird markets [AG] and on backyard flocks [BAH]).
- There are two centers of excellence at the University of Minnesota; one supported by NIH, another by CDC.

DOAg

- DOA has received approval for new compliance information system, Presence, which supports handheld devices for field data collection.
- Some of the agricultural inspection work is completed by counties.
- 97% of all dairy production facilities are mapped.
- DOA has access to good satellite data, specifically designed as crop data, provided by USDA (Farm Services Agency). Currently, the data is for the year 2003 and will be redone in 2008.
- DOA's meat program uses the Network Analyst extension of ArcGIS for routing analysis.
- The overall objective is to track the food cycle, specifically the rendering of protein through the various stages from farm to table.

HPAI

- Currently, surveillance is heightened on poultry to detect any potential cases as early as possible.
- A response to an event would follow the USDA Highly Contagious Diseases Response Plan.
- During an event, likely the USDA emergency management and response system (EMRS) would be deployed. There are challenges in that this software is not available for general outbreaks (as was the case with TB), the information contained in the software would not be accessible to the state after the event, and the software's mapping capabilities are unknown.

Experiences from TB outbreak

- TB was not present in MN for 35 years. The registration status of cattle herds was a major hurdle. Data was aged. Standard operating procedures were in need of updating. Some IT staff had moved on leaving a gap.
- Though there has not been a formal review of the event, some lessons learned include: resources need to increase, the activation of the Operation Center worked well, the creation and use of maps





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worked out well, there was no lack of leadership but maybe some shortcoming of execution staff.

Part 2—Description of current GIS and IT environment (inventory of data sets)

BAH has three staff with GIS skills and respective ArcView licenses. BAH has approx. 35 Street Atlas users.

BAH manages a database of all identified poultry premises with coordinate data.

BAH maintains an investigation database for all positive investigations and positive laboratory data.

Part 3—Description of any provided documents

A visio document detailing the reporting path was mentioned.

Part 4—User requirements and “wish list”

- BAH would like to be able to follow individual animals, preferably on maps.
- BAH/DOA wish the regular use of the existing databases to increase data content and capabilities. It would be preferred to enhance the existing systems rather than to implement new systems. There are already too many disconnected pieces.
- A complete registration of commercial facilities is a desirable data set for BAH and DOA.
- The poultry database should improve in the reliability of its spatial information and allow the management of the facilities from a spatial interface/approach.
- Field staff would benefit from access to database and spatial information while performing their on-site work.
- County data for livestock and feedlots should be available on a more complete basis. Currently this information is available from 53 of the 87 counties.
- Overall, the availability of facility data such as fire stations, schools, and others is expected to improve HPAI response.
- Real-time access to PCA data on planned disposal sites, all hazard waste sites, etc
- A need exists to create greater redundancy and remote access to some systems





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- Some systems would benefit from a simpler and more intuitive user interface
- Improvements can be made to DisasterLAN
- Barcode tracking of samples

Part 5—Systems or other developments anticipated between 2007 and 2010

DOA will implement Presence, a compliance system, featuring a backend of DB2 and Websphere
 Funding is sought in a multi-agency effort to fly in 2008 all of MN with 1m resolution in color.

Part 6—Additional comments or information

For EMRS review see website.

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Date	May 21, 2007		
Organization represented	Department of Agriculture Board of Animal Health		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>
Individuals in Meeting			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Name	Title	Telephone	E-mail
Dale Lauer (via phone)	Director MN Poultry Testing Laboratory, UofM, BAH	320-231-5170	dale.lauer@state.mn.us
Lucinda Dahlberg (via phone)	Information Technology Specialist		lucinda.dahlberg@state.mn.us
Ray Scheierl	Information Technology Specialist	651-201-6833	ray.scheierl@state.mn.us
Mike Dolbow	GIS Coordinator, DOAg	651-201-6497	mike.dolbow@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>The Poultry Testing Laboratory is performing a key function in the surveillance for HPAI. It coordinates with BAH, DOAg, USDA, and others.</p> <p>One of the current goals is to develop strategies to fulfill local requirements while supporting USDA efforts at the same time. A recent isolated low pathogenic AI incident in MN provided some lessons learned. Field surveillance should be ongoing to keep a current understanding and data recording of farms (easier to do) and backyard flocks (harder to sustain). USDA requires 1 mile and 2 mile safety zones around effected areas, which would probably vary for HPAI. Sustainability over longer periods during an event would be hard to maintain.</p> <p>The ongoing surveillance efforts are also geared toward supporting the local poultry industry which is quite cooperative. Typically, maps are not used for surveillance or communication with industry.</p> <p>USDA would be the source to learn about international event.</p> <p>During Pandemic Influenza events, the poultry testing laboratory would continue testing and surveillance activities and will coordinate and seek support from diagnostics laboratory at UofM, St. Paul.</p> <p>Maps may play a role in directing efforts to the source locations.</p> <p>DisasterLan has not been introduced yet to Dr. Lauer.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			





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Part 3—Description of any provided documents

Part 4—User requirements and “wish list”

- Staff to support data management, IT functions, maps
- Printing of maps on paper sizes larger than 11x17
- Being able to “push pin” interactively on a computer map to identify points of interest
- Acquire copies of ArcGIS Server and ArcInfo
- A coordinator for communications intra-government and with counties/municipalities, because there often seems too much information that requires better unification/coordination/standardization to be more effective and understandable.
- Focus should not be on equal surveillance across all 87 counties but on the 50 where poultry is raised.
- Communication as to who has the authority to coordinate, determine applicable standards, and provide funding needs to be improved

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information

MN experienced several weeks ago an isolated low pathogenic AI event.



9.3 Attorney General

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 23, 2007		
Organization represented	Attorney General's Office		
STC interviewers	Holly Scholl, Reno Fiedler		
GDA PM staff present	none		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Audrey Kaiser Manka	Assistant Attorney General	651-297-5930	audrey.manka@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>She has been working with Dept. of Health on plan—provided comment on the MDH plan from a legal perspective.</p> <p>Audrey represents Dept. of Health (questions they might have).</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
Part 3—Description of any provided documents			





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None

Part 4—User requirements and “wish list”

This is our first discussion about GIS, and it would be helpful to designate someone to look at those issues. Initial impression is that the most important “asset” that AG would need is scientific data about the problem and an ability to communicate with MDH or other agencies involved in addressing a pandemic, as well as an ability to communicate with the courts as necessary.

(The AG office represents the Dept. of Health in taking legal action against non-compliant carriers of infectious diseases, so that background provides some basis for anticipating the types of issues that may arise in an isolation/quarantine situation.) Would like access to expert or scientific information available on that specific disease or problem in order assess nature of problem. Science drives the legal response in a pandemic/health outbreak situation.

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information

Need continuity planning for staffing and IT needs during a pandemic, both for taking legal action and communicating with other agencies. As it relates to pandemic flu, would only take legal action for isolation and quarantine as the initial procedure—(e.g., isolate and quarantine plane load of people/small community if an outbreak occurs), but would rely on expert scientific advice (from CDC and MN Department of Health) on whether those actions are effective at various points in a pandemic.

Minnesota has laws that address non-compliant carriers who have infectious diseases, and there is a specific law addressing carriers who have TB. Under those laws, and pursuant to court order, a non-complaint carrier may be ordered to participate in education or counseling, and in certain cases may be confined to hospital until they complete treatment or have demonstrated an ability to comply with treatment in a non-hospital setting (but that is treatable TB). Cases that end up in court system are very small percentage of the population that has an infectious disease, since most individuals are cooperative with public health efforts to provide treatment.

Operational involvement: To consult with the Health Department when legal issues arise. Hopefully most individuals who are exposed to or infected with a disease will voluntarily cooperate with public health recommendations for isolation and quarantine, social distancing, “snow day” procedures, rather than





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requiring legal action.

Ensuring privacy and due process for individuals would also be a concern. Individuals would need to have a process by which they may protest any deprivation of rights. Minn. law (Minn. Stat. 144.419) has a number of due process provisions for isolation and quarantine, including a very short timeline for legal action, so that individuals have the opportunity to challenge any deprivation of rights. AGO has worked with MDH and Court system to assure that individuals will have legal counsel appointed through whom they can exercise their rights. The law also authorizes hearings on the conditions of isolation or quarantine. The law includes certain general requirements, such as requiring isolation/quarantine be in the least restrictive manner necessary to restrict spread of disease, individuals' health status must be monitored, individuals must have the ability to communicate 24/7 with health officials, they must be release from isolation immediately when no longer infectious, and there must be a systematic way or addressing the needs of isolated or quarantined individuals.

Protection of person's health data is important. In MN, Minn. Stat. 13.3805 provides that health data is "private," and there are strict regulations which govern how health data is handled. The Commissioner of Health can, in limited situations, release the data as necessary to locate or identify a case/carrier, to provide treatment or to identify persons at risk of illness. This provision comes into play if a carrier is, for example knowingly exposing others to the disease. Local law enforcement will assist with quarantine on a local level. Must consider that local law enforcement may not want to help in a quarantine case depending on how infectious the case is.

Attorney with State Health Dept. (Steve Shakman), has been involved meeting with local law enforcement about the role of law enforcement in an isolation/quarantine situation. State law provides that MDH shall advise law enforcement, when requested, of protective measures needed to protect the law enforcement personnel from possible transmission of the disease.

Worked with court system. When SARS was a concern, did a table top exercise and presented to the court. Stated concerns and what would conceivably happen. Another table top on June 5 with the court system to talk about these issues.

With TB and HIV, one of the local hospitals has a courthouse in the hospital, we have had a carrier wear a mask as necessary and have hearings in hospitals when infectious individuals were involved. Can have telephone hearings as well to protect parties, court personnel and others from infection. Ramsey County has statewide jurisdiction to hear isolation and quarantine cases, so we can have hearing in St. Paul for folks throughout the state (most of planning done through Ramsey County). If Ramsey county court cannot be used/closes, the law allows isolation/quarantine cases to be brought in the county where the person is located, or in an adjoining county.





9.4 Commerce

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 21, 2007		
Organization represented	Department of Commerce		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Jeffrey Haase	Project Manager, Energy Facility Permitting	651-297-5648	jeffrey.haase@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>The DOC has units associated with energy, communication, enforcement activities, insurance and banking. Among several tasks, the energy unit monitors storage inventory of petroleum and explores energy improvements to low income housing. The outcome of the latter has recently been used for eligibility assessments for aid to low income housing.</p> <p>DOC reaches out and provides education and raises awareness with respect to the threat of Pandemic Influenza. DOC has a COOP plan in case of a state employee strike, which will be adapted to cover PI as well. DOC does not have substantial priority 1 or 2 tasks under the COOP. DOC would engage in high level coordination with regulated industries to ensure uptime of critical energy delivery infrastructure.</p> <p>Mr. Haase is the SEOC delegate of the DOC. He is involved in emergency planning and management for the department. He is also involved in the permitting process for energy infrastructure. This work is supported by LMIC under contract to maintain two key data sets.</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM
Part 2—Description of current GIS and IT environment (inventory of data sets)
<p>DOC’s GIS activities center around GIS desktop analysis and map development using ArcGIS.</p> <p>One floating primary license exists for ArcInfo 9.1, supplemented by several individually keyed licenses for ArcView.</p> <p>The two key data sets with respect to GIS are a Wind resource map which is relatively static (updates once a year, more or less) and an energy infrastructure db (maintained under contract by LMIC). The latter is more dynamic. DOC collects data related to updated energy infrastructure from providers typically, but not always in Arc formats. The raw data is passed to LMIC for inclusion in the database.</p> <p>DOC maintains an internal IT department (except website -> OET). For special situations, some Citrix access to external resources exists and telecommuting by all staff is offered but it is uncertain whether it is backed by sufficient server power</p>
Part 3—Description of any provided documents
<p>RF requested the department’s COOP plan for review</p> <p>An Energy Emergency Insurance Plan exists but does not seem highly relevant to the preparation for PI.</p>
Part 4—User requirements and “wish list”
<p>DOC could improve service delivery by creating maps of the distribution of various types of utilities, particularly in preparation for disruptions. Alternatives, such as secondary heating systems, potential savings through conservation could be identified. Presenting such analysis in maps would provide sound guidance to policy makers.</p> <p>A wish list item would be a verification of the content in the existing dbs.</p>
Part 5—Systems or other developments anticipated between 2007 and 2010
None
Part 6—Additional comments or information





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Current activities in preparation of PI focus on improvements to communication within the department.

9.5 Education

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 23, 2007
Organization represented	Minnesota Department of Education
STC interviewers	Reno Fiedler
GDA PM staff present	none
Status	Draft: Reviewed: x Final: x

Individuals in Meeting

Name	Title	Telephone	E-mail
Ruth Ellen Luehr	Pandemic Preparedness Planner	651-582-8403	ruthellen.luehr@state.mn.us
Robert W. Fischer	Pupil Transportation Specialist	651-582-8776	bob.w.fischer@state.mn.us
Scott Freburg	GIS Administrator	651-582-8789	scott.freburg@state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement





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DOE provides services including:

- Food nutrition service support: federal funding for food and food; most commodities sent to processors and then purchased by schools and child care facilities,
- Adult basic education services: most schools have a program, leads to GED,
- Indian Education: consultation to 4 tribal schools and Indigenous Peoples in public schools
- Community education program: Local levy with additional state funds – and fees –for a wide variety of programs serving people of all ages (newborn to elderly); emphasis on early childhood programs (screening, learning readiness) ; manages use of school buildings in evenings, weekends and summers by school programs and non-school programs
- Program finance: supports payments to school districts for state aid and federal aid, (pandemic priority 2 area); includes special aids and TA for a wide variety of topics including facilities and transportation.
- Education standards setting in all subject areas; training
- Testing services
- Quality of teachers working with Board of Teaching
- Special education for kids with needs for all ages – sets standards, trains, monitors
- Schools in high need communities have additional financial support via the federal Titles programs including system-wide supports, reading and math programs, ELL (English Language Learners), new immigrants, migrant populations and safe and drug free schools and out-of-school time programs (school age child care)
- Health and social/emotional supports for learning environment – set standards, train

DOE operates through 60/40 fed/state funding

DOE offers services to public schools (350 school districts with 1500 school buildings), charter schools (188), no child care licensing (that is covered by HS), DOE does not cover non-public schools, and only has jurisdiction if they get state or fed funds.

DOE does not cover tribal schools (4) but communicates with leaders of schools regularly

There are 15,000 home child care (F&S), which all have a GPS location assigned.

All these facilities have computer access to manage F&S.

CLICKS is the food nutrition online system.

School buses are owned 40/60 district owned/private. Bob Fischer is responsible for secure pupil





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transportation. State law requires that kids more than 2mi away from schools have transportation; some districts offer transportations for students living closer for a fee. School bus inspection system is changing due to budgetary constraints.

Some school districts have GPS/AVL and use GIS to do route mapping. They often use the Lawrence group street data sets.

School location and district boundaries is major issue for several reasons:

- School districts are unique without relationship to any other administrative boundaries.
- School buses service only to boundary of the school district
- Emergency response by school district may go into several county or city jurisdictions
- School boundaries are not necessarily correct. Tax records are the main source of info which area belongs to which district. Counties know school district boundaries.
- If school district boundaries are going through house, master bedroom becomes deciding factor.

Emergencies:

For Radiological Emergency Planning Zones, schools have sister centers for evacuation purposes. DPS made maps of nuclear areas for evacuation planning, LMIC did corresponding maps,

For REP schools, HSEM has just made KI for nuclear preparedness available at schools, public has vouchers for KI

Public schools are being asked to relay hazard information to non-public schools.

Food and Nutrition Services do not stockpile food in most cases as they are 'just-in-time' programs and use local sources for purchasing food. Also there are federal restrictions that prohibit having food available through the schools

Care for the children's multiple needs (food, safety) in a pandemic needs to be a community-wide plan Pandemic Influenza because kids do not belong to schools but to community. School student support services are the point people to assist with case management of needy kids/families and to prioritize and direct community resources. School resources will be put in service of community.

Local schools have a requirement to develop crisis plans since 1999 (after Columbine), yet DOE does not have authority or resources to collect and monitor the plans. The federal Safe and Drug Free Schools program last year began to ask the question whether a crisis plan was in place or not (not content). MN School Boards Association with HSEM and MDE wrote a model crisis plan and HSEM has a useful response resource. A concern is that districts adopted the policy without local planning, training or communication.

Superintendents have renewable 2-year agreements with Red Cross for use of school facilities.





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Pandemic planning is state led and can lend insight into existing and encourage planning by schools. Coordination between districts will be essential due to overlap of county boundaries, staff in one district living in a neighboring district, and the need for resource sharing. In a pandemic or other emergency.

Bob Fischer would go to SEOC as the DOE's all hazard contact with responsibilities for evacuation planning, as HS (???) liaison. He has DisasterLAN training received but not used yet. Ruth Ellen Luehr is the pandemic contact person and would report for or with Bob to SEOC for that emergency.

Part 2—Description of current GIS and IT environment (inventory of data sets)

- ArcGIS ArcView software, K-12 bundle secured
- Geodatabases
- Standard information from various sources
- School boundaries and attendance boundaries, cooperatives

Part 3—Description of any provided documents

Educational material for influenza preparedness
Response plan resources, guidance, FAQ, and template documents
Tracking forms

Part 4—User requirements and “wish list”

- With respect to HPAI preparation it would be beneficial to know how many schools have an agriculture department, if any
- Development of a portal for locals to provide contact information so that MDE, and other agencies through MDE, can access school administrators and licensed school nurses. ,
- In addition to the computer HAN messages, also send out a verbal message (telephone) to staff personal phone numbers (not from the general school lines which may not record messages).
- MASA school administrators have home phone numbers of superintendents. MDE is working on a formal agreement for accessing superintendents as a backup system.



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- Access to principals should be included. Reduce private databases within the agency instead use of a system-wide portal. Change.
- Improve infrastructure in DOE, set up a template for all school districts to establish and keep up to date their within-district key contacts (3-deep) and then be able to have immediate outreach to law enforcement and parents. System running in other state. (MI model)
- Improve Food and Nutrition Services system
- Track locations of people participating in training and education programs
- Extensive training sessions with school nurses and school administrators, (two brief sessions planned for June, one in Aug 2007) , without budgetary constraints, these events would be even more successful or could be more frequent (MA model)
- Database continuity within the agency, availability through network, communication
- Knowledge of skills and capacities across government
- Connection between DOE data sets and spatial entities
- Training to help jurisdictions to develop their plans, more exercises, Missouri has online training system with certification
- Blackberry availability spreading to multiple layers of leadership

Part 5—Systems or other developments anticipated between 2007 and 2010

Several million for school infrastructure development and for state-provided training for school personnel and partners.

Part 6—Additional comments or information, additional contacts

For pandemic planning, regular (quarterly) meetings across agencies – MDE, MDH, HESM – to identify current research and resources, gaps in state and local polices and programs, current exceptional programs and need-for-improvement areas, share plans and resources, collaborative plan for future programs and access to resources.

For All Hazards planning, have the program managers and other ‘uppers’ from HSEM and MDH meet to recognize the collaborative work of the cross-agency group and offer resources and suggestions.





9.6 EMS Regulatory Board

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 17, 2007		
Organization represented	EMS Regulatory Board		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: <input checked="" type="checkbox"/> Reviewed: <input type="checkbox"/> Final: <input type="checkbox"/>		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Jim Jagow	NREMT-P, Metro EMS Specialist	651-201-2810	
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Currently flood support</p> <p>System status management design in past.</p> <p>Work in conjunction with 911 centers</p> <p>EMSRB oversight, in case of event -> patient movement to secondary hospital locations, staffing to some degree</p> <p>Work with national guard, Mn/DOT, others to deliver resources, airport.</p> <p>Databases for EMTs (location, skills), first responder units, EMT transportation units, patient data on transported, 100% compliance to report to Feds extensive demographics, guidance for center, analysis for staffing, production errors, staff utilization</p>			





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Plans for prophylaxis of first responders and families.
MNTrac bed tracking is available.
Have contract with LMIC to develop maps for resource distribution by area
Response: 7 county metropolitan, 30 regional hospital compact, they pool data for EWD,
Hospital MD's daily review data, pull data , MACC multi agency communication center, attempts
at virtual MACC to support social distancing command and control
Last week all three systems were exercised, "Snowball 3"
MSP is part of the medical response system, membership requires exercising plans
TIC tactical interoperational communications plan, this year Plaque, all alternative care sites
exercised
Lesson learned: one person for data management only
EMSRB is one of 17 health licensing board

Part 2—Description of current GIS and IT environment (inventory of data sets)

Mission Mode in metro area with basic maps
Command Center within MNTrac at MDH basic maps
Disaster LAN also
MNStar, database for ambulance services and personnel, ImageTrend developed the system.
Jim J has personal resource list.
EMSRB has own IT person, MNStar, OET supports

Part 3—Description of any provided documents

Requested TIC documents,

Part 4—User requirements and "wish list"

See routing of streets, closure, what is open, what is closed. Where are disaster trailers, first





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<p>responder units, shelters, alternate care sites, public health clinics, trauma levels, strike teams, supplies availability who is doing it.</p> <p>Reaching outside will prepare you better. DisasterLAN as a center for data unification.</p> <p>Communication (e.g., plumes) with maps makes more sense, do overlays with own data sets.</p> <p>See MDH's plan</p> <p>Combine information from the various systems into a unified view.</p>	
Part 5—Systems or other developments anticipated between 2007 and 2010	
None	
Part 6—Additional comments or information	

9.7 Employee Relations

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 30, 2007
Organization represented	Department of Employee Relations
STC interviewers	Holly Scholl, Reno Fiedler
GDA PM staff present	none





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Status	Draft: Reviewed: X		Final: X
Individuals in Meeting			
Name	Title	Telephone	E-mail
Todd Christenson	State Safety Program Coordinator, DOER	651-259-3830	todd.christenson@state.mn.us
Cathy Hockert	State Pandemic Planning Coordinator, DOER		cathy.hockert@state.mn.us
Kristen Olsrud	Sema4 HR Services, Analyst		kristen.olsrud@state.mn.us
James Aars	Information Technology Specialist, Reporting and Operations Integrity Unit;		james.aars@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>24/7 facilities are operating in an event; DOER would need to ensure they are allocating resources and staff.</p> <p>Adjust people to the agencies as necessary in a pandemic.</p> <p>Provide statewide information to state agencies and employees.</p> <p>Todd: Coordinate the statewide service continuity of the state government; Cathy works with him to ensure that is being accomplished; make sure agencies receive necessary information to be able to create plans.</p> <p>Don't currently use GIS within the department other than small insurance group; use small off-the-</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

shelf product to look at insurance delivery.

Kristen and James look at getting data out of their systems.

Information in Sema4 is not DOER inputted information, it is all the other agency information (specific to individual agencies); DOER is probably the only agency that has consolidated all agency information in one place.

Agencies would look to DOER for resources/skill sets in case of an event; Sema4 would be primary resource for finding this information. Would do data mining to come up with this information.

Agencies filled out form stating what their priority of resources would be; know this by agency, not by location.

State EOC's provide information through JIC and DOER communicates this information to agencies.

DOER has not had a strong role in Statewide emergency operations; DOER has addressed statewide services interruptions (e.g. strikes), but this has not involved State EOC.

Primarily concerned with making sure agencies have their priorities set in case of an emergency and in case there is a shortage of resources. Should let DOER know if 1) they will be able to meet priority needs—with 40% absentee rate; or 2) if they are unable to and will need additional resources if a pandemic/emergency were to occur.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Sema4: Statewide Employee Management Application; Personnel database—address; dependents; human resource payroll and benefits data; positions; job codes; vacant positions; job locations (location table with location code—each position is assigned to a location code; locations are set up independently by different agencies; DOER doesn't apply any certain structure to it; a location code could identify anything as broad as a city, or a certain floor in a certain building—depends on how detailed they want to get with it; employees working from home would have a different location code (works from home—generic code, but they are city identified). Can be manually identified as working from home and then can bump to home address to find this information, although home addresses are considered private information.

Could put every location code on a map; may not be finely pinpointed. Location codes (unless they work from home) are going to have a street address, and city, state, zip code.

Each agency decided the location code structure; there may be loose statewide guidance on how these location codes are determined, but essentially, each agency decided location code structure.





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Consistent messaging will be created; agencies will be using voicemail messaging for employees; each agency is developing an employee call down list (to include call; email; website information); this is what is currently in place. This will vary according to agency. Some agencies have district offices throughout the state—their method of communication will be different with those agencies.

Each agency will have messaging specific to their agency depending on how they are affected; most of the communication would go that route; agencies will communicate information to employees once DOER communicates this information them.

When common message are created, one person will be in SEOC (State Emergency Operations Center).

Use PeopleSoft (version 8.3) Enterprise—name of core product. Use this for maintaining their employee information (in Sema4).

SEOC will be contacted to arrange for resources when DOER cannot find internal state gov resources. SEOC will want to plan for resources when DOER is tapped out.

Jointly run by finance and employee relations.

DOER has a disaster recovery plan. Have an alternative off site location.

Part 3—Description of any provided documents

Part 4—User requirements and “wish list”

DOER could use GIS on a statewide level; agencies may need it on an individual agency basis as well.

If there is a certain part of state that has been hit harder, would be useful to use GIS to determine which agencies would be affected more; different types of messages may need to be sent according to harder hit areas. Right now, by hand or by county they would literally put a map on the wall and crunch data by hand.

Would want to understand demographic fabric of MN to understand state and “at risk” populations.

Want to practice exercises so that they are usable during an event.

Would want travel communications via map (especially if there is a “hot” area).

Want to map where resources are and what skills those resources have.





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As part of redeployment, would want to capture where people were redeployed to.
Live, real-time absentee and tracking. Don't really track sick time—why someone is out "sick"—don't necessarily have to be sick to log sick time.
Work places color coded—can track absenteeism to see if there is a problem in a certain department/agency. This could enable DOER to track/anticipate where resources may be needed.
Would like to track facilities that have been shut down in case of an event, so that they can reuse them if necessary (a field support site).

Part 5—Systems or other developments anticipated between 2007 and 2010

Looking into upgrading to v9 of PeopleSoft.
Looking at how they can use that database from a skills management perspective.
Right now, there are some built-in capabilities associated with PeopleSoft associated with competency. From a response perspective, want agencies to include employee skills and abilities, so that they can do mining of data to determine who has similar skill set to fill a gap where needed. Don't have this function now; want to do this as a part of pandemic planning.

Part 6—Additional comments or information

Service Continuation Response Team: Team that would manage pandemic—would need information from various systems, that would receive request for various resources; would decide where resources go; will make assignments; this will go out to agencies.
May want to look at quality of address data and if geocoding the data is possible.
Have retirees and former employees all in Sema4.
Volunteers would be coordinated at the local level; DOER would look at retirees for volunteers, but this would be their only role in recruiting volunteers.

No staff within DOER currently has GIS experience/skills (to their knowledge).
Each State Agency has an HR Director.
Reorganization being planned; not sure what the impact will be.





9.8 Health

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 22, 2007		
Organization represented	Minnesota Department of Health		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Megan Thompson	Hospital Preparedness Planner	651-201-5728	megan.thompson@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>MDH has established an office for emergency preparedness. One unit of this office is the Resource Management and Tracking Unit. MNTrac is a software solution being implemented statewide.</p> <p>MNTrac's mission is to provide patient care coordination, management of supplies and bed availability.</p> <p>MNTrac is a permanent system for resource tracking. It includes all hospitals in MN with respect to bed and resource capacity as well as diversion status. It contains an alerting component for</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

events with mass casualties. It tracks severity level of patients and number of patients.

MNTrac is separate from HAN, It can direct alerts and notifications to emails, blackberry, phone, etc.

The information generally comes from incident command which usually rests with the first arriving responder agency.

The system connects hospitals, dispatch, EMS, and MDH (viewers).

Maps are incorporated component for hospital locations, event locations, acknowledgement of alert

PPE, decontamination, ventilators tracking

The system contains a communication module for instant messaging, conferencing, a resource library for e-docs, a report module (no maps). MNTrac can be searched to find resources by criteria, buffer selections.

MNTrac and DisasterLAN are complementary systems, with the first supporting emergency mgmt and the latter supporting health tracking.

MDH operates a departmental EOC during emergencies. A multi-tiered response is planned for emergencies. The response was tested recently during exercise "Snowball 3".

During Snowball 3, several command centers were in use including multi-agency coordination centers, MACs. Note: Eight regions have their own MACs.

Participants in Snowball 3: hospitals in three regions other than metro, red cross, HSEM, local PH agencies, emergency managers, in metro almost all agencies, EMS.

Users used MapQuest to find locations of incident.

SNS security is provided by the National Guard.

Part 2—Description of current GIS and IT environment (inventory of data sets)

MNTrac, priced by seats, hosted by vendor, 1.5 years old, has backup and mirror facilities, uses Google maps interface.

MDH has an internal IT department.

MDH has the Minnesota Immunization system (MICC)

MDH does not have an integrated Disease Management System, disease stove pipe applications

MDH supports an online volunteer registry (no maps)





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<p>MDH maintains a trauma registry.</p> <p>The SNS will be tracked using a warehouse management system until the materials are at the mass dispensation sites, e.g., hospitals, public health sites (SAMS)</p>	
Part 3—Description of any provided documents	
<p>MNTrac user manual.</p>	
Part 4—User requirements and “wish list”	
<p>The identification of partners and their respective inclusion into MNTrac is desirable, but will require time.</p> <p>Using maps for SNS management is desirable, possibly by adding a component to MNTrac.</p> <p>Snowball 3, could have used big map on the wall. There were no projections on the wall in the MDH EOC. Communication logs should also be projected on the wall.</p>	
Part 5—Systems or other developments anticipated between 2007 and 2010	
<p>MDH plans these systems and enhancements:</p> <ul style="list-style-type: none"> • Patient tracking enhancement, bar coded triage tags with scanners, mapping functions for patient transfers • Public portal for searching for people in hospitals • Public message board 	
Part 6—Additional comments or information, additional contacts	
<p>None</p>	

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 24, 2007





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Organization represented	Minnesota Department of Health, Infectious Disease, Epidemiology, Prevention and Control		
STC interviewers	Holly Scholl, Reno Fiedler		
GDA PM staff present	none		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Karen White	Epidemiologist, Prevention and Control	651- 201-5561	karen.white@health.state.mn.us
Karen Martin	Epidemiologist	651- 201-5561	karen.martin@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Karen Martin is primary influenza coordinator (human surveillance); epidemiologist for disease surveillance.</p> <p>Karen White is the epidemiologist for immunizations.</p> <p>Within the Immunization registry, data can be extracted and put into ArcMap; they have a shared license for this application. They also have this on a standalone desktop. Have been looking at county maps to see saturation level of people in various age groups in MIIC (Minnesota Immunization Information Connection). Do quarterly tabulation on population data (up-to-date on vaccinations). Don't do a lot of pocket of need data; that is done more on a local level.</p> <p>Also look at nursing home data.</p> <p>Hennepin County—ImmulinK—also does work with immunization registries and have staff that can</p>			



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

analyze Hennepin County's own data—they are interested in creating their own maps and own pockets of need. With influenza, may be able to get information on flu shots.

MN is an opt-out state; do have a lifespan registry. Mass Immunization module is in its infant stages; can click on a pharmaceutical tab and select antibiotics for a particular event. Not very fast—would be better to do it more quickly and efficiently.

Would be helpful (may happen) to gather demographic information in prior to an event, and then when a patient comes to a site for shots, you would only have to record immunization information. Would create less work and data entry during an actual event, thereby allowing faster throughputs.

Karen White consults with folks who are trying to develop Disease Reporting system. Bill at legislature for a disease reporting modernization project--may want to adopt another system another state has been using—not sure what is happening with that.

Judy Farlow-is primary person for mass distribution clinics. Work with her to get data entry systems set up (user ID's/access).

MIIC Reporting of hospitalized cases of influenza—way for hospital providers to track hospitalized cases of influenza using the MIIC immunization registry application. Right now, hospitalized cases are only being reporting in 7 county metro areas. May go statewide eventually. Some syndromic surveillance going on, but unsure what is happening with this right now.

Hennepin County Medical Center—their emergency dept. was reporting all disease accounts to Infectious Disease Dept. Also was looking at children's hospital data.

School absenteeism---report where there are influenza "like" illnesses. Look at numbers and if/where they double and track symptoms to see if they are similar to influenza.

<http://www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html>

Some maps on above link, but mapping is done internally and depends on who can do it and who has the skills. Karen Martin uses ArcMap as well. About 10 people in division total use maps. It is supplied by Environmental Health department.

Want to also look at hospitalization data (both on adults and children). Incoming data/inpatient data on laboratory confirmed cases. 22-23 metro area hospitals; some are good at reporting right away, some are not. Good to look at data retrospectively, but real-time data is not always timely.

Influenza Sentinel Surveillance program by CDC that is actively done in the State. Report to CDC on how many patients they see that have influenza-like illness. CDC relies heavily on this for pandemic surveillance. Reporting is often late.

Concentrating on hospital data on catching cases of influenza.

Part 2—Description of current GIS and IT environment (inventory of data sets)





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School data kept in Oracle database that is linked to Web where schools can enter data online, or it is sent to State and state enters via a linked access front end.

Emerging Infections program-pediatric and adult hospitalized cases of influenza. Stored in an access database. Will be stored in MIIC for timely reporting. Want initial information more quickly so they can see pattern of behavior as its happening. Get all cases daily being reported through MIIC. On a nightly basis, any case in MIIC is geocoded. Piloting this project, and there are always some people who are not going to do it.

With influenza, it's difficult to diagnose and track cases. Look at pediatric deaths and report to CDC—enter forms for CDC. Individual cases (unless they are hospitalized cases or critical/unusual cases), are difficult to track. Clinics and hospitals don't really report these cases on a regular basis.

Reporting for other diseases is done on a disease reporting card—lab tests, demographics, etc. Unusual cases can be triaged to who infectious disease specialist at State is.

Electronic reporting done through some other providers throughout the state (Mayo, Children's have an electronic reporting system that gets reported to MDH).

Lab (LabCorp) sends HL7 messages to State for positive cases. Provide an encrypted manner of sending data from one point to another. State has HL7 receiving capabilities. LARS data is received through a PHIN-MS hub in division office. Information is distributed to whoever is doing surveillance on that specific disease. That information is stored at those individual locations. No central location.

Karen Martin puts infectious disease data into maps. Use ArcMap.

West Nile virus group is experienced with GIS maps. Acute disease section.

Environmental Health experienced with GIS.

Reporting to CDC (phone call to CDC with SARS and rabies cases). Phone call notification at this point for immediate reporting. Weekly reporting to CDC occurs using NETSS.

Part 3—Description of any provided documents

None

Part 4—User requirements and "wish list"

Mapping of resources with regards to pharmaceuticals and vaccines. May also be useful for those





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in SNS and Office of Emergency Preparedness.

Would like to track overall resources, it would be good to know pockets of need as far as people being underserved with vaccines. Vaccine distribution has been all over the place; would need this to be more predictable and evenly distributed. Want a better system for determining vaccine needs.

Would like people/staff who only specialize in GIS. Training; resource development for GIS.

Clustering in time and space with respect to other data coming in (Mumps data).

If there is an emergency, will systems and resources be maintained at the same level or will resources be moved according to priority/need?

Would be nice to use same kind of system in order to get information on what cases are out there.

Integration is biggest hurdle.

Help infectious disease practitioners to update their systems so that State can extract that information.

Interested in getting infectious disease data from hospitals.

Anything they can do for hospitals and providers to make their jobs easier, would be helpful, as they depend on these individuals getting them the data.

Part 5—Systems or other developments anticipated between 2007 and 2010

Depends on money.

Wendy Nelson (MDH Chief Information Officer); may want to speak with her.

Part 6—Additional comments or information

Isolation and quarantine; a lot of planning will need to be done on local level. More technical resources will be needed at the local level. Have MIIC linked with IQ database at state level.

Multiple development of various systems, unsure of what is being developed where and what is in it.

Systems and people don't talk to one another; hard to communicate with one another.

Would like to interface/integrate with Environment Health (in a GIS capacity or otherwise); would like to tap into their resources if possible, but they need people to help foster that relationship.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	June 12, 2007		
Organization represented	Minnesota Department of Health; Environmental Health Office		
STC interviewers	Holly Scholl, Reno Fiedler		
GDA PM staff present			
Status	Draft: <input checked="" type="checkbox"/> Reviewed: <input type="checkbox"/> Final: <input type="checkbox"/>		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Brian Johnson	GIS Manager	651-201-4688	brian.johnson@health.state.mn.us
Bruce Olsen	DWP Source Water Supervisor	651-201-4681	bruce.olsen@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Developing GIS to support drinking water efforts; 3 FT GIS staff with a background in GIS; other staff have primarily a background in planning; sanitation; etc.</p> <p>Use/manipulate information in GIS; 3 staff maintain/expand architecture; manage data; etc.</p> <p>They have very little, if any, input into planning/work being done with respect to pandemic flu. No information on what the data needs are for pandemic.</p>			



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Collect and manage data sets related to Drinking Water program.

Geospatially reference data when they are doing inspections; develop capabilities/manage data collected.

Brian looks at maintaining what they have and identifies future needs. GIS data supports efforts of 90 people. Brian does work supporting other investigations within the Environmental Health Division (e.g. releases from power plants).

Don't really know what anyone else is doing with respect to pandemic.

They have not seen a data needs analysis for pandemic flu.

GIS within the EH division is more narrowly focused on drinking water program.

Do have infrastructure for making resources available for the rest of the department. Have all pieces they need to do the work, but they need the direction. EH program could be used as a consultant—for using GIS server/different tools they might need. DW staff could also be used as consultants to help recruit the appropriate personnel to do GIS work (map data sets).

Data collection for pandemic: unless someone could bring in data sets, GIS wouldn't be useful at all. Master plan would be critical for managing data collection (storing data/manage where data comes from—critical part for GIS).

Don't really do anything with West Nile virus.

Assessments are required by congress for large public water supplies; as it relates to security, reports are not available to EH.

Do surveillance activities around well houses.

Surface water based systems—2 dozen communities rely on surface water for their drinking water—larger communities (Duluth, Mpls); Currently, there is no formal program for developing and implementing source water protection plans for communities that use surface water.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Use Oracle Unix run on Sun

Have 2 (one inside firewall, one outside firewall)

Have ArcInfo; ArcView

Will be moving to ArcGIS server

Collect data sets on potential sources of contamination to public water supplies. Collect data on





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public wells; collect land information, etc. as a part of data sets.

Developed coverage to show where public water supply wells are; required by EPA (done for 10 years); all new public supply wells, etc. (obtain spatial coordinates for this—monitor data/water quality data; contamination sources near those wells.)

Use mapping for showing spatial coordinates.

Have populations that are served by a particular water supply system. Determine size of public water supply system. Collected this data every couple of years via sanitary surveys.

Collect information on the number of hookups to an individual water supply.

Part 3—Description of any provided documents

None

Part 4—User requirements and “wish list”

They would like to do real-time data collection in the field for analyzing field data on the fly.

Wireless tablets for using in the field could help with this. Real time data acquisition would be beneficial when they have to respond to an incident such as a flood or if contamination of part of a community water supply distribution system is detected. Would want to get outbreak/disease information back from the MDH on the fly while in the field.

More staff to do GIS—infectious disease will need more GIS staff. Decision making at program/section level will require an understanding of how to use GIS for decision making.

A data needs analysis will need to be performed with respect to pandemic flu needs. It would be good for them to consider the spatial components/information they would need and how they would want to display it.

Mass training for general staff that are going to need to use capability; build up ability for using GIS software—may be a steep learning curve.

Data should be accessible at one place so that all people that need to access this can do it.

Would be interested to know where poultry farms; contaminants you can’t treat—feed lots, etc. Would want to know where these potential contamination sources are.

Part 5—Systems or other developments anticipated between 2007 and 2010





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Want to integrate a lot of different data sets into a geographically referenced dataset.
 Geo database for pandemic—combine all data sets.
 Have various computer programs that simulate ground water flow; geometric shapes stored in GIS (if there is an area with a lot of groundwater flow models, take advantage of all of these and create a new model using these older models).
 Moving ahead to do this in public water supply program.

Part 6—Additional comments or information

Priority types of data need to be determined.
 Modeling methods for looking at how bad outbreak could be—add these types of capabilities (model capabilities) to anticipate how bad a situation could be. Overall needs assessment for dealing with a pandemic—what are the data needs required—what is the format that data will need to be provided to provide a benefit to users.
 What is the purpose; what type of information is needed; what QA methods need to be in place; what type of training is required? All of these questions need to be considered.
 Drills—desktop drills are done with respect to interruption of the water supplies. Mechanics of chemical spill or chemical failure. EH division has staff involved with drills; relative to drinking water program—there is some experience with drills.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 29, 2007
Organization represented	Minnesota Department of Health
STC interviewers	Holly Scholl
GDA PM staff	





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
present			
Status	Draft: x	Reviewed:	Final:
Individuals in Meeting			
Name	Title	Telephone	E-mail
Toby McAdams	Office of Emergency Preparedness Webmaster	651-201-5730	toby.mcadams@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Used to work with Infectious Disease Division; has been working on a web perspective on pandemic for about 3 years; working on external web and intranet site for an internal perspective surrounding pandemic.</p> <p>Has spent time doing GIS work with the DNR.</p> <p>Recently trying to incorporate GIS into different infectious disease programs going on.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
<p>Limited resources surrounding GIS.</p> <p>6-8 licenses in entire Infectious Disease Division; unsure of how many are at OEP.</p> <p>Not a lot of infrastructure to train users on how to use GIS.</p> <p>Using ArcGIS.</p> <p>GIS projects at MNDH are starting from scratch; nothing is really set up in advance; have to get all layers set up. At DNR, layers were already set up.</p> <p>Main repository for GIS information at MDH is in the Environmental Health section. Have some resources, but it hasn't been hooked up with pandemic. During a pandemic, things are going to</p>			





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be moving fast, and are going to need to be urgent; there is not going to be a lot of time to set something up for using GIS.

Very little time to create maps and little training on how to use the tools.

Toby has worked with Karen Martin on how to use GIS tools with seasonal flu.

Used low tech PowerPoint to show where outbreaks were in the schools; very rudimentary program to show number of outbreaks and where they were in the County.

Worked with epidemiologist's who provided data for infectious disease web page.

AT DNR, most of the work they did was GIS based.

Infectious disease information is tied to people who are moving around. The amount of GIS mapping they can do (for pandemic influenza and other infectious diseases) is small due to the small amount of people it's affecting.

Data are provided from the lab and from other programs.

Seasonal flu—have data from Karen Martin (long term care outbreaks; school outbreaks)

MDH Lab—labs have been sending out a survey each week to get information from labs around the state for culture labs and rapid tests.

Metro Emerging Infections Program—collecting hospital data; but not in real time.

Respiratory Panel program—will be getting key samples tested for a variety of respiratory infections.

Karen Martin—gets an overall rating each week regarding flu (widespread, regional, local, sporadic and no activity).

There aren't any large, formal datasets (accept for hospital EIS program). Small pieces of data here and there, not robust datasets.

People take bits of data they want and put it into a GIS map.

Not a stored set of data that people use for GIS.

At DNR, have Tim Lesch who set up GIS and infrastructure to support GIS. Not the same clear cut need at MN Dept. of Health.

Part 3—Description of any provided documents

None. Documentation may be coming on software specifics.

Part 4—User requirements and "wish list"





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A lot of resources being tracked can be used during a pandemic.

Emergency preparedness tracks a lot of resources to be used during a pandemic (beds, drugs).

Infectious disease department has some people tracking patient admissions. Good for tracking surge capacity and alternate care facilities.

Have a prototype ready for hospital admissions (a line graph) to show where the peak is.

During pandemic, it would be interesting, but don't know if they would get enough real-time data, to look at where the surges are occurring. Not sure that would be sensible piece of information, as it would most likely be retrospective data.

"Pie in the sky" GIS system: GIS infrastructure department-wide to encompass resources, both human and technical resources; networking system to assess current GIS needs across MNDPH and help them get GIS in those different divisions.

Web infrastructure is not bad, people in each group/department that do their own Web support. Infrastructure specific to each department that could be interfaced with existing technology in each department.

Use central resources, central training, and central coordination, but keep it available throughout the departments.

Utilize the State agency—much larger network and a knowledge of resources and datasets available, both on state and regional/local level.

Wants to see interface between GIS products and what can go into other applications; potential for putting in maps that move or PDF maps; see what kinds of choices there would be with web-interface. Would like something that would be easy to use and easy to access.

Part 5—Systems or other developments anticipated between 2007 and 2010

Moving to content management system (will change how they post things); unsure of when exactly this will be happening.

3 different web environments; internal; external; password protected Workspace (will all be changing); not sure how, but on the table for the next couple of years.

Part 6—Additional comments or information

Worked through a number of seasonal flu emergencies. Vaccine shortage from 2004-2005 pulled



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out at beginning of flu season and number of flu shots was down 40 percent. Did mapping to show which counties had met their needs with vaccine; identified the need; tool helped staff try to reallocate vaccine throughout the state.

Created survey tools and are collecting more data from local public health agencies on where they ordered from and how many doses they received.

Infrastructure; privacy are concerns.

Want something (GIS technology) set up now versus later so that it's something people are incorporating into their daily work.

Dept. of Agriculture will supply maps to show where there are outbreaks with birds.

OEP is a smaller group and has not done anything significant with GIS.

A lot of priorities that need to have money spent on them, and GIS is not top priority. What they would get from getting a robust GIS system? This needs to be determined in order to get buy-in.

Planning and networking for GIS may be more cost effective at this point.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 24, 2007		
Organization represented	Minnesota Department of Health		
STC interviewers	Holly Scholl		
GDA PM staff present			
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>

Individuals in Meeting





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Name	Title	Telephone	E-mail
Aggie Leitheiser	Director of Emergency Preparedness	651-201-5711	aggie.leitheiser@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Manage the Federal and State funding for emergency preparedness and response activities. Monies are from CDC, DHHS and State funding. Provide leadership guidance about how to do emergency preparedness and responses throughout the Department of Health. Works with environmental health, infectious disease, and labs.</p> <p>Provides technical response for response systems. Also interprets requirements and interfaces with other state requirements on their programs.</p> <p>Major functions and tasks of Emergency Preparedness Dept:</p> <ol style="list-style-type: none"> 1. Partner, alerting and communications 2. Work with workspace (interactive file management); these are typically materials that are less public. 3. Education exercises and planning unit (coordinating all hazards plan for department; planning effort; exercise component to lead and assist others who are developing exercises; education---coordinating with healthcare systems and hospitals and universities for educating them on how to respond in an emergency. 4. Healthcare systems preparedness—interacting directly with hospitals; organized into 8 regions and have developed plans for dealing with surges of patients; behavioral health component; emergency medical services connected with that; MNTrac system quickly tracks available hospital beds in the State. MNTrac system has GIS component, but it is in the beginning stages. 5. Program of volunteers called MN Response (over 4000 volunteers who will act in an emergency); maintain database and ability to reach people 6. Public Health Preparedness consultants do technical consulting and assistance with public health, but also reach out to police officers, emergency responders. 7. Resource Management and Tracking unit: SNS program (ability to rapidly receive materials and track them—has used GIS capacity to identify locations of units and modes of travel). 			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

8. Cities Readiness Initiative
9. Grants to local public health and hospital regions—have staff manage activities and expenditures. Last year they received monies for antivirals; will get more money this year for additional antivirals, but they don't have the expertise with inventory and warehouse management. GIS would help this.
10. During an event, this department helps staff and support agencies' response.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Several large databases that are not integrated, but contain different sets of data:

MN Response: Database of volunteers (would be nice to have GIS capabilities to show a map of their locations). The database includes locations and contact information of volunteers. Image Trend (out of Lakeville)—thinks this is the vendor for this software.

MNTrac: Database that provides tracking of healthcare resources. Have real time data on number of staff available, available beds, and other resources. Database has ability to tell them in real time the surge capacity (beds that could be made available in 24-48 hours) according to facility. Another piece is connected directly to Emergency Medical System—states if equipment is not functioning—connected to emergency rooms and ambulances. System will also indicate if beds are full. There is also an instant messaging component. System will be rolling out tracking of resources (how many ventilators; syringes; doses of medications) component. Basically, the database tells people what are the things they need to know in an emergency. Want to expand to other parts of healthcare system (now, only assoc. with hospitals). Image Trend is the software vendor for this application.

MN Train: Includes components to support training around emergency preparedness. Can track what classes a person has taken. Employers can track and look at classes their employee's have taken. Not GIS connected at all. Just being populated now. Public Health foundation is the vendor.

SAM (SNS Asset Management System): This application is just starting to be used; concerned about the robustness—too complicated; not user friendly. The Feds (CDC) requires Emergency Preparedness to track SNS push packages from the first and second staging areas (from when it arrives in MN and is sent to staging areas, and then when it is packaged and sent to regional facilities). Emergency Preparedness wants to track push packages from regional facility to where it is going to be used. Want to track how many syringes they have used; how many they need; who can order them; who can authorize them; who can pick materials; who packages the materials. Want to know where they sent push packages and other activities surrounding them. Want to see if MNTrac can help with this.

Also, if a box of syringes is sent to the hospitals, how is the patient charged? What is the price of





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

syringe, ventilator, and other materials? Should they track materials going with provider to state, and do they commingle it with other supplies and should they track to patient.

For vaccines and other supplies, Feds are requiring demographics of patients getting vaccines and supplies. Their Immunization Registry has some inventory capabilities, but they are trying to research capacity of this.

Workspace: Alerting and notification system—every local PH agency, hospital, other response partners—have info on where they work, home number, email, fax, work number, pager, cell. Can contact in number of ways—email, auto-call.

Part 3—Description of any provided documents

None

Part 4—User requirements and “wish list”

Don't have a lot of depth and knowledge of GIS, but an appreciation for what it can do. With any sort of GIS module, they want something that is intuitive, easy to use.

For pandemic influenza in terms of response, have responsibilities in Federal and State stockpile and resources. Should they store them centrally, or in several locations, and if so, where? When things start to happen, how do they understand where to rapidly ship resources?

To have GIS as part of data input would be extremely helpful.

Have expectations that they will be getting vaccine at some point. Would be getting 10k doses per week. Are there pockets of population, is it connected to where they have seen the most or the fewest cases. Put different resources in places where there are the most deaths, most risk? Again, GIS could help determine where vaccines get distributed according to need.

Some capacity in tracking system for GIS—standalone GIS capacity for the resources out there—clinics, dental offices—where they are located and information on what is there.

Would need a system that would help them interpret need.

People Needs:

Tracking care---when there are lots of people who are sick, being able to see where they are would help them to see if they need to open alternate care sites and where they should be. The worry is that although sites are in place, the need may have been underestimated and they may be in the wrong place.





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Gunflint fire—one of regional people involved in the response, but it would have been great to know where people affected were located on the trail and where they went to. Understanding how people behave in an event is critical for improving response activities. Same with ground valley flood. Would help to know where the surges of people go in a disaster event.

If pandemic comes---they want to go to the “cabin,” but there is not a capacity to respond if people do that as cabins are in remote locations. Would want to see how this could be tracked. Small towns may have a surge in patients and may not be able to serve them properly.

Work with mortuary science program in managing the dead—work with morticians in the state. Developed mobile morgue system where folks are able to respond—manage, identify individuals who have passed in an emergency—variety of tools to identify people quickly. It would be interesting to be able to track where people are from depending on the kind of event it is. Particularly with infectious disease—what death rate looks like compared to illness rate.

Environmental health---assess vulnerabilities—chemical factories; railroads; where are the hazards in the community.

With Emergency Preparedness, they ask where the resources are—things like providers; ambulances.

Part 5—Systems or other developments anticipated between 2007 and 2010

Yes, but is not aware of what they would be.

Driven by the Feds; Feds are sending maps or system for special, vulnerable populations, with census data (using 2000 census data, which may be out dated).

Increasing need to understand healthcare systems’ resources. Want to plan for surge capacity (pandemic flu planning). Have done planning on a smaller scale (plane crash, chemical spill, school bus accident). Ability to rapidly distribute medications or vaccines will be pushed.

Are looking into getting more information about volunteers and training—will be asked by users and by Feds for more information. Information about volunteers and their training is maintained in two separate systems; also, hospitals may need volunteers, but hospitals do not have volunteer information on their system. Would like an interface with all major systems discussed in Part 1.

Would like information on performance measures—how do they know if they are prepared (in activities and capacity). Emergency Preparedness should be able to share information with LPH quickly, in a protected manner.

Part 6—Additional comments or information



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Unsure of Disaster LAN and how it will be used and how it will be dispersed across the state. Want to know how they will use this routinely.

1. Staffing questions---amount of resources; is the skill set there? Are there concerns regarding quantity and availability during a disaster or emergency situation? What about training needs?

Concerned about this in a pandemic; expecting federal budget cuts; 10 or more percent. In an event, they will be struggling to maintain communication component and departments' response activities; and patient care coordination. Are they triaging and managing scarce resources properly? Working on a decision tree to help with this (if there is one ventilator, who does go to, for example).

2. Would you like to interface with any other departments? What are your interface needs?

DHS is a huge service provider and a lot of what they do is associated with what Emerg. Preparedness does.

Corrections (residents move in and out of healthcare system to extent that they would be expected to use healthcare resources, or would they be self-sustaining).

Department of Transportation: move materials around state; making sure roads are open.

National Guard would provide transport to mobile morgue. Huge partners in supporting emergency preparedness activities

DNR—people they would call to help them manage resources. Have trucks and would help with security/transport.

Carrier services and others in private sector to distribute materials.

Lab services

Governor's office: do you close schools/facilities? Huge part will be preventing exposure; this would require decision as to whether or not schools should be closed? Then do they close malls, etc? Do they close and when should they open?

Court system—don't know if they would need this—isolation and quarantine?

DOER—personnel

Dept. of Administration—being able to purchase things.





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3. Are you currently interfacing with any other departments?

Talking a lot of DHS around issue of payment and reimbursement. Who pays bills for bringing in patients? Do you charge insurance? What does it cost to run an alternate staffing facility?

Talking to DNR and National Guard.

Republican National Convention is helping with bringing folks together.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 24, 2007
Organization represented	Minnesota Department of Health, Information Systems and Technology Division
STC interviewers	Holly Scholl
GDA PM staff present	
Status	Draft: <input checked="" type="checkbox"/> Reviewed: <input type="checkbox"/> Final: <input type="checkbox"/>

Individuals in Meeting

Name	Title	Telephone	E-mail
Barb Hearley	Operations Director	651-201-5030	barb.hearley@health.state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement





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Part 2—Description of current GIS and IT environment (inventory of data sets)

Sun Solaris Unix Boxes with Oracle 10g
File and print—mostly on Novel with group wise email
Applications—Java and Cold Fusion
Visual FoxPro, Access, Excel
Pandemic flu is on web servers (Oracle database with Java front end).
Not using GIS centrally; Environmental health is using GIS for wells and water contamination. Using ArcView. Not doing a lot of GIS in the Dept. of Health
Some divisions would like to do GIS. The main question is how it would be provided--centrally at MDH, or would environmental health continue to provide it and other offices contract through them?
Concern with ArcView product is that it does not seem to work well with other applications. Concerns with working with virus software. Security issues (don't want users to have administrative rights on their machines).
Back up to tape within the division—may not be backing up at all.

Part 3—Description of any provided documents

None at this point.

Part 4—User requirements and “wish list”

There aren't a lot of wish list items as they are not that far along in their process.
If anything, additional resources are needed if a pandemic were to occur. Too little staff to be able to provide access to data they need if some staff is out as a result of pandemic.

Part 5—Systems or other developments anticipated between 2007 and 2010

Couple of divisions have asked to be able to produce maps of sites where they have done work.





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GIS should be central to Dept. of Health or come over to OAT and do it here. This will save money and resources to do this at one location.

Part 6—Additional comments or information

Have enough storage space.

When ArcView was being used, there would be a lot of log files and they never got cleaned up; some kind of policy would be needed for how datasets are backed up or how long they are kept in order to conserve space.

Some of data is on servers; put together plans saying if 1/3 of staff is out in the case of a pandemic, there would not be enough staff to keep the systems up and running and the data available.

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Date	May 31, 2007		
Organization represented	Immunization, TB, & International Health Section		
STC interviewers	Holly Scholl		
GDA PM staff present	none		
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>
Individuals in Meeting			
Name	Title	Telephone	E-mail





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Emily Litt	Coordinator, Pandemic Influenza	651-201-5556	emily.litt@health.state.mn.us
Denise Dunn	Pandemic Planning Facilitator		denise.dunn@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>From a planning perspective, would be in the planning cell, possibly in operations cell.</p> <p>Responsible for all pandemic flu planning activities, including surveillance; monitoring/tracking scarce resources; etc.</p> <p>Not currently using GIS tools in the pandemic flu panning division. Currently, they are lacking the infrastructure for utilizing/maintaining GIS.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
<p>Not keepers of datasets; do overarching planning for response/planning.</p> <p>Content areas and technical leads have datasets.</p> <p>Mortuary science where mobile morgues are would be another area; crematories; mortuaries.</p> <p>Hospital and healthcare program has all hospitals tracked in MNTrac; includes all supplies and respirators.</p> <p>It would be helpful to track more hospital specifics, such as other caches and supplies of materials.</p> <p>There is not a system currently for tracking PPE in other businesses; it would be helpful to do this.</p> <p>Do use Google maps on occasion.</p>			
Part 3—Description of any provided documents			
None			





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Part 4—User requirements and “wish list”

Any tools that they could have in planning are always helpful; the key is to have the infrastructure in place from both a human and technical resource perspective.

Unless they have infrastructure in department, GIS would not be useful.

Regional planning—would be helpful to track staff.

Regional partners and local partners have a strong role in planning and would have good ideas for how tools could be utilized.

Would want to identify isolation and quarantine sites; could identify where all local public health agencies are; surveillance units.

Would want to interface with Department of Education; HSEM.

Would like to link with School Nurses to get a better understanding of where they are.

Community organizations in general would be helpful to link with—no real database with this information—would be helpful to know special populations they serve.

Would want to know where staff is during an event. Report needs of the community and staff who are closest to that location in an event.

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information

Hennepin County public health is using GIS; it might be good to speak with someone from that agency. Denise to provide contact information for a representative from the County.

Projections of up to 40 percent of work force will be out during a pandemic; do have contingency plan – coordinated through DOER. MDH is doing plan through their human resources.

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GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 30, 2007		
Organization represented	MDH		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: x	Reviewed:	Final:
Individuals in Meeting			
Name	Title	Telephone	E-mail
Jeffrey Shaw	CRI / SNS	651-201-5705	jeff.shaw@health.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>An authorized state representative requests SNS. CDC approves request. A push pack is sent to one of seven regional locations in MN. From there, the packages are pushed to local distribution nodes. Maps were used to identify the locations of the sites. Physical structures with appropriate security were identified. Mapping was done on images, not interactive maps.</p> <p>A CD is also distributed to SNS in MN. The CD is a pipe delimited file of all the materials that are distributed in the push packs. This information is then loaded into SAMS system, which allows SNS to manage materials coming into RSS site; this also helps manage materials for the different regions.</p> <p>Planning is done for stockpile distribution.</p> <p>There are 86 Counties in the State and close to that many local distribution sites.</p> <p>Each county in MN is required to have an SNS plan; counties are responsible for identifying capabilities and capacities in that county; some counties have small populations and a limited amount of resources, and they look to other jurisdictions to get resources where they are lacking.</p>			





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There is a regional farm cache for inventory; there is a limited amount of medications available to be immediately deployed in an event. There aren't many medical devices that are state-owned.

MDH EOC and the state EOC can see who has received drugs from RSS and how much they have.

Dispensing needs estimation software.

Anthrax dispensing needs are well planned, for PI the actual dispensing is not completely understood, particular for prolonged response.

Currently, developing the antiviral distribution plan. Mass mailing through USPS is currently being contemplated. A first objective is to reach 1Mil households via USPS. How many people will be removed by USPS option from the target population of a dispensing site? Coordination of dispensing modes ongoing to optimize distribution and minimize hoarding.

SNS feedback reporting to CDC is underdeveloped. CDC provided recently a SNS capacity assessment toolkit. States are required over summer to complete a first assessment of state and local SNS plans.

Environmental services would probably support response through staffing support.

DisasterLAN may not be open for continued use by MDH.

Snowball, MACC had access to Dlan, but MDH EOC did not initially, but status board was shared into MDH EOC.

MNTrac introduction provided to SNS. Currently, planning for additional functionality to support wider functions of MDH.

Map support is provided by existing maps, census sites, counties -> local map support, statewide not many maps.

Lessons learned from deployment drills: communications is key, unified communication channels, understand where security units are while transporting SNS.

Call down lists exists with technology coming through HAN.

During mass prophylaxis, Triage system asks for known adverse reactions, double label from bottle goes on patient form and bottle.

Part 2—Description of current GIS and IT environment (inventory of data sets)

All inventory is stored in an excel format.

Receive pipe delimited file (on CD) from the CDC that includes materials provided in push packs.





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Using SAMS for managing materials, but will be losing this system as they do not have the infrastructure to support it.

Use BERM Model (created by Cornell University) for computing how much staff you will need at a dispensing site according to the population estimated in that community.

Part 3—Description of any provided documents

Emergency Preparedness Resource Inventory (EPRI) overview document. Developed by AHRQ. Free software program that manages a large amount of information (drugs, resources, etc.). Web-based.

Technical assistance is provided by AHRQ; automated system that is supported to be automatically updated; can also run reports; has a GIS mapping component.

Part 4—User requirements and “wish list”

Would like a system to help manage the challenges of vaccine ordering. The inventory is managed in RSS, but there isn't a system to manage this in the local jurisdictions. Local jurisdictions don't have the money or the human resources to manage their inventory.

Would like a way to track antibiotics via GIS, as well as bed counts; EMT; EMS; etc.

Would like to get a measure of each jurisdiction's capability in a state-wide view. This would also assist the regional SNS plan in identifying which counties have a surplus of resources and which counties are lacking. Real-time information for this is critical.

Want a robust system that can track inventory; shelf life information.

Would like the ability to do population estimates to get an idea of who will be coming to sites. Would also like to take into account the impact of the USPS system for distributing vaccine as well as distributing vaccine to larger companies (e.g. 3M and IBM). Will distributing vaccine in these ways decrease the impact of people going to sites?

Mapping component to understand the status of all responder agencies.

Mapping routes between distribution centers, readiness status and response level indications; security planning at all levels.

Communication of planning ideas to decision support
SNS status system to communicate status

Overall desire is for a robust, integrated system that can do ordering, GIS mapping, all things that





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

they would need, but through one system.

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information, additional contacts

Would like the State to share more information on what they are doing for GIS and other pandemic planning issues. Information is very segmented—little communication.

Not directly working with Environmental Health, but would support them through staffing. If CRI/SNS had a shortage of staff, EH staff would be moved over to help support distribution and dispensing activities.

Familiar with Disaster LAN, although it has not been extended formally to MDH; used status board, message center, call log, but did not see/use GIS component.

Just received an overview of MNTrac. Might want to look into interface with MNTrac and AHRQ system.

Most counties have a robust GIS mapping component.

Would be necessary to work with Mn/DOT to get map routes.

Would want to identify security resources with the State Patrol; U.S. Marshall, Cities, etc.

Will be doing site visits this summer—visit each jurisdiction and measure their response levels; this information/reports will then be mailed to the CDC.

They have been having a difficult time getting local jurisdictions to build SNS plans; there isn't much accountability for the money that has been distributed to local jurisdictions. There should be some sort of performance based scale, or quarterly reports that account for monies being spent on planning initiatives.

9.9 Housing Finance





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 22, 2007		
Organization represented	Minnesota Housing Financing Agency		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: x Reviewed: Final:		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Tonja Orr	Assistant Commissioner for Housing Policy	651-296-9820	tonja.orr@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>HFA provides loans to finance developers of affordable housing. The agency functions as a bank. The agency is managing the repayment process. There are two research staff. The agency issues bonds.</p> <p>Maps are used sometimes. Some research is mapped. Neighborhood studies are conducted for some loan applications. Facilities locations, census data, employment data, and other points of interest are evaluated to derive a value assessment.</p> <p>Ms. Orr supports state legislature and internal policy setting. Maps are used to display funding streams by location, to illustrate where foreclosures are concentrated, homeless locations, etc.</p> <p>No dedicated person currently assigned to pandemic influenza response at the agency. Currently, there is no real-time list of suitable properties according to the MEOP supplement. There is a list of properties that the agency has financed. A list of vacancies can be</p>			





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<p>derived/created by calling the owners. Suitability would be defined as affordability as well as accommodations of households to be placed (bedrooms etc).</p> <p>During Katrina, the agency worked with NGO Housing Link to provide vacancy information online, currently metro area only, but expansion to statewide is planned.</p> <p>DOAg and Federal Housing Agency have also financed affordable housing.</p>
Part 2—Description of current GIS and IT environment (inventory of data sets)
See follow up survey.
Part 3—Description of any provided documents
Part 4—User requirements and “wish list”
<p>Support NGO Housing Link to establish more permanent information infrastructure.</p> <p>Connect information between DOAg and Federal Housing Agency to create a more comprehensive portfolio view.</p>
Part 5—Systems or other developments anticipated between 2007 and 2010
<p>Mortgage purchasing system for first time homebuyers.</p> <p>HDS vendor works on a multi-family underwriting system.</p>
Part 6—Additional comments or information, additional contacts



9.10 Human Services

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	June 4, 2007		
Organization represented	Department of Human Services		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
David Bucher			david.bucher@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>The department uses GIS software for the past two years. David uses maps comparing census data with children services data for the Child Safety and Permanency, guardianships and adoptions.</p> <p>Child welfare reports, presentations, analysis are the main outlets for map products. David uses data from Mn/DOT, census and zip code data from the US Census Bureau, and child demographic and poverty data from KidsCount (Annie E. Casey Foundation). No geocoding (aside from zip code) is necessary for the current uses.</p> <p>Under a project headed by Nancy Doucette, DHS tries to identify pharmacies, emergency sites, through county coalitions. Currently, this is a 1-year project.</p> <p>David uses data and website links from LMIC</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 3—Description of any provided documents	<ul style="list-style-type: none"> ArcGIS ArcView, 2 licenses shared between 5 staff. MapWindow, open-source GIS, by Idaho State University has an embeddable map ActiveX (.ocx) tool. David integrated this into an Access database application for ad-hoc reporting.
Part 4—User requirements and “wish list”	<ul style="list-style-type: none"> Setup of a map repository with basic maps. Training on GIS would be required by users of maps. Incl., locations of child care centers, applicants, community grantee locations, densities. Put maps from Nancy’s project online.
Part 5—Systems or other developments anticipated between 2007 and 2010	<p>New system, SSIS, for adoptions to be rolled out in October 2007. Most current databases will be rolled into this system.</p>
Part 6—Additional comments or information, additional contacts	<p>Melissa Sherlock in adoptions.</p>

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 23, 2007
Organization represented	Department of Human Services, State Operated Service Sites (SOS)
STC interviewers	Holly Scholl





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
GDA PM staff present	none		
Status	Draft:	Reviewed: x	Final: x
Individuals in Meeting			
Name	Title	Telephone	E-mail
Nancy Doucette	Infectious Disease Preparedness Planner	651-431-3019	nancy.doucette@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>State Operated Services (SOS) consists of an array of campus and community-based programs serving people with mental illness, developmental disabilities, chemical dependency and traumatic brain injury. It includes, but is not limited to, regional treatment centers (RTCs) in Anoka, Brainerd, Fergus Falls, St. Peter and Willmar; Ah-Gwah-Ching, the state nursing home in Walker; Community Support Services; and Minnesota State Operated Community Services. SOS Forensic Services serve the entire state and include the Minnesota Security Hospital in St. Peter, the Minnesota Sex Offender Program in Moose Lake and St. Peter and the Minnesota Extended Treatment Options program in Cambridge. SOS also administers the Health Source Clinic, which provides dental services in Cambridge, and the Southern Cities Clinic, which provides dental and psychiatric services in Faribault. In all, there are approximately 120+ sites.</p> <p>Nancy’s role with SOS is specific to pandemic planning. As a whole, DHS has about 7500-7800 employees, pandemic planning for SOS is a small part of what DHS does.</p> <p>SOS sites are semi-secured locations to ensure the safety of clients and patients with mental health or behavioral health concerns. St. Peter, Moose Lake, and Cambridge specifically have forensic-committed patients. Need to connect to each site in order to view resources available at that site. In a pandemic event, it would be necessary to map these locations and have the ability to see what resources are available at each site so that staff knows where the next closest location is for material or human resource assistance. A lot of sites also share the same vendors (i.e.; pharmacy, food providers, etc.), but are not aware of it. If this information is not readily available (or mapped), lists would need to be provided manually to all SOS sites, and it would be up to them to find the site closest to them. This would create a tremendous human resources strain.</p> <p>Would like to connect/interface each SOS site with their regional coordinators from Public Safety, MDH,</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

DNR, etc. Cross references with state, regional, and local resources for their communities. Eventually, would be all hazards plan.

GIS would also be beneficial for coordinating Meals Ready to Eat (MREs) and other bulk storage equipment and supplies. There are 4 sites around the state that store MREs. GIS would provide more specifics—could tell how many packs you have and how many have been designated. Pharmaceuticals have a similar situation, in that St. Peter has the stockpile for all antivirals for all SOS site. They are then distributed to locations that need them. Again, GIS would help determine which sites are running low and which storage sites can supply which non-storage sites.

Would like the ability to track storage sites.

It would also be helpful to track alternate, non-State-owned mental health centers and alternate community health resources (medical, dental, etc.).

Part 2—Description of current GIS and IT environment (inventory of data sets)

Not using GIS currently; ordered it 2 weeks ago, but have not received it yet. Ordered ArcView. Nancy has used Microsoft Map Point through the Red Cross and is aware of its function at the base level. Currently, SOS sites are not stored in a database, but are only in a word document. Thus, there is not way to sort by zip code or provider.

Part 3—Description of any provided documents

None.

Part 4—User requirements and “wish list”

Would like community hospitals included on the list (in GIS maps). SOS cannot handle medical complications—patients would need to be transferred to a hospital if they are having medical problems (heart complications, etc.). Will need access to both community and alternate hospital sites.

It would be valuable to compare how many FTE’s are in a geographical area for providing services to a population of people. This could identify potential pockets of need.

Part 5—Systems or other developments anticipated between 2007 and 2010





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The IT person for SOS is Anna Lattu. May be helpful to speak with her regarding this.
ArcView anticipated soon.

Part 6—Additional comments or information

All SOS sites are using the same DHS server.
IT folks at DHS had no idea what she was talking about when she mentioned GIS. Had never heard of it.
Getting IT support for maintaining GIS would be a challenge.
Would not be putting any information on at the client level (no address information, etc.) Only information at the site and possibly employee level.
Glenn Olson is back-up for many safety & health systems in Human Resources. He will take plan forward (anything with GIS) and will be able to see how far this can go (we will be speaking with him on 5/25).
Child and Family Service person at DHS is experienced with GIS; would be helpful to speak with him. Nancy to provide name and contact information for this individual. Dave Bucher in Child Safety & Permanency division.
DOER may choose to put how they distribute employees. For instance, there are ten 16 bed hospitals for critical mental health patients. DOER is responsible for saying folks could be re-deployed. Resources are typically pulled from SOS if there is a shortage of staff at any SOS locations.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 25, 2007
Organization represented	Minnesota Department of Human Services
STC interviewers	Holly Scholl
GDA PM staff present	none





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>
Individuals in Meeting			
Name	Title	Telephone	E-mail
Glenn Olson	Safety Administrator	651-431-2992	glenn.e.olson@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Works with Radiological Emergency Preparedness—they do GIS mapping already.</p> <p>Glenn’s role is as Safety Administrator for the central office complex (6 buildings in St. Paul).</p> <p>With Radiological Program, he runs reception centers that are set up in case of a radiological event. These are sites that people will go when evacuating if such an incident were to occur.</p> <p>Three reception centers have been set up in the State in Princeton, Rogers, and Cottage Grove.</p> <p>Right now, they are not using GIS maps, other than maps received from Homeland Security/Emergency Management.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
<p>Right now, there are not using any form of a database.</p> <p>For drills and exercises, they do long hand registration and keep paper records. They have not had an actual event, only drills, so the need hasn’t presented itself.</p> <p>They would be working with Disaster LAN in an emergency. DHS has caches of equipment that will be put into the Disaster LAN database. Mapping the caches would be helpful in an event.</p>			
Part 3—Description of any provided documents			
None			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Part 4—User requirements and “wish list”

Would like to know where nearest Red Cross sites are. When people are released, they may be referred to nearest Red Cross.

Would like to be able to register people who come to centers. Would like to create a database of folks who do register; currently, only paper records are taken.

It would be useful to be able to map the population within a 10 mile radius of the plant. They would not evacuate the entire area around a plant, only those individuals who are downwind. It would be helpful to screen people out ahead of time (those who are not affected based on address), as well as map addresses of those who come to the shelter. These addresses can be mapped for tracking purposes, as well as response activities.

Would also like to be able to map animal care facilities, as evacuees are instructed to take animals with them when they evacuate their homes.

Would be useful to know where ambulance centers are.

Would like to interface Emergency Preparedness and Homeland Security---have an interface in real-time. Homeland Security/Emergency Preparedness would then be able to anticipate what areas are being evacuated and send this information immediately to evacuation site/centers.

Plot where car washes are as vehicles need to be washed after an event.

When people are released, they may need to know where hotels/motels are—nearest lodging facilities.

Helpful to track resources/staff so that those who are closest to a site would be contacted first in an event.

County agencies (Hennepin, Milacs, Washington, Dakota, etc.) actually staff centers. It may be helpful to interface with County offices, but unsure of the advantages at this point.

For central office—location of buildings to be mapped.

Ability to plot nearest police and fire stations.

Ability to map location of all sites in case there is a need to relocate.

Ability to plot parking ramps and service lots for employees.

Part 5—Systems or other developments anticipated between 2007 and 2010

No software or hardware at reception centers.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Part 6—Additional comments or information

As of now, have only needed to plan for drills and exercises.
 Have a power plant drill in November in Princeton; drill on October.
 Only a few support hospitals have been trained for these situations and they know the locations of them- not really necessary to have those mapped.

9.11 Labor & Industry

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 22, 2007
Organization represented	Department of Labor and Industry, OSHA
STC interviewers	Reno Fiedler
GDA PM staff present	none
Status	Draft: Reviewed: x Final: x

Individuals in Meeting

Name	Title	Telephone	E-mail
Alden L. Hoffman	OSHA Management Team Director	651-284-5158	alden.hoffman@state.mn.us
Jeff Isakson	Director, OSHA	651-284-5310	jeff.isakson@state.mn.us





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
	Compliance		
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>OSHA regulates and monitors any place where an employer-employee relationship exists. Compliance and enforcement of regulations is the main task. OSHA's mission is to protect the workers. Inspectors use online maps to find locations for inspections.</p> <p>Emergencies: OSHA had a seat on HSEM emergency preparedness planning group. OSHA works with the Building Code group at DLI. OSHA makes recommendations regarding PPE to departments proposing the right equipment, offering guidelines on use, and monitor compliance with guidelines. OSHA will provide testing for contamination, mostly for chemical overexposure.</p> <p>A mock exercise in region 5 revealed some issues around health facilities inspections where influenza patients were located.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
<p>No GIS capacities</p> <p>Database of inspections, including many public and private facilities.</p>			
Part 3—Description of any provided documents			
None			
Part 4—User requirements and “wish list”			
Mapping and publishing of injury related death records and other data sets via maps on website			
Part 5—Systems or other developments anticipated between 2007 and 2010			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
None	
Part 6—Additional comments or information, additional contacts	
None	

9.12 Military Affairs

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	June 26, 2007		
Organization represented	Department of Military Affairs		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: Reviewed: x Final: x		
Individuals in Meeting			
Name	Title	Telephone	E-mail
LTC Chad Sackett	Counterdrug Coordinator Joint Force Headquarters	651-268-8936	chad.sackett@us.army.mil
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

NG is organized under the Joint Forces Headquarters. Guard is a state asset, yet employees and a majority of the equipment are federal.

The Federal mission of the National Guard is to support the President and DoD.

State mission is to support emergency response once the first responder resources are depleted or projected to be depleted and the Governor approves a valid request for support, putting the Guard on State Active Duty (SAD). NG supports all hazard situations. Engagement is in support of lead agencies.

A planning group within the DOMilAffairs is preparing PI specific challenges. Staff reductions due to pandemic impacts are considered. Troop reorganization is contemplated to react to shortenings.

Various units around the state have great GIS resources for environmental monitoring, topographical, and weather.

Online resources, such as Google Earth, are used for many tasks.

Many maps and products come from military systems that are classified which may create a stove pipe situation.

Military strength in planning and ability to adapt the plan may be welcome to civilian agencies. Logistics planning and support is also well developed.

Civil support team has a modeler software for wind plumes and event characteristics.

Intelligence and other groups have software that may be “re-used” for contact tracing (many of the civilian law enforcement agencies also have this software). Some systems are currently classified, but will make the maximum amount possible available in emergency situations.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Currently, there is not dedicated GIS staff in JFHQ. Resources may be pulled from inactive duty staff. Some personnel and resources may be deployed elsewhere. There are always some resources available, staff turn over may be a problem.

The availability of data from military sources for civilian uses depends on circumstances and is not certain. System queries may have to be conducted to identify whether and what data is available to civilian agencies.

Part 3—Description of any provided documents

Part 4—User requirements and “wish list”





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
<p>JFHQ would benefit from a dedicated GIS resource to support mission assessments. Interoperability between systems may need to be enhanced. Too much stovepipe architecture exists.</p>	
<p>Part 5—Systems or other developments anticipated between 2007 and 2010</p>	
<p>ArcGIS software planned for JOC. Field tools are planned also.</p>	
<p>Part 6—Additional comments or information, additional contacts</p>	
<p>LTC Eric Waage, Chief of Interagency Operations, (651) 268-8957</p>	

9.13 Natural Resources

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 21, 2007
Organization represented	Department of Natural Resources
STC interviewers	Reno Fiedler
GDA PM staff present	None
Status	Draft: Reviewed: x Final: x
<p>Individuals in Meeting</p>	





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Name	Title	Telephone	E-mail
Terry Lahti	Safety Administrator	651-297-3650	terry.lahti@dnr.state.mn.us
Nancy Spooner-Mueller	Pandemic Plan Coordinator		
Tim Loesch	MNDNR GIS Manager	651-259-5475	tim.loesch@state.mn.us
Michelle Carstensen Powell	Wildlife Health Program Coordinator	651-296-2663	michelle.powell@dnr.state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

DNR is a major department of the government of Minnesota with 4000 staff. DNR performs functions in Fish and Wildlife, Ecological Services, Parks, Trails & Waterways, Enforcement, Forestry, Lands and Minerals, Waters, Wildfire, and others.

With respect to pandemic and HPAI preparedness, DNR is responsible for wildlife surveillance and management. DNR participates in surveillance on live bird as part of USDA coordinated nationwide effort. It tracks morbidity/mortality, with anything larger than cluster of five.

DNR supports the response of the Department of Agriculture to an HPAI event by closing areas, identifying game farms, and identifying potential habitat. DNR personnel are experienced in handling birds. DOAg or BAH would alert DNR to outbreaks in domestic animals.

GIS is used extensively in DNR. Sample uses include: proximity site analysis, field data collection, communication to other parties, server through UOFM web services, recreation compass application, WMA sites.

DNR has a dedicated EOC which could be activated while supporting state facilities. The 200 DNR enforcement officers would be available to provide support to local government and response efforts.

DNR staff will support facilities that are exposed to weather conditions to maintain their operations.

With respect to Social distancing, the use of parks has been contemplated but remains an open discussion. Park sites could be used to coordinate local volunteers.

DNR GIS staff familiar with Minnesota Incident and Command System and are part of overhead



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

teams.

Part 2—Description of current GIS and IT environment (inventory of data sets)

DNR's IT and GIS capacities feature:

- WAN to 70 sites with high speed connections from center in MSP
- 160 sites total but not all high speed
- About 300 different GIS layers in GDB, 200GB
- WAN not strong enough for centralized access
- All 70 offices get mirror, mirrored every week, local server stores copy
- DRS Builder tool creates a complete data package for the non-high speed sites and for laptop users
- ArcView 3.3, ArcGIS 9.2, LandView
- 4 support staff, 4 technical staff for infrastructure
- Everything has metadata, the system is driven by meta data
- Provide project support to subject matter experts
- Two non-DNR remote sites, Ag, Board of Water and Soils
- Data is organized into user data and managed data
- Some satellite imagery, not 7band
- OET and internal system infrastructure unit (internal network group) provide network uptime
- ArcPad is planned for div of forestry, currently under development
- Pendragon allows for point data collection, data entry capabilities, allows for push technology of forms
- 45 basic handheld devices, USDA may provide new devices, more devices are out there
- Federated data core with central data warehouse in DNR,
- 160 conservation officers, all with laptops and DSR user data base, GPS and LandView software
- Oracle DB, shape files, some SDE
- Firewise program to manage human wildfire interfaces, has interface for emergencies and disasters, has lots of data layers currently actively updated by Fire Marshalls etc, very real time, people can add data through interactive map
- ID tags are on each piece of equipment with a home location, but moving not recorded

Part 3—Description of any provided documents





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Part 4—User requirements and “wish list”

DNR would like to see the development of a centralized generally accessible parcel land ownership data set (farm services has data for ag, but sharing is not easily forthcoming, counties may have it but no concerted effort to unify other than in metro area)
 Skill set database to find staff, resources, materials for PI support, equipment lists exist but not where

Part 5—Systems or other developments anticipated between 2007 and 2010

Major enhancement to modernize Land Records System within the DNR

Part 6—Additional comments or information

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	June 4, 2007
Organization represented	Department of Natural Resources
STC interviewers	Reno Fiedler
GDA PM staff present	none
Status	Draft: Reviewed: x Final: x

Individuals in Meeting





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Name	Title	Telephone	E-mail
William Glesener	Firewise Community Specialist	218-755-4420	bill.glesener@dnr.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Title: Critical Infrastructure Assessment Protocol Database</p> <p>Purpose: To efficiently organize and assess statewide infrastructure in the event of a natural hazard, wildfire, or other event of significance that may require the use of emergency services. Capturing of points is done by volunteers in the respective fields. For example, a local fire jurisdiction may provide residential structure locations, while the State's Weights and Measures unit is providing information on Fueling Facilities. Currently, all of the fire halls in the state have been accurately mapped and entered into the system, as well as over 100,000 residential structures.</p> <p>Future modifications: We have asked to have Density surface modeling capability as well as spatial search by radius and vector to be a feature on the site. We currently have *.shp file download capability of the database (at the Administrator level) for use of the information during an incident. We would like to have a power-provider user level for the GIS specialists to download the appropriate datasets.</p> <p>CIAP Jmaps is a java client, Oracle Spatial backend mapping and data capture solution. It is currently not a service akin to ESRI's services. "zip and ship" function to download data into shape files.</p> <p>Current use is primarily for fire fighting efforts.</p> <p>Main users are Weights and Measures for gas stations, LMIC wind turbine data, county data.</p> <p>DNR recreation compass is similar product for public use. This is a one-way data presentation server.</p> <p>Data requests by federal agencies have been fulfilled in the past.</p> <p>SNS folks have looked at this resource to plan for distribution.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 3—Description of any provided documents	
Part 4—User requirements and “wish list”	
<ul style="list-style-type: none"> Possibly capture E911 data directly. Addition of density service model Create a better method for meta data production, e.g., floating field data treatment Expand into plume modeling, parameterized proximity searches 	
Part 5—Systems or other developments anticipated between 2007 and 2010	
Part 6—Additional comments or information, additional contacts	
<p>Olin Phillips, Ron Stoffel may be good contacts for additional information on the incident teams. Gene Mannelin, is a rural fire program coordinator and incident command coordinator, specifically with SNS. (218.327.4373)</p>	

9.14 Office of Enterprise Technology

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 25, 2007
Organization represented	Office of Enterprise Technology





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
STC interviewers	Reno Fiedler		
GDA PM staff present	None		
Status	Draft:	Reviewed: x	Final: x
Individuals in Meeting			
Name	Title	Telephone	E-mail
Siri Johnson	Business Continuity Team Lead	651-201-1147	siri.johnson@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>OET provides, among other items the following services: Network (voice, video, data – for state agencies and MNSCU), telephone (VOIP, copper), email, web services, planning and consulting, security service, application hosting, equipment hosting, backup services, continuity of operations planning.</p> <p>OET hosts some user centric system, including DHS, HR, and others.</p> <p>OET hosts and services equipment for many state agencies.</p> <p>OET as 350+ staff, organized in three shifts for 24/7 availability.</p> <p>There is an emergency power backup system.</p> <p>The network covers the entire state, airport connectivity is not certain.</p> <p>Pandemic Support:</p> <p>LMIC wants to bring map servers supporting DLAN to OET to include in backup and redundancy setup of OET.</p> <p>OET provides LDRPS software for COOP plans of all agencies (see www.strohl.com).</p> <p>50-60% of larger state agencies use it so far, including DOER, Finance, Admin, MDH, OET, DNR, PCA, MDE and others.</p> <p>OET created policies and standards for planning – July 1 will be effective date for agency adoption.</p> <p>There is enough network bandwidth available for state staff to work remotely. ISP vendors may be bottle neck for some staff. North Star (state website) runs at a peak load of 8% of capacity. It has</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

been load tested for capacity of about 9x our current max load before performance becomes noticeably slower.

Most OET services are priority 1 and 2. Excess capacities could be offered up to departments. OET supports employee hotlines for calling in or receiving announcements, includes families. Red Cross has service for found people, OET would piggy back Agencies must plan ahead for additional capacities, such as hotlines planned for by other departments using OET infrastructure. SEOC has up to 100 (?) lines for hotlines, MDH has capacities also.

Part 2—Description of current GIS and IT environment (inventory of data sets)

OET supports all three major frameworks (java, MS, open source)
A Sybase system holds all key OET data on infrastructure and utilization.

Part 3—Description of any provided documents

OET was asked to kindly provide a list of priority services.

Part 4—User requirements and “wish list”

OET would like to establish a true picture of the enterprise network using GIS, which should be available in DLan for SEOC purposes. It should include information on state building locations, ownership, landlords, network accessibility by location, employee locations.

OET would like to see the development/implementation of a unified communication system for employees. Currently there are call trees and an alert system exist. However, a standard approach for state employee communications is needed.

OET would favor additional command centers throughout MN. The existing SEOC and alternate SEOC are for a specific use. MDH has one. Most state agencies don't have their own EOCs for emergency operation support. Those centers should feature specific software and HW: LDRPS, internet, office applications, network software.

Part 5—Systems or other developments anticipated between 2007 and 2010

Enterprise email consolidation project to unify all mail serving not just all routing.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Part 6—Additional comments or information, additional contacts

GIS training has not been considered yet.
 OET has not been involved in planning for quarantine locations (information network setup uncertain).
 Airport connectivity uncertain.
 Republican Convention may be test environment for coordinating federal and state networks.

9.15 Pollution Control

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	June 11, 2007
Organization represented	Pollution Control Agency
STC interviewers	Reno Fiedler
GDA PM staff present	none
Status	Draft: Reviewed: x Final: x

Individuals in Meeting

Name	Title	Telephone	E-mail
Stephen Lee	Supervisor, Emergency Response Team	651-297-8610	stephen.lee@pca.state.mn.us





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

PCA would provide support and advice on disposal and regulations regarding disposal. If Agriculture or BAH or HSEM or MDH anticipate making requests for support or expect specific physical tasks of PCA a full description of those desired tasks or support should be provided to MPCA in advance to guide preparation efforts at PCA to deliver the expected services. PCA keeps records of inspection and permitting inspections landfills, garbage incinerators, waste management sites, composting, waste water treatment plants, power plants, auto body shops, etc. Those inspections would not routinely contain information about wastes from pandemic or avian flu. Maps are used often at PCA. There are about 50 IT folks, most of all 800 staff of PCA works with maps on a regular with maps. PCA does not typically execute disposal, it is a regulatory agency that oversees and regulates disposal of wastes done by the waste generator, at facilities it also oversees and regulates. PCA has been involved in many exercises, primarily hazardous substance and terror related (not in Snowball3). Common tasks in exercises is providing advice on regulations and proper disposal of waste, to be done by others.

Carcass Disposal

As an example of information that would be needed, the primary response agencies (Ag and BAH) would need to provide characteristics of required disposal, such as temperature necessary for pathogen destruction, whether off-site transport was possible, viability of pathogen underground, possibility of human transmission, etc. This would be the initiating step for getting MPCA involvement. List of sanitary land fills, garbage incinerators, and other facilities are available. Their deployment depends on the parameters of the initial request. Their involvement also depends on the owner/operator of each facility, since MPCA cannot compel disposal at any particular place. Proposals for disposal will be reviewed and regulatory advice will be given during an event.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Inspection database is based on Oracle. Developed by internal IT department.
ArcView is used throughout the agency.

Part 3—Description of any provided documents





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 4—User requirements and “wish list”	
<ul style="list-style-type: none"> • BAH, DNR, HSEM would have to provide specific information as to what tasks and support they would like provided by PCA for HPAI and PI. • If MPCA advice regarding disposal at specific farm sites is desired, then detailed soil and water condition data layers will be necessary 	
Part 5—Systems or other developments anticipated between 2007 and 2010	
Part 6—Additional comments or information, additional contacts	
Contact Mr. Holck for PI role of PCA.	

9.16 Public Safety

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 31, 2007
Organization represented	Minnesota Department of Public Safety; State Highway Patrol
STC interviewers	Holly Scholl, Reno Fiedler
GDA PM staff present	none
Status	Draft: <input checked="" type="checkbox"/> Reviewed: <input type="checkbox"/> Final: <input type="checkbox"/>





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Individuals in Meeting

Name	Title	Telephone	E-mail
Captain Tom Fraser	Captain; RNC Coordinator	651-282-5432	tom.fraser@state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

Highway Patrol has full state police function with approx. 500 officers/staff. There are 11 districts. Services provided include road services, accident reconstruction, training, radio communication centers (TOCC joint with Mn/DOT), etc. All officers have take-home cars which allow for fast deployment anywhere in MN. Several examples of fast deployment during emergencies have demonstrated this unique capability among police agencies in MN. Officers provide support do not take over situation. 8 hour notice will allow the deployment of up to 250 officers.

11 districts (2 are metro-east and west) 140-150 people assigned to metro road duty. 200 troops who are generally available in a metro environment.

8000 cops in entire state. Most of sheriff's and police departments have 400-500 people or less.

Hwy patrol able to step in and help if resources are needed in disaster areas (tornados, pandemic, etc.). Have the power to bring these resources in.

Part 2—Description of current GIS and IT environment (inventory of data sets)

All cars have an i-mobile system with mapping functions. Intelligent geocoding integrated. IT is provided internally. Car locations, directions, speed, status, etc are real-time. I-Mobile system is shared by Mn/DOT, Highway Patrol, DNR, smaller divisions of DCA, Tobacco, commissioner's office, governor.

Real time data; can see where cars are; how close they are to a call; anybody on I-Mobile system can be kept track of at all time.

Entire state patrol using I-Mobile; Mn/DOT is moving towards it.

Mn/DOT provides maps where they can map accident locations.

Certain locations don't need maps (just inherent).

I-Mobile are laptops in the cars; unsure how you can search it; but numbers/dates/times/event type can





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

be searched in system. In car, have laptop computers; system they operate on is I-Mobile; integrated with computer dispatch system; events are created in there and records of all different events and clearance codes (assistance given, vehicle impounded, etc.) are in there. Can search by code and time frame, but not by location.

Every trooper has to update yearly emergency contact information which is recorded at headquarters.

No maps created by Highway Patrol. Mn/DOT creates maps from accident records. HP does not have an integrated record management system.

Cars have laptop computers that are integrated into CAD. All events are recorded in the CAD center. Mn/DOT funded radio structure along with the CAD technology solution.

Stockpile security services will be provided during deployment on short notice. Transport from border to regional distribution nodes. Locals will take over from there. MDH has routing planned out in extensive documents.

Part 3—Description of any provided documents

Pandemic Survey from MDH (Minneapolis DH?) to Highway Patrol
COOP plan provided to MDH (Minneapolis DH?), not in DPRS.

Part 4—User requirements and “wish list”

Part 5—Systems or other developments anticipated between 2007 and 2010

800 megahertz system; coming.
Less radio operability since before 911.

Don't have an integrated maps system; will be implementing this fall the accident report module. RMS system is in infancy.

Part 6—Additional comments or information

Involved with securing national stockpile. Getting it to RSS sites and regional distribution nodes; handle this in the initial step one in the short notice.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Their job in SNS is to secure and transport it to regional distribution centers; local law enforcement is responsible for taking it over from there.

Technology/logistical support: they will provide immediate transport and security until it gets to locals— locals will then be involved with security.

USPS will suspend mail; all carriers will dispense prophylaxis with an armed police officer along as an escort.

Cannot contract troopers out; may be able to bring retirees to do dispatch work, but they have to be retired dispatchers. Don't have a good plan for what to do if they lose people in an event; can't really replace them; will have to work with less staff.

Every year, for each individual district, every trooper has to update address, dependent information. Every county/local org. has troopers written into county plan with dependents/wives as 1st tier of who needs to get taken care of first in an emergency.

Would have access to census data. Would have representative there at all times. Unsure if staff is trained or has knowledge of Disaster LAN.

Captain Craig Hendrickson (to provide technical information). He is a trooper; all the rest of IT staff are civilians who work for him. Hendrickson is inside Hwy Patrol.

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 24, 2007		
Organization represented	State Fire Marshall		
STC interviewers	Reno Fiedler		
GDA PM staff present	none		
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>

Individuals in Meeting





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Name	Title	Telephone	E-mail
Bob Dahm	Fire Marshall		
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>The Fire Marshall's office conducts and assists on demand in fire investigations across the state. A fire investigation truck facilitates this function.</p> <p>The Fire Marshall's office conducts fire inspections of public buildings, health care facilities, schools, etc.</p> <p>The information about the location of these facilities is provided by the respective agencies overseeing them.</p> <p>The fire response system is a district, county, and municipal function. The implementation may or may not be a hybrid of EMS and fire. Private entities provide fire services in some constituencies.</p> <p>During a pandemic emergency, services will be focused and reduced as may be necessary due to reduced staff.</p>			
Part 2—Description of current GIS and IT environment (inventory of data sets)			
<p>Currently there is no GIS function available in the agency.</p> <p>The agency collects inspection data and maintains a database.</p>			
Part 3—Description of any provided documents			
None			
Part 4—User requirements and "wish list"			
<p>It may be interesting to plot locations of arson fires, along with hotels, schools, etc.</p> <p>It may be interesting to plot district and staff location information.</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 5—Systems or other developments anticipated between 2007 and 2010	
None	
Part 6—Additional comments or information, additional contacts	
None	

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 18, 2007		
Organization represented	Homeland Security and Emergency Management		
STC interviewers	Reno Fiedler		
GDA PM staff present	David Arbeit, John Hoshal		
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>
Individuals in Meeting			
Name	Title	Telephone	E-mail
Kris Eide	Director, HSEM	651-201-7404	kris.eide@state.mn.us
Onalee Grady-Erickson	HSEM	651-201-7438	onalee.grady-erickson@state.mn.us





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Bill French	OTSS, DPS		
Kari Goldz	HSEM		
Bill McNally	HSEM		
Kevin C. Leuer	Director of Preparedness Branch, HSEM	651-201-7406	kevin.leuer@state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

HSEM's approach to emergency response is to perform coordinating functions, provide secure and enabled facilities, and response leadership. It relies on other departments to provide technical and subject matter leadership.

HSEM hosts the SEOC which is equipped with the standard technologies to enable operations, e.g., media communication rooms, planning rooms, network infrastructure, operations command and control software (DisasterLAN), hotline facilities, etc.

LMIC hosts the map server component of DisasterLAN. The server is planned to move to OET. New hardware has been acquired and is being setup.

HSEM considers LMIC the government resource to provide data expertise, including integration efforts across government departments. HSEM seeks support from LMIC in preparation of data sets for the planning of evacuation routes, identification of critical infrastructure, event zoning, demographic analysis, people concentrations, and in the provision of staff to run GIS operations.

HSEM has identified outbreak response needs to dynamically track case, find vulnerable populations, coordinate the deployment of staff to reach non-English speaking and impaired communities, ensure public safety.

DisasterLAN currently features the seven counties metro GIS data set, a pollution control map data set, and the DOT map data set. To enable DisasterLAN's best use data owners must ensure good data stewardship to keep data accurate, provide timely updates and offer general integrity. HSEM works towards bringing all sources together as an enabling and encouraging force.

HSEM cited the latest Governor's Executive Order identifying LMIC's leadership in the field of GIS. LMIC will, upon request, provide support as able, encourage data reuse, strengthen its infrastructure by using services of OET (data center level 4 facilities possibly) to support the development of a common operating picture. Funding is certainly needed to deliver this functionality.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

HSEM and LMIC support the data collection efforts by federal agencies, specifically with respect to mission critical infrastructure locations such as fire houses and police stations.

Part 2—Description of current GIS and IT environment (inventory of data sets)

DisasterLAN, with map module

Part 3—Description of any provided documents

None

Part 4—User requirements and “wish list”

The response community needs more GIS training.
 Sharing of resources with external partners must be encouraged.
 Resolution of data reliability issues, by capturing daily operational data vs. currently project snap shot data
 Encouragement to adjust data collection habits of agencies to capture ongoing data collection with spatial identifications
 Acquisition of some key commercial data sources to augment capacities within the government
 Data sets identified to be made available for HPAI response:
 Wildlife: migratory bird fly zones, hunting and trapping areas, parks, refugees, land ownership, water features.
 Domestic: poultry production centers, processing facilities, landfills, rendering plants, bird markets, soil composition, water tables, migratory water fowl
 Data sets identified to be made available for pandemic influenza response: care facilities, political divisions, schools, hospitals, ultimate care facilities, SNS (MDH), special venues, TV and radio station coverage areas, airports, daycare centers, morgues, cremation facilities, cemetery, mental health facilities, prisons and jails, red cross locations, shelters, ambulances.

Part 5—Systems or other developments anticipated between 2007 and 2010



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Not discussed

Part 6—Additional comments or information, additional contacts

Guidance to the project: seek out emergency data sharing agreements

DisasterLAN Demonstration:

Bill McNally demonstrated the software to Reno Fiedler and Holly Scholl on May 23, 2007.

Dlan 6.0.2 is provided by Buffalo Computer Graphics. The vendor support is outstanding. The vendor has 26 staff.

The system is ASP based, has a SQL Server database, is installed at OTSS (DPS IT) with network redundancy, server redundancy, and offsite alternate setup. It supports up to 100 concurrent and 1000 total users.

The system is modular with extensive administrator rights to control role-based access by individuals.

The system features a call center (ticket system), internal messaging, dashboard with customizable content, streaming video, weather and other live feeds, phone book, resource management, resource and reference library for incident plans, external resources, weblinks, etc, a non-integrated map module.

Additional modules are planned to be acquired in the near future, including a joint information module.

9.17 Revenue

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 24, 2007
Organization represented	Department of Revenue
STC interviewers	Reno Fiedler
GDA PM staff present	none





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Status	Draft:	Reviewed: x	Final: x
Individuals in Meeting			
Name	Title	Telephone	E-mail
Donna J. Baker	Business Continuation Coordinator	651-556-4001	donna.baker@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>DOR's responsibilities with respect to the MEOP are:</p> <ul style="list-style-type: none"> • Provide materials or representatives at Disaster Recovery Centers to provide guidance to clients about how to fulfill their tax obligation as a result of an avian influenza pandemic outbreak or as requested by the Department of Public Safety, Division of Homeland Security and Emergency Management. • Assist state and local governments and help citizens determine value of losses sustained as a result of an avian influenza outbreak or pandemic. • Assign personnel to assist with the compliance activities associated with the economic stabilization function. <p>Accomplishing DOR's agency functions may be assisted with use of the GIS system more than the MEOP responsibilities would be.</p> <p>DOR hosts large databases for sales tax system, property tax system, income tax system, and other tax types.</p> <p>DOR is a state function that does not have county counterparts. DOR works with the counties to carry our property tax functions. There are approx. 1400 employees.</p> <p>During a pandemic continuing to receive and deposit tax payments is a priority. The computer systems must remain active to support electronic tax filing. There are concerns about banking system outages.</p> <p>Auditors will not conduct field audits during pandemic waves.</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Part 2—Description of current GIS and IT environment (inventory of data sets)	
ArcView GIS system supported by Kent Treichel, identification of tax payers, compliance status	
Part 3—Description of any provided documents	
Please provide a scrubbed copy of the departments COOP plan.	
Part 4—User requirements and “wish list”	
Learn more about GIS and its applications.	
Part 5—Systems or other developments anticipated between 2007 and 2010	
None	
Part 6—Additional comments or information, additional contacts	
None	

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Date	May 22, 2007
Organization represented	Department of Revenue
STC interviewers	Reno Fiedler
GDA PM staff present	none





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Status	Draft:	Reviewed: x	Final: x
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Individuals in Meeting

Name	Title	Telephone	E-mail
Kent Treichel	Research Analyst	651-556-6150	kent.treichel@state.mn.us
Donna Baker	Business Continuation Coordinator	651-556-4001	donna.baker@state.mn.us

Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement

Kent Treichel supports all divisions of the Department of Revenue with GIS services. The extensive databases of the DOR can not easily be shared with other agencies. This would require legislative changes to the department's statutory mandates.

ITR data is geocoded once a year which takes approx. three weeks (2.4Mil records). It is an elaborate process using data reference sets from Teleatlas, USPS, local providers, TIGER/Line data, etc. Yearly comparison shows approx. 15% new records each year. A set of 3Mil unique deliverable addresses has been created over time.

Business Tax system data contains addresses and standardized industry code classifiers. DOR only works on tax level, DEED works on employee level.

DOR creates summary maps of data for legislative support. Any general availability of summary data would have to be reviewed by legal staff. Accepted practices to protect privacy include 4 or more per geographic unit, 100 or more per block group level.

DOR provides geocoding services to LMIC and on a one-time basis to DEED.

DOR relies on Lawrence group data for street data (which will be further processed with USPS data) and LMIC for annexations by cities.

Cooperation with the Census Bureau is sporadic, better street data have been offered. Internal summary numbers are compared to official Census numbers for QA purposes.

Part 2—Description of current GIS and IT environment (inventory of data sets)





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

ITR – personal income tax system, contains income tax, demographic data, (DB2)
Property System – records the property taxes as reported by counties (SAS)
Business Tax System – contains a profile of registered businesses (Sybase)
MapInfo 7.8 for desktop analysis on Windows servers

Part 3—Description of any provided documents

Part 4—User requirements and “wish list”

A parcel to address conversion mapping
A statewide geocoding service which could be reused as a general service by all government departments to support the “Drive to Excellence” streamlined government project.
Improved street center line data, with more complete address ranges (as they are available from counties which all implemented the E911 requirements), yet limits in the licensing model prevented the further use of that data.
Consolidation efforts to review and standardize road attribute data across users to support intelligent routing.
Improvements in data, e.g., Census Bureau

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information, additional contacts





9.18 Transportation

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 22, 2007		
Organization represented	Minnesota Department of Transportation		
STC interviewers	Reno Fiedler		
GDA PM staff present	None		
Status	Draft:	Reviewed: x	Final: x
Individuals in Meeting			
Name	Title	Telephone	E-mail
John Cavanaugh	Emergency Management Planner	218-725-2722	john.cavanaugh@dot.state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Mr. Cavanaugh is the Pandemic Planner writing the COOP for the DOT. Mn/DOT is organized in 9 districts statewide all of which have GIS users. Overall, the agency is quite decentralized. It offers services for:</p> <ul style="list-style-type: none"> • Aviation control unit • Radio voice communications, microwave background, repeater systems, for all agencies • Road construction contracting, management • HazMat support to local fire department <p>Mn/DOT has 4000 employees of which there are approx. 50-60 surveyors.</p>			



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Surveyors have responsibilities to map section corners.

The Mn/DOT is the agency is responsible for base map. There are many users of GIS in the department. Some spatial information is provided and supported by DNR and LMIC. Mn/DOT is represented in the Governor's Council on GIS by Dan Ross, who is heading the GIS unit at Mn/DOT.

Mn/DOT has a performance management tool, tracking metrics on snow and ice removal, with the timing of removal mapped. GIS is also used to find areas of underperformance and track chemicals use by road.

OET provides network services

Pandemic Influenza:

Mn/DOT received grants for PPE purchases and for training for employee education on protection oneself and family. Mn/DOT would rely on the SEMA4 HR system for locations of employees. Some staff are trained in DisasterLAN application. Mn/DOT used GIS for scenario development in drills.

Mn/DOT's preparations focus on pandemic influenza preparedness not HPAI.

- Priority 1: maintenance of roads, up to 1 12h shifts, in case of PI 1 shift
- Social distancing build in, split shifts,
- SEOC support with a three-deep list of staff delegates
- Activation of Mn/DOT EOC
- Daily employee counts planned to measure impact, shift resources
- Participated in table top exercises,
- SNS distribution not a role
- Location of Refrigeration trucks available from HazMat team located centrally in St. Paul.
- Barricades, barriers, signs available, not mapped, distribution based on need, response trailers already loaded

Part 2—Description of current GIS and IT environment (inventory of data sets)

Mn/DOT has available:

- ArcGIS 9.x package used for analysis, licenses for several add-on analysts,





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

- Intergraph CAD, GeoPac, etc. software component
- GroupWise as email client
- Total Stations, GPS data capture into CAD
- Big plotters available
- Palm devices in field none with ArcPad
- Layers: transportation, roads, rail roads,
- All layers compiled for purchase on CD, waterways, lakes, roads, highways, rail roads, census
- Meta data, FDGC standard
- Congestion map GIS supported, ArcIMS, on Mn/DOT website,
- Road weather information system RWIS, sensors along road ways, web based, occasionally cameras
- Traffic camera network with loop detection systems for congestion maps
- Oracle RDBMS

Mn/DOT supported and partially paid for fly over data. Farm Services Administration flew, Mn/DOT, GDA paid extra for a complete fly over, 1-5m
 Training system available but not populated with skill sets, only training history

Part 3—Description of any provided documents

Requested COOP plan
 Data CD

Part 4—User requirements and “wish list”

Mn/DOT would benefit from additional licenses on ArcGIS Extensions ,
 More training in GIS and pandemic preparedness and response
 Capture data on fuel caches, depots, not to make it public but for emergency use

Part 5—Systems or other developments anticipated between 2007 and 2010





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM	
Upgrade to 800MHz digital system statewide, currently only metro area	
Part 6—Additional comments or information, additional contacts	
Dan Ross may be a good contact.	

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 29, 2007		
Organization represented			
STC interviewers	Holly Scholl, Reno Fiedler		
GDA PM staff present			
Status	Draft: <input checked="" type="checkbox"/>	Reviewed: <input type="checkbox"/>	Final: <input type="checkbox"/>
Individuals in Meeting			
Name	Title	Telephone	E-mail
Dan Ross	Transportation Engineering Application, Development Supervisor	651-366-4077	dan.ross@dot.state.mn.us
John Moreland	IT Infrastructure Manager	651-366-5646	john.moreland@state.mn.us
Part 1—Overview and main functions and tasks of organization with respect to the MEOP			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Supplement

Dan: Supervises core GIS team; handles all licensing/application development unless it goes out to a vendor; publish enterprise data. Share data with the DNR.

John: Manages team or unit that supports infrastructure required for the GIS environment, servers and staff. Currently, there is 1 person assigned to Dan's group in a spatial DBA role; looking to increase that to 2. As far as DBAs overall, they have 6 or 7. Majority of database infrastructure is Oracle, but they do support SQL environment; only develop in oracle.

Publish datasets for organizations.

Publish all datasets for all of the Department of Transportation (snow, ice, roadway characteristics, finance areas); have all warehouses for department. Manage own email service; State is researching a centralized solution.

Have a database for all road sensors, stoplights, etc. Have all data in Roseville office. All MN for camera and traffic and loop detectors. All major urban centers.

Mn/DOT would be involved to some degree when it comes to detours/safety response routes; traffic directions. Shutting down trunk highways.

Homeland Security office has gone through disaster recovery; Mn/DOT has been divided into 8 districts. Work with each of these offices to plan multiple scenarios on how to respond; this was to reconfirm the training they have had to ICS Incident Command. As far as pandemic, they have not done a lot of training for this; have had Agriculture sit in on one exercise (for Hoof and Mouth disease); Kathy Clark and Homeland Security office may have additional information about this.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Microsoft, Java, Linux

200 applications within the department; some they maintain and some are maintained by the specific business area. They maintain all enterprise GIS applications.

There are County counterparts—both with respect to business and GIS data; have all GIS contacts in County.

John Hoshal has list of GIS contacts if we need them.

Not all Counties have GIS personnel.

Don't do autocat; do microstation and Geo Database; all design and predesign (road design) is in microstation.





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM
<p>Publication of maps (county, city, highway maps) are done in microstation. Other maps done in GIS applications. Publish all images from the department; get the images from Federal/State agencies; counties/cities.</p>
Part 3—Description of any provided documents
None
Part 4—User requirements and “wish list”
Reno mentioned that we will be requesting additional information.
Part 5—Systems or other developments anticipated between 2007 and 2010
<p>4 new systems coming online within the next 3 months. Not full blown application, but new components being added.</p>
Part 6—Additional comments or information
<p>Jonette Kreideweis on Council. The Mn/DOT’s role in pandemic is identifying the support they would need for people working from home (if a pandemic were to occur and people weren’t supposed to go to work) infrastructure to support a certain number of employee’s working remotely (right now, could support 100 max.); have 4500 people in the organization. Aware of MEOP, but haven’t been involved in the discussions. If their workforce was reduced 40 percent, this would have a large impact as far as being able to support the network. GIS would be a secondary service; other higher priority services that would come up first. Application and database servers/network servers would need to come up first (ahead of GIS); applications have priority levels that have been predetermined.</p>





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Kathy Clark—Homeland Security representative (may want to talk with her).
 No specific Mn/DOT emergency operations center.
 They are familiar with Disaster LAN; have seen a demonstration of only the GIS side of it.
 Andy Terry is best person to speak with about plans (to map out areas of coverage); have coverage areas of beacons; Mn/DOT supports application underneath this, but they have their own line of site.
 Air traffic—not directly involved; separate office within Mn/DOT.
 Kathy Clark to fund population distribution if people were to leave town (head to cabin up north).
 Do skill searches for hiring for Mn/DOT, but no knowledge of skills database for Mn/DOT in case of an emergency.
 GIS side of house has redundancy, back-up. Stored in-house at Department of Operations Center.
 Regularly provide datasets to Feds.
 Road network is comprehensive, but it is not current; they are a year or more behind.

9.19 Minnesota State Colleges and Universities

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Date	May 29, 2007
Organization represented	Minnesota State Colleges and Universities
STC interviewers	Holly Scholl, Reno Fiedler
GDA PM staff present	none
Status	Draft: x Reviewed: Final:





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Individuals in Meeting			
Name	Title	Telephone	E-mail
Tracy L. Worsley	Emergency Preparedness Manager	651-649-5412	tracy.worsley@so.mnscu.edu
Don Beckering	State Director, Fire/EMS/Safety Training/Compliance	651-649-5411	don.beckering@so.mnscu.edu
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>Campuses have prearranged agreements with national stockpile; personnel; etc.</p> <p>Involved in 23 out of 35 have dedicated centers (25 have local memo of understanding).</p> <p>Land Grant University operates autonomously—they have armed security forces for situations such as a pandemic.</p> <p>Most of MNSCU's student healthcare is outsourced and provided within the local community (other than sentinel site operations).</p> <p>All 52 MNSCU campuses provide education; not a lot of services in other capacities.</p> <p>With respect to pandemic flu planning, local resources are going to be varied and each university will have to establish their own plan, although MNSCU has provided them with a guide for planning, which is a broad based, system wide planning guide with specific scenarios and what to do if they occur.</p> <p>There are a set of parameters that they have to put together a plan for and must abide by:</p> <ul style="list-style-type: none"> • Academic functions (what constitutes student progress if a school closes) • Student services (health care; financial aid—all things student focused) • Operations (registrar's office; food service; athletics; library services) • Facilities (HVAC's; how facilities are set up; maintaining dorms if folks are sent home) • Communications (2-fold: emergency communications; closures; ongoing communications with 			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM
students and their families).
Part 2—Description of current GIS and IT environment (inventory of data sets)
<p>There are 2 Centers of Excellence with ESRI (Mankato State University and St. Cloud State University); they have strong relationships and expertise with ESRI; some campuses have done GIS mapping with their campuses (campus buildings; streets; some have mapped fire extinguishers, hazardous waste sites, chemical storage sites, and evacuation routes for their university). This use of GIS is not widespread, but it does exist.</p> <p>ISRS is MNSCU's IT system; this database maintains all student registrations and campus/student data; all budget information by campus/cost center.</p> <p>370k students in the system.</p>
Part 3—Description of any provided documents
None
Part 4—User requirements and "wish list"
<p>Would like to know/map which campuses have dual use already (alternate care facilities; dispensing site; etc.).</p> <p>MNSCU has 10k international students; if the event were to occur tomorrow, would there be a ban on travel and would they be able to get home? The same exists for students who are from other states. This information needs to be communicated after an event.</p> <p>Would like the ability to track how many international students they have (according to university), and possibly extract this information from their ISRS system.</p> <p>MNSCU would have to review their specific role in a pandemic; their role doesn't change until the MOU changes, and this is situationally dependent. This is important to determine in advance of a pandemic and for planning purposes (before decisions can be made about GIS).</p> <p>Want to know what is available via GIS before they can determine what they would want to see and how they would want to use it.</p> <p>Would like the GIS system to allow them to do rapid analysis of resources available inside the system (MNSCU) so that they can shift resources and place them where they are needed most.</p>



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Internally, it would be good to know where the resources/facilities they need 24/7 are located (e.g. boiler rooms) in case of an emergency.

Map those centers that are 911 hubs (communication network/channels); several of the centers are 911 hubs for the community. Would want to know those campuses that have been chosen to do both—be utilized as a 911 hub and dispensing site.

Part 5—Systems or other developments anticipated between 2007 and 2010

Part 6—Additional comments or information

Governor makes main decisions on whether or not school is to be closed; this decision outweighs any decision from MNSCU.

Would need to interface with DOER because they would need to know employee absenteeism; they would need to track information coming in from 53 locations as to faculty and student absenteeism rates.

Having this interface/information would allow them to track where resources are located in the event of a pandemic (regional epidemics).

From a county perspective, more for local jurisdictions, they take into account the number of students across the state and when/where they are pocketed in specific locations. Smaller communities with a large college/university population may not consider college students in the overall town population. This can have a large affect on the number of doses for antibiotics; is the college/university population accounted for when thinking about number/doses of vaccines for people?

Another important point to consider is that there isn't an understanding of how many students have off-campus housing and where they are located if they do indeed live off campus. There isn't a way to notify people off campus in the case of an event. There are also privacy concerns if an address is available. There needs to be a reason to justify needing this information to both students and MNSCU staff.

From MNSCU's perspective, GIS would be best used at this time for the shuffling and knowledge of resources so that they can be redistributed properly.

Private college association (each private college is independent).





9.20 United States Geological Survey

GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM			
Date	May 22, 2007		
Organization represented	US Geological Survey		
STC interviewers	Reno Fiedler		
GDA PM staff present	None		
Status	Draft: x Reviewed: Final:		
Individuals in Meeting			
Name	Title	Telephone	E-mail
Ron Wencil	USGS Geospatial Liaison	763-783-3207	rwencil@usgs.gov
Part 1—Overview and main functions and tasks of organization with respect to the MEOP Supplement			
<p>The USGS is a federal agency with several facilities around the country specializing in several scientific fields. Some capacities exist in all states, some research objectives are centralized, for example, the Northern Prairie Wildlife Research Center in North Dakota, and the National Health Center in Wisconsin. The USGS is the civilian counterpart to DOD for civilian infrastructure.</p> <p>In Minnesota the USGS provides water sampling and quality monitoring and modeling services. Such capacity may be available during all hazard emergencies. Often this work is done by cooperating with PCA, EPA for sampling.</p> <p>Ron is involved in Metro GIS, the Council on GIS, and functions as a liaison across fed state and local jurisdictions. The USGS provides some funding to counties. Outreach, communication, and raising awareness of the benefits of GIS and spatial data is ongoing, yet conference participation reaches often</p>			





GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

the same people / converts.

There are not many federal counterparts that offer the same local participation as the USGS (not EPA, not census bureau, etc)

Currently, there is not a mandate to share data inter-agency, even though at least meta data should be shared between fed, state, local to prepare for times of need, to understand the availability of resources. The 2008 Republican National Convention will come to St. Paul, which would be good occasion to share spatial data between state and federal agencies.

Ron sees LMIC play a role of standardizing spatial services between LMIC, DNR and DOT

Land ownership maps are an unresolved issue. In MN, the Forrest Service, Wildlife Service, BIA, DNR are the major land owners. The Ramsey County Surveyor works with BLM on land ownership maps by converting current paper maps. He also works with FDGC.

An inventory of parcel data was done which LMIC has access to.

Part 2—Description of current GIS and IT environment (inventory of data sets)

Available:

- Licenses for a suite of ArcGIS 9.x, ESRI has improved licensing model.
- Significant server infrastructure
- Two IT specialists
- Full offsite backup
- About 30 staff, plus students in summer
- Full paper set of maps for all of MN, where state MN GS has map sales facilities.
- USGS went online with a GeoPDF distribution solution.
- GPSC – Geospatial Products and Services contract, contract with private sector to create data, layers, imagery, USGS provides access to that service for disaster data collection efforts (By contrast, LMIC has only some imagery.)
- USGS maintains GeoName System, the national naming system, changes in infrastructure are hard to maintain, no coordination
- Vendor TGS is out collection infrastructure for firestations, law enforcement with attributes on behalf of NGA and DHS to feed into HSIN – homeland security infrastructure network
- High res photography available to counties, LMIC helps with meta data, will be available by summer, will fulfill dual use for HS and daily use, Ramsay, Hennepin counties, half of metro area at 1m

Part 3—Description of any provided documents



GIS PANDEMIC NEEDS ANALYSIS MEETING SUMMARY FORM

Requested links to published resources

Part 4—User requirements and “wish list”

Raising awareness and executive buy-in

- Briefing to Governors office, CIO
- Attempts under way to find an executive sponsor with legislative authority to coordinate GIS activities across the board

Introducing some form of reporting requirement for newly acquired data sets by any agency.
Better coordination in the GeoName maintenance

Part 5—Systems or other developments anticipated between 2007 and 2010

More data sets

Part 6—Additional comments or information, additional contacts

Maybe contact Ramsey County Surveyor, Dave Claypool for land ownership data set

10.0 GIS Inventory Survey Results

The GIS Inventory Survey Results table can be found at the end of this PDF document.





11.0 MEOP Task-Based Survey

This appendix provides a review of the tasks assigned to the stakeholder agencies identified in the MEOP HPAI and Pandemic Supplement, with respect to their current and desired use of GIS. A scoring of GIS applicability by the study team is also provided as part of the analysis conducted in the GIS Pandemic Needs Analysis Study.

Scoring for columns B and D are: 1- High; 2 – Medium; 3 – Low.

A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>A. Minnesota Response Phase A0 – HPAI Outbreak Overseas A Highly Pathogenic Avian Influenza virus subtype is present in domestic and/or wild animals overseas. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.</p>				





A MEOP HPAI AND PANDEMIC TASKS	B	C	D	E COMMENTS
	CONSULTANT APPLICABILITY SCORE	DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	
1. HSEM				
a) Coordinate state agency response plans.	3			
b) Work with businesses on integration in the SEOC activities.	2			
c) Conduct conferences and trainings on SEOC activities and develop business best practices.	3			
2. Board of Animal Health				
a) Coordinate plans with the Department of Agriculture.	3	Y		
b) Provide public education information regarding avian influenza.	3	Y		
c) Provide testing for general public on suspect birds as appropriate.	2	Y		
d) Provide risk communication training for the poultry industry.	3	Y		
e) Provide information to the free-range/organic and commercial poultry industry.	3	Y		
f) Work with businesses/industries on integration in the SEOC.	2	Y		
3. Department of Agriculture				
a) Coordinate plans with the Board of Animal Health.	3	y	2	
b) Provide public education information regarding avian influenza.	3			
c) Provide risk communication training for the poultry industry.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
d) Provide public education information to the free-range/organic and commercial poultry industry.	3			
e) Work with businesses on integration in the SEOC.	2			
4. Department of Natural Resources				
a) Continue sampling per agency plan.	2			
b) Providing public information regarding the handling of birds in hunting and trapping literature and on agency website.	3			
5. Department of Health				
a) Develop information for poultry worker safety.	3			
B. Minnesota Response Phase A1 - HPAI Outbreak in Wild Animal in North America				
A Highly Pathogenic Avian Influenza virus subtype is present in wild animals in North America. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<ul style="list-style-type: none"> • Lead technical agency is the Minnesota Department of Natural Resources. 1. HSEM a) Partially activate the SEOC to include the Joint Information Center. 2 b) Assign a Lead Public Information Officer. 3 c) Coordinate news conferences, news releases and establish a media briefing schedule. 2 d) Establish briefing schedule for other state agencies, local, tribal and private sector authorities. 3 e) Assess preparedness status and identify actions needed to fill gaps. 3 2. Department of Natural Resources a) Provide the Deputy State Incident Manager. 3 b) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested. 2 c) Increase vigilance in monitoring wild bird populations for morbidity and mortality events. 1 				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
d) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3			
e) Provide technical expertise, if requested, to poultry producers on how to minimize use of the farms by migratory waterfowl.	2			
3. Board of Animal Health				
a) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.	2	Y		
a) Work with industry to enhance biosecurity of poultry facilities.	2	Y		
b) Increase surveillance and testing of commercial and backyard poultry.	1	Y		
c) Liaise with producer groups.	3	Y		
d) Coordinate poultry flock locational information.	1	Y		
4. Department of Agriculture				<p>Maps will be critical for every task at this stage forward.</p> <p>Geographic location of poultry premises in MN is</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.	2		1	incomplete Contact information for poultry producers is incomplete; Communication system with producers is incomplete
b) Produce and distribute fact sheets, informational updates, etc.	3		1	
c) Liaise with producer groups.	3		1	
d) Assist in sample collection for avian influenza.	1		1	
5. Department of Health				
a) Send representative to the SEOC to include the Joint Information Center	2			
6. Department of Employee Relations				
a) Coordinate consistent messages among state agencies for their employees.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>C. Minnesota Response Phase A2 - HPAI Outbreak in a Wild Animal In MN A Highly Pathogenic Avian Influenza virus is present in wild animals in Minnesota. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. • Lead technical agency is the Minnesota Department of Natural Resources.</p> <p>1. HSEM a) Partially activate the SEOC to include the Joint Information Center (JIC) and a planning cell. 2 b) Coordinate news conferences and news releases and establish a media briefing schedule. 2 c) Coordinate with federal, state, local, tribal and private sector authorities and organizations as well as the media and the public. 3 d) Coordinate tracking of economic issues and impacts. 2 e) Establish coordination briefing schedule for state agencies and local 3</p>				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
partners.				
f) Evaluate the need for the Information Hotline.	3			
2. Department of Natural Resources				
a) Provide the Deputy State Incident Manager for the SEOC.	2			
b) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.	2			
c) Determine the extent of infection to determine prevalence and spatial distribution of the virus.	1			
d) Coordinate response with United States Fish and Wildlife Service (USFWS), United States Geological Services (USGS), United States Department of Agriculture-Animal Plant and Health Inspection Service (USDA-ASPHIS).	1			
e) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.	1			
f) Provide field personnel with safety guidelines to handle sick or dead birds.	3			
g) Limit propagation of the infection among wildlife, domestic poultry,	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
and humans.				
h) Coordinate with MDH, BAH and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3			
i) Provide technical expertise, if requested, to poultry producers to minimize use of the farms by migratory waterfowl.	2			
j) Provide technical assistance in cooperation with MPCA for carcass disposal activities.	2			
3. Board of Animal Health				
a) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.	2			
b) Provide technical veterinary expertise.	2	Y		
c) Initiate surveillance of domestic poultry in area of affected wildlife and work with industry to enhance biosecurity of poultry facilities in area.	1	Y		





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
d) Coordinate with MDH, DNR and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3	Y		
e) Liaise with producer groups.	3	Y		
f) Coordinate poultry flock locational information.	1	Y		
4. Department of Agriculture				
a) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.	2		1	
b) Potentially activate the Department Operations Center.	3		1	
c) Coordinate with MDH, BAH and DNR to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3	y	1	
d) Produce and distribute fact sheets, informational updates, etc.	3	y	1	
e) Liaise with producer groups.	3	y	1	
f) Assist in sample collection for avian influenza.	1	y	1	
5. Department of Health				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.	2			
b) Coordinate with DNR, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3			
c) Expand laboratory capacity and capability as necessary.	3			
d) Stockpile necessary supplies.	2			
6. Department of Employee Relations				
a) Coordinate consistent messages among state agencies for their employees.	3			
D. MN Response Phase A3 - HPAI Outbreak in Domestic Animal in North America				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>A Highly Pathogenic Avian Influenza virus is present in domestic animals in North America. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a risk of human disease.</p> <ul style="list-style-type: none"> • Lead technical agency is the Board of Animal Health <p>1. HSEM</p> <ul style="list-style-type: none"> a) Partially activate the SEOC to include the Joint Information Center. 2 b) Assign a Lead Public Information Officer. 3 c) Coordinate news conferences and news releases and establish a media briefing schedule. 2 d) Activate the SEOC planning section if requested. 2 e) Establish briefing schedule for other state agencies and local, tribal and private sector authorities. 3 f) Assess preparedness status and identify actions needed to fill gaps. 3 g) Evaluate the need to activate the Information Hotline. 3 				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. Board of Animal Health				
a) Provide the Deputy State Incident Manager to the SEOC.	2			
b) Send representatives to the SEOC to include the Joint Information Center and additional personnel as requested.	2			
c) Work with industry to enhance biosecurity of poultry facilities.	2	Y		
d) Increase surveillance and testing of poultry.	1	Y		
e) Coordinate with MDH, DNR and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the health care community, the poultry industry, and the general public.	3	Y		
f) Liaise with producer groups.	3	Y		
g) Coordinate poultry flock locational information.	1	Y		
3. Department of Agriculture				
a) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.	2		1	
b) Activate the Department Operations Center.	3		1	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
c) Coordinate with MDH, BAH, and DNR to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3	y	1	
d) Produce and distribute fact sheets, informational updates, etc.	3	y	1	
e) Liaise with producer groups.	3	y	1	
f) Assist in sample collection for avian influenza.	1	y	1	
4. Department of Natural Resources				
a) Send a representative to the SEOC to include the Joint Information Center and additional personnel as requested.	2			
b) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.	1			
c) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3			
d) Provide technical expertise, if requested, to poultry producers on how to minimize use of the farms by migratory waterfowl.	2			
5. Department of Health				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Send a representative to the SEOC to include the Joint Information Center and additional personnel as requested.	2			
b) Keep external partners informed as to events.	3			
c) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.	3			
6. Department of Employee Relations				
a) Coordinate consistent messages among state agencies for their employees.	3			
E. MN Response Phase A4 - HPAI Outbreak in Domestic Animal in MN				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>A Highly Pathogenic Avian Influenza virus is present in domestic animals in Minnesota. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a risk of human disease.</p> <ul style="list-style-type: none"> • Lead technical agency is the Board of Animal Health <p>1. HSEM</p> <ul style="list-style-type: none"> a) Fully activate SEOC. b) Assist with the logistics involved in transporting and disposal of birds as necessary. c) Coordinate with bordering states for sharing resources (facilities, personnel, materials) through mutual aid agreements or memorandums of understanding. d) Coordinate with Canada as appropriate. e) Provide local governmental entities with updated information and guidelines. 	<p>1 1 2 2</p>			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. Board of Animal Health				
a) Provide the Deputy State Incident Manager to the SEOC.	2			
b) Send representatives to the SEOC.	2			
c) Provide technical veterinary expertise.	2	Y		
d) Activate the Highly Contagious Disease Response Plan including:	2	Y		
i. Establish control area.	1	Y		
ii. Identify premises within control area and contact premises	1	Y		
iii. Increase surveillance within control area and contact premises	1	Y		
• Implementation of quarantine and movement controls of infected premises as written in the MN HPAI response plan.	1	Y		
• Implement heightened biosecurity measures of premises within control area.	1	Y		
• Evaluate euthanasia and disposal needs for infected premises.	2	Y		
• Work with MDH to develop appropriate recommendations for worker and responder safety.	3	Y		
e) Liaise with producer groups.	3	Y		
f) Coordinate poultry flock locational information.	1	Y		





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
3. Department of Agriculture				
a) Send a representative to the SEOC.	2		1	
b) Activate Department Operations Center.	3	n	1	
c) Produce and distribute fact sheets, informational updates, etc.	3	n	1	
d) Liaise with producer groups.	3	y	1	
e) Assist in sample collection for avian influenza.	1	y	1	
f) Provide technical assistance in cooperation with MPCA for carcass disposal activities.	2	y	1	
g) Provide technical assistance for poultry euthanasia.	3	y	1	
h) Provide technical assistance for cleaning and disinfection.	3	y	1	
4. Department of Natural Resources				
a) Send a representative to the SEOC.	2			
b) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.	1			
c) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the health care community, the poultry industry, and the general public.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
d) Provide technical expertise, if requested, to poultry producers on how to minimize use of the farms by migratory waterfowl.	2			
5. Department of Health				
a) Send representatives to SEOC.	2			
b) Activate the Department Operations Center	3			
c) Keep external partners informed as to events.	3			
d) Coordinate information and response with animal health agencies and local public health.	2			
e) Provide guidance for infection control precautions including hand washing.	2			
f) Facilitate voluntary vaccination of exposed workers with current human influenza vaccine.	2			
g) Provide technical assistance with personal protective equipment for poultry workers, veterinary diagnostic laboratory personnel, and regulatory personnel involved in disease control and eradication activities, following current published CDC and OSHA guidelines.	3			
h) Facilitate distribution of antiviral drugs.	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
i) Provide information about HPAI to poultry workers, asking them to report conjunctivitis, fever or respiratory symptoms to designated MDH contacts.	3			
6. Department of Employee Relations				
a) Coordinate consistent messages among state agencies for their employees.	3			
F. MN Response Phase A5 – Recovery				
Prioritization of goals and immediately begin to restore the community to pre-disaster conditions.				
• Lead technical agency is the Board of Animal Health				
1. HSEM				
a) SEOC continues to be activated, including the Joint Information Center and the Information Hotline.	2			
b) Provide continuous information to local partners and critical infrastructure.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
c) Continuously monitor local outbreaks.	1			
d) Develop lessons learned and strategies for the future.	3			
e) Reassess quarantine restrictions to determine when/if they can be lifted.	1			
f) Request assistance of the Emergency Management Assistance Compact (EMAC), if available.	3			
g) Request federal assistance as needed and available.	3			
2. Board of Animal Health				
a) Cleaning and disinfection of infected sites	1	Y		
b) Environmental sampling and inspection of site	1	Y		
c) Repopulation of premises	2	Y		
d) Continued quarantine of infected premises until OIE standards for HPAI "free" status met	1	Y		
e) Continued heightened biosecurity until OIE standards are met	1	Y		
f) Continued surveillance until OIE standards are met	1	Y		
3. Department of Agriculture				
4. Department of Natural Resources				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>5. Department of Health 6. Department of Employee Relations</p> <p>Appendix A: Pandemic Phases and Tasks</p> <p>A. Minnesota Response Phase P0 - Suspected Human Outbreak Overseas Human infection(s) with a new subtype, but no human-to-human spread or at most rare instances of spread to a close contact overseas. • Lead technical agency is Minnesota Department of Health</p> <p>1. Federal Activities (U. S. Stage 1 per National Strategy for Pandemic Influenza Implementation Plan) a) Increase layered protective measures at borders and prepare to implement travel restrictions from affected areas, as appropriate. (U.S. DHS, U.S. HHS and the U.S. DOT)</p>	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. HSEM				
a) Coordinate state agency response planning.	3			
b) Work with businesses on integration into the SEOC activities.	2			
c) Conduct conferences and trainings on SEOC activities and develop business best practices.	2			
3. Department of Health				
a) Work with CDC quarantine station at MSP International Airport if there are arriving international partners who meet the clinical and epidemiological criteria for infection with a novel influenza virus and implement disease containment measures as appropriate.	2			
b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.	3			
c) Continue to develop and distribute messages to external partners and the public	3			
d) Continue routine surveillance.	1			
e) Develop and distribute infection control guidance and PPE recommendations.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
f) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
g) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination planning.	2			
h) Develop priority groups for antiviral and vaccine administration.	1			
4. Department of Employee Relations				
a) Convene the Pandemic Flu Executive Committee to discuss current events.	3			
b) Coordinate consistent messages among state agencies for their employees.	3			
B. Minnesota Response Phase P1 - Confirmed, Sustained Human-to-Human Transmission Overseas				
Confirmed, sustained human-to-human transmission overseas.				
• Lead technical agency is Minnesota Department of Health				
1. Federal Activities (U.S. Stage 2 and 3 per National Strategy for Pandemic				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>Influenza Implementation Plan) a) Activate domestic quarantine stations and ensure coordination at State, local and tribal level, especially with health care resources. (U.S. HHS and U.S. DHS) b) Heighten/Amplify hospital-based surveillance in all communities. (U.S. HHS) c) Prepare to provide military bases and installation support to Federal, State, local and tribal agencies. (U.S. DOD) d) Review domestic pandemic plans and prepare for response, placing critical staff on recall and pre-deploying assets where appropriate. (All) e) Activate State, local and tribal partners to be on alert for spread of outbreak to the United States. (Federal Government) f) Initiate regular calls with Governors, as well as State/tribal public health and emergency preparedness leaders to provide guidance on preparedness actions necessary and to coordinate messaging. (U.S. DHS, USDA and U.S. HHS)</p>	<p>2 1 3 2 3 3</p>			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
g) Deploy antiviral stockpile with appropriate security to State and Tribal entities and to Federal departments and agencies, with prioritization and treatment recommendations. (U.S. HHS)	1			
h) Re-examine limitation on international travel from affected region (or regions that do not institute pre-departure screening) and maintain layered screening measures for host country pre-departure, en route, and arrival of U.S.-bound travelers. (U.S. DOS, U.S. DHS, U.S. HHS).	2			
i) Prepare "containment stockpile" for deployment to quarantine station and other locations as appropriate. (U.S. HHS)	2			
j) Prepare to implement surge plans at Federal medical facilities. (U.S. HHS, U.S. DOD and VA)	2			
k) Deploy pre-pandemic vaccine to State and tribal entities and to Federal agencies and initiate vaccination.	1			
l) Have State, local and tribal governments review influenza case definition and testing protocols used by public health and medical communities. (Federal Government)	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
m) Announce preliminary conclusions of epidemiologic assessments and modeling.	1			
n) Request that State, local and tribal leadership reach out to critical infrastructure providers to ensure that continuity plans are in place.	3			
2. HSEM				
a) Partially activate the SEOC to include the Joint Information Center.	2			
b) Assign a Lead Public Information Officer.	3			
c) Coordinate news conferences and news releases and establish a media briefing schedule.	2			
d) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.	3			
e) Assess preparedness status and identify actions needed to fill gaps.	3			
f) Contact critical infrastructure providers to ensure continuity plans are in place.	3			
g) Coordinate federal information flow to local and business partners.	3			
3. Department of Health				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Work with CDC quarantine station at MSP International Airport if there are arriving international partners who meet the clinical and epidemiological criteria for infection with a novel influenza virus and implement disease containment measures as appropriate.	2			
b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.	3			
a) Provide the Deputy State Incident Manager to the SEOC.	2			
b) Send representative to the SEOC for the Joint Information Center and additional personnel if requested.	2			
c) Update external partners as appropriate.	3			
d) Continue routine surveillance.	1			
e) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
4. Department of Employee Relations				
a) Convene the Pandemic Flu Executive Committee to discuss current events.	3			
b) Coordinate consistent messages among state agencies for their	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
employees. c) Agencies asked to review and update their Service Continuation Plans based on latest epidemiological assessments.	3			
C. Minnesota Response Phase P2 – Suspected or Confirmed Human Case in North America Suspected or confirmed human case in North America. • Lead technical agency is Minnesota Department of Health 1. Federal Activities (U.S. Stage 4 per National Strategy for Pandemic Influenza Implementation Plan)				
a) Deploy "containment stockpile," if available, to any domestic region with confirmed or suspected cases of pandemic influenza, if an epidemiologic link to an affected region exists. (U.S. HHS)	1			
b) Ensure that pandemic plans are activated across all levels of government and in all institutions. (U.S. HHS and U.S. DHS)	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
c) Activate surge plans within Federal health care systems and request that State, local and tribal entities do the same. (U.S. HHS and U.S. DHS).	2			
d) Revise prioritization and allocation scheme for pandemic vaccine as appropriate, based upon characteristics of pandemic virus and available quantities of vaccine.	1			
e) Advise State, local and tribal leadership to implement pandemic response plans.	3			
2. HSEM				
a) Partially activate the SEOC to include the Joint Information Center.	2			
b) Assign a Lead Public Information Officer.	3			
c) Coordinate news conferences and news releases and establish a media briefing schedule.	2			
d) Assess the need to activate the Information Hotline.	3			
e) Establish briefing schedule for other state agencies and local, tribal and private sector authorities (potentially weekly).				
f) Assess preparedness status of state agencies and identify actions	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
needed to fill gaps.				
g) Brief the executive branch cabinet as requested.	3			
h) Coordinate information with critical infrastructure partners and develop briefing schedule.	3			
3. Department of Health				
a) Work with CDC quarantine station at MSP International Airport if there are arriving international partners who meet the clinical and epidemiological criteria for infection with a novel influenza virus and implement disease containment measures as appropriate.	2			
b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.	3			
c) Provide the Deputy State Incident Manager to the SEOC.	2			
d) Assess the need to activate the Department Operations Center.	3			
e) Send a representative to the SEOC for the Joint Information Center and additional personnel if requested.	2			
a) Update external partners as appropriate.	3			
b) Continue routine surveillance.	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
c) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
4. Department of Employee Relations				
a) Send a representative to the SEOC for planning section.	2			
b) Convene the Pandemic Flu Executive Committee to discuss current events.	3			
c) Inform state agencies regarding proper infection control precautions.	3			
d) Notify HR directors of the current situation.	3			
e) Instruct employees with direct contact with infected people to use proper precautions.	3			
f) Encourage agencies to limit employee travel into areas where infections are occurring.	1			
g) Agencies encouraged to begin cross training of employees for priority one and two services.	3			
D. Minnesota Response Phase P3 – Outbreak in United States				
Widespread outbreak in the continental United States.				
• Lead technical agency is Minnesota Department of Health				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>1. Federal Activities (U.S. Stage 5 per the National Strategy for Pandemic Influenza Implementation Plan)</p> <p>a) Deploy "containment stockpile," if available, to any domestic region with confirmed or suspected cases of pandemic influenza, if an epidemiologic link to an affected region exists. (U.S. HHS)</p> <p>b) Limit non-essential passenger travel in affected areas and institute protective measures/social distancing, and support continued delivery of essential goods and services. (U.S. DHS, U.S. DOT and U.S. HHS)</p> <p>c) Activate surge plans within Federal health care systems and request that State, local and tribal entities do the same. (U.S. HHS and U.S. DHS)</p> <p>d) Revise prioritization and allocation scheme for pandemic vaccine as appropriate, based upon characteristics of pandemic virus and available quantities of vaccine.</p> <p>e) Advise State, local and tribal leadership to implement pandemic response plans.</p>	<p>1</p> <p>1</p> <p>2</p> <p>1</p> <p>3</p>			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. HSEM				
a) Partially activate the SEOC to include the Joint Information Center and the planning section.	2			
b) Assign a Lead Public Information Officer.	3			
c) Coordinate news conferences and news releases and establish a media briefing schedule.	2			
d) Assess the need to activate the Information Hotline.	3			
e) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.	3			
f) Assess preparedness status and identify actions needed to fill gaps.	3			
g) Brief the executive branch cabinet as requested.	3			
h) Coordinate information with critical infrastructure partners and develop briefing schedule.	3			
3. Department of Health				
a) Make recommendations for implementation of non-pharmaceutical interventions.	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.	3			
c) Provide the Deputy State Incident Manager to SEOC.	2			
d) Activate the Department Operations Center.	3			
e) Send representatives to the SEOC to include the Joint Information Center and planning section.	2			
f) Update external partners as appropriate.	3			
g) Continue routine surveillance.	1			
h) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
i) Manage SNS receipt, storage and shipping.	1			
j) Manage pre-pandemic vaccine delivery.	1			
4. Department of Employee Relations				
a) Send representatives to the SEOC to include the planning section.	2			
b) Convene the Pandemic Flu Executive Committee to discuss current events.	3			
c) Inform state agencies regarding proper infection control precautions.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
d) Notify HR directors of the current situation.	3			
e) Instruct employees with direct contact with infected people to use proper precautions.	3			
f) Encourage agencies to limit employee travel into areas where infections are occurring.	1			
E. Minnesota Response Phase P4 – Suspected or Confirmed Human Case in MN A suspected or confirmed human case has occurred in Minnesota. • Lead technical agency is Minnesota Department of Health				
1. Federal Activities (U.S. Stage 5 per the National Strategy for Pandemic Influenza Implementation Plan)				
a) Maintain continuous situational awareness of community needs, triage, and direct Federal support of health and medical systems, infrastructure and maintenance of civil order as feasible. (All)	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Deploy pandemic vaccine, if available, with continuously updated guidance on prioritization and use. (U.S. HHS)	1			
c) Continuously evaluate the epidemiology of the pandemic virus and update recommendations on treatment of patients and protective actions for all sectors on an ongoing basis. (U.S. HHS and U.S. DHS)	1			
d) Provide guidance on judicious use of key commodities to reduce the likelihood of shortages. (U.S. DHS)	3			
e) Determine whether (and if so, the form of) Federal intervention is required to support critical infrastructure and the availability of key goods and services (such as food, utilities and medical supplies and services).	2			
f) Determine when travel restrictions previously enacted can be lifted.	1			
g) Advise State, local and tribal leaders that Federal government will continue to provide support, as possible, and to continue to implement continuity plans.	3			
2. HSEM				
a) Fully activate the SEOC.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Provide a state agency briefing.	2			
c) Establish daily briefing schedule for other state agencies and local, tribal and private sector authorities.	3			
d) Coordinate news conferences and news releases and establish a media briefing schedule.	2			
e) Coordinate information with critical infrastructure partners and develop briefing schedule.	3			
f) Advise critical infrastructure/businesses to review and update their service continuation plan.				
g) Brief the executive branch cabinet as requested.	3			
3. Department of Health				
a) Provide the Deputy State Incident Manager to the SEOC.	2			
b) Activate the Department Operations Center.	3			
c) Send representatives to the SEOC.	2			
d) Implement containment measures for suspected case and contacts.				
e) Make recommendations for non-pharmaceutical interventions.	1			
f) Continue to develop and distribute messages to external partners	1			





A	B	C	D	E
MEOP HPAI AND PANDEMIC TASKS	CONSULTANT APPLICABILITY SCORE	DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	COMMENTS
and the public.				
g) Continue routine surveillance.	1			
h) Develop and distribute infection control guidance and PPE recommendations.	3			
i) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
j) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination planning.	2			
k) Develop priority groups for antiviral and vaccine administration.	1			
l) Conduct 24/7 advanced laboratory testing on an emergency basis.	3			
m) Investigate case and manage contact exposures.				
n) Recommend isolation of individuals with influenza-like-illness, social distancing, closure of schools, daycares and other public venues.	1			
4. Department of Employee Relations				
a) Send a representative to the SEOC.	2			
b) Convene the Pandemic Flu Executive Committee to discuss current events.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
c) Inform state agencies regarding proper infection control precautions.	3			
d) Notify HR directors of the current situation.	3			
e) Instruct employees who have direct contact with infected people to use proper precautions.	3			
f) Encourage agencies to limit employee travel into areas where infections are occurring.	1			
g) Coordinate agency personnel requests to complete Priority Service Functions 1 and 2.	3			
F. Minnesota Response Phase P5 - Limited Outbreak in MN {Geographic Cluster}				
Evidence of significant human-to-human transmission in a highly localized area (geographic cluster) within Minnesota.				
• Lead technical agency is the Department of Health 1. Federal Activities (U.S. Stage 5 per National Strategy for Pandemic Influenza Implementation Plan)				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Maintain continuous situational awareness of community needs, triage, and direct Federal support of health and medical systems, infrastructure and maintenance of civil order as feasible. (All)	1			
b) Deploy pandemic vaccine, if available, with continuously updated guidance on prioritization and use. (U.S. HHS)	1			
c) Continuously evaluate the epidemiology of the pandemic virus and update recommendations on treatment of patients and protective actions for all sectors on an ongoing basis. (U.S. HHS and U.S. DHS)	1			
d) Provide guidance on judicious use of key commodities to reduce the likelihood of shortages. (U.S. DHS)	3			
e) Determine whether (and if so, the form of) Federal intervention is required to support critical infrastructure and the availability of key goods and services (such as food, utilities and medical supplies and services).	2			
f) Determine when travel restrictions previously enacted can be lifted.	1			
g) Advise State, local and tribal leaders that Federal government will continue to provide support, as possible, and to continue to implement	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
continuity plans.				
2. HSEM				
a) Fully activate the SEOC.	2			
b) Coordinate news conferences and news releases and establish a media briefing schedule.	2			
c) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.	3			
d) Declare a State of Emergency in counties or region where confirmed exposure exists.	2			
e) Upon recommendation of MDH, work with the Governor's Office to close schools and daycares in the counties and geographic cluster where exposure exists.	1			
f) Coordinate information with critical infrastructure partners and develop briefing schedule.	3			
g) Advise critical infrastructure partners/businesses to implement their service continuation plans.	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
h) Recommend community level containment in the counties and geographic cluster where exposure exists including limiting recreational activities and gatherings.	1			
i) Brief the executive branch cabinet as requested.	3			
3. Department of Health				
a) Provide the Deputy State Incident Manager to the SEOC.	2			
b) Activate the Department Operations Center.	3			
c) Send representatives to the SEOC.	2			
d) Recommend community level disease containment measures.	1			
e) Continue to develop and distribute messages to external partners and the public.	1			
f) Develop and distribute infection control guidance and PPE recommendations.	3			
g) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
h) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination or delivery.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
i) Develop priority groups for antiviral and vaccine administration.	1			
j) Conduct 24/7 advanced laboratory testing on an emergency basis.	3			
k) Increase surveillance activities.	1			
l) Recommend isolation of individuals with influenza-like-illness, social distancing, closure of schools, daycares and other public venues.	1			
m) Determine temporary morgue and cemetery locations.	1			
n) Monitor disease activity.	1			
o) Implement infection control guidance for off-site care facilities and other settings as needed.	3			
p) Consult on management of cases.	3			
q) Assist with patient care coordination.	2			
r) Enhance staffing using volunteer health professionals.	2			
s) Manage antiviral and vaccine acquisition, allocation, distribution, and utilization.	1			
t) Monitor adherence to priority groups, adverse events and effectiveness of antivirals and vaccines.	2			
u) Activate temporary morgue locations.	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
v) Coordinate the provision of Psychological First Aid (PFA) and other short term behavioral health services.	3			
4. Department of Employee Relations				
a) Send a representative to the SEOC.	2			
b) Convene the Pandemic Flu Executive Committee three times per week to discuss current events.	3			
c) Intensify outreach to state agencies to regarding the situation and how to limit contact with persons.	3			
d) Inform state agencies on infection control precautions.	3			
e) Request daily attendance reports from state agencies.	2			
f) Review and evaluate state employee attendance.	2			
g) Notify HR directors of the current situation.	3			
h) Instruct employees with direct contact with infected people to use proper precautions.	3			
i) Require agencies to limit employee travel into areas where infections are occurring.	1			
j) Coordinate agency requests for personnel to complete Priority	3			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
Service Function 1 and 2. k) Mandate discontinuation of state agency employee gatherings and meetings as much as possible.	3			
l) Establish the Department Operations Center (DOC) for coordinating employee concerns and agency requests for employee reallocations.	2			
<p>G. Minnesota Response Phase P6 - Widespread Throughout MN Widespread human-to-human transmission throughout the State of Minnesota.</p> <ul style="list-style-type: none"> • Lead technical agency is the Department of Health <p>1. Federal Activities (U.S. Stage 5 per the National Strategy for Pandemic Influenza Implementation Plan)</p> <p>a) Maintain continuous situational awareness of community needs, triage, and direct Federal support of health and medical systems, infrastructure and maintenance of civil order as feasible. (All)</p>	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Deploy pandemic vaccine, if available, with continuously updated guidance on prioritization and use.(U.S. HHS)	1			
c) Continuously evaluate the epidemiology of the pandemic virus and update recommendations on treatment of patients and protective actions for all sectors on an ongoing basis. (U.S. HHS and U.S. DHS)	1			
d) Provide guidance on judicious use of key commodities to reduce the likelihood of shortages. (U.S. DHS)	3			
e) Determine whether (and if so, the form of) Federal intervention is required to support critical infrastructure and the availability of key goods and services (such as food, utilities and medical supplies and services).	2			
f) Determine when travel restrictions previously enacted can be lifted.	1			
g) Advise State, local and tribal that Federal government will continue to provide support, as possible, and to continue to implement continuity plans.	3			
2. HSEM				
a) Fully activate SEOC.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Declare a State of Emergency for entire State of Minnesota.	3			
c) Request a Federal Emergency Declaration.	3			
d) Move to regularly scheduled news conferences, news releases and media briefings.	2			
e) Conduct regularly scheduled briefings for local partners.	2			
f) Upon recommendation from MDH, work with the Governor's Office to close schools and daycares statewide.	1			
g) Redirect state resources to ensure Priority Service Functions 1 and 2 are being met.	3			
h) Implement community containment strategies statewide.	1			
i) Provide social distancing measures for public transportation.	1			
j) Request assistance of the Emergency Management Assistance Compact (EMAC), if available.	3			
k) Request federal assistance as needed and available.	3			
l) Brief the executive branch cabinet as requested.	3			
3. Department of Health				
a) Provide the Deputy State Incident Manager to the SEOC.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Send representatives to the SEOC and the Joint Information Center.	2			
c) Activate the Department Operations Center.	3			
d) Monitor implementation of disease containment plan.	1			
e) Continue to develop and distribute messages to external partners and the public.	1			
f) Develop and distribute infection control guidance and PPE recommendations.	3			
g) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.	3			
h) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination and delivery.	2			
i) Develop priority groups for antiviral and vaccine administration.	1			
j) Conduct 24/7 advanced laboratory testing on an emergency basis.	3			
k) Isolate and monitor cases, manage close contacts of cases or suspected cases, and work with the MSP CDC Quarantine Station to screen, isolate, and/or quarantine airline passengers as indicated.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
l) Recommend isolation of individuals with influenza-like-illness, social distancing, closure of schools, daycares and other public venues.	1			
m) Monitor disease activity.	1			
n) Implement infection control guidance for off-site care facilities and other settings as needed.	3			
o) Consult on management of cases.	3			
p) Assist with patient care coordination.	2			
q) Enhance staffing using volunteer health professionals.	2			
r) Manage antiviral and vaccine acquisition, allocation, distribution, and utilization.	1			
s) Monitor adherence to priority groups, adverse events and effectiveness of antivirals and vaccines.	2			
t) Activate temporary morgue locations.	1			
u) Coordinate the provision of Psychological First Aid (PFA) and other short term behavioral health services.	3			
4. Department of Employee Relations				
a) Send a representative to the SEOC.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
b) Convene the Pandemic Flu Executive Committee daily.	3			
c) Request daily attendance reports from state agencies.	2			
d) Intensify outreach to state agencies to regarding the situation and how to limit contact with persons.	3			
e) Inform state agencies on infection control precautions.	3			
f) Review and evaluate state employee attendance.	2			
g) Notify HR directors of the current situation.	3			
h) Instruct employees with direct contact with infected people to use proper precautions.	3			
i) Require agencies to limit employee travel into areas where infections are occurring.	1			
j) Coordinate agency requests for personnel to complete Priority Service Functions 1 and 2.	3			
k) Mandate discontinuation of state agency employee gatherings and meetings as much as possible.	3			
l) Establish the Department Operations Center (DOC) for coordinating employee concerns and agency requests for employee reallocations.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>H. Minnesota Response Phase P7 - Recovery and Preparation for Subsequent Waves Prioritization of goals and immediately begin to restore the community to pre-disaster conditions. • Lead technical agency is the Department of Health.</p> <p>1. Federal Activities (U. S. Stage 6 per the National Strategy for Pandemic Influenza Implementation Plan) a) Work with private sector, State, local and tribal entities to prioritize and begin restoring essential services and reviewing plans to maintain continuity of operations in subsequent waves with support of employees that are immunized or have developed immunity. (U.S. DHS, U.S. HHS) b) Redeploy and refit Federal response assets. (All)</p>	<p>1</p> <p>1</p>			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
c) Resume essential Federal functions and ensure continuity of operation through subsequent waves. (U.S. DHS and All)	3			
d) Provide continuously updated information about the epidemiology of the virus, effective treatments, and lessons learned from the first wave, so as to enhance preparedness for subsequent waves. (U.S. HHS)	2			
e) Continue deployment of pandemic vaccine in preparation for subsequent waves. (U.S. HHS)	1			
f) Review lessons learned to develop strategies for subsequent waves. (All)	2			
2. HSEM				
a) SEOC continues to be activated, including the Joint Information Center and the Information Hotline.	2			
b) Provide continuous information to local partners and critical infrastructure.	3			
c) Continuously monitor local outbreaks and resources to ensure staffing requirements of Priority Service Functions 1 and 2 continue to be met.	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
d) Resume Priority Service Functions as resources dictate.	3			
e) Develop lessons learned and strategies for subsequent waves.	2			
f) Reassess school and daycare closures to see if they can be lifted.	1			
g) Redirect state resources to ensure Priority Service Functions 1 and 2 are being met.	3			
h) Implement community containment strategies statewide.	1			
i) Request assistance of the Emergency Management Assistance Compact (EMAC), if available.	3			
j) Request federal assistance as needed and available.	3			
k) Brief the executive branch cabinet as requested.	3			
3. Department of Health				
a. Recommend termination and cessation of non-pharmaceutical interventions.	1			
4. Department of Employee Relations				
Appendix A: HAIP and/or Pandemic Phases and Tasks				
II. Support Agencies				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>The following agencies have support response functions for Highly Pathogenic Avian Influenza and/or Pandemic Influenza outbreaks.</p>				
<p>A. Department of Administration shall:</p>				
<p>1. Provide administrative support to state government agencies during a disaster. This support will include, but is not limited to, assigning administrative staff and equipment, and providing maintenance to state and regional emergency operations centers (EOCs).</p>	2	N	3	<p>http://www.admin.state.mn.us/pmd/ Maps may be helpful in locating equipment necessary for supporting emergency operations.</p>
<p>2. Provide telephone operation support during exercises and emergencies in state and regional EOCs.</p>	3	N	N	
<p>3. Provide support to state agencies in the identification of alternate sites for their systems and personnel.</p>	1	Y	1	<p>http://www.mainserver.state.mn.us/rem/index.html Maps used for identifying alternate sites and space planning.</p>
<p>4. Provide travel support to state agencies.</p>	3	N	2	<p>www.state.mn.us/portal/mn/jsp/home.do?agency=Travelmgmt</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>5. Use its geographic information systems tools and geographic data to assist both planners and emergency responders through the Land Management Information Center.</p>	1	Y	1	<p>Maps would be beneficial for visual representations of state agency needs for vehicles and the location of vehicles</p> <p>The Travel Management Division is currently implementing Maximus Fleet Focus M5, a fleet management system. Presently, there is no GIS element in that system, but could possibly be added in the future.</p> <p>http://www.lmic.state.mn.us/</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
6. Help identify the locations of nursing homes and licensed/unlicensed group quarters through the State Demographer.	1			
7. Provide procurement of goods and services through standard purchasing procedures, surplus property through Surplus Services and office supplies through Office Supply Connection.	3	N	1	http://www.mmd.admin.state.mn.us/ Maps would be useful to visualize locations of surplus property, and state agency needs for the procurement of goods and services
8. Provide insurance assistance and claims processing through the Risk Management Division.	3	Y	1	http://www.mainserver.state.mn.us/risk/ An effort is under way to collect GPS coordinates of buildings to support flood zone assessments and insurance. Tom Heber of DNR supported the initial data collection with GPS equipment. Data from FEMA is being used to assess the location of buildings in relationship to official





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>B. Attorney General's Office shall:</p> <ol style="list-style-type: none"> 1. Provide legal advice and opinions in support of state emergency operations to include preparing and reviewing proclamations and special regulations issued by the Governor. 2. Provide materials about consumer information or representation at Disaster Recovery Centers (DRCs) and public meetings for persons affected by a disaster, as requested by the Division of Homeland Security and Emergency Management. 3. Provide guidance about contracting requirements to state agencies after a major disaster. 4. Represent the state for isolation and quarantine legal issues. <p>C. Department of Commerce shall:</p>	<p>3</p> <p>3</p> <p>3</p> <p>3</p>			<p>flood zone extents. LMIC did support the mapping of buildings. However, at this point in time the coverage of buildings is spread across multiple systems and not 100% complete.</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
1. Provide materials about insurance claim procedures or representation at Disaster Recovery Centers (DRCs) and public meetings to persons affected by a pandemic outbreak, as requested by the Division of Homeland Security and Emergency Management.	3	n	2	
2. Implement procedures and provide the necessary staff at the State Emergency Operations Center (SEOC) to support the state's responsibility in emergency banking and fiscal matters of any economic stabilization program established by the Federal Reserve Bank of Minneapolis and/or the Federal Reserve System.	3	n	3	
3. Coordinate with other state agencies in supporting utility restoration by the gas and electric utilities.	2	n	1	
4. Identify resources and assist vulnerable individuals and families through the energy assistance program during and after a pandemic.	2	n	2	
5. Identify resources and assist vulnerable individuals and families through the weatherization program during and after a pandemic.	2	n	2	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
6. Assist state and local government with damage assessment of private or individual dwellings and businesses, which may include seeking cooperation of insurance underwriters' adjustment resources, as requested by the Division of Homeland Security and Emergency Management.	1	n	2	
7. Develop and make available consumer fact sheets about disaster assistance and insurance regulations.	3	n	3	
8. Implement procedures for the conservation and management of energy resources during energy emergencies, in coordination with energy suppliers in the state, as needed.	3	n	2	
9. Coordinate activities with the Division of Homeland Security and Emergency Management in the implementation of energy emergency procedures.	3	n	2	
10. Develop various public information releases for use in an energy emergency.	3	y	1	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>11. Provide a representative, when requested, to serve on the Minnesota Recovers Disaster Task Force, in order to assist in the evaluation of projects proposed for funding.</p> <p>D. Department of Education shall:</p>	<p>3</p>	<p>n</p>	<p>3</p>	<p>++ Would be nice:</p> <p>Map of a school district with boundaries and school locations, county boundaries and location of the county offices and County EOCs if different from the county office. Include charters and nonpubs.</p> <p>Pre-populated names of key contacts 3-deep for the district, each school, and each other education program (or maybe just regular contact information and then other information available by password). Links to each school and school district website.</p> <p>Pre-populated county emergency managers and other office staff, link to website and location of local ER plan.</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>1. Coordinate with the Division of Homeland Security and Emergency Management concerning the development and updating, as required, of emergency plan guidance to be provided to local schools. Such guidance shall be designed to assist schools in developing an emergency plan that provides for the protection of children in the event of a pandemic. The department shall be responsible for the distribution of such planning guidance to local school districts.</p>	3	no	3	<p>Same for public health.</p> <p>Also info (names, phone number, email, websites) --local law enforcement --fire --emergency services/ambulance --clinic/hospital --human services</p> <p>Maps to track where participants in workshops have come from; will do follow via zoomerange.</p> <p>Pandemic planning in progress with periodic consultation with MDH and HSEM. Attending MDH school meetings or staff inservices for updating staff would aid in communication; attending periodic SEOP</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. Assist local school districts in preparing and submitting a request for financial assistance from the federal government during and after a pandemic influenza outbreak.	3	no	2	<p>updates (regular quarterly meetings) would be helpful. MDE will initiate quarterly meetings with MDH and HSEM later this summer in planning for MDE to sponsor regional table-top exercises.</p> <p>We currently can readily access US DoE for SERV grants for schools experiencing a crisis. To apply for FEMA funding, we would need assistance from or provide consultation to the SEOC rep from HSEM who is the federal liaison in a declared emergency. We would also seek assistance from US DOE. We would appreciate any instruction prior to an emergency form HSEM in the process of and data needed for a FEMA grant.</p>





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
<p>3. Work with schools to develop school-specific, all-hazard emergency plans, which include guidance on pandemic planning, that are compatible with local, county, state and federal all-hazard plans.</p>	3	No	2-3	<p>Assist schools in making connections to their local contacts. ***</p> <p>The All Hazards School Safety interagency team will take up the task of reworking the school model crisis policy and revisit the DPS school response guidelines.</p> <p>Also 3 school districts have US DoE Emergency Preparedness grants this year and MDE will be working with them on their planning, etc....</p>
<p>E. Emergency Medical Services Regulatory Board shall: 1. With technical assistance from the Department of Transportation – Office of Electronic Communications, ensure the statewide emergency medical services radio communication plan is implemented during a pandemic influenza outbreak.</p>	3	N	2	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. In coordination with other state agencies and local authorities, provide guidance to pre-hospital emergency medical services (EMS) agencies in areas affected by a pandemic influenza outbreak.	2	N	3	
3. When requested, the EMSRB will coordinate pre-hospital emergency medical services (EMS) and transportation for patients who require an ambulance during the evacuation of health/medical facilities.	1	N	2	
4. Assign personnel, as necessary, to State, Regional, and local Emergency Operations Centers, for the purpose of coordinating pre-hospital emergency medical services.	2	N	3	
5. Maintain a list/database of the critical pre-hospital emergency medical resources throughout the state (e.g., disaster trailers, communication equipment, ambulances) to support EMS providers.	1	Y	2	
6. Coordinate resources for Critical Incident Stress Management (CISM) support to pre-hospital EMS providers. F. Department of Employee Relations shall:	3	N	3	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
1. Support the Department of Employment and Economic Development in the management of personnel services at State and Regional Emergency Operations Centers during a disaster, and assist in the development of emergency employment utilization procedures.	3			
2. Interface with union officials and appropriate representatives to develop strategies for resolving conflicts between labor organizations and state agencies during a pandemic.	3			
3. Provide support to state agencies in the management of labor contracts during emergency operations, ensuring fair, uniform and consistent interpretation of contract language.	3			
4. Coordinate the reassignment of state employees between agencies.	2			
5. Facilitate and coordinate with the labor bargaining units the procedures and processes for changes in state employee scheduling, work locations, and temporary work assignments during declared emergencies.	2			
G. Department of Employment and Economic Development shall:				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
1. Develop procedures to provide unemployment assistance to eligible individuals whose unemployment results from a disaster declared under Public Law 93-288. Arrange for payment of benefits, under regular unemployment compensation laws, to eligible individuals in cases where a disaster has not been declared.	3			
2. Provide materials or representation at Disaster Recovery Centers (DRCs) and public meetings to furnish information relative to disaster unemployment, and applicable programs, as requested by the Division of Homeland Security and Emergency Management.	3			
3. Provide an estimate of the immediate economic impact of either a highly pathogenic avian influenza or a pandemic influenza outbreak, as requested by the Division of Homeland Security and Emergency Management. Where possible and applicable, the department shall provide estimated projections of long-range effects of each instance including: residents, businesses, and local, state, and federal agencies.	2			
H. Department of Finance shall:				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
1. Develop procedures for streamlined fiscal management of the state during either a highly pathogenic avian influenza or a pandemic influenza outbreak.	3			
2. Work with Department of Public Safety to establish procedures to estimate and monitor potential state matching commitments associated with requests for Presidential disaster declarations, and accompanying strategies to request appropriation authority for such matching funds.	2			
3. Assist state agencies in identifying potential additional costs associated with supporting local agencies during emergencies, and accompanying strategies to request appropriation authority for such additional costs.	3			
I. Minnesota Housing Finance Agency shall: 1. Upon entry into MN Response Phase P3, immediately inventory the availability of rental property suitable for temporary or long-term housing. J. Department of Human Services shall:	1			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
1. Assist with immediate mental health services, apply for and administer special mental health program grants for pandemic victims, and provide crisis counseling training for mental health providers working with pandemic issues.	2			
2. Coordinate the Disaster Food Stamp Program for highly pathogenic avian influenza and or pandemic influenza victims.	2			
3. Provide USDA donated food to disaster relief agencies and emergency feeding programs, and assist with its distribution and storage through the Emergency Food Assistance Program (TEFAP).	2			
4. Coordinate with county social service agencies to meet the childcare needs of HPAI and pandemic influenza victims unable to care for their children.	2			
5. Coordinate with county social service agencies to meet the food, shelter, clothing, and medical care needs of pandemic victims through state and federal income maintenance programs.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
6. Coordinate the delivery of emergency human services with local government, voluntary agencies, and other human service agencies, following a disaster, through State and/or Regional Emergency Operations Centers.	1			
7. Provide personnel to assist the state in delivering individual assistance following a presidential disaster declaration, as requested by the Division of Homeland Security and Emergency Management.	3			
8. Provide assistance in long-term disaster recovery, using existing programs, streamlining, or waiving regulatory functions where possible, and providing technical assistance and/or administrative support to stricken communities.	3			
K. Department of Labor and Industry shall: 1. Assign a representative to the State Emergency Operations Center to respond to questions regarding protective measures in the work place and virus transmission.	3	N	3	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. Develop fact sheets for businesses detailing training required for implementation of protective measures (masks, respirators, etc.) in the workplace.	3	N	3	
L. Department of Military Affairs shall:				
1. Prepare and maintain plans and procedures to support civil authorities when a HPAI or pandemic influenza outbreak exceeds state and local resources (Minnesota National Guard).	2	Y	1	
M. Office of Enterprise Technology shall:				
1. Furnish computer services needed for operations and resource management in an emergency.	1	N	3	
2. Coordinate planning and delivery of statewide telecommunications systems and services for emergency operations during an emergency, and shall provide emergency telecommunications support.	2	N	1	
3. Provide state agencies access to a recovery plan development software tool.	1	N	3	
4. Provide support to state agencies in the identification of alternate sites for their systems and time-sensitive functions.	1	Y	1	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
5. Coordinate continuity of operations planning and standards for state agencies and provide emergency support.	3	N	3	
N. Minnesota Pollution Control Agency shall:				
1. Waive, modify or suspend selected enforcement rules of the agency, when statute provides for such waivers upon instructions from the Governor's Office or the Governor's Authorized Representative.	3			
2. Provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team, following a Presidential declaration of disaster or when requested.	3			
3. Provide a representative to serve on the Minnesota Recovers Disaster Task Force to evaluate projects proposed for funding, as requested.	3			
4. Provide technical and policy-level staff to the State Emergency Operations Center, specifically to the Planning and Assessment Center and the Operations Section, as requested.	2			





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
5. Develop and provide guidelines and procedures, assisting local authorities to manage and dispose of debris during a pandemic.	1			
O. Department of Public Safety shall:				
1. Bureau of Criminal Apprehension				
a) Make its field agents available, when possible, to assist other state agencies with search and rescue, evacuation and traffic control, and law enforcement during a disaster.	1			
2. Capitol Complex Security Division				
a) Provide protection to property and equipment on the Capitol complex during an emergency.	2			
b) Provide 24-hour security for the State Emergency Operations Center (SEOC) and the Joint Information Center (JIC) during an emergency, when located on the Capitol complex.	2			
3. Office of Communications				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Provide emergency public information support following the occurrence of a pandemic, in coordination with the Division of Homeland Security and Emergency Management and the Governor's Office.	2			
4. State Fire Marshal/Office of Pipeline Safety a) Conduct fire and life safety inspections of facilities that will be used as pandemic housing, as requested by the Division of Homeland Security and Emergency Management, or deemed necessary by the State Fire Marshal.	2			
5. Fiscal and Administrative Services a) Within five working days, process payments received from the Department of Public Safety, Division of Homeland Security and Emergency Management, for disaster victims, if the Division is processing Other Needs Assistance for the Individuals and Households Program.	3			
6. State Patrol Division				





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
a) Ensure law enforcement and traffic control on all interstate and state trunk highways during a HPAI and/or pandemic influenza outbreak.	2	Y	1	
b) Use available resources to assist local police agencies with law enforcement and traffic control when requested by proper local authority to do so.	3	Y	1	
c) Act as net control for the National Warning System (NAWAS) within the state for the dissemination of national and local emergency information and warnings.	3	Y	2	
d) Be responsible for providing assistance that may be required by the Capitol Complex Security Division to protect the personnel in the Capitol Complex during an emergency, and prepare plans and procedures accordingly.	3	Y	3	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
e) Serve as the redundant direction and control net using the State Patrol radio frequencies. Provide personnel to operate the radio console in the State Emergency Operations Center (SEOC), during exercises, drills and emergencies, if needed.	3	Y	2	
f) Provide backup radio operators to operate the radio console in the SEOC, as needed.	3	Y	1	
g) The State Patrol Air Section shall provide aerial photography on an as-needed basis. State Patrol helicopters equipped with cameras shall be utilized to do aerial filming of the identified area and shall provide that information directly to the State Emergency Operations Center.	1	y	1	
h) The State Patrol Air Section shall request flight restrictions over disaster and emergency areas, when requested by the Division of Homeland Security and Emergency Management or local authorities.	2	Y	1	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
i) The State Patrol Air Section shall provide personnel to participate in a preliminary damage assessment (PDA) effort and prepare damage survey reports (DSRs) for airports and airport facilities damaged in any type of major disaster in conjunction with the Department of Transportation Aeronautics Division, and the Department of Natural Resources, when requested.	1	Y	2	
j) The State Patrol Air Section shall provide transportation and/or reconnaissance in conjunction with the Department of Transportation Aeronautics Division, on an as-needed basis.	3	Y	3	
k) The State Patrol Air Section shall have a plan for the utilization of agency aircraft available for emergency operations, including records of agency aircraft, pilots, and available airports.	2	Y	2	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
l) The State Patrol Air Section shall coordinate with the Department of Transportation Aeronautics Division, and the Department of Natural Resources for the provision and use of air transportation resources within state government, during a disaster declaration.	3	Y	2	
7. Warehouse a) Assist with the relocation of furniture, equipment, and supplies from the State Emergency Operations Center to an alternate site, when feasible.	1			
P. Department of Revenue shall: 1. Provide materials or representatives at Disaster Recovery Centers (DRCs) to provide guidance to clients about fulfilling their tax obligations as a result of a HPAI and/or pandemic influenza outbreak, or as requested by the Division of Homeland Security and Emergency Management.	3	No	3	HSEM would determine the need for DRCs. DOR is a support agency and would respond to the area where assistance is requested.





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
2. Assist state and local governments and help citizens determine value of losses sustained as a result of a HPAI and/or pandemic influenza outbreak.	3	No	3	Local governments will inform DOR of the need.
3. Assign personnel to assist with the compliance activities associated with the economic stabilization function.	3	No	Low 2-3	May be helpful to the group to identify areas that were harder hit with deaths to determine areas impacted. This information would most likely already be compiled for other reasons.
Q. Minnesota State Colleges and Universities shall:				
1. Assess facilities within the network for capacity and equipment.	2	N	2	
2. Assist state and local government by providing facilities as needed during a HPAI and/or pandemic influenza outbreak.	2	N	2	
R. Department of Transportation shall:				
1. Implementing highway traffic management plans and procedures for the regulation of highway travel, as requested.	1	YES	1	We would use a CAD traffic program, GIS could be used also.
2. Process Temporary Flight Restriction (TFR) requests through the Federal Aviation Authority (FAA), as requested.	2	YES	1	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
3. Coordinate air transportation and reconnaissance with the FAA, Metropolitan Airports Commission, Department of Military Affairs, Department of Natural Resources, Department of Public Safety and general aviation, as requested.	2	YES	3	
4. Provide emergency engineering services in disaster operations and assign personnel to the State Emergency Operations Center.	3	No		
5. Coordinate emergency relief efforts with the motor carrier industry to enlist their assistance in emergency response efforts.	2	YES	3	
6. Assist in preparing emergency executive orders granting relief from the motor carrier safety regulations, including overweight and overdimension permits, upon instruction from the Governor's Authorized Representative.	3	YES	2	CAD or GIS Could be used
7. Provide technical radio communications assistance to the Division of Homeland Security and Emergency Management and incident commanders, as requested.	3	YES	2	





A MEOP HPAI AND PANDEMIC TASKS	B CONSULTANT APPLICABILITY SCORE	C DO YOU CURRENTLY USE MAPS TO COMPLETE THIS TASK? (Y / N)	D HOW DESIRABLE IS IT TO USE MAPS IN THE FUTURE TO COMPLETE THIS TASK?	E COMMENTS
8. Provide technical assistance in developing radio capabilities for statewide emergency preparedness when multiple state agencies or multiple levels of government need to carry out a coordinated response.	3	Yes	1	
9. Maintain the state radio communications systems essential to operations during a HPAI or pandemic influenza outbreak.	3	Yes	3	
10. Provide personnel and equipment support in emergency law enforcement, evacuation or sheltering in-place, traffic control and public alerting operations, when requested by the Division of Homeland Security and Emergency Management.	2	No		



12.0 Dataset Analysis

12.1 Dataset Analysis by Pandemic Preparedness Business Function

	Notification & Warning	Incident Management	Public Information	Accident/Damage Assessment	Search & Rescue	Health Protection	Medical Services	Fire Protection	Evacuation/Traffic Control/Security	Mass Care, Housing, and Human Services	Debris Management	Public Works/Utilities Restoration	Environmental Hazard Response	Resource Management
Street Data	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Parcel Data		X		X				X	X			X		
Imagery		X	X	X	X			X					X	X
Soil Data											X		X	
Hydrology		X		X	X	X		X			X		X	X
Demographic Data (population, political/administrative divisions)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Revenue Data (business taxes)				X										X





	Notification & Warning	Incident Management	Public Information	Accident/Damage Assessment	Search & Rescue	Health Protection	Medical Services	Fire Protection	Evacuation/Traffic Control/Security	Mass Care, Housing, and Human Services	Debris Management	Public Works/Utilities Restoration	Environmental Hazard Response	Resource Management
Facilities (infrastructure)														
Emergency (Police & fire departments, shelter, red cross)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Health (hospital, morgue, care, ultimate care, mental care)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Public (airports, markets, cemetery, cremation, stadium, venues)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Commercial (business, poultry breeding/processing, landfill)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Social (church, school, day care, elderly care)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Judicial (prisons, jails, detention)	X	X	X	X	X	X	X	X	X	X	X	X	X	X





	Notification & Warning	Incident Management	Public Information	Accident/Damage Assessment	Search & Rescue	Health Protection	Medical Services	Fire Protection	Evacuation/Traffic Control/Security	Mass Care, Housing, and Human Services	Debris Management	Public Works/Utilities Restoration	Environmental Hazard Response	Resource Management
Public works (hydrological equipment, networks, utilities)		X		X	X	X		X			X	X	X	X
Population Movements (day/night, work/holiday)	X	X	X	X	X	X	X	X	X	X				X
Wildlife Data (migratory routes, water fowl locations)		X	X	X	X	X	X		X		X		X	X
Media Station coverage areas	X		X											
Resources (SNS locations, ambulances, other)		X		X	X	X	X	X	X	X	X	X	X	X
Case and patient data	X					X	X			X				
Human resources data (work locations, contact info, shifts)	X	X	X	X	X	X	X	X	X	X				X
Land ownership	X	X		X	X		X	X	X	X	X	X	X	X





12.2 Dataset Analysis by Agency

	Administration	Agriculture	Animal Health	Attorney General	Commerce	Education	EMS Regulatory Board	Employee Relations	Employment & Economic Development	Health	Housing Finance	Human Services	Labor & Industry	Military Affairs	Natural Resources	Office of Enterprise Technology	Pollution Control	Public Safety	Revenue	Transportation	Finance
Street Data	U	U	U			U	U	U		U	U	U	U	U	U		U	U	U	C	
Parcel Data	U	U	U		U						U		U		U		U	U		U	
Imagery	U	U	U							U				U	U		U	U		U	
Soil Data		U	U											U	C		U	U			
Hydrology		U	U							U				U	C		U	U		U	
Demographic Data (population, political/administrative divisions)	U	U	U	U	U	U	U			U	U	U	U	U			U	U	U	U	
Revenue Data (business taxes)																			U		





	Administration	Agriculture	Animal Health	Attorney General	Commerce	Education	EMS Regulatory Board	Employee Relations	Employment & Economic Development	Health	Housing Finance	Human Services	Labor & Industry	Military Affairs	Natural Resources	Office of Enterprise Technology	Pollution Control	Public Safety	Revenue	Transportation	Finance	
Facilities (infrastructure)																						
Emergency (Police & fire departments, shelter, red cross)	U	U	U			U	U	U		U		U	U	U	U		U	U			U	
Health (hospital, morgue, care, ultimate care, mental care)	U	U	U	U		U	U	U		U	U	U	U	U	U		U	U			U	
Public (airports, markets, cemetery, cremation, stadium, venues)	U	U	U	U		U	U	U		U	U	U		U	U		U	U			U	





	Administration	Agriculture	Animal Health	Attorney General	Commerce	Education	EMS Regulatory Board	Employee Relations	Employment & Economic Development	Health	Housing Finance	Human Services	Labor & Industry	Military Affairs	Natural Resources	Office of Enterprise Technology	Pollution Control	Public Safety	Revenue	Transportation	Finance
Commercial (business, poultry breeding/processing, landfill)	U	U	U		U					U			U	U	U		U	U		U	
Social (church, school, day care, elderly care)	U	U	U	U		U	U	U		U		U		U	U		U	U		U	
Judicial (prisons, jails, detention)	U			U			U	U		U		U		U				U		U	
Public works (hydrological equipment, networks, utilities)	U	U	U							U				U	U	U		U		U	





	Administration	Agriculture	Animal Health	Attorney General	Commerce	Education	EMS Regulatory Board	Employee Relations	Employment & Economic Development	Health	Housing Finance	Human Services	Labor & Industry	Military Affairs	Natural Resources	Office of Enterprise Technology	Pollution Control	Public Safety	Revenue	Transportation	Finance
Population Movements (day/night, work/holiday)	U							U		U		U		U				U		U	
Wildlife Data (migratory routes, water fowl locations)	U	U	U							U				U	C		U	U			
Media Station coverage areas	U	U	U							U					U			U			
Resources (SNS locations, ambulances, other)	U	U	U			U	U	U		U		U		U	U			U		U	
Case and patient data		U	U			U		U		U		U		U	U		U	U			





	Administration	Agriculture	Animal Health	Attorney General	Commerce	Education	EMS Regulatory Board	Employee Relations	Employment & Economic Development	Health	Housing Finance	Human Services	Labor & Industry	Military Affairs	Natural Resources	Office of Enterprise Technology	Pollution Control	Public Safety	Revenue	Transportation	Finance	
Human resources data (work locations, contact info, shifts)	U	U	U			U	U	U		U		U		U	U	U	U	U				
Land ownership		U	U	U						U		U		U	U		U	U		U		





13.0 NIMS Components

COMPONENT	DESCRIPTION
Command and Management	<p>NIMS standard incident command structures are based on three key organizational systems:</p> <ol style="list-style-type: none"> 1) ICS: defines the operating characteristics, interactive management components, and structure of incident management and emergency response organizations engaged throughout the life cycle of an incident 2) Multi-agency coordinating systems: define the operating characteristics, interactive management components, and organizational structure of supporting incident management entities engaged at the Federal, State, local, tribal, and regional levels through mutual-aid agreements and other assistance arrangements; and 3) Public Information Systems: processes, procedures, and systems for communicating timely and accurate information to the public during crisis or emergency situations.
Preparedness	<p>Effective incident management begins with a host of preparedness activities conducted on a “steady-state” basis, well in advance of any potential incident. Preparedness involves an integrated combination of planning, training, exercises, personnel qualification and certification standards, equipment acquisition and certification standards, and publication management processes and activities.</p>
Resource Management	<p>The NIMS defines standardized mechanisms and establishes requirements for processes to describe, inventory, mobilize, dispatch, track, and recover resources over the life cycle of an incident.</p>
Communications and Information Management	<p>The NIMS identifies the requirement for a standardized framework for communications, information management (collection, analysis, and dissemination), and information-sharing at all levels of incident management.</p>
Supporting Technologies	<p>Technology and technological systems provide supporting capabilities essential to implementing and continuously</p>





COMPONENT	DESCRIPTION
	refining the NIMS. These include voice and data communications systems, information management systems (i.e., record keeping and resource tracking), and data display systems. Also included are specialized technologies that facilitate ongoing operations and incident management activities in situations that call for unique technology-based capabilities.
Ongoing Management and Maintenance	This component establishes an activity to provide strategic direction for and oversight of the NIMS, supporting both routine review and the continuous refinement of the system and its components over the long term.

14.0 IT Implicated Sections to Statute 3678

SECTION	DESCRIPTION
Sec. 103. National Health Security Strategy	Requires the Secretary to submit to Congress a National Health Security Strategy for public health emergency preparedness and response, including an assessment of the preparedness of Federal, State, and local public health and medical capabilities.
Sec. 201. Improving State and Local Public Health Security	<p>Reauthorizes public health preparedness cooperative agreements to continue the strengthening of State and local infrastructure.</p> <p>Identifies minimum essential public health security capabilities for national and State investments in public health preparedness.</p> <p>Establishes a State matching requirement to ensure shared financial burden between Federal and State investments.</p> <p>Ensures fiscal accountability, measured progress based on evidence-based benchmarks and objective standards, and regular exercises.</p>
Sec. 202. Using Information Technology to Improve Situational Awareness in Public Health Emergencies	<p>Requires the Secretary to build on existing State and local public health situational awareness capabilities and establish a near real-time nationwide public health situational awareness network to enhance early detection of, rapid response to, and management of potentially catastrophic infectious disease outbreaks and public health emergencies.</p> <p>Authorizes grants to States to implement coordinated surveillance systems that meet standards determined by the Secretary.</p>



SECTION	DESCRIPTION
	<p>Authorizes grants for pilot projects to support real-time surveillance. These grants may be awarded to hospitals or clinical laboratories for advanced clinical diagnostics, or to poison control centers for enhancing surveillance and response capabilities.</p>
<p>Sec. 204. Vaccine Tracking and Distribution</p>	<p>Allows the Secretary to collaborate with State and local public health officials and private entities to track pandemic flu vaccine and to facilitate communication to promote effective distribution of seasonal flu vaccine.</p>
<p>Sec. 205. National Science Advisory Board for Biosecurity</p>	<p>The National Science Advisory Board for Biosecurity, at the request of the Secretary, will provide advice, guidance or recommendations concerning biosafety laboratory capacity nationwide and a core curriculum for workers in such laboratories.</p>
<p>Sec. 302. Enhancing Medical Surge Capacity</p>	<p>As part of the joint review, the Secretary shall evaluate ways to improve medical surge capacity in local communities through the use of mobile medical assets and Federal facilities that could be used during a public health emergency.</p>
<p>Sec. 303. Encouraging Health Professional Volunteers</p>	<p>Codifies the existing local Medical Reserve Corps and ensures a coordinated national infrastructure for utilizing willing volunteers to respond to national emergencies.</p> <p>Sets requirements for the composition of the Corps, training, and certification of Corps members.</p> <p>Requires the Secretary to link existing State volunteer verification systems and maintain a single nationwide interoperable network of systems (ESAR-VHP) for the purpose of advance registration of volunteer health professionals.</p> <p>The system verifies credentials, licenses and certifications to enable rapid response to public health emergencies.</p>
<p>Sec. 304. Core Education and Training</p>	<p>Authorizes the Secretary to refocus and consolidate current curriculum development and training programs to establish core public health and medical response curricula and training, through convening public and private experts.</p> <p>Requires CDC's existing Centers for Public Health Preparedness (CPHP), to develop core public health curricula and training programs for use by schools of public health that are part of the CPHP Network.</p> <p>Expands the CDC's Epidemic Intelligence Service Program by 20 officer positions who agree to practice in underserved areas.</p>





SECTION	DESCRIPTION
Sec. 305. Partnerships for State and Regional Hospital Preparedness to Improve Surge Capacity	<p>Reauthorizes hospital preparedness cooperative agreements to continue to strengthen State and regional medical surge capacity.</p> <p>Ensures fiscal accountability, measured progress based on evidence-based benchmarks and objective standards, and regular exercises.</p> <p>Enhances regional coordination and an appropriate consideration of risk.</p>

15.0 2007 URISA Conference, August 20-23, 2007 in Washington D.C. by ESRI

The 2007 URISA Conference PowerPoint show by ESRI can be found at the end of this PDF document.

16.0 New York City Summary

This supplement provides some backdrop on the enterprise GIS environment established in New York City to address issues relevant to the topic of the GIS Pandemic Needs Analysis Study. This write up was prepared by Ed Carubis of ESRI.

16.1 Introduction

New York City leverages GIS investments initially made by the planning agency and the water/wastewater utility to provide centralized GIS services to all 60+ City agencies. The NYC Department of Health develops and utilizes web services that access these centralized assets to improve customer service and disease detection efforts.

16.1.1 Development of an Enterprise GIS in New York City

During the 1980's and 1990's, the New York City Department of City Planning (DCP) developed several information products that were the earliest comprehensive uses of



spatial information in NYC government. The first was the development of digital street centerline files known as LION that are used for address geocoding. Even though it contains nothing but streets shown as a single line, this data was a fine map for tasks in which geocoding was the dominant mapping goal. In combination with the development of the street centerline files was the development of GeoSupport, the master address file for New York City, which is used to create and manage addresses in New York City. In combination, GeoSupport and LION enable address matching on over 99% of address entries, and provide approximate geocoding based on street centerline.

Following this effort was the development of a rough thematic parcel layer known as the Bytes of the Big Apple, loosely fit to the New York East State Plane Coordinate System. Through the years NYC has taken these digital files and assembled them into discrete shapefiles for the individual boroughs, for both the blocks and lots, with unique taxlot IDs for each parcel. Together with LION and GeoSupport, these assets served as the primary core assets for agency GIS efforts throughout NYC, until the development of NYCMAP.

The Department of Environmental Protection serves as the primary water and wastewater utility in New York City. In the mid-1990s, the need for more spatially accurate representation of assets drove the public utility to fund and develop a planimetric base map known as NYCMAP. Recognizing the value to NYC overall, the NYCMAP effort was developed as a city-wide initiative. To enable this to occur, GIS resources from the utility were re-organized under a city-wide GIS office, reporting to the NYC CIO as part of the IT organization.

NYCMAP contains numerous data layers, such as street centerline, hydrology, rail lines, parcel, and building footprints to name a few. All of these layers have been captured using digital orthophoto data in accordance with ASPRS accuracy for 1" = 100' Class I Large Scale Maps. The data was developed to correspond to 100' scale accuracy to full advantage of the photography and the capability of photogrammetric instrumentation. The most striking feature about the new planimetric base map is its complexity and comprehensive nature, encompassing both vector and raster thematic layers from most NYC agencies.

Once NYCMAP was created, a process was initiated to register to NYCMAP the City Planning data assets, including LION street centerline and parcel layers. In addition, efforts began to begin registering agency thematic layers to NYCMAP. Today, NYCMAP is a central repository of NYC GIS assets, and the GIS Office reporting to the NYC CIO has sole responsibility for coordinating the availability of the most current imagery and vector data for NYC agencies to utilize.



16.1.2 Creating Web Services to Spatially Enable Health Record Systems

The NYC Department of Health (DOH), like most large state and local health agencies, has very diverse responsibilities. These include the recording of every birth and death event and every childhood immunization and lead test. In addition, the health agency investigates naturally occurring and man-made disease outbreaks and environmental health impacts. Core services also include the inspection of regulated facilities, animal licensing, and the investigation of nuisance complaints.

To accomplish these objectives, the agency deployed over 150 different systems and application processes within a Services Oriented Architecture (SOA). The need to rapidly and effectively respond to various public health emergencies, including the introduction of West Nile Virus, anthrax attacks on media organizations, and the events of 9/11 drove the need for the deployment of spatial processes and data to many of these systems. In addition, the capture of accurate spatial information has always been essential to maintaining accurate health records, and in providing improved services to the public.

With a foundation of GIS data assets available city-wide, DOH was able to leverage these assets, through the development of web services, to deploy essential spatial processes and services to agency systems. Specifically, services were created to:

- standardize address entries
- geocode addresses
- match addresses
- serve basemap and thematic layers
- use orthoimagery and basemap data to geocode non-addressable locations
- utilize buffers to determine duplicate complaints/records

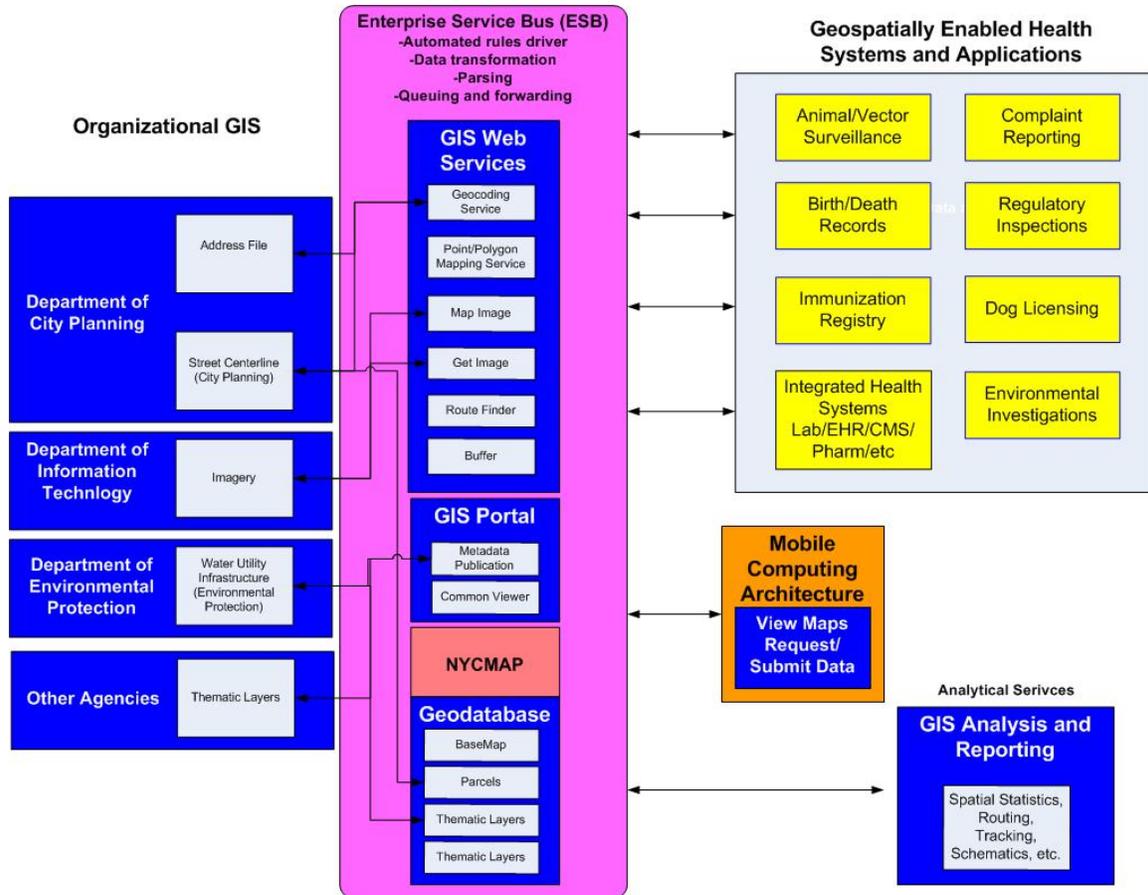
These services were made available to all agency systems, deployed and managed through the ESB architecture, resulting in enabling existing systems with geospatial capabilities and the creation of geocentric workflows. The benefits of this effort include:

- more accurate birth, death, and immunization records
- more efficient inspection scheduling and routing
- reduced duplication of work orders in response to public complaints
- increased accuracy of environmental sample collection
- early detection of disease clusters

The following diagram depicts the implementation of GIS web services within the DOH enterprise architecture:



Figure 16-1: NYC DOH GIS Webservices Enterprise Architecture



Spatial data assets, including addresses and parcels, imagery and street centerline files, are maintained by several agencies, yet used in several combinations to develop web services to geospatially enable existing and new health systems and applications. These assets can also be registered through a GIS portal and accessed directly for GIS use based upon portal access controls and searched based upon associated metadata records. Finally, some spatial data assets are selected for inclusion in a centralized data repository that can also be accessed, either directly or through the GIS portal.

In addition to enabling existing business applications, GIS processes and data are also used to develop advanced analytical GIS capabilities, as well as extending the use of GIS into the field. This ensures the common application and use of GIS in all aspects of the business process. An example of how this can benefit a health organization follows:





Predicting the Occurrence of West Nile Virus - Dead bird reporting is a significant indicator of West Nile Virus activity. Accurate dead bird location reporting enables the development of accurate models that can predict the early emergence of virus activity in a local community. The following is a summary of workflow processes that leverage data assets from other NYC agencies and common spatial services to manage West Nile virus in New York City:

1. 311 operators use geocoding services and imagery in combination with point mapping services within the CRM application to capture accurate dead bird reports from the public.
2. These reports fuel a work order system that routes field workers to pick up dead birds for testing. Buffering services are used to identify and merge duplicate reports.
3. Test results are used in combination with positive mosquito surveillance sites to perform cluster analyses to determine whether positive indicators are clustered in local neighborhoods.
4. Indicator clusters are found to correlate with the presence of human cases of West Nile Virus.
5. The model is used to prioritize prevention and intervention efforts in local communities, before human cases appear.

The success achieved through leveraging data resources from multiple agencies and the development of spatial capabilities as services during the West Nile Virus effort allowed New York City to extend the use of map visualization and spatial analysis to other public health applications. These include the basis for development of the syndromic surveillance spatial cluster methods, and providing the spatial accuracy relative to health data needed for situational awareness for public health emergencies.

17.0 State-of-the-Art GIS Needs and Applications by Pandemic Business Function

BUSINESS FUNCTION	GIS NEEDS/APPLICATIONS
Notification & Warning	Real-time integrated geo-coding is needed to automate the transmission and display of notification and warning information



BUSINESS FUNCTION	GIS NEEDS/APPLICATIONS
	across relevant existing enterprise systems and applications.
Incident Management	<p>A comprehensive overview of all resources, events, reports is needed to develop a sound situational awareness.</p> <p>An online service facility is needed to provide real-time information to and receive respective information from federated systems across all government coordinating, lead, and support agencies and systems (e.g., DLan to MNTrac and vice versa).</p> <p>Field staff shall be able to assess a situation with information provided from a central server in real-time and be able to update information directly in the main system.</p> <p>Messaging and alerting communications should have, where appropriate, a spatial identification component to automate the linkage to the common operating picture.</p> <p>Analytical tools must be available supporting the analysis of the detection and spread of the disease, population movements, and resource deployment / depletion from a spatial perspective.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Public Information	<p>Public information must be supported with simple maps to ensure meaningful and effective communication.</p> <p>Online resources (e.g., interactive maps) with simplified views of the current situation will ensure 24/7 communication.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Accident/Damage	Damage assessment and impact analysis require geocoding capabilities to place an emerging event in the spatial context of





BUSINESS FUNCTION	GIS NEEDS/APPLICATIONS
Assessment	<p>existing infrastructure and populations.</p> <p>Spatial analytical functions must be developed combining prepared data with the situational information for a valid, real-time assessment.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Search & Rescue	<p>Search and rescue GIS capacities should exist to provide the common operating picture to field staff and capture real-time updates from the field units at the same time for coordination with the central office and between field teams.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Health Protection	<p>Protection from the threat posed by HPAI and pandemic influenza is multi-tiered problem. Early warning and detection of influenza outbreaks should be supported by risk analysis combining the observed health data with underlying demographics.</p> <p>Case reports must be geo-coded to determine the potential impact on the communities and provide basic situational awareness visualization.</p> <p>Existing outbreaks may be modeled in their spread using spatial analytical tools.</p> <p>Public health service delivery, e.g., prophylactic medications, specialist deployment, mental services, and personal protective equipment, can be planned and logistically supported via maps and analyses, e.g., by routing analysis.</p> <p>The impact on health protection from population movements (night and day, urban to rural) can be measured, modeled, and will ultimately support decision making with respect to resource</p>



BUSINESS FUNCTION	GIS NEEDS/APPLICATIONS
	<p>allocations.</p> <p>Social distancing measures, e.g. quarantines and work space distancing, can be supported in planning and enforcement via GIS analyses.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Medical Services	<p>The delivery of medical services and people to medical facilities in times of mass concern will require a strong logistical component to deal with optimized resource deployment and efficient routing. GIS can support the tracking and routing of resources in complex situations.</p> <p>GIS capacities should exist to provide the common operating picture to alternative medical facilities and field staff. The capability to capture real-time updates from the field units should be available.</p> <p>The strategic national stockpile is an essential capacity in the response to highly infectious disease events by the federal government. The transport, storage, and distribution can be greatly supported by map capacities.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Fire Protection	<p>Fire protection is a very dynamic function. Field information must be combined with stored facility and environmental information for real-time decision support in resource deployment and prioritization. This very complex situation should be visualized using GIS and may be supported by wind modeling and other analyses.</p> <p>Key data sets, including parcel data, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>





BUSINESS FUNCTION	GIS NEEDS/APPLICATIONS
Evacuation/Traffic Control/Security	<p>The application of public health control measures, the delivery of medical services, and other response activities will require logistical support for transportation, movement control, and security, all of which should be prepared in advance.</p> <p>Key data sets, including facilities and street data, must be prepared in advance to support this business function.</p>
Mass Care, Housing, and Human Services	<p>The delivery of human services faces similar challenges as the delivery of medical services and health protection, thus benefits from the deployment of GIS capacities in the same way.</p> <p>Key data sets, including housing, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Debris Management	<p>Debris management requires field units to make decision based on information of the surrounding environment. GIS analytical capacities should exist to facilitate these analyses in the field or, at least, to provide field data to a backoffice tool.</p> <p>Key data sets, including housing, facilities, street data, population statistics, and others, must be prepared in advance to support this business function.</p>
Public Works/Utilities Restoration	<p>During pandemic events, on key utility is the government's computer network, as it largely secures the continuation of priority services after implementation of social distancing control measures. A map driven overview of resources and connectivity of the government computer network will be essential in spotting and resolving problems.</p> <p>Key data sets, including facilities and equipment locations, must be prepared in advance to support this business function.</p>
Environmental Hazard	Environmental hazard response requires field support for



BUSINESS FUNCTION	GIS NEEDS/APPLICATIONS
Response	<p>responders for data collection, onsite decision support, and inter-team communications. GIS capacities are invaluable in such situations.</p> <p>Key data sets, including wild life patterns, water features, land use zoning, population statistics, and others, must be prepared in advance to support this business function.</p>
Resource Management	<p>Resource management can be planned and logistically supported via maps and analyses, e.g., by asset tracking and routing analysis.</p> <p>Key data sets, including facilities and equipment locations, must be prepared in advance to support this business function.</p>





State of Minnesota

GIS Pandemic Needs Analysis Report

Appendices Addendum

[MEOP Supplement](#)

**State of Minnesota Highly Pathogenic Avian Influenza (HPAI) and Pandemic Influenza
MEOP Supplement**



State of Minnesota

**Highly Pathogenic Avian Influenza
and
Pandemic Influenza
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Highly Pathogenic Avian Influenza – Avian influenza (AI), also known as bird flu, is a contagious disease of poultry caused by viruses that can infect both farm-raised and wild birds. There are a variety of AI forms always circulating in birds, but only two main types of the virus: low pathogenic (LPAI) and highly pathogenic (HPAI). LPAI usually causes mild symptoms (ruffled feathers, some respiratory signs, and a drop in egg production) and may go undetected. HPAI is more virulent, spreading rapidly through flocks and killing most of the birds within 48 hours. Minnesota has detected LPAI in the past and has successfully controlled and prevented it from spreading. Minnesota has never had a case of HPAI.

Pandemic Influenza – An influenza pandemic is a very large outbreak of influenza, usually affecting the entire world. A pandemic can happen whenever there is a major change in the virus that causes flu.

Coordinating Agency:

- Department of Public Safety,
Division of Homeland Security and
Emergency Management

Lead Technical Agencies:

HPAI Transmission

- Board of Animal Health
- Department of Agriculture
- Department of Natural Resources

Human Pandemic Influenza Transmission

- Minnesota Department of Health

Support Agencies:

- Department of Administration
- Attorney General's Office
- Department of Commerce
- Department of Education
- Emergency Medical Services Regulatory Board
- Department of Employee Relations
- Department of Employment and Economic Development
- Department of Finance
- Minnesota Housing Finance Agency
- Department of Human Services
- Department of Labor and Industry
- Department of Military Affairs
- Office of Enterprise Technology
- Minnesota Pollution Control Agency
- Department of Public Safety
- Department of Revenue
- Minnesota State Colleges and Universities
- Department of Transportation

State of Minnesota Highly Pathogenic Avian Influenza (HPAI) and Pandemic Influenza MEOP Supplement

Purpose

To provide a coordinated response to a Highly Pathogenic Avian Influenza (HPAI) and/or pandemic influenza outbreak using the incident command structure.

I. Scope

Per the planned Agency Responsibilities during an emergency (Executive Order 04-04, Assigning Emergency Responsibilities to State Agencies is currently under revision);

1. *Each department and independent state agency included in this Executive Order shall designate a member of its staff as its emergency preparedness response contact/coordinator (EPRC/C). Such individual shall serve as the point of contact for the Division of Homeland Security and Emergency Management and other state agencies with regard to emergency preparedness and response issues, and shall represent that agency on the Minnesota Emergency Preparedness and Response Committee (EPRC).*
2. *Each department, independent division, bureau, board, commission and independent institution of the state government, hereinafter referred to as "agency," shall carry out the general emergency preparedness, planning, response, recovery, hazard mitigation and continuity of operations responsibilities described in this Executive Order, the specific emergency assignments contained in the Minnesota Emergency Operations Plan, the State All-Hazard Mitigation Plan and such other duties as may be requested by the Division of Homeland Security and Emergency Management. The head of each agency shall be accountable for the execution of the responsibilities described in this Executive Order.*

Emergency Preparedness Planning

- A. *The Division of Homeland Security and Emergency Management shall have overall responsibility for coordinating the development and maintenance of the all-hazard Minnesota Emergency Operations Plan.*
- B. *Each state agency shall develop and update, as necessary, its own emergency plan/procedures, including a continuity of operations (business continuation) plan. Agencies have the option of maintaining a copy of their continuity of operations plan at either their own secure offsite location or sites offered by the Office of Enterprise Technology.*
 1. *Each agency's continuity of operations plan/procedure must provide for:*
 - a) *protection of the agency's personnel, equipment, supplies, vital records, public records and facilities from the direct effects of a disaster at their agency or facilities; and*
 - b) *execution of the emergency responsibilities that are assigned to the agency in this Executive Order, and are elaborated upon in the Minnesota Emergency Operations Plan; and*
 - c) *continuity of government for sustaining time-sensitive operations and staffing, at a minimum developing and maintaining a written continuity of operations plan defining:*

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- i. *lines of succession,*
 - ii. *pre-delegation of emergency authority,*
 - iii. *emergency action steps or procedures,*
 - iv. *alternate operating sites for time-sensitive functions,*
 - v. *alternate facilities for resumption of normal business and the resumption of the agency's time-sensitive functions and services,*
 - vi. *safeguarding of vital records,*
 - vii. *protection of facilities, personnel and resources, and*
 - viii. *preparation for returning to normal operations.*
- d) *commitment of resources for the development and maintenance of an agency all-hazard plan, including a continuity of operations plan.*

Specific points regarding these responsibilities are further delineated the Minnesota Emergency Operations Plan (MEOP). Adherence to these expectations and completion of prescribed planning will establish a basis for a response to an all-hazard event.

Due to the unique challenges inherent to either a HPAI or pandemic influenza events, planning and response information have been compiled into the Minnesota Highly Pathogenic Avian Influenza and Pandemic Influenza Supplement.

The level of the state's response is based in part upon several factors, the extent and location of the outbreak, availability of federal agency personnel and extent (if any) of the outbreak within the United States.

This supplement:

- Provides planning guidance and outlines operational concepts for a HPAI or Pandemic Influenza outbreak in Minnesota.
- Delineates state agency responsibilities.

II. Planning

Planning will be done by each state agency separately and the interlocking response plans are coordinated by the Division of Homeland Security and Emergency Management (HSEM).

Many existing documents should be utilized for planning purposes including the agencies' Service Continuation and/or Continuity of Operations plans which should include the following:

- Lines of succession
- Pre-delegation of emergency authority
- Emergency action steps or procedures
- Documented service delivery strategy
- List of Priority Service Functions, based on the State of Minnesota's Priority Service Function levels 1-4
- Alternate staffing options for Priority Service Functions 1 and 2
- Safeguarding of vital records
- Protection of facilities, personnel and resources

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- Preparation for returning to normal operations
- Notification of designated agency personnel

III. Response

State agency response is coordinated at the State Emergency Operations Center (SEOC). Upon activation of the SEOC, Joint Information Center and Information Hotline, each state agency will assign pre-qualified personnel to report to and staff the SEOC according to the roles and responsibilities outlined in the MEOP.

All state agencies shall operate within the structure of the National Incident Management System. All state agency personnel who respond to the SEOC will have met their agency requirements for National Incident Management System training.

IV. Recovery

As requested, state agencies will provide appropriate personnel to serve on the Minnesota Recovers Disaster Task Force.

V. Planning Considerations

- A. Assistance from outside organizations may be limited.
- B. During a pandemic influenza outbreak, up to 30 percent of the workforce will be too sick to come to work at some point. Rates of absenteeism may be driven to 40 percent during the peak weeks of a community outbreak. Lower rates of absenteeism will occur during the weeks before and after a pandemic when employees may stay home to care for ill family members or fear of infection at work.
- C. Evaluate and implement procedures to protect employees from increased exposure risk while still maintaining Priority Service Functions (shifts, spacing, PPE).

Table 3. Minnesota Pandemic Influenza Planning Assumptions^{1, 2, 3}

Minnesota Characteristics	Moderate (1958/68-like)	Severe (1918-like)
Illness	1,544,000 (30%)	1,544,000 (30%)
Outpatient medical care	772,000 (50%)	772,000 (50%)
Hospitalization	15,000	172,000
ICU care	2,250	27,700
Mechanical Ventilation	1,120	12,900
Deaths	3,600	32,900

¹These data are derived from the November 2005 HHS Pandemic Influenza Plan. Estimates were based on extrapolation from past pandemics in the United States. These estimates do not include the potential impact of interventions not available during the 20th century pandemics. Using demographic data from the Minnesota State Demographic Center, categorical data was scaled to the HHS data to provide regional and state data.

²Column totals do not necessarily equal the sum for the total population because numbers have been rounded.

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³A pandemic outbreak will last about 6 to 8 weeks. The above data reflect the number of persons affected during this time frame.

VI. Concept of Operations

The Minnesota Response Phases are aligned on the World Health Organization (WHO)'s six pandemic alert phases as well as the United States' stages of federal government response. The U.S. stages characterize an outbreak in terms of the immediate and specific threat a pandemic virus poses to the U.S. population, whereas the WHO phases represent actions taken by various partners including WHO.

The Minnesota Response Phases provide a standard framework for the State of Minnesota's response to HPAI and pandemic influenza.

Monitoring will occur in all phases, and will be heightened as the situation warrants.

The Division of Homeland Security and Emergency Management (HSEM), as the coordinating agency for both HPAI and/or pandemic influenza, is augmented by lead technical and support agencies. The lead technical agencies have specific technical expertise and assets for responding to particular outbreaks. Support agencies facilitate response per the latest Governor's Executive Order Assigning Emergency Responsibilities to State Agencies. The lead technical and support agencies are represented in the State Emergency Operations Center (SEOC). Agencies will utilize their response plan during activation.

Agencies will ensure that all responders within their agency are familiar with their respective plans and that incident command training occurs in each agency as applicable.

A. Coordinating Agency

Department of Public Safety, Division of Homeland Security and Emergency Management shall:

1. Coordinate the overall emergency planning, preparedness and response of all state agencies regarding HPAI and pandemic influenza outbreaks.
2. The Director of the Division of Homeland Security and Emergency Management (HSEM) shall serve as the State Coordinating Officer (SCO) and the Governor's Authorized Representative (GAR) for HPAI and pandemic influenza outbreaks.
3. Activate the State Emergency Operations Center (SEOC) as requested.
4. Hold overall responsibility for supporting both local government and state agency emergency operations pre-pandemic and HPAI planning.
5. Provide local governmental entities with updated information and guidelines on HPAI and pandemic influenza.
6. Develop and conduct HPAI and pandemic influenza emergency preparedness drills and exercises, involving multiple Minnesota state agencies.
7. Activate appropriate support agencies during HPAI and pandemic influenza outbreaks. Activated agencies are involved for the life of the incident.
8. Coordinate logistical and fiscal activities to support this supplement.
9. Provide direction on service continuation planning for both public and private sectors.
10. Coordinate and ensure the development of a statewide public information campaign regarding HPAI and pandemic influenza.

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11. Inform the Commissioner of Public Safety, Governor, Executive Council, and the Legislature, as appropriate, regarding HPAI and pandemic influenza outbreaks and emergency operations.

B. Lead Technical Agencies

Board of Animal Health (BAH) shall:

1. Increase surveillance of poultry for avian influenza.
2. Implement procedures for responding to animal health emergencies.
3. Provide leadership and technical expertise to local, state and federal authorities in the event of an outbreak of avian influenza.
4. Coordinate with surrounding federal agencies and states.
5. Develop fact sheets and provide other animal disease-related information to the public during an avian influenza outbreak.
6. Provide information to producers/hunters about protective measures during an avian influenza outbreak.
7. Advise local and state officials concerning methods of livestock carcass management to control the spread of avian influenza.

Department of Agriculture (MDA) shall:

1. Assist in the disposal of affected flocks/wild birds.
2. Provide leadership and technical expertise to local and state authorities in the event of a HPAI outbreak.
3. Develop fact sheets and provide other animal disease-related information to the public.
4. Make its laboratory capabilities available, when requested.
5. Provide a representative to serve on the Minnesota Recovers Disaster Task Force.

Minnesota Department of Health (MDH) shall:

1. Have primary responsibility for the technical aspects of a response to an incident involving public health issues related to a pandemic outbreak.
2. Increase surveillance activities and monitoring for human cases.
3. Update training of health care workers.
4. Keep health care systems informed of the status during a pandemic outbreak.
5. As needed, monitor visitors from affected countries or regions of the United States and quarantine as necessary.
6. Provide the public with information about watching for symptoms of pandemic influenza outbreak, limiting interactions with ill persons, using infection control precautions, and providing care of the ill at home.
7. Assist the health care system in patient care coordination.
8. Coordinate with CDC.
9. Develop and maintain procedures for: disease surveillance, control and prevention, including protocols for quarantine, isolation, mass vaccination, and mass care clinics; safe food preparation and handling; provision of training and assistance in the security of public water supply systems, and the maintenance of a potable water supply; handling, identification and safe disposition of dead human bodies in the event of mass

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casualties; the provision of short-term behavioral health services; and health assessment and training programs for healthcare and support personnel.

10. Develop fact sheets and provide guidance about communicable disease transmission and personal protective actions that should be taken to reduce exposure. The Department shall develop appropriate procedures and conduct in-service training to maintain this response capability.
11. Provide assistance to local officials, in conjunction with the local health agency, to ensure the safety of food and water for human consumption during and immediately following a pandemic influenza outbreak.
12. Ensure that the department's laboratory is available to provide 24-hour analysis.
13. Conduct food inspections at mass feeding facilities, as needed.
14. The Governor may call upon the Department of Health, Disaster Mortuary Emergency Response Team (D-MERT), to provide mortuary or death-related services for a pandemic influenza outbreak.

Department of Natural Resources, Wildlife Division shall:

1. Be responsible for preparing plans and procedures for the surveillance of wild birds for avian influenza in cooperation with the Board of Animal Health and the Department of Agriculture.
2. Provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team following a presidential declaration of disaster when requested, and provide hazard mitigation information to the general public.

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VII. Highly Pathogenic Avian Influenza Outbreak Response Operations

Below are the WHO Phases, US Stages and MN Response Phases for HPAI.

Table 4. Highly Pathogenic Avian Influenza (HPAI) Outbreak

WHO Phase	U.S. Stage	MN Response Phase
WHO Phase 1 Low Risk of Human Cases	U.S. Stage 0 New Domestic Animal Outbreak in At-Risk Country	MN Response Phase A0 HPAI Outbreak – Non-Existent or Overseas
		MN Response Phase A1 HPAI Outbreak in Wild Animal in North America
WHO Phase 2 Higher Risk of Human Cases		MN Response Phase A2 HPAI Outbreak in Wild Animal in MN
		MN Response Phase A3 HPAI Outbreak in Domestic Animal in North America
WHO Phase 3 No or Very Limited Human to Human Transmission		MN Response Phase A4 HPAI Outbreak in Domestic Animal in MN
		MN Response Phase A5 Recovery

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Table 5. State of Minnesota Emergency Responsibility Assignments in a Highly Pathogenic Avian Influenza Outbreak

MEOP Annex:	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Department/Agency/Office/Board	Notification & Warning	Incident Management	Public Information	Accident/Damage Assessment	Search & Rescue	Health Protection	Medical Services	Fire Protection	Evacuation/Traffic Control/Security	Mass Care, Housing and Human Services	Debris Management	Public Works/Utilities Restoration	Environmental Hazard Response	Resource Management
Administration				S										S
Agriculture	T	T	T	T		T					S	T ³	T ³	S
Animal Health	T	T	T	T		T				S	S			
Attorney General		S												
Commerce		S		S								T		S
Education														S
EMS Regulatory Board		S				S	S		S	S				
Employee Relations		S												S
Employment & Economic Development														S
Health		S	S	S		T	T			S	T ⁶	S	S	S
Housing Finance														S
Human Services										S				S
Labor & Industry				S		S								
Military Affairs	T ⁵	S	S	S	S		S	S	S	S	S	S	S	S
Natural Resources	T	S	T	T	S	T ³		C ²	S		S	S	S	S
Office of Enterprise Technology		S		S								T		S
Pollution Control				S		S					T	T ³	T ³	S
Public Safety	C ¹	C ¹	C ¹	C ¹	C ¹	C ¹	C ¹	C ^{1,2}	C ¹	C ¹	C ¹	C ¹	C ¹	C ¹
Revenue				S										
Transportation		S		S					S		S	S	S	S

C = Coordination T = Lead Technical S = Support

Definitions of the C, T and S code letters shown on Table 5 are as follows:

- C: Coordination responsibility. Agency is in charge of and responsible for specified function.
- T: Lead Technical Agency responsibility during MN Response Phases A1, A2, A3 and A4. During each MN Response Phase, the Lead Technical Agency will prepare daily priorities, heavily staff the planning cell and serve as the Deputy State Incident Manager.
- S: Support responsibility. Agencies will assist the coordinating and technical agency(ies) for a specified function.

Definitions of the numbered footnotes to the code letters on Table 5 are as follows:

- ¹ Minnesota Statutes, Chapter 12 stipulates, “[T]he Governor has general direction and control of emergency management...”
- ² DNR, Forestry Division has primary responsibility for forest and grassland fires. DPS, Fire Marshal Division has primary responsibility for all other fires.
- ³ The Department of Agriculture has technical responsibility when agricultural chemicals cause the hazard. The Pollution Control Agency has technical responsibility for response to incidents not involving radiological materials or weapons of mass destruction. The Department of Public Safety is the coordinating state agency during the public safety phase of an environmental hazard response to a terrorist incident involving a weapon of mass destruction.
- ⁴ Coordination responsibility for critical incident stress management support to EMS providers.
- ⁵ Technical responsibility during a nuclear generating plant incident.
- ⁶ Technical responsibility during an accident/incident involving radioactive materials and protection of public health from food borne disease.

The alerting and notification function is found in column A (above); the command and control function is found in column B; the communications and public information functions are in columns B and C; the law enforcement function is found in columns E and I; the transportation function is found in column I, the protective response function is found in columns B, D, F and G; and the radiological exposure control function is found in column F. The public health and sanitation function is found in column F. The social services function is found in columns F and J.

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A. Minnesota Response Phase A0 – HPAI Outbreak Overseas

A Highly Pathogenic Avian Influenza virus subtype is present in domestic and/or wild animals overseas. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.

1. HSEM

- a) Coordinate state agency response plans.
- b) Work with businesses on integration in the SEOC activities.
- c) Conduct conferences and trainings on SEOC activities and develop business best practices.

2. Board of Animal Health

- a) Coordinate plans with the Department of Agriculture.
- b) Provide public education information regarding avian influenza.
- c) Provide testing for general public on suspect birds as appropriate.
- d) Provide risk communication training for the poultry industry.
- e) Provide information to the free-range/organic and commercial poultry industry.
- f) Work with businesses/industries on integration in the SEOC.

3. Department of Agriculture

- a) Coordinate plans with the Board of Animal Health.
- b) Provide public education information regarding avian influenza.
- c) Provide risk communication training for the poultry industry.
- d) Provide public education information to the free-range/organic and commercial poultry industry.
- e) Work with businesses on integration in the SEOC.

4. Department of Natural Resources

- a) Continue sampling per agency plan.
- b) Providing public information regarding the handling of birds in hunting and trapping literature and on agency website.

5. Department of Health

- a) Develop information for poultry worker safety.

B. Minnesota Response Phase A1 - HPAI Outbreak in Wild Animal in North America

A Highly Pathogenic Avian Influenza virus subtype is present in wild animals in North America. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.

- Lead technical agency is the Minnesota Department of Natural Resources.

1. HSEM

- a) Partially activate the SEOC to include the Joint Information Center.
- b) Assign a Lead Public Information Officer.

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- c) Coordinate news conferences, news releases and establish a media briefing schedule.
- d) Establish briefing schedule for other state agencies, local, tribal and private sector authorities.
- e) Assess preparedness status and identify actions needed to fill gaps.

2. Department of Natural Resources

- a) Provide the Deputy State Incident Manager.
- b) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.
- c) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.
- d) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- e) Provide technical expertise, if requested, to poultry producers on how to minimize use of the farms by migratory waterfowl.

3. Board of Animal Health

- a) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.
- a) Work with industry to enhance biosecurity of poultry facilities.
- b) Increase surveillance and testing of commercial and backyard poultry.
- c) Liaise with producer groups.
- d) Coordinate poultry flock locational information.

4. Department of Agriculture

- a) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.
- b) Produce and distribute fact sheets, informational updates, etc.
- c) Liaise with producer groups.
- d) Assist in sample collection for avian influenza.

5. Department of Health

- a) Send representative to the SEOC to include the Joint Information Center.

6. Department of Employee Relations

- a) Coordinate consistent messages among state agencies for their employees.

C. Minnesota Response Phase A2 - HPAI Outbreak in a Wild Animal In MN

A Highly Pathogenic Avian Influenza virus is present in wild animals in Minnesota. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.

- Lead technical agency is the Minnesota Department of Natural Resources.

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1. HSEM

- a) Partially activate the SEOC to include the Joint Information Center (JIC) and a planning cell.
- b) Coordinate news conferences and news releases and establish a media briefing schedule.
- c) Coordinate with federal, state, local, tribal and private sector authorities and organizations as well as the media and the public.
- d) Coordinate tracking of economic issues and impacts.
- e) Establish coordination briefing schedule for state agencies and local partners.
- f) Evaluate the need for the Information Hotline.

2. Department of Natural Resources

- a) Provide the Deputy State Incident Manager for the SEOC.
- b) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.
- c) Determine the extent of infection to determine prevalence and spatial distribution of the virus.
- d) Coordinate response with United States Fish and Wildlife Service (USFWS), United States Geological Services (USGS), United States Department of Agriculture-Animal Plant and Health Inspection Service (USDA-APHIS).
- e) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.
- f) Provide field personnel with safety guidelines to handle sick or dead birds.
- g) Limit propagation of the infection among wildlife, domestic poultry, and humans.
- h) Coordinate with MDH, BAH and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- i) Provide technical expertise, if requested, to poultry producers to minimize use of the farms by migratory waterfowl.
- j) Provide technical assistance in cooperation with MPCA for carcass disposal activities.

3. Board of Animal Health

- a) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.
- b) Provide technical veterinary expertise.
- c) Initiate surveillance of domestic poultry in area of affected wildlife and work with industry to enhance biosecurity of poultry facilities in area.
- d) Coordinate with MDH, DNR and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- e) Liaise with producer groups.
- f) Coordinate poultry flock locational information.

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4. Department of Agriculture

- a) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.
- b) Potentially activate the Department Operations Center.
- c) Coordinate with MDH, BAH and DNR to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- d) Produce and distribute fact sheets, informational updates, etc.
- e) Liaise with producer groups.
- f) Assist in sample collection for avian influenza.

5. Department of Health

- a) Send representatives to the SEOC to include the Joint Information Center and planning and additional personnel as requested.
- b) Coordinate with DNR, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- c) Expand laboratory capacity and capability as necessary.
- d) Stockpile necessary supplies.

6. Department of Employee Relations

- a) Coordinate consistent messages among state agencies for their employees.

D. MN Response Phase A3 - HPAI Outbreak in Domestic Animal in North America

A Highly Pathogenic Avian Influenza virus is present in domestic animals in North America. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a risk of human disease.

- Lead technical agency is the Board of Animal Health

1. HSEM

- a) Partially activate the SEOC to include the Joint Information Center.
- b) Assign a Lead Public Information Officer.
- c) Coordinate news conferences and news releases and establish a media briefing schedule.
- d) Activate the SEOC planning section if requested.
- e) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.
- f) Assess preparedness status and identify actions needed to fill gaps.
- g) Evaluate the need to activate the Information Hotline.

2. Board of Animal Health

- a) Provide the Deputy State Incident Manager to the SEOC.
- b) Send representatives to the SEOC to include the Joint Information Center and additional personnel as requested.

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- c) Work with industry to enhance biosecurity of poultry facilities.
- d) Increase surveillance and testing of poultry.
- e) Coordinate with MDH, DNR and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the health care community, the poultry industry, and the general public.
- f) Liaise with producer groups.
- g) Coordinate poultry flock locational information.

3. Department of Agriculture

- a) Send representative to the SEOC to include the Joint Information Center and additional personnel as requested.
- b) Activate the Department Operations Center.
- c) Coordinate with MDH, BAH, and DNR to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- d) Produce and distribute fact sheets, informational updates, etc.
- e) Liaise with producer groups.
- f) Assist in sample collection for avian influenza.

4. Department of Natural Resources

- a) Send a representative to the SEOC to include the Joint Information Center and additional personnel as requested.
- b) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.
- c) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.
- d) Provide technical expertise, if requested, to poultry producers on how to minimize use of the farms by migratory waterfowl.

5. Department of Health

- a) Send a representative to the SEOC to include the Joint Information Center and additional personnel as requested.
- b) Keep external partners informed as to events.
- c) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the poultry industry, the health care community and the general public.

6. Department of Employee Relations

- a) Coordinate consistent messages among state agencies for their employees.

E. MN Response Phase A4 - HPAI Outbreak in Domestic Animal in MN

A Highly Pathogenic Avian Influenza virus is present in domestic animals in Minnesota. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a risk of human disease.

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- Lead technical agency is the Board of Animal Health

1. HSEM

- a) Fully activate SEOC.
- b) Assist with the logistics involved in transporting and disposal of birds as necessary.
- c) Coordinate with bordering states for sharing resources (facilities, personnel, materials) through mutual aid agreements or memorandums of understanding.
- d) Coordinate with Canada as appropriate.
- e) Provide local governmental entities with updated information and guidelines.

2. Board of Animal Health

- a) Provide the Deputy State Incident Manager to the SEOC.
- b) Send representatives to the SEOC.
- c) Provide technical veterinary expertise.
- d) Activate the Highly Contagious Disease Response Plan including:
 - i. Establish control area.
 - ii. Identify premises within control area and contact premises
 - iii. Increase surveillance within control area and contact premises
 - Implementation of quarantine and movement controls of infected premises as written in the MN HPAI response plan.
 - Implement heightened biosecurity measures of premises within control area.
 - Evaluate euthanasia and disposal needs for infected premises.
 - Work with MDH to develop appropriate recommendations for worker and responder safety.
- e) Liaise with producer groups.
- f) Coordinate poultry flock locational information.

3. Department of Agriculture

- a) Send a representative to the SEOC.
- b) Activate Department Operations Center.
- c) Produce and distribute fact sheets, informational updates, etc.
- d) Liaise with producer groups.
- e) Assist in sample collection for avian influenza.
- f) Provide technical assistance in cooperation with MPCA for carcass disposal activities.
- g) Provide technical assistance for poultry euthanasia.
- h) Provide technical assistance for cleaning and disinfection.

4. Department of Natural Resources

- a) Send a representative to the SEOC.
- b) Increase vigilance in monitoring wild bird populations for morbidity and mortality events.
- c) Coordinate with MDH, BAH, and MDA to ensure proper educational materials are available to hunters, wildlife enthusiasts, the health care community, the poultry industry, and the general public.

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- d) Provide technical expertise, if requested, to poultry producers on how to minimize use of the farms by migratory waterfowl.

5. Department of Health

- a) Send representatives to SEOC.
- b) Activate the Department Operations Center
- c) Keep external partners informed as to events.
- d) Coordinate information and response with animal health agencies and local public health.
- e) Provide guidance for infection control precautions including hand washing.
- f) Facilitate voluntary vaccination of exposed workers with current human influenza vaccine.
- g) Provide technical assistance with personal protective equipment for poultry workers, veterinary diagnostic laboratory personnel, and regulatory personnel involved in disease control and eradication activities, following current published CDC and OSHA guidelines.
- h) Facilitate distribution of antiviral drugs.
- i) Provide information about HPAI to poultry workers, asking them to report conjunctivitis, fever or respiratory symptoms to designated MDH contacts.

6. Department of Employee Relations

- a) Coordinate consistent messages among state agencies for their employees.

F. MN Response Phase A5 – Recovery

Prioritization of goals and immediately begin to restore the community to pre-disaster conditions.

- Lead technical agency is the Board of Animal Health

1. HSEM

- a) SEOC continues to be activated, including the Joint Information Center and the Information Hotline.
- b) Provide continuous information to local partners and critical infrastructure.
- c) Continuously monitor local outbreaks.
- d) Develop lessons learned and strategies for the future.
- e) Reassess quarantine restrictions to determine when/if they can be lifted.
- f) Request assistance of the Emergency Management Assistance Compact (EMAC), if available.
- g) Request federal assistance as needed and available.

2. Board of Animal Health

- a) Cleaning and disinfection of infected sites
- b) Environmental sampling and inspection of site
- c) Repopulation of premises
- d) Continued quarantine of infected premises until OIE standards for HPAI “free” status met
- e) Continued heightened biosecurity until OIE standards are met
- f) Continued surveillance until OIE standards are met

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- 3. Department of Agriculture**
- 4. Department of Natural Resources**
- 5. Department of Health**
- 6. Department of Employee Relations**

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VIII. Pandemic Influenza Outbreak Response Operations

The following are definitions and a sampling of key federal activities and state agency actions for each of the MN Response Phases for a pandemic influenza outbreak.

Table 6. Pandemic Influenza Outbreak

WHO Phase	U.S. Stage	MN Response Phase	
WHO Phase 3 No or Very Limited Human-to-Human Transmission	U.S. Stage 1 Suspected Human Outbreak Overseas	MN Response Phase P0 Suspected Human Outbreak Overseas.	
WHO Phase 4 Evidence of Increased Human-to-Human Transmission	U.S. Stage 2 Confirmed Human Outbreak Overseas	MN Response Phase P1 Confirmed, Sustained Human-to-Human Transmission Overseas	
WHO Phase 5 Evidence of Significant Human-to-Human Transmission			
WHO Phase 6 Efficient and Sustained Human-to-Human Transmission	U.S. Stage 3 Widespread Human Outbreaks in Multiple Locations Overseas	MN Response Phase P2 Suspected or Confirmed Human Case in North America	
	U.S. Stage 4 First Human Case in North America		
	U.S. Stage 5 Spread Throughout U.S.		MN Response Phase P3 Outbreak in United States
			MN Response Phase P4 Suspected or Confirmed Human Case in MN
		MN Response Phase P5 Limited Outbreak in MN	
		MN Response Phase P6 Widespread Throughout MN	
	U.S. Stage 6 Recovery and Preparation for Subsequent Waves	MN Response Phase P7 Recovery and Preparation for Subsequent Waves	

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Table 7. State of Minnesota Emergency Responsibility Assignments in a Pandemic Influenza Outbreak

MEOP Annex:	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Department/Agency/Office/Board	Notification & Warning	Incident Management	Public Information	Accident/Damage Assessment	Search & Rescue	Health Protection	Medical Services	Fire Protection	Evacuation/Traffic Control/Security	Mass Care; Housing and Human Services	Debris Management	Public Works/Utilities Restoration	Environmental Hazard Response	Resource Management
Administration				S										S
Agriculture				T		T					S	T ³	T ³	S
Animal Health				T		T				S	S			
Attorney General		S				S								
Commerce		S		S								T		S
Education														S
EMS Regulatory Board		S				S	S		S	S				
Employee Relations		S												S
Employment & Economic Development														S
Health	T	S	T	T		T	T		S	S	T	S	S	S
Housing Finance														S
Human Services		S								S				S
Labor & Industry			S	S		S								
Military Affairs		S		S	S		S	S	S	S	S	S	S	S
Natural Resources		S	T	S	S			C ²	S		S	S	S	S
Office of Enterprise Technology		S		S								T		S
Pollution Control				S		S					T	T ³	T ³	S
Public Safety	C ¹	C ¹	C ¹	C ¹	C ¹	C ¹	C ¹	C ^{1,2}	C ¹	C ¹	C ¹	C ¹	C ¹	C ¹
Revenue				S										
Transportation		S	S	S					T		S	S	S	S

C = Coordination

T = Lead Technical

S = Support

Definitions of the C, T and S code letters shown on Table 7 are as follows:

C: Coordination responsibility. Agency is in charge of and responsible for specified function.

T: Lead Technical Agency responsibility during MN Response Phases P0, P1, P2, P3, P4, P5, P6, and P7. During each MN Response Phase, the Lead Technical Agency will prepare daily priorities, heavily staff the planning cell and serve as the Deputy State Incident Manager.

S: Support responsibility. Agencies will assist the coordinating and technical agency(ies) for a specified function.

Definitions of the numbered footnotes to the code letters on Table 7 are as follows:

¹ Minnesota Statutes, Chapter 12 stipulates, “[T]he Governor has general direction and control of emergency management...”

² DNR, Forestry Division has primary responsibility for forest and grassland fires. DPS, Fire Marshal Division has primary responsibility for all other fires.

³ The Department of Agriculture has technical responsibility when agricultural chemicals cause the hazard. The Pollution Control Agency has technical responsibility for response to incidents not involving radiological materials or weapons of mass destruction. The Department of Public Safety is the coordinating state agency during the public safety phase of an environmental hazard response to a terrorist incident involving a weapon of mass destruction.

⁴ Coordination responsibility for critical incident stress management support to EMS providers.

⁵ Technical responsibility during a nuclear generating plant incident.

⁶ Technical responsibility during an accident/incident involving radioactive materials and protection of public health from food borne disease.

The alerting and notification function is found in column A (above); the command and control function is found in column B; the communications and public information functions are in columns B and C; the law enforcement function is found in columns E and I; the transportation function is found in column I, the protective response function is found in columns B, D, F and G; and the radiological exposure control function is found in column F. The public health and sanitation function is found in column F. The social services function is found in columns F and J.

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A. MN Response Phase P0 - Suspected Human Outbreak Overseas

Human infection(s) with a new subtype, but no human-to-human spread or at most rare instances of spread to a close contact overseas.

- Lead technical agency is Minnesota Department of Health

1. Federal Activities (U. S. Stage 1 per National Strategy for Pandemic Influenza Implementation Plan)

- a) Increase layered protective measures at borders and prepare to implement travel restrictions from affected areas, as appropriate. (U.S. DHS, U.S. HHS and the U.S. DOT)

2. HSEM

- a) Coordinate state agency response planning.
- b) Work with businesses on integration into the SEOC activities.
- c) Conduct conferences and trainings on SEOC activities and develop business best practices.

3. Department of Health

- a) Work with CDC quarantine station at MSP International Airport if there are arriving international partners who meet the clinical and epidemiological criteria for infection with a novel influenza virus and implement disease containment measures as appropriate.
- b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.
- c) Continue to develop and distribute messages to external partners and the public.
- d) Continue routine surveillance.
- e) Develop and distribute infection control guidance and PPE recommendations.
- f) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.
- g) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination planning.
- h) Develop priority groups for antiviral and vaccine administration.

4. Department of Employee Relations

- a) Convene the Pandemic Flu Executive Committee to discuss current events.
- b) Coordinate consistent messages among state agencies for their employees.

B. MN Response Phase P1 - Confirmed, Sustained Human-to-Human Transmission Overseas

Confirmed, sustained human-to-human transmission overseas.

- Lead technical agency is Minnesota Department of Health

1. Federal Activities (U.S. Stage 2 and 3 per National Strategy for Pandemic Influenza Implementation Plan)

- a) Activate domestic quarantine stations and ensure coordination at State, local and tribal level, especially with health care resources. (U.S. HHS and U.S. DHS)
- b) Heighten/Amplify hospital-based surveillance in all communities. (U.S. HHS)

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- c) Prepare to provide military bases and installation support to Federal, State, local and tribal agencies. (U.S. DOD)
- d) Review domestic pandemic plans and prepare for response, placing critical staff on recall and pre-deploying assets where appropriate. (All)
- e) Activate State, local and tribal partners to be on alert for spread of outbreak to the United States. (Federal Government)
- f) Initiate regular calls with Governors, as well as State/tribal public health and emergency preparedness leaders to provide guidance on preparedness actions necessary and to coordinate messaging. (U.S. DHS, USDA and U.S. HHS)
- g) Deploy antiviral stockpile with appropriate security to State and Tribal entities and to Federal departments and agencies, with prioritization and treatment recommendations. (U.S. HHS)
- h) Re-examine limitation on international travel from affected region (or regions that do not institute pre-departure screening) and maintain layered screening measures for host country pre-departure, en route, and arrival of U.S.-bound travelers. (U.S. DOS, U.S. DHS, U.S. HHS).
- i) Prepare “containment stockpile” for deployment to quarantine station and other locations as appropriate. (U.S. HHS)
- j) Prepare to implement surge plans at Federal medical facilities. (U.S. HHS, U.S. DOD and VA)
- k) Deploy pre-pandemic vaccine to State and tribal entities and to Federal agencies and initiate vaccination.
- l) Have State, local and tribal governments review influenza case definition and testing protocols used by public health and medical communities. (Federal Government)
- m) Announce preliminary conclusions of epidemiologic assessments and modeling.
- n) Request that State, local and tribal leadership reach out to critical infrastructure providers to ensure that continuity plans are in place.

2. HSEM

- a) Partially activate the SEOC to include the Joint Information Center.
- b) Assign a Lead Public Information Officer.
- c) Coordinate news conferences and news releases and establish a media briefing schedule.
- d) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.
- e) Assess preparedness status and identify actions needed to fill gaps.
- f) Contact critical infrastructure providers to ensure continuity plans are in place.
- g) Coordinate federal information flow to local and business partners.

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3. Department of Health

- a) Work with CDC quarantine station at MSP International Airport if there are arriving international partners who meet the clinical and epidemiological criteria for infection with a novel influenza virus and implement disease containment measures as appropriate.
- b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.
 - a) Provide the Deputy State Incident Manager to the SEOC.
 - b) Send representative to the SEOC for the Joint Information Center and additional personnel if requested.
 - c) Update external partners as appropriate.
 - d) Continue routine surveillance.
 - e) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.

4. Department of Employee Relations

- a) Convene the Pandemic Flu Executive Committee to discuss current events.
- b) Coordinate consistent messages among state agencies for their employees.
- c) Agencies asked to review and update their Service Continuation Plans based on latest epidemiological assessments.

C. MN Response Phase P2 – Suspected or Confirmed Human Case in North America

Suspected or confirmed human case in North America.

- Lead technical agency is Minnesota Department of Health

1. Federal Activities (U.S. Stage 4 per National Strategy for Pandemic Influenza Implementation Plan)

- a) Deploy “containment stockpile,” if available, to any domestic region with confirmed or suspected cases of pandemic influenza, if an epidemiologic link to an affected region exists. (U.S. HHS)
- b) Ensure that pandemic plans are activated across all levels of government and in all institutions. (U.S. HHS and U.S. DHS)
- c) Activate surge plans within Federal health care systems and request that State, local and tribal entities do the same. (U.S. HHS and U.S. DHS).
- d) Revise prioritization and allocation scheme for pandemic vaccine as appropriate, based upon characteristics of pandemic virus and available quantities of vaccine.
- e) Advise State, local and tribal leadership to implement pandemic response plans.

2. HSEM

- a) Partially activate the SEOC to include the Joint Information Center.
- b) Assign a Lead Public Information Officer.
- c) Coordinate news conferences and news releases and establish a media briefing schedule.
- d) Assess the need to activate the Information Hotline.

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- e) Establish briefing schedule for other state agencies and local, tribal and private sector authorities (potentially weekly).
- f) Assess preparedness status of state agencies and identify actions needed to fill gaps.
- g) Brief the executive branch cabinet as requested.
- h) Coordinate information with critical infrastructure partners and develop briefing schedule.

3. Department of Health

- a) Work with CDC quarantine station at MSP International Airport if there are arriving international partners who meet the clinical and epidemiological criteria for infection with a novel influenza virus and implement disease containment measures as appropriate.
- b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.
- c) Provide the Deputy State Incident Manager to the SEOC.
- d) Assess the need to activate the Department Operations Center.
- e) Send a representative to the SEOC for the Joint Information Center and additional personnel if requested.
- a) Update external partners as appropriate.
- b) Continue routine surveillance.
- c) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.

4. Department of Employee Relations

- a) Send a representative to the SEOC for planning section.
- b) Convene the Pandemic Flu Executive Committee to discuss current events.
- c) Inform state agencies regarding proper infection control precautions.
- d) Notify HR directors of the current situation.
- e) Instruct employees with direct contact with infected people to use proper precautions.
- f) Encourage agencies to limit employee travel into areas where infections are occurring.
- g) Agencies encouraged to begin cross training of employees for priority one and two services.

D. MN Response Phase P3 – Outbreak in United States

Widespread outbreak in the continental United States.

- Lead technical agency is Minnesota Department of Health

1. Federal Activities (U.S. Stage 5 per the National Strategy for Pandemic Influenza Implementation Plan)

- a) Deploy “containment stockpile,” if available, to any domestic region with confirmed or suspected cases of pandemic influenza, if an epidemiologic link to an affected region exists. (U.S. HHS)
- b) Limit non-essential passenger travel in affected areas and institute protective measures/social distancing, and support continued delivery of essential goods and services. (U.S. DHS, U.S. DOT and U.S. HHS)
- c) Activate surge plans within Federal health care systems and request that State, local and tribal entities do the same. (U.S. HHS and U.S. DHS)

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- d) Revise prioritization and allocation scheme for pandemic vaccine as appropriate, based upon characteristics of pandemic virus and available quantities of vaccine.
- e) Advise State, local and tribal leadership to implement pandemic response plans.

2. HSEM

- a) Partially activate the SEOC to include the Joint Information Center and the planning section.
- b) Assign a Lead Public Information Officer.
- c) Coordinate news conferences and news releases and establish a media briefing schedule.
- d) Assess the need to activate the Information Hotline.
- e) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.
- f) Assess preparedness status and identify actions needed to fill gaps.
- g) Brief the executive branch cabinet as requested.
- h) Coordinate information with critical infrastructure partners and develop briefing schedule.

3. Department of Health

- a) Make recommendations for implementation of non-pharmaceutical interventions.
- b) Work with clinicians for patients who meet clinical and epidemiological criteria for infection with novel influenza virus.
- c) Provide the Deputy State Incident Manager to SEOC.
- d) Activate the Department Operations Center.
- e) Send representatives to the SEOC to include the Joint Information Center and planning section.
- f) Update external partners as appropriate.
- g) Continue routine surveillance.
- h) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.
- i) Manage SNS receipt, storage and shipping.
- j) Manage pre-pandemic vaccine delivery.

4. Department of Employee Relations

- a) Send representatives to the SEOC to include the planning section.
- b) Convene the Pandemic Flu Executive Committee to discuss current events.
- c) Inform state agencies regarding proper infection control precautions.
- d) Notify HR directors of the current situation.
- e) Instruct employees with direct contact with infected people to use proper precautions.
- f) Encourage agencies to limit employee travel into areas where infections are occurring.

E. MN Response Phase P4 – Suspected or Confirmed Human Case in MN

A suspected or confirmed human case has occurred in Minnesota.

- Lead technical agency is Minnesota Department of Health

1. Federal Activities (U.S. Stage 5 per the National Strategy for Pandemic Influenza Implementation Plan)

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- a) Maintain continuous situational awareness of community needs, triage, and direct Federal support of health and medical systems, infrastructure and maintenance of civil order as feasible. (All)
- b) Deploy pandemic vaccine, if available, with continuously updated guidance on prioritization and use. (U.S. HHS)
- c) Continuously evaluate the epidemiology of the pandemic virus and update recommendations on treatment of patients and protective actions for all sectors on an ongoing basis. (U.S. HHS and U.S. DHS)
- d) Provide guidance on judicious use of key commodities to reduce the likelihood of shortages. (U.S. DHS)
- e) Determine whether (and if so, the form of) Federal intervention is required to support critical infrastructure and the availability of key goods and services (such as food, utilities and medical supplies and services).
- f) Determine when travel restrictions previously enacted can be lifted.
- g) Advise State, local and tribal leaders that Federal government will continue to provide support, as possible, and to continue to implement continuity plans.

2. HSEM

- a) Fully activate the SEOC.
- b) Provide a state agency briefing.
- c) Establish daily briefing schedule for other state agencies and local, tribal and private sector authorities.
- d) Coordinate news conferences and news releases and establish a media briefing schedule.
- e) Coordinate information with critical infrastructure partners and develop briefing schedule.
- f) Advise critical infrastructure/businesses to review and update their service continuation plan.
- g) Brief the executive branch cabinet as requested.

3. Department of Health

- a) Provide the Deputy State Incident Manager to the SEOC.
- b) Activate the Department Operations Center.
- c) Send representatives to the SEOC.
- d) Implement containment measures for suspected case and contacts.
- e) Make recommendations for non-pharmaceutical interventions.
- f) Continue to develop and distribute messages to external partners and the public.
- g) Continue routine surveillance.
- h) Develop and distribute infection control guidance and PPE recommendations.
- i) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.
- j) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination planning.
- k) Develop priority groups for antiviral and vaccine administration.
- l) Conduct 24/7 advanced laboratory testing on an emergency basis.
- m) Investigate case and manage contact exposures.
- n) Recommend isolation of individuals with influenza-like-illness, social distancing, closure of schools, daycares and other public venues.

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4. Department of Employee Relations

- a) Send a representative to the SEOC.
- b) Convene the Pandemic Flu Executive Committee to discuss current events.
- c) Inform state agencies regarding proper infection control precautions.
- d) Notify HR directors of the current situation.
- e) Instruct employees who have direct contact with infected people to use proper precautions.
- f) Encourage agencies to limit employee travel into areas where infections are occurring.
- g) Coordinate agency personnel requests to complete Priority Service Functions 1 and 2.

F. MN Response Phase P5 - Limited Outbreak in MN {Geographic Cluster}

Evidence of significant human-to-human transmission in a highly localized area (geographic cluster) within Minnesota.

- Lead technical agency is the Department of Health

1. Federal Activities (U.S. Stage 5 per National Strategy for Pandemic Influenza Implementation Plan)

- a) Maintain continuous situational awareness of community needs, triage, and direct Federal support of health and medical systems, infrastructure and maintenance of civil order as feasible. (All)
- b) Deploy pandemic vaccine, if available, with continuously updated guidance on prioritization and use. (U.S. HHS)
- c) Continuously evaluate the epidemiology of the pandemic virus and update recommendations on treatment of patients and protective actions for all sectors on an ongoing basis. (U.S. HHS and U.S. DHS)
- d) Provide guidance on judicious use of key commodities to reduce the likelihood of shortages. (U.S. DHS)
- e) Determine whether (and if so, the form of) Federal intervention is required to support critical infrastructure and the availability of key goods and services (such as food, utilities and medical supplies and services).
- f) Determine when travel restrictions previously enacted can be lifted.
- g) Advise State, local and tribal leaders that Federal government will continue to provide support, as possible, and to continue to implement continuity plans.

2. HSEM

- a) Fully activate the SEOC.
- b) Coordinate news conferences and news releases and establish a media briefing schedule.
- c) Establish briefing schedule for other state agencies and local, tribal and private sector authorities.
- d) Declare a State of Emergency in counties or region where confirmed exposure exists.
- e) Upon recommendation of MDH, work with the Governor's Office to close schools and daycares in the counties and geographic cluster where exposure exists.
- f) Coordinate information with critical infrastructure partners and develop briefing schedule.

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- g) Advise critical infrastructure partners/businesses to implement their service continuation plans.
- h) Recommend community level containment in the counties and geographic cluster where exposure exists including limiting recreational activities and gatherings.
- i) Brief the executive branch cabinet as requested.

3. Department of Health

- a) Provide the Deputy State Incident Manager to the SEOC.
- b) Activate the Department Operations Center.
- c) Send representatives to the SEOC.
- d) Recommend community level disease containment measures.
- e) Continue to develop and distribute messages to external partners and the public.
- f) Develop and distribute infection control guidance and PPE recommendations.
- g) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.
- h) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination or delivery.
- i) Develop priority groups for antiviral and vaccine administration.
- j) Conduct 24/7 advanced laboratory testing on an emergency basis.
- k) Increase surveillance activities.
- l) Recommend isolation of individuals with influenza-like-illness, social distancing, closure of schools, daycares and other public venues.
- m) Determine temporary morgue and cemetery locations.
- n) Monitor disease activity.
- o) Implement infection control guidance for off-site care facilities and other settings as needed.
- p) Consult on management of cases.
- q) Assist with patient care coordination.
- r) Enhance staffing using volunteer health professionals.
- s) Manage antiviral and vaccine acquisition, allocation, distribution, and utilization.
- t) Monitor adherence to priority groups, adverse events and effectiveness of antivirals and vaccines.
- u) Activate temporary morgue locations.
- v) Coordinate the provision of Psychological First Aid (PFA) and other short-term behavioral health services.

4. Department of Employee Relations

- a) Send a representative to the SEOC.
- b) Convene the Pandemic Flu Executive Committee three times per week to discuss current events.
- c) Intensify outreach to state agencies to regarding the situation and how to limit contact with persons.
- d) Inform state agencies on infection control precautions.
- e) Request daily attendance reports from state agencies.
- f) Review and evaluate state employee attendance.
- g) Notify HR directors of the current situation.
- h) Instruct employees with direct contact with infected people to use proper precautions.
- i) Require agencies to limit employee travel into areas where infections are occurring.

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- j) Coordinate agency requests for personnel to complete Priority Service Functions 1 and 2.
- k) Mandate discontinuation of state agency employee gatherings and meetings as much as possible.
- l) Establish the Department Operations Center (DOC) for coordinating employee concerns and agency requests for employee reallocations.

G. MN Response Phase P6 - Widespread Throughout MN

Widespread human-to-human transmission throughout the State of Minnesota.

- Lead technical agency is the Department of Health

1. Federal Activities (U.S. Stage 5 per the National Strategy for Pandemic Influenza Implementation Plan)

- a) Maintain continuous situational awareness of community needs, triage, and direct Federal support of health and medical systems, infrastructure and maintenance of civil order as feasible. (All)
- b) Deploy pandemic vaccine, if available, with continuously updated guidance on prioritization and use.(U.S. HHS)
- c) Continuously evaluate the epidemiology of the pandemic virus and update recommendations on treatment of patients and protective actions for all sectors on an ongoing basis. (U.S. HHS and U.S. DHS)
- d) Provide guidance on judicious use of key commodities to reduce the likelihood of shortages. (U.S. DHS)
- e) Determine whether (and if so, the form of) Federal intervention is required to support critical infrastructure and the availability of key goods and services (such as food, utilities and medical supplies and services).
- f) Determine when travel restrictions previously enacted can be lifted.
- g) Advise State, local and tribal that Federal government will continue to provide support, as possible, and to continue to implement continuity plans.

2. HSEM

- a) Fully activate SEOC.
- b) Declare a State of Emergency for entire State of Minnesota.
- c) Request a Federal Emergency Declaration.
- d) Move to regularly scheduled news conferences, news releases and media briefings.
- e) Conduct regularly scheduled briefings for local partners.
- f) Upon recommendation from MDH, work with the Governor's Office to close schools and daycares statewide.
- g) Redirect state resources to ensure Priority Service Functions 1 and 2 are being met.
- h) Implement community containment strategies statewide.
- i) Provide social distancing measures for public transportation.
- j) Request assistance of the Emergency Management Assistance Compact (EMAC), if available.
- k) Request federal assistance as needed and available.
- l) Brief the executive branch cabinet as requested.

3. Department of Health

- a) Provide the Deputy State Incident Manager to the SEOC.
- b) Send representatives to the SEOC and the Joint Information Center.

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- c) Activate the Department Operations Center.
- d) Monitor implementation of disease containment plan.
- e) Continue to develop and distribute messages to external partners and the public.
- f) Develop and distribute infection control guidance and PPE recommendations.
- g) Inform clinicians of current clinical and epidemiological criteria, case definitions, and recommendations for clinical and laboratory evaluation.
- h) Provide technical assistance for off-site care facility, isolation capacity, and patient care coordination and delivery.
- i) Develop priority groups for antiviral and vaccine administration.
- j) Conduct 24/7 advanced laboratory testing on an emergency basis.
- k) Isolate and monitor cases, manage close contacts of cases or suspected cases, and work with the MSP CDC Quarantine Station to screen, isolate, and/or quarantine airline passengers as indicated.
- l) Recommend isolation of individuals with influenza-like-illness, social distancing, closure of schools, daycares and other public venues.
- m) Monitor disease activity.
- n) Implement infection control guidance for off-site care facilities and other settings as needed.
- o) Consult on management of cases.
- p) Assist with patient care coordination.
- q) Enhance staffing using volunteer health professionals.
- r) Manage antiviral and vaccine acquisition, allocation, distribution, and utilization.
- s) Monitor adherence to priority groups, adverse events and effectiveness of antivirals and vaccines.
- t) Activate temporary morgue locations.
- u) Coordinate the provision of Psychological First Aid (PFA) and other short-term behavioral health services.

4. Department of Employee Relations

- a) Send a representative to the SEOC.
- b) Convene the Pandemic Flu Executive Committee daily.
- c) Request daily attendance reports from state agencies.
- d) Intensify outreach to state agencies to regarding the situation and how to limit contact with persons.
- e) Inform state agencies on infection control precautions.
- f) Review and evaluate state employee attendance.
- g) Notify HR directors of the current situation.
- h) Instruct employees with direct contact with infected people to use proper precautions.
- i) Require agencies to limit employee travel into areas where infections are occurring.
- j) Coordinate agency requests for personnel to complete Priority Service Functions 1 and 2.
- k) Mandate discontinuation of state agency employee gatherings and meetings as much as possible.
- l) Establish the Department Operations Center (DOC) for coordinating employee concerns and agency requests for employee reallocations.

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H. MN Response Phase P7 - Recovery and Preparation for Subsequent Waves

Prioritization of goals and immediately begin to restore the community to pre-disaster conditions.

- Lead technical agency is the Department of Health.

1. Federal Activities (U. S. Stage 6 per the National Strategy for Pandemic Influenza Implementation Plan)

- a) Work with private sector, State, local and tribal entities to prioritize and begin restoring essential services and reviewing plans to maintain continuity of operations in subsequent waves with support of employees that are immunized or have developed immunity. (U.S. DHS, U.S. HHS)
- b) Redeploy and refit Federal response assets. (All)
- c) Resume essential Federal functions and ensure continuity of operation through subsequent waves. (U.S. DHS and All)
- d) Provide continuously updated information about the epidemiology of the virus, effective treatments, and lessons learned from the first wave, so as to enhance preparedness for subsequent waves. (U.S. HHS)
- e) Continue deployment of pandemic vaccine in preparation for subsequent waves. (U.S. HHS)
- f) Review lessons learned to develop strategies for subsequent waves. (All)

2. HSEM

- a) SEOC continues to be activated, including the Joint Information Center and the Information Hotline.
- b) Provide continuous information to local partners and critical infrastructure.
- c) Continuously monitor local outbreaks and resources to ensure staffing requirements of Priority Service Functions 1 and 2 continue to be met.
- d) Resume Priority Service Functions as resources dictate.
- e) Develop lessons learned and strategies for subsequent waves.
- f) Reassess school and daycare closures to see if they can be lifted.
- g) Redirect state resources to ensure Priority Service Functions 1 and 2 are being met.
- h) Implement community containment strategies statewide.
- i) Request assistance of the Emergency Management Assistance Compact (EMAC), if available.
- j) Request federal assistance as needed and available.
- k) Brief the executive branch cabinet as requested.

3. Department of Health

- a. Recommend termination and cessation of non-pharmaceutical interventions.

4. Department of Employee Relations

IX. Support Agencies

The following agencies have support response functions for Highly Pathogenic Avian Influenza and/or Pandemic Influenza outbreaks.

A. Department of Administration shall:

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1. Provide administrative support to state government agencies during a disaster. This support will include, but is not limited to, assigning administrative staff and equipment, and providing maintenance to state and regional emergency operations centers (EOCs).
2. Provide telephone operation support during exercises and emergencies in state and regional EOCs.
3. Provide support to state agencies in the identification of alternate sites for their systems and personnel.
4. Provide travel support to state agencies.
5. Use its geographic information systems tools and geographic data to assist both planners and emergency responders through the Land Management Information Center.
6. Help identify the locations of nursing homes and licensed/unlicensed group quarters through the State Demographer.
7. Provide procurement of goods and services through standard purchasing procedures, surplus property through Surplus Services and office supplies through Office Supply Connection.
8. Provide insurance assistance and claims processing through the Risk Management Division.

B. Attorney General's Office shall:

1. Provide legal advice and opinions in support of state emergency operations to include preparing and reviewing proclamations and special regulations issued by the Governor.
2. Provide materials about consumer information or representation at Disaster Recovery Centers (DRCs) and public meetings for persons affected by a disaster, as requested by the Division of Homeland Security and Emergency Management.
3. Provide guidance about contracting requirements to state agencies after a major disaster.
4. Represent the state for isolation and quarantine legal issues.

C. Department of Commerce shall:

1. Provide materials about insurance claim procedures or representation at Disaster Recovery Centers (DRCs) and public meetings to persons affected by a pandemic outbreak, as requested by the Division of Homeland Security and Emergency Management.
2. Implement procedures and provide the necessary staff at the State Emergency Operations Center (SEOC) to support the state's responsibility in emergency banking and fiscal matters of any economic stabilization program established by the Federal Reserve Bank of Minneapolis and/or the Federal Reserve System.
3. Coordinate with other state agencies in supporting utility restoration by the gas and electric utilities.
4. Identify resources and assist vulnerable individuals and families through the energy assistance program during and after a pandemic.
5. Identify resources and assist vulnerable individuals and families through the weatherization program during and after a pandemic.
6. Assist state and local government with damage assessment of private or individual dwellings and businesses, which may include seeking cooperation of

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insurance underwriters' adjustment resources, as requested by the Division of Homeland Security and Emergency Management.

7. Develop and make available consumer fact sheets about disaster assistance and insurance regulations.
8. Implement procedures for the conservation and management of energy resources during energy emergencies, in coordination with energy suppliers in the state, as needed.
9. Coordinate activities with the Division of Homeland Security and Emergency Management in the implementation of energy emergency procedures.
10. Develop various public information releases for use in an energy emergency.
11. Provide a representative, when requested, to serve on the Minnesota Recovers Disaster Task Force, in order to assist in the evaluation of projects proposed for funding.

D. Department of Education shall:

1. Coordinate with the Division of Homeland Security and Emergency Management concerning the development and updating, as required, of emergency plan guidance to be provided to local schools. Such guidance shall be designed to assist schools in developing an emergency plan that provides for the protection of children in the event of a pandemic. The department shall be responsible for the distribution of such planning guidance to local school districts.
2. Assist local school districts in preparing and submitting a request for financial assistance from the federal government during and after a pandemic influenza outbreak.
3. Work with schools to develop school-specific, all-hazard emergency plans, which include guidance on pandemic planning, that are compatible with local, county, state and federal all-hazard plans.

E. Emergency Medical Services Regulatory Board shall:

1. With technical assistance from the Department of Transportation – Office of Electronic Communications, ensure the statewide emergency medical services radio communication plan is implemented during a pandemic influenza outbreak.
2. In coordination with other state agencies and local authorities, provide guidance to pre-hospital emergency medical services (EMS) agencies in areas affected by a pandemic influenza outbreak.
3. When requested, the EMSRB will coordinate pre-hospital emergency medical services (EMS) and transportation for patients who require an ambulance during the evacuation of health/medical facilities.
4. Assign personnel, as necessary, to State, Regional, and local Emergency Operations Centers, for the purpose of coordinating pre-hospital emergency medical services.
5. Maintain a list/database of the critical pre-hospital emergency medical resources throughout the state (e.g., disaster trailers, communication equipment, ambulances) to support EMS providers.
6. Coordinate resources for Critical Incident Stress Management (CISM) support to pre-hospital EMS providers.

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F. Department of Employee Relations shall:

1. Support the Department of Employment and Economic Development in the management of personnel services at State and Regional Emergency Operations Centers during a disaster, and assist in the development of emergency employment utilization procedures.
2. Interface with union officials and appropriate representatives to develop strategies for resolving conflicts between labor organizations and state agencies during a pandemic.
3. Provide support to state agencies in the management of labor contracts during emergency operations, ensuring fair, uniform and consistent interpretation of contract language.
4. Coordinate the reassignment of state employees between agencies.
5. Facilitate and coordinate with the labor bargaining units the procedures and processes for changes in state employee scheduling, work locations, and temporary work assignments during declared emergencies.

G. Department of Employment and Economic Development shall:

1. Develop procedures to provide unemployment assistance to eligible individuals whose unemployment results from a disaster declared under Public Law 93-288. Arrange for payment of benefits, under regular unemployment compensation laws, to eligible individuals in cases where a disaster has not been declared.
2. Provide materials or representation at Disaster Recovery Centers (DRCs) and public meetings to furnish information relative to disaster unemployment, and applicable programs, as requested by the Division of Homeland Security and Emergency Management.
3. Provide an estimate of the immediate economic impact of either a highly pathogenic avian influenza or a pandemic influenza outbreak, as requested by the Division of Homeland Security and Emergency Management. Where possible and applicable, the department shall provide estimated projections of long-range effects of each instance including: residents, businesses, and local, state, and federal agencies.

H. Department of Finance shall:

1. Develop procedures for streamlined fiscal management of the state during either a highly pathogenic avian influenza or a pandemic influenza outbreak.
2. Work with Department of Public Safety to establish procedures to estimate and monitor potential state matching commitments associated with requests for Presidential disaster declarations, and accompanying strategies to request appropriation authority for such matching funds.
3. Assist state agencies in identifying potential additional costs associated with supporting local agencies during emergencies, and accompanying strategies to request appropriation authority for such additional costs.

I. Minnesota Housing Finance Agency shall:

1. Upon entry into MN Response Phase P3, immediately inventory the availability of rental property suitable for temporary or long-term housing.

J. Department of Human Services shall:

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1. Assist with immediate mental health services, apply for and administer special mental health program grants for pandemic victims, and provide crisis counseling training for mental health providers working with pandemic issues.
2. Coordinate the Disaster Food Stamp Program for highly pathogenic avian influenza and or pandemic influenza victims.
3. Provide USDA donated food to disaster relief agencies and emergency feeding programs, and assist with its distribution and storage through the Emergency Food Assistance Program (TEFAP).
4. Coordinate with county social service agencies to meet the childcare needs of HPAI and pandemic influenza victims unable to care for their children.
5. Coordinate with county social service agencies to meet the food, shelter, clothing, and medical care needs of pandemic victims through state and federal income maintenance programs.
6. Coordinate the delivery of emergency human services with local government, voluntary agencies, and other human service agencies, following a disaster, through State and/or Regional Emergency Operations Centers.
7. Provide personnel to assist the state in delivering individual assistance following a presidential disaster declaration, as requested by the Division of Homeland Security and Emergency Management.
8. Provide assistance in long-term disaster recovery, using existing programs, streamlining, or waiving regulatory functions where possible, and providing technical assistance and/or administrative support to stricken communities.

K. Department of Labor and Industry shall:

1. Assign a representative to the State Emergency Operations Center to respond to questions regarding protective measures in the work place and virus transmission.
2. Develop fact sheets for businesses detailing training required for implementation of protective measures (masks, respirators, etc.) in the workplace.

L. Department of Military Affairs shall:

1. Prepare and maintain plans and procedures to support civil authorities when a HPAI or pandemic influenza outbreak exceeds state and local resources (Minnesota National Guard).

M. Office of Enterprise Technology shall:

1. Furnish computer services needed for operations and resource management in an emergency.
2. Coordinate planning and delivery of statewide telecommunications systems and services for emergency operations during an emergency, and shall provide emergency telecommunications support.
3. Provide state agencies access to a recovery plan development software tool.
4. Provide support to state agencies in the identification of alternate sites for their systems and time-sensitive functions.
5. Coordinate continuity of operations planning and standards for state agencies and provide emergency support.

N. Minnesota Pollution Control Agency shall:

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1. Waive, modify or suspend selected enforcement rules of the agency, when statute provides for such waivers upon instructions from the Governor's Office or the Governor's Authorized Representative.
2. Provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team, following a Presidential declaration of disaster or when requested.
3. Provide a representative to serve on the Minnesota Recovers Disaster Task Force to evaluate projects proposed for funding, as requested.
4. Provide technical and policy-level staff to the State Emergency Operations Center, specifically to the Planning and Assessment Center and the Operations Section, as requested.
5. Develop and provide guidelines and procedures, assisting local authorities to manage and dispose of debris during a pandemic.

O. Department of Public Safety shall:

1. **Bureau of Criminal Apprehension**
 - a) Make its field agents available, when possible, to assist other state agencies with search and rescue, evacuation and traffic control, and law enforcement during a disaster.
2. **Capitol Complex Security Division**
 - a) Provide protection to property and equipment on the Capitol complex during an emergency.
 - b) Provide 24-hour security for the State Emergency Operations Center (SEOC) and the Joint Information Center (JIC) during an emergency, when located on the Capitol complex.
3. **Office of Communications**
 - a) Provide emergency public information support following the occurrence of a pandemic, in coordination with the Division of Homeland Security and Emergency Management and the Governor's Office.
4. **State Fire Marshal/Office of Pipeline Safety**
 - a) Conduct fire and life safety inspections of facilities that will be used as pandemic housing, as requested by the Division of Homeland Security and Emergency Management, or deemed necessary by the State Fire Marshal.
5. **Fiscal and Administrative Services**
 - a) Within five working days, process payments received from the Department of Public Safety, Division of Homeland Security and Emergency Management, for disaster victims, if the Division is processing Other Needs Assistance for the Individuals and Households Program.
6. **State Patrol Division**
 - a) Ensure law enforcement and traffic control on all interstate and state trunk highways during a HPAI and/or pandemic influenza outbreak.
 - b) Use available resources to assist local police agencies with law enforcement and traffic control when requested by proper local authority to do so.

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- c) Act as net control for the National Warning System (NAWAS) within the state for the dissemination of national and local emergency information and warnings.
- d) Be responsible for providing assistance that may be required by the Capitol Complex Security Division to protect the personnel in the Capitol Complex during an emergency, and prepare plans and procedures accordingly.
- e) Serve as the redundant direction and control net using the State Patrol radio frequencies. Provide personnel to operate the radio console in the State Emergency Operations Center (SEOC), during exercises, drills and emergencies, if needed.
- f) Provide backup radio operators to operate the radio console in the SEOC, as needed.
- g) The State Patrol Air Section shall provide aerial photography on an as-needed basis. State Patrol helicopters equipped with cameras shall be utilized to do aerial filming of the identified area and shall provide that information directly to the State Emergency Operations Center.
- h) The State Patrol Air Section shall request flight restrictions over disaster and emergency areas, when requested by the Division of Homeland Security and Emergency Management or local authorities.
- i) The State Patrol Air Section shall provide personnel to participate in a preliminary damage assessment (PDA) effort and prepare damage survey reports (DSRs) for airports and airport facilities damaged in any type of major disaster in conjunction with the Department of Transportation Aeronautics Division, and the Department of Natural Resources, when requested.
- j) The State Patrol Air Section shall provide transportation and/or reconnaissance in conjunction with the Department of Transportation Aeronautics Division, on an as-needed basis.
- k) The State Patrol Air Section shall have a plan for the utilization of agency aircraft available for emergency operations, including records of agency aircraft, pilots, and available airports.
- l) The State Patrol Air Section shall coordinate with the Department of Transportation Aeronautics Division, and the Department of Natural Resources for the provision and use of air transportation resources within state government, during a disaster declaration.

7. Warehouse

- a) Assist with the relocation of furniture, equipment, and supplies from the State Emergency Operations Center to an alternate site, when feasible.

P. Department of Revenue shall:

1. Provide materials or representatives at Disaster Recovery Centers (DRCs) to provide guidance to clients about fulfilling their tax obligations as a result of a HPAI and/or pandemic influenza outbreak, or as requested by the Division of Homeland Security and Emergency Management.
2. Assist state and local governments and help citizens determine value of losses sustained as a result of a HPAI and/or pandemic influenza outbreak.
3. Assign personnel to assist with the compliance activities associated with the economic stabilization function.

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Q. Minnesota State Colleges and Universities shall:

1. Assess facilities within the network for capacity and equipment.
2. Assist state and local government by providing facilities as needed during a HPAI and/or pandemic influenza outbreak.

R. Department of Transportation shall:

1. Implementing highway traffic management plans and procedures for the regulation of highway travel, as requested.
2. Process Temporary Flight Restriction (TFR) requests through the Federal Aviation Authority (FAA), as requested.
3. Coordinate air transportation and reconnaissance with the FAA, Metropolitan Airports Commission, Department of Military Affairs, Department of Natural Resources, Department of Public Safety and general aviation, as requested.
4. Provide emergency engineering services in disaster operations and assign personnel to the State Emergency Operations Center.
5. Coordinate emergency relief efforts with the motor carrier industry to enlist their assistance in emergency response efforts.
6. Assist in preparing emergency executive orders granting relief from the motor carrier safety regulations, including overweight and over-dimension permits, upon instruction from the Governor's Authorized Representative.
7. Provide technical radio communications assistance to the Division of Homeland Security and Emergency Management and incident commanders, as requested.
8. Provide technical assistance in developing radio capabilities for statewide emergency preparedness when multiple state agencies or multiple levels of government need to carry out a coordinated response.
9. Maintain the state radio communications systems essential to operations during a HPAI or pandemic influenza outbreak.
10. Provide personnel and equipment support in emergency law enforcement, evacuation or sheltering in-place, traffic control and public alerting operations, when requested by the Division of Homeland Security and Emergency Management.

X. Communications

A. Responsibilities by Agency

The Department of Public Safety, Division of Homeland Security and Emergency Management (HSEM) shall have the coordinating role in a multiple state agency response to HPAI or a pandemic influenza outbreak. All state agencies shall support this coordinated multi-agency response and carry out their specific assignments, as described in the State of Minnesota Highly Pathogenic Avian Influenza and Pandemic Influenza MEOP Supplement.

- h) Agencies encouraged to begin cross training of employees for priority one and two services.

The Joint Information Center (JIC) will be activated as outlined in Section V. Concept of Operations. Activation of the Joint Information Center (JIC) includes holding the initial media briefing and establishing coordinated news conferences and news releases, and determining the schedule for media briefings. The purpose is

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to ensure coordination and communication occur between all responding agencies and that the state speaks with one voice.

Upon activation, each state agency will implement its agency-specific communication plan. At a minimum, that plan will include:

1. The role(s) of the agency's PIO(s) during a HPAI or pandemic influenza outbreak.
2. A description of how the agency will provide PIO support to the State PIO and the Joint Information Center (JIC).
3. Identification of subject matter experts (and their alternates). The subject matter expert will be made available to the State PIO to speak to the public and the media on their area of expertise.
4. A model of how each agency will provide information to the State PIO (or the State PIO's representative) to ensure it conforms to the overall state message.
5. A breakdown of the agency's role by Minnesota Response Phase.

Each state agency will also create fact sheets, message maps and talking points for their area of expertise. The fact sheets, message maps and talking points will be provided to the State PIO to ensure consistency with the overall state message. Subject matter experts should receive the talking points and be trained to deliver them to the public and the media.

Each Lead Technical Agency is responsible for working with the Department of Public Safety during the development of their HPAI and pandemic influenza response plan to ensure communication plans are in place, spokespeople are identified and every state agency is speaking with one voice.

B. Officials/Agencies Responsible for Public Information

1. Office of the Governor

- a) The Governor will normally assume the role of chief spokesperson following a major disaster/emergency that involves a multiple state agency response or affects a large segment of the population. However, the Governor's press secretary or another staff member designated by the Governor and may be the chief spokesperson throughout the emergency period. For the purposes of this supplement and actual emergency operations, the chief spokesperson will be called the State *Public Information Officer* (PIO).
 - i. To carry out this responsibility, the State PIO will have complete access to all necessary information regarding the emergency response. Specific responsibilities of the State PIO are to, in a timely manner:
 - Coordinate the release of all public information with the affected state agencies regarding their activities in support of emergency operations.
 - Coordinate actions with the designated PIOs representing other state and federal agencies, voluntary agencies and local governments involved in the emergency response.

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- Coordinate actions with the designated PIOs from any businesses/industries that have direct involvement in the response to or the recovery from a HPAI or pandemic influenza outbreak.
- Coordinate rumor control through the Information Hotline.
- Monitor media reports, hotline traffic, and other sources of information to identify and address unanticipated public health concerns, rumors, and other issues that may arise during an outbreak. As necessary, develop materials to address these concerns.
- Centralize all information by managing requests for and release of information through the Joint Information Center (JIC).
- Ensure all state agencies speak with “one voice” by providing frequent updates to the media in one central location.

2. Department of Public Safety (DPS)

a) Office of Communications

This office is charged with two specific emergency response public information responsibilities:

- i. Fulfill the duties of the State PIO. The Department of Public Safety Office of Communications Director may be called upon to perform the duties of the State PIO on behalf of the Governor's Office.
- ii. Support the State PIO in the dissemination of emergency public information. This office has day-to-day responsibilities that require frequent contact with the media. For this reason, it may be asked to facilitate the release of emergency public information.

b) Division of Homeland Security and Emergency Management (HSEM)

HSEM is charged with the following emergency public information tasks:

- i. Fulfill the duties of the State PIO. Because the division has overall responsibility for coordinating state agency response to an emergency and the direct responsibility for requesting disaster assistance, the Governor may request that HSEM designate a person to serve as the State PIO.
- ii. Support the State PIO in the dissemination of emergency public information in situations where it is necessary to activate the Joint Information Center (JIC).
- iii. Activate of the JIC and assist the State PIO in arranging for news conferences/briefings. The division will perform other tasks as assigned by the State PIO in support of the dissemination of public information.
- iv. Serve as a source of public information for the State PIO. HSEM staff members, including regional program coordinators who are directly involved with emergency operations, will provide pertinent information to the State PIO concerning the emergency situation.
- v. Develop and distribute pamphlets and guidance materials. As one of its ongoing responsibilities, HSEM distributes a variety of disaster response and recovery-related documents that are intended for public use.
- vi. Arrange for the Governor to speak to the entire state via EAS if deemed necessary.

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- vii. Operate the Information Hotline (rumor control) if needed, including coordinating a TTY operator for handling calls from the deaf and hearing impaired populations. Non-English language interpretive services are also available for hotline operations from Language Line Services, through the Department of Administration InterTechnologies Group. The State PIO coordinates the dissemination of all hotline numbers to the media.
- viii. Coordinate and distribute intelligence information.
- ix. Coordinate Emergency Alert System (EAS) activities during disaster response and recovery operations.

3. Department of Agriculture (MDA)

MDA, in conjunction with BAH and DNR, is responsible for making information available to the public for HPAI outbreaks. Additionally, MDA is responsible for making information available to the public regarding food safety and agricultural chemical incidents. MDA will:

- a) Upon Minnesota Response Phase A3 and A4, work with DPS to provide subject matter experts to the State PIO.
- b) Request HSEM to activate the Joint Information Center (JIC) as appropriate.
- c) Monitor media reports, hotline traffic, information provided by local agencies and other sources of information to identify and address unanticipated public concerns, rumors, and other issues that may arise during an event. As necessary, develop materials to address these concerns.
- d) In conjunction with the JIC and local/regional PIOs, identify strategies for message delivery.
- e) Coordinate the development of fact sheets, talking points and other vehicles for information dissemination in an animal disease emergency.

4. Board of Animal Health (BAH)

BAH, in conjunction with MDA and DNR, is responsible for making information available to the public for HPAI outbreaks. BAH will:

- a) Upon Minnesota Response Phase A3 and A4, work with DPS to provide subject matter experts to the State PIO.
- b) Request HSEM to activate the Joint Information Center (JIC) as appropriate.
- c) Monitor media reports, hotline traffic, information provided by local agencies and other sources of information to identify and address unanticipated public concerns, rumors, and other issues that may arise during an event. As necessary, develop materials to address these concerns.
- d) In conjunction with the JIC and local/regional PIOs, identify strategies for message delivery.
- e) Coordinate the development of fact sheets, talking points and other vehicles for information dissemination, in an animal disease emergency.

5. Department of Health (MDH)

In the case of a public health threat or emergency, MDH is responsible for ensuring that clear, scientifically-based health information and messages are disseminated to the public and is charged with the following tasks:

- a) Upon Minnesota Response Phase P1, P2, P3, P4, P5, P6, P7, work with DPS to provide subject matter experts to the State PIO.

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- b) Ensure staff are available to fulfill spokesperson responsibilities as requested.
- c) Identify communications staff to participate in JIC activities and coordinate other aspects of the communications process related to public health issues and concerns.
- d) Identify public health issues and concerns that may need to be addressed through publicly disseminated information and messages.
- e) Identify groups within the broader population who may need to receive targeted messages and information about health concerns, including groups that may face special communication barriers or have special needs.
- f) Insofar as possible, develop pre-scripted informational materials and message maps for a HPAI or pandemic influenza outbreak that involve potential public health concerns, including fact sheets, talking points, news release templates, and other vehicles.
- g) Via the MDH telephone hotline, provide information to public health agencies and health care professionals. Refer calls from the public to SEOC's Information Hotline.
- h) Insofar as possible, make public health information and materials available in multiple languages, to meet the needs of state residents with limited English skills.
- i) Work with the State PIO to disseminate messages and information, and to identify appropriate vehicles for dissemination of messages to the public and to targeted groups within the broader population, including but not limited to news releases, fact sheets, talking points, media briefings and availabilities and posting of information on the HSEM and MDH websites.
- j) Work with local public health agencies, hospitals, health care providers, and other health-related agencies and institutions to ensure coordination of public information activities and consistent messages relating to events that involve an actual/potential threat to public health.
- k) Support and assist the State PIO and other agencies in providing health-related information during events where public health is not the sole or primary concern.

6. Department of Human Services

- a) Assist the State PIO in arranging for sign language interpretation when the Governor travels to disaster sites or addresses the citizens of Minnesota.

7. Department of Natural Resources (DNR)

DNR, in conjunction with BAH and MDA, is responsible for making information available to the public for HPAI outbreaks.

- a) Upon Minnesota Response Phase A1 and A2, work with DPS to provide subject matter experts to the State PIO.
- b) Request HSEM to activate the Joint Information Center (JIC), as appropriate.
- c) Monitor media reports, hotline traffic, information provided by local agencies and other sources of information to identify and address unanticipated public concerns, rumors, and other issues that may arise during an event. As necessary, develop materials to address these concerns.

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- d) In conjunction with the JIC and local/regional PIOs, identify strategies for message delivery.
- e) Coordinate the development of fact sheets, talking points and other vehicles for information dissemination, in an animal disease emergency.

8. All Other State Agencies

State agencies are charged with the following emergency public information responsibilities:

- a) Provide support to the State PIO, if requested by the Governor.
- b) Serve as a source of public information for the State PIO. Each state agency that is involved in the response to the disaster will need to provide pertinent public information to the State PIO for dissemination to media sources and, as appropriate, fact sheets for distribution to the public. State agency representatives may also be asked to participate in news conferences and briefings.

9. Local Governments

- a) Local government officials are responsible to coordinate release of information regarding response with the JIC.
- b) County PIO Liaisons may be located at the JIC in order to coordinate the dissemination of information regarding local government activities.
- c) Many local governments have pre-designated their PIO and the facility that they will use as a news briefing room.

10. Federal Agencies

The Federal Coordinating Officer for the responding federal government agencies is expected to release pertinent information from the Minnesota JIC.

11. Responsible Party

Parties responsible for certain types of incidents will be asked to provide a spokesperson for the JIC.

C. Joint Information Center

1. Concept of Operation

- a) Depending on the severity/duration of the emergency, it may be necessary to activate the Joint Information Center (JIC). The purpose of this facility is to serve as a media briefing area, to centralize the release of all public information relating to the disaster, and to provide a forum for news media representatives to collectively gather critical information concerning disaster operations.

2. Location

- a) Primary Location
 - i. Depending on the size of the event, the JIC Media Briefing Room will be located in the Department of Public Safety briefing room at 444 Cedar Street, Saint Paul, or in Room G-15 of the State Capitol. When activated, all news conferences, news briefings and written news releases will originate from this facility.

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- ii. The JIC work area for Twin Cities metro area news media personnel is located in the State Capitol newsroom (Rooms B-12 and B-14). Non-metro media personnel may have access to room B-59 of the State Capitol, if additional working area is needed.
- iii. The JIC work area for federal, state, local and industry PIOs is located in the SEOC.
- iv. The Minnesota National Guard will provide security for the JIC. The Department of Public Safety, Capitol Complex Security Division will provide security at the JIC, if located within the Capitol complex.

b) Alternate Location

If the State PIO determines that the JIC is unavailable/unsuitable, he or she will identify an alternate location.

3. Activation

The Division of Homeland Security and Emergency Management will activate the JIC upon the request of a state agency or as described in Section VII. Concept of Operations.

4. Policies and Procedures

If the JIC is activated, all local, state and federal agencies (and in some cases private sector agencies and businesses) involved in the response to the emergency will be asked to provide a spokesperson and a designated alternate.

- a) Only the designated spokesperson (or their alternate) is allowed to speak on an agency's behalf.
- b) Spokespersons at the JIC are expected to speak on behalf of the agency/organization they represent and to confine their remarks to the specific actions being taken by that agency/organization.
- c) Due to operational considerations, news media personnel may not be permitted to have access to the SEOC while that facility is activated.
- d) After the activation of the JIC, news conferences and/or briefings will be conducted on a regular basis throughout the duration of the disaster/emergency.
- e) To support news conferences and/or briefings, the appropriate state agencies provide maps, charts, status boards, schematics or other displays that clearly depict the disaster situation, as needed.

5. Local News Briefing Room

County and city governments will activate their local news briefing rooms. The information disseminated from these facilities is limited to that which has local implications only. It is incumbent upon the local PIO and the State PIO to communicate regularly to ensure the coordinated release of public information.

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Term	Definition
Full SEOC Activation	For the purposes of this document a full activation includes State Incident Manager, Deputy State Incident Manager, Logistics, Operations, Planning, Finance, Joint Information Center and Information Hotline.
HPAI	Highly Pathogenic Avian Influenza that occurs naturally among wild birds. For example, the H5N1 variant is deadly to domestic fowl and can be transmitted from birds to humans. There is no human immunity and no vaccine is available.
Minnesota Response Phase A0	A Highly Pathogenic Avian Influenza virus subtype is present in domestic and/or wild animals overseas. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.
Minnesota Response Phase A1	A Highly Pathogenic Avian Influenza virus subtype is present in wild animals in North America. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.
Minnesota Response Phase A2	A Highly Pathogenic Avian Influenza virus is present in wild animals in Minnesota. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans.
Minnesota Response Phase A3	A Highly Pathogenic Avian Influenza virus is present in domestic animals in North America. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a risk of human disease.
Minnesota Response Phase A4	A Highly Pathogenic Avian Influenza virus is present in domestic animals in Minnesota. The risk of human infection or disease is considered to be low. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a risk of human disease.
Minnesota Response Phase A5	Recovery from an outbreak of Highly Pathogenic Avian Influenza.
Minnesota Response Phase P0	Human infection(s) with a new subtype, but no human-to-human spread or at most rare instances of spread to a close contact overseas.
Minnesota Response Phase P1	Confirmed, sustained human-to-human transmission of pandemic influenza overseas.
Minnesota Response Phase P2	Suspected and/or confirmed human case in North America.
Minnesota Response Phase P3	Widespread outbreak in the lower 48 United States.
Minnesota Response Phase P4	Suspected and/or confirmed human case in Minnesota.
Minnesota Response Phase P5	Evidence of significant human-to-human transmission in a highly localized area (region) within Minnesota.
Minnesota Response Phase P6	Widespread human-to-human transmission throughout the State of Minnesota.
Minnesota Response Phase P7	Recovery from a preceding wave of pandemic influenza and preparation for subsequent waves.
Pandemic Influenza	Virulent influenza that causes a global outbreak, or pandemic,

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	of serious illness. Because there is little natural immunity, the disease can spread easily from person to person. Currently, there is no pandemic influenza.
Partial SEOC Activation	For the purposes of this document a partial activation includes the State Incident Manager, Deputy State Incident Manager, Operations Chief and any additional staffing that the State Incident Manager deems necessary.
Seasonal (or common) Influenza	Respiratory illness that can be transmitted person to person. Most people have some immunity, and a vaccine is available.
SEOC	State Emergency Operations Center



State of Minnesota

GIS Pandemic Needs Analysis Report

Appendices Addendum

[Executive Order 04-04](#)

STATE of MINNESOTA



TIM PAWLENTY
GOVERNOR

EXECUTIVE ORDER 04-04
ASSIGNING EMERGENCY RESPONSIBILITIES
TO STATE AGENCIES;
RESCINDING EXECUTIVE ORDER 99-20

I, TIM PAWLENTY, GOVERNOR OF THE STATE OF MINNESOTA, by virtue of the authority vested in me by the Constitution and the applicable statutes, do hereby issue this Executive Order:

WHEREAS, natural and technological disasters have and may occur in any part of the state; and

WHEREAS, national and international events, such as conflict or threats of terrorism can increase the need for emergency preparedness within the state; and

WHEREAS, state agencies may be called upon to respond to and/or assist in the recovery from the effects of these events or disasters;

NOW, THEREFORE, I hereby order that:

1. Each department and independent state agency included in this Executive Order shall designate a member of its staff as its emergency preparedness response contact/coordinator (EPRC/C). Such individual shall serve as the point of contact for the Division of Homeland Security and Emergency Management and other state agencies with regard to emergency preparedness and response issues, and shall represent that agency on the Minnesota Emergency Preparedness and Response Committee (EPRC).
2. Each department, independent division, bureau, board, commission and independent institution of the state government, hereinafter referred to as "agency," shall carry out the general emergency preparedness, planning, response, recovery, hazard mitigation

and continuity of operations responsibilities described in this Executive Order, the specific emergency assignments contained in the *Minnesota Emergency Operations Plan*, the *State All-Hazard Mitigation Plan* and such other duties as may be requested by the Division of Homeland Security and Emergency Management. The head of each agency shall be accountable for the execution of the responsibilities described in this Executive Order.

I. Emergency Preparedness/Planning

- A. The Division of Homeland Security and Emergency Management shall have overall responsibility for coordinating the development and maintenance of the all-hazard *Minnesota Emergency Operations Plan*.
- B. Each state agency shall develop and update, as necessary, its own emergency plan/procedures, including a continuity of operations (business continuation) plan. Agencies have the option of maintaining a copy of their continuity of operations plan at either their own secure offsite location or at one or more sites offered by the Department of Administration.

Each agency's continuity of operations plan/procedures must provide for:

- 1. protection of the agency's personnel, equipment, supplies, vital records, public records and facilities from the direct effects of a disaster at their agency or facilities; and
- 2. execution of the emergency responsibilities that are assigned to the agency in this Executive Order, and are elaborated upon in the *Minnesota Emergency Operations Plan*; and
- 3. continuity of government for sustaining time-sensitive operations and staffing, at a minimum developing and maintaining a written continuity of operations plan defining:
 - a. lines of succession,
 - b. pre-delegation of emergency authority,
 - c. emergency action steps or procedures,
 - d. alternate operating sites for time-sensitive functions,
 - e. alternate facilities for resumption of normal business and the resumption of the agency's time-sensitive functions and services,

- f. safeguarding of vital records,
 - g. protection of facilities, personnel and resources, and
 - h. preparation for returning to normal operations.
4. commitment of resources for the development and maintenance of an agency all-hazard plan, including a continuity of operations plan.

On an annual basis, each state agency shall notify the Division of Homeland Security and Emergency Management of the location of, and date of the most recent revision to, their continuity of operations plan.

II. Emergency Response

- A. All state agencies responding to a disaster/emergency shall use the Minnesota Incident Management System (MIMS). In the event of a disaster/emergency resulting in a multiple state agency response, a unified command structure shall be established. If, due to the nature of an incident, a single state agency has a larger/primary role in the response to that incident, that agency may be referred to as the "lead agency." The Division of Homeland Security and Emergency Management shall have the coordinating role in a multiple state agency response to a disaster/emergency. All state agencies shall support this coordinated multi-agency response and carry out their specific assignments, as described in the *Minnesota Emergency Operations Plan*.
- B. All state agencies shall be responsible for assigning necessary personnel to report to the state, regional and/or on-site emergency operations center(s) and information hotline, if such are activated, in accord with the *Minnesota Emergency Operations Plan*. The responding personnel shall be prepared to direct the activities of their agency's response personnel, and shall carry out the emergency responsibilities assigned to their agency in this Executive Order and elaborated upon in the *Minnesota Emergency Operations Plan*.

III. Recovery/Hazard Mitigation

- A. Each state agency that has a role in emergency management shall participate in the development of hazard mitigation strategies to reduce or eliminate the vulnerability of life and property to the effects of disasters.
- B. Following a presidential declaration of a major disaster, state agencies shall be responsible for carrying out the hazard mitigation

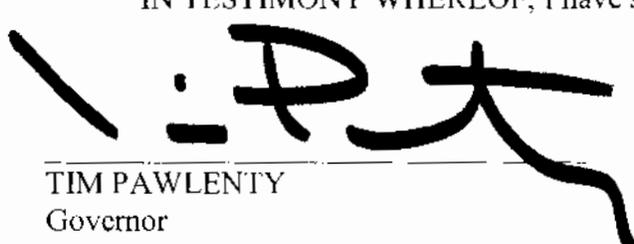
responsibility assignments contained in this Executive Order and elaborated upon in the *State All-Hazard Mitigation Plan*.

- C. State agencies shall, when requested by the Division of Homeland Security and Emergency Management, provide appropriate personnel to assist with the damage assessment activities associated with the Public Assistance, Individual Assistance, and Hazard Mitigation programs. They shall also provide personnel to serve on an Interagency Hazard Mitigation Team or Hazard Mitigation Survey Team, when requested.
- D. State agencies shall, when requested by the Division of Homeland Security and Emergency Management, provide appropriate personnel to serve on the Minnesota Recovers Disaster Task Force, and be prepared to commit and combine resources toward the long-term recovery/mitigation effort.
- E. State agencies shall, when requested by the Division of Homeland Security and Emergency Management, provide necessary personnel to staff those Disaster Recovery Centers (DRCs) that are established, following a presidential declaration of a major disaster.

Executive Order 99-20 is rescinded.

Pursuant to Minnesota Statutes 2002, section 4.035, subdivision 2, this Executive Order will be effective fifteen (15) days after publication in the State Register and filing with the Secretary of State and will remain in effect, in accordance with Minnesota Statutes 2002, section 4.035, subdivision 3.

IN TESTIMONY WHEREOF, I have set my hand this 29th day of March, 2004.



TIM PAWLENTY
Governor

Filed According to Law:



MARY KIFFMEYER
Secretary of State



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I. DEPARTMENT OF ADMINISTRATION

- Section 100 The Department of Administration shall coordinate planning and recovery of the statewide systems and provide emergency support.
- Section 101 The Department of Administration shall provide architects, engineers and/or other technically qualified personnel, when requested, to participate in the preliminary damage assessment (PDA) of public buildings damaged by disaster.
- Section 102 The Department of Administration shall administer the state self-insurance program as it relates to federal disaster assistance, as set forth under Public Law 93-288. This will be accomplished in conformance with the Federal Emergency Management Agency guidance, as it relates to insuring public buildings for eligibility for Public Assistance during a Presidential Declaration of a Major Disaster.
- Section 103 The Department of Administration shall provide administrative support to state government agencies during a disaster. This support will include, but is not limited to, assigning administrative staff and equipment, and maintenance to state and regional emergency operations centers (EOCs).
- Section 104 The Department of Administration shall furnish computer services needed for operations and resource management in an emergency.
- Section 105 The Department of Administration shall coordinate planning and delivery of statewide telecommunications systems and services for emergency operations during an emergency, and shall provide emergency telecommunications support.
- Section 106 The Department of Administration shall be responsible for providing telephone operation support during exercises and emergencies in state and regional EOCs.
- Section 107 The Department of Administration shall provide support to state agencies in the identification of alternate sites for their systems and personnel.
- Section 108 The Department of Administration shall provide travel support to state agencies.
- Section 109 The Department of Administration shall provide state agencies

access to a recovery plan development software tool.

- Section 110 The Local Planning Assistance Center shall, in conjunction with the Division of Homeland Security and Emergency Management, assist counties in developing hazard mitigation plans, as required by the Federal Emergency Management Agency.
- Section 111 The Land Management Information Center shall use its geographic information systems tools and geographic data to assist both planners and emergency responders.
- Section 112 The State Demographer shall help identify the locations of nursing homes and licensed/unlicensed group quarters.

II. DEPARTMENT OF AGRICULTURE

- Section 200 The Department of Agriculture shall provide guidance to state and local authorities for the protection of milk, food products, and crops affected by disaster.
- Section 201 The Department of Agriculture shall be responsible for preparing plans and procedures for monitoring/sampling of agricultural land, milk, food products, and crops affected by disaster.
- Section 202 The Department of Agriculture shall, when requested, make its laboratory capabilities available for the identification and analysis of potential biological and chemical agents.
- Section 203 The Department of Agriculture shall provide qualified personnel to participate in a preliminary damage assessment (PDA) effort, following the occurrence of a disaster, when requested.
- Section 204 The Department of Agriculture shall provide a representative, when requested, to serve on the Minnesota Recovers Disaster Task Force to evaluate projects proposed for funding.

Board of Animal Health

- Section 220 The Board of Animal Health shall develop procedures for responding to animal health emergencies. The Board shall provide leadership and technical expertise to local, state and federal authorities in the event of an animal disease emergency in order to prevent spread of the disease.
- Section 221 The Board of Animal Health shall develop fact sheets and provide other animal disease-related information to the public and other local and state agencies, in the event of an animal disease emergency.
- Section 222 The Board of Animal Health shall advise local and state officials on methods of livestock carcass disposal to control the spread of animal disease.

III. ATTORNEY GENERAL

- Section 300 The Attorney General shall be responsible for providing legal advice and opinions in support of state emergency operations to include preparing and reviewing proclamations and special regulations issued by the governor.
- Section 301 The Attorney General shall provide materials or representation at Disaster Recovery Centers (DRCs) and public meetings, as requested by the Division of Homeland Security and Emergency Management, to provide consumer information to persons affected by a disaster.
- Section 302 The Attorney General shall provide guidance on contracting requirements to state agencies, after a major disaster.

IV. DEPARTMENT OF COMMERCE

- Section 400 The Department of Commerce shall provide materials or representation at Disaster Recovery Centers (DRCs) and public meetings, as requested by the Division of Homeland Security and Emergency Management, to furnish information relative to insurance claim procedures to persons affected by a disaster.
- Section 401 The Department of Commerce shall develop procedures and provide the necessary staff at the State Emergency Operations Center to support the state's responsibility in emergency banking and fiscal matters of any economic stabilization program established by the Federal Reserve Bank of Minneapolis and/or the Federal Reserve System.
- Section 402 The Department of Commerce shall coordinate with other state agencies in supporting the utility restoration by the gas and electric utilities.
- Section 403 The Department of Commerce shall identify resources and assist vulnerable individuals and families, through the energy assistance program, during and after a disaster.
- Section 404 The Department of Commerce shall identify resources and assist vulnerable individuals and families, through the weatherization program, during and after a disaster.
- Section 405 The Department of Commerce shall assist state and local government with damage assessment of private or individual dwellings and businesses, which may include seeking cooperation of insurance underwriters' adjustment resources, as requested by the Division of Homeland Security and Emergency Management.
- Section 406 The Department of Commerce shall develop and make available consumer fact sheets about disaster assistance and insurance regulations.
- Section 407 The Department of Commerce-Telecommunications Access Minnesota (DOC-TAM) shall, in coordination with the Department of Human Services-Deaf and Hard of Hearing Services Division (DHS-DHHSD), provide Telecommunications Devices for the Deaf (TDD), TDD operators and American Sign Language Interpreters when the State Emergency Operations Center and Information Hotline are activated.

- Section 408 The Department of Commerce shall develop procedures for the conservation and management of energy resources during energy emergencies, in coordination with energy suppliers in the state.
- Section 409 The Department of Commerce shall coordinate their activities with the Division of Homeland Security and Emergency Management in the implementation of energy emergency procedures.
- Section 410 The Department of Commerce shall develop various public information releases for use in an energy emergency.
- Section 411 The Department of Commerce shall provide personnel, when requested, to participate in a preliminary damage assessment (PDA) effort, following the occurrence of a disaster.
- Section 412 The Department of Commerce shall provide personnel, when requested, to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team, following a presidential declaration of a major disaster.
- Section 413 The Department of Commerce shall provide a representative, when requested, to serve on the Minnesota Recovers Disaster Task Force, in order to assist in the evaluation of projects proposed for funding.

V. DEPARTMENT OF EDUCATION

- Section 500 The Department of Education shall coordinate with the Division of Homeland Security and Emergency Management on the development and updating, as required, of emergency plan guidance to be provided to local schools. Such guidance shall be designed to assist schools in developing an emergency plan that provides for the protection of children in the event of a disaster/emergency. The department shall be responsible for the distribution of such planning guidance to local school districts.
- Section 501 The Department of Education shall assist local school districts in preparing and submitting a request for financial assistance from the federal government when public school facilities are damaged or destroyed by a major disaster.
- Section 502 The Department of Education shall provide technical assistance in finding appropriate alternate school facilities, which are inspected and approved by the State Fire Marshal, when local facilities are damaged or destroyed during a disaster.
- Section 503 The Department of Education shall work with schools to develop school-specific, all-hazard emergency plans compatible with local, county, state and federal all-hazard plans. The plans and response procedures developed for schools should specifically address domestic violence within the buildings and the development of "safe areas" around schools.

VI. EMERGENCY MEDICAL SERVICES REGULATORY BOARD

- Section 600 The Emergency Medical Services Regulatory Board, with technical assistance from the Department of Transportation, shall develop a statewide emergency medical services radio communication plan.
- Section 601 The Emergency Medical Services Regulatory Board shall, in coordination with other state agencies, determine medical assistance guidance for local authorities in areas affected by accidents/incidents involving hazardous materials and explosions.
- Section 602 The Emergency Medical Services Regulatory Board shall coordinate resources for local ambulance providers including, when requested, arranging for transportation and medical services for patients requiring an ambulance, and for the evacuation of health/medical facilities.
- Section 603 The Emergency Medical Services Regulatory Board shall assign personnel, as necessary, to State, Regional, and local Emergency Operations Centers, for the purpose of coordinating pre-hospital emergency medical services.
- Section 604 The Emergency Medical Services Regulatory Board shall establish and maintain a list of the critical pre-hospital medical resources throughout the state and develop a system for rapid access to the data required to determine the availability of these resources.
- Section 605 The Emergency Medical Services Regulatory Board shall, upon request, coordinate Critical Incident Stress Debriefing (CISD) support to state and local officials. At the onset of a major disaster, the Emergency Medical Services Regulatory Board shall coordinate CISD support teams to be deployed into the areas most affected.

VII. DEPARTMENT OF EMPLOYEE RELATIONS

- Section 700 The Department of Employee Relations shall support the Department of Economic Security in the management of personnel services at state and regional emergency operations centers during a disaster, and will assist in the development of emergency employment utilization procedures.
- Section 701 The Department of Employee Relations shall interface with union officials and appropriate representatives to develop strategies for resolving conflicts between labor organizations and state agencies during times of disaster. The Department of Employee Relations shall be proactive relative to developing options to sustain state EOC staffing and the implications thereof on labor agreements, whenever the state EOC is activated.
- Section 702 The Department of Employee Relations shall provide support to state agencies in the management of labor contracts during emergency operations, ensuring fair, uniform and consistent interpretation of contract language.

VIII. DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT

- Section 800 The Department of Employment and Economic Development shall develop procedures to provide unemployment assistance, and dislocated worker and job training programs, to eligible individuals whose unemployment results from a disaster declared under Public Law 93-288. It will also arrange for payment of benefits, under regular unemployment compensation laws, to eligible individuals in cases where a disaster has not been declared.
- Section 801 The Department of Employment and Economic Development shall provide materials or representation at Disaster Recovery Centers (DRCs) and public meetings, as requested by the Division of Homeland Security and Emergency Management, to furnish information relative to disaster unemployment, dislocated worker, job training, and applicable programs.
- Section 802 The Commissioner of the Department of Employment and Economic Development shall, when requested by the Division of Homeland Security and Emergency Management, provide an estimate of the immediate economic impact of a disaster. Where possible and applicable, the department shall provide estimated projections of long range effects of a major disaster, using relevant data from a variety of sources including: residents, businesses, and local, state, and federal agencies, if needed.

IX. DEPARTMENT OF FINANCE

- Section 900 The Department of Finance shall develop expedited procedures, for fiscal management of the state, during a disaster.
- Section 901 The Department of Finance shall work with the Department of Public Safety, Fiscal and Administrative Services, in establishing a funding source for the required state match costs associated with a presidential disaster declaration.
- Section 902 The Department of Finance shall assist state agencies with financial deficiencies that may result from supporting local efforts during large-scale emergencies, when federal assistance is not provided.

X. DEPARTMENT OF HEALTH

- Section 1000 The Department of Health shall have primary responsibility for the technical aspects of a response to an incident involving public health issues related to a disaster or an emergency, including an actual or potential terrorist incident involving biological, chemical, or radiological agents. The Department shall develop and maintain procedures for: disease surveillance, control and prevention, including protocols for quarantine, isolation, mass vaccination, and mass care clinics, in the event of a public health emergency; protection of human health from biological, chemical, or radiological agents; safe food preparation and handling; provision of training and assistance in the security of public water supply systems, and the maintenance of a potable water supply; handling, identification and safe disposition of dead human bodies in the event of mass casualties; and health assessment and training programs for health care and support personnel.
- Section 1001 The Department of Health shall be responsible for developing fact sheets and providing guidance on protective action levels and medical assistance to state and local authorities in areas affected by accidents/incidents involving radioactive or other hazardous, biological, or chemical materials. The Department shall develop procedures to accomplish this and conduct in-service training to maintain this response capability.
- Section 1002 The Department of Health shall, as needed, provide assistance to local officials, in conjunction with the local health agency, to ensure the safety of food and water for human consumption during, and immediately following, a disaster or emergency.
- Section 1003 The Department of Health shall provide personnel, as needed, to assist in the preliminary damage assessment (PDA) process for health and public water facilities damaged by a disaster or emergency. The Department will assist communities, as requested, in determining the cost to repair or replace damaged health facilities and public water distribution systems, so federal financial assistance can be requested under Public Law 93-288.
- Section 1004 The Department of Health laboratory shall be responsible for providing 24-hour analysis capability in the event of an emergency involving radioactive materials. The Department shall develop procedures to accomplish this and conduct in-service training to maintain this response capability.
- Section 1005 The Department of Health shall make its laboratory capabilities

available for the analysis and identification of potential biological or chemical agents on a 24-hour basis, in the event of acts of terrorism, natural disasters, emerging health threats, and accidental or deliberate environmental contamination.

Section 1006 The Department of Health shall, as needed, conduct food inspections at mass feeding facilities.

Section 1007 The Governor may call upon the Department of Health, Disaster Mortuary Emergency Response Team (D-MERT), to provide mortuary or death-related services for major disasters or emergencies occurring in Minnesota.

XI. MINNESOTA HOUSING FINANCE AGENCY

- Section 1100 The Minnesota Housing Finance Agency shall administer home improvement grants, and/or loans, available through its programs to homeowners of low and moderate incomes, who have sustained disaster-related damage to their principal residence.
- Section 1101 The Minnesota Housing Finance Agency shall immediately, upon notification of a disaster or emergency, inventory the availability of rental property suitable for temporary or long-term housing for disaster/emergency victims.
- Section 1102 The Minnesota Housing Finance Agency, in cooperation with the Division of Homeland Security and Emergency Management, shall assist with the planning and implementation of victim housing, in conjunction with the Individuals and Households Program administered by the Federal Emergency Management Agency.

XII. DEPARTMENT OF HUMAN SERVICES

- Section 1200 The Department of Human Services shall coordinate mass care services.
- Section 1201 The Department of Human Services shall provide representation at the State Emergency Operations Center, Disaster Recovery Centers, and the disaster area itself to identify disaster victims, as deemed necessary by the Division of Homeland Security and Emergency Management.
- Section 1202 The Department of Human Services shall assist with immediate mental health services, apply for and administer special mental health program grants for disaster victims, and provide crisis-counseling training for mental health providers in the disaster area.
- Section 1203 The Department of Human Services shall coordinate the Disaster Food Stamp Program for disaster victims.
- Section 1204 The Department of Human Services, through the Emergency Food Assistance Program (TEFAP), shall provide USDA donated food to disaster relief agencies and emergency feeding programs, and assist with its distribution and storage.
- Section 1205 The Department of Human Services shall coordinate, with county social service agencies, to meet the childcare needs of disaster victims.
- Section 1206 The Department of Human Services shall coordinate with county social service agencies to meet the needs of disaster victims (food, shelter, clothing, and medical care), through state and federal income maintenance programs.
- Section 1207 The Department of Human Services shall coordinate the delivery of emergency human services with local government, voluntary agencies, and other human service agencies, following a disaster, through state and/or regional emergency operations centers.
- Section 1208 The Department of Human Services shall provide personnel to assist the state in delivering individual assistance, following a presidential disaster declaration, as requested by the Division of Homeland Security and Emergency Management.
- Section 1209 The Department of Human Services shall provide assistance in long-term disaster recovery, using existing programs, streamlining,

or waiving regulatory functions where possible, and providing technical assistance and/or administrative support to stricken communities.

- Section 1210 The Department of Human Services shall designate, staff, activate, and manage the evacuee reception centers, in the event of a nuclear generating plant incident.
- Section 1211 The Department of Human Services shall assist with the provision of Telecommunication Devices for the Deaf (TDD) and operators, when the State Emergency Operations Center and Information Hotline are activated.

XIII. DEPARTMENT OF LABOR AND INDUSTRY

- Section 1300 The Department of Labor and Industry, Occupational Safety and Health Division shall respond to a catastrophe when employee fatalities/serious injuries are involved. They shall investigate to determine the cause, so that similar hazards to workers are prevented, or minimized, in the future.
- Section 1301 The Department of Labor and Industry, Occupational Safety and Health Division shall provide support, as requested, in the detection of air contaminants caused by chemical or biological agents and in the implementation of appropriate procedures.
- Section 1302 The Department of Labor and Industry, Occupational Safety and Health Division shall assist in assessing hazards and personal protective equipment needs, as requested.

XIV. DEPARTMENT OF MILITARY AFFAIRS

Section 1400 The Department of Military Affairs (Minnesota National Guard) shall prepare, and maintain, plans and procedures, to support civil authorities, when an emergency exceeds local resources. As Commander-In-Chief of the National Guard, the Governor can direct the National Guard to take whatever action necessary to cope with the emergency. Upon the order of the Governor, the Adjutant General shall order to state active duty, such personnel, equipment, and facilities of the military forces of the state, as required, and for such a period of time as necessary, to assist and support civil authorities. National Guard assistance may be made available when a natural disaster, civil disturbance, hazardous materials incident, or other emergency beyond the capability of local government, occurs. Both local government and state agencies forward requests for National Guard assistance to the Minnesota Duty Officer (MDO), at the Division of Homeland Security and Emergency Management. The National Guard shall maintain 24-hour liaison with the MDO. County sheriffs, and mayors of cities of the first class, are authorized to request National Guard assistance.

Section 1401 The Department of Military Affairs (Minnesota National Guard) shall prepare and maintain plans and procedures for responding to and supporting state and local authorities in their response to weapons of mass destruction including, but not limited to, biological, nuclear, incendiary, chemical and explosive devices, and compounds or materials. In the event of terrorist-type activity, the Department of Military Affairs shall provide support to the State Emergency Operations Center and the local incident command post. The Department of Military Affairs shall make the 55th Weapons of Mass Destruction – Civil Support Team (CST) available to support a local response to terrorist activity, as requested by the State. In response to a terrorist event, the Minnesota National Guard shall, at the state's request, deploy the 55th CST and technically qualified personnel to the affected jurisdictions to assess the extent of the situation, advise the civilian incident commander and facilitate requests for state and federal assistance, and provide policy and technical-level support in the State Emergency Operations Center Planning and Assessment Center and Operations Section.

XV. DEPARTMENT OF NATURAL RESOURCES

- Section 1500 The Department of Natural Resources shall be responsible for preparing plans and procedures for chemical, biological and radiological monitoring/sampling of plants, animals and water in cooperation with the Departments of Health and Agriculture.
- Section 1501 The Department of Natural Resources shall be responsible for providing technical assistance, personnel and equipment for debris and wreckage removal from state waterways and state-owned lands, subject to the availability of funds.
- Section 1502 The Department of Natural Resources shall assist in tracking plumes on waterways and monitoring shorelines, identifying wildlife populations within the ingestion pathway/vulnerable zone and providing personnel to conduct ingestion pathway sampling of fish and wildlife.
- Section 1503 The Department of Natural Resources shall provide aircraft to assist in damage assessment efforts, serve as state inspectors on federal/state damage survey teams, assist the Department of Administration in the inspection of damaged public buildings and facilities, and assist the Department of Transportation in the inspection of damaged road systems.
- Section 1504 The Department of Natural Resources shall provide technically qualified personnel to participate in a preliminary damage assessment (PDA) effort, following the occurrence of a disaster, when requested.
- Section 1505 The Department of Natural Resources shall provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team, following a presidential declaration of disaster, when requested, and provide hazard mitigation information to the general public.
- Section 1506 The Department of Natural Resources shall, in the case of wildfires, work with the Department of Public Safety to fulfill public information functions and requirements, work within the Minnesota Incident Command System partnership to design communication plans, and coordinate communications with all participating agencies.
- Section 1507 The Department of Natural Resources shall keep Sheriffs apprised of evacuation forecasts.

- Section 1508 The Department of Natural Resources shall provide assistance in locating alternate water supplies, and provide equipment and/or assistance in the restoration of critical public works, if requested.
- Section 1509 The Department of Natural Resources shall pre-plan for sensitive area designation, and provide for wildlife and waterfowl rehabilitation, in cooperation with the U.S. Fish and Wildlife Service.
- Section 1510 The Department of Natural Resources shall provide pathology laboratory services, with regard to the collection of dead and injured animals and their analysis; coordinate the chemical analysis of fish and wildlife samples with the Minnesota Department of Agriculture Chemistry Laboratory; and assist the Department of Health, as needed, in assessing the long-term environmental impact of a radiological accident/incident.

Enforcement Division

- Section 1520 The Enforcement Division and other DNR divisions shall provide personnel and equipment support to the State Patrol in emergency law enforcement, evacuation or sheltering in-place, traffic control and public alerting operations, when requested by the Division of Homeland Security and Emergency Management.
- Section 1521 The Enforcement Division shall prepare procedures for providing communications support in a disaster area.
- Section 1522 The Enforcement Division shall prepare plans and provide support to local government agencies during floods, storms and other disasters/emergencies. The Division shall assist local law enforcement with search and rescue, shall provide special equipment such as boats, ATVs, snowmobiles, etc., and provide any other needs identified, when requested by the Division of Homeland Security and Emergency Management.

Forestry Division

- Section 1530 The Forestry Division shall provide personnel and equipment support to the State Fire Marshal in emergency operations, when requested by the Division of Homeland Security and Emergency Management.

- Section 1531 The Forestry Division shall prevent and extinguish wildland fires, coordinate fire suppression planning and direct fire suppression activities work, through agreements with the Minnesota Incident Command System partnership.
- Section 1532 The Forestry Division shall be responsible for coordinating fire suppression activities in forested and grassland areas of the state.
- Section 1533 The Forestry Division shall assist state and local governments in applying for grants from the federal government for the purpose of reimbursing expenses actually incurred by a property owner in the removal of timber damaged by a disaster.
- Section 1534 The Forestry Division shall assist local government in training for fire and rescue operations in full coordination with the State Fire Marshal Division and the Minnesota State Colleges and Universities.
- Section 1535 The Forestry Division shall assist state and local governments with tree disposal recommendations, following a major wind event.
- Section 1536 The Forestry Division shall coordinate with the Department of Public Safety, State Patrol Division, and the Department of Transportation, Aeronautics Division, for air operations and air transportation services, during disaster.

Waters Division

- Section 1540 The Waters Division shall be responsible for coordinating the Flood Plain Management Program and the National Flood Insurance Program (NFIP) in Minnesota, including enrollment of communities in the NFIP, publicity regarding flood insurance availability and coordination of insurance agent workshops.
- Section 1541 The Waters Division shall assign staff to a (post-disaster declaration) FEMA Interagency Hazard Mitigation Team and to the Minnesota Recovers Disaster Task Force, as requested. These staff shall help implement provisions of the *State All-Hazard Mitigation Plan* and update the Plan, as necessary.
- Section 1542 The Waters Division shall assist local units of government in applying for grants, through the Department of Natural Resources, Flood Damage Reduction Grant Program.
- Section 1543 The Waters Division shall assign the state climatologist and other

needed staff to prepare climatological and hydrologic reports, as well as other related hydrologic data, in support of emergency operations.

Section 1544 The Waters Division shall provide information or personnel at Disaster Recovery Centers (DRCs) to disseminate information to, and solicit information from, flood victims.

XVI. MINNESOTA POLLUTION CONTROL AGENCY

- Section 1600 The Minnesota Pollution Control Agency shall, upon instructions from the office of the Governor or the Governor's Authorized Representative, waive, modify or suspend selected enforcement rules of the agency for areas stricken by disaster, when statute provides for such waivers. This action will relieve or expedite recovery operations and avert an even greater disaster from occurring, while ensuring continued protection of the public.
- Section 1601 The Minnesota Pollution Control Agency shall provide technically qualified personnel to participate in a preliminary damage assessment (PDA) effort, following the occurrence of a disaster, when requested.
- Section 1602 The Minnesota Pollution Control Agency shall provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team, following a presidential declaration of disaster, when requested.
- Section 1603 The Minnesota Pollution Control Agency shall provide a representative to serve on the Minnesota Recovers Disaster Task Force to evaluate projects proposed for funding, when requested.
- Section 1604 The Minnesota Pollution Control Agency shall review the environmental effects of an emergency diking project and recommend approval or disapproval before work begins.
- Section 1605 The Minnesota Pollution Control Agency shall provide technical and policy-level staff to the State Emergency Operations Center, specifically to the Planning and Assessment Center and the Operations Section, when requested by the Department of Public Safety, Division of Homeland Security and Emergency Management.
- Section 1606 The Minnesota Pollution Control Agency shall develop and provide guidelines and procedures, assisting local authorities to manage and dispose of debris after a disaster/emergency.

XVII. DEPARTMENT OF PUBLIC SAFETY

Bureau of Criminal Apprehension

- Section 1700 The Bureau of Criminal Apprehension shall make its field agents available, when possible, to assist other state agencies with search and rescue, evacuation and traffic control, and law enforcement, during a disaster.
- Section 1701 The Bureau of Criminal Apprehension shall lend forensics capabilities to the analysis and identification of evidence related to a potential weapons of mass destruction event.

Capitol Complex Security Division

- Section 1710 The Capitol Complex Security Division shall be responsible for providing protection to property and equipment on the Capitol complex, during an emergency.
- Section 1711 The Capitol Complex Security Division shall provide 24-hour security for the State Emergency Operations Center (SEOC) and the Joint Public Information Center (JPIC) during an emergency, when located on the Capitol complex.
- Section 1712 The Capitol Complex Security Division shall provide backup radio operators for duty officers operating the radio console in the SEOC, if possible.

Office of Communications

- Section 1720 The Office of Communications shall provide emergency public information support, following the occurrence of a disaster, including disaster exercises, in coordination with the Division of Homeland Security and Emergency Management and the Governor's Office.

State Fire Marshal/Office of Pipeline Safety

- Section 1730 The State Fire Marshal Division shall assist local jurisdictions, in coordination with the Division of Homeland Security and Emergency Management, in obtaining, through implementation of the Minnesota Fire and Rescue Mutual Aid Plan (FIREMAP), fire

fighting and rescue response assistance (except for missing or lost person search and rescue), during an emergency, and providing technical expertise and general assistance with the coordination of local fire and rescue emergency response operations.

Section 1731 The State Fire Marshal Division shall, when requested by local authorities or deemed necessary by the State Fire Marshal (in accordance with MS 299F.04), investigate fires and explosions to determine their origin and cause. Whenever the cause is determined to be other than accidental, the Division shall assist local authorities with the collection and analysis of evidence, and the preparation of criminal cases for prosecution.

Section 1732 The State Fire Marshal Division shall, upon the request of a local jurisdiction, provide technical expertise necessary to examine major structure fires (large dollar loss or multiple fire deaths) to identify the effectiveness of fire protection systems and prevention programs in place prior to the fire. The results of such examinations shall be used in efforts to prevent similar future losses.

Section 1733 The State Fire Marshal Division personnel shall be assigned to conduct fire and life safety inspections of jurisdictional facilities damaged or otherwise impacted during a disaster or major emergency, when requested by local authorities, or deemed necessary by the State Fire Marshal.

Section 1734 The State Fire Marshal Division, Office of Pipeline Safety, shall act as a liaison with pipeline companies and other utilities, local units of government and federal pipeline authorities, and provide post-incident enforcement, investigation and damage prevention education.

Section 1735 The State Fire Marshal Division, Office of Pipeline Safety, shall act as the contact with U.S. Department of Transportation, Research and Special Programs Administration, Office of Pipeline Safety for security-related pipeline issues, distribute alerts received, and participate in pipeline security inspections, as required under federal regulations 49 CFR, as adopted by the state.

Fiscal and Administrative Services

Section 1740 Fiscal and Administrative Services shall, within five working days, process payments received from the Department of Public Safety, Division of Homeland Security and Emergency Management, for

disaster victims, if the Division is processing Other Needs Assistance for the Individuals and Households Program.

Division of Homeland Security and Emergency Management

- Section 1750 The Director of the Division of Homeland Security and Emergency Management (HSEM) shall serve as the state coordinating officer (SCO) and the Governor's authorized representative (GAR) for all presidentially declared disasters and emergencies.
- Section 1751 The Director of the Division of Homeland Security and Emergency Management shall carry out nuclear generating plant emergency operations planning and assess the need for protective actions required to mitigate the effects of an incident at a nuclear generating plant.
- Section 1752 The Division of Homeland Security and Emergency Management shall chair and facilitate the activities of the Minnesota Emergency Preparedness and Response Committee.
- Section 1753 The Division of Homeland Security and Emergency Management shall monitor the operations of the state portion of the National Warning System (NAWAS) and coordinate any actions necessary to maintain service or extend coverage.
- Section 1754 The Division of Homeland Security and Emergency Management shall maintain the 24-hour Minnesota Duty Officer system to ensure the proper receipt and dissemination of disaster/emergency notifications and requests for emergency resources to appropriate state and local government agencies.
- Section 1755 The Division of Homeland Security and Emergency Management shall activate the State Emergency Operations Center (SEOC) when any major man-made or natural disaster threatens or occurs. When warranted, Division staff shall establish an emergency operations center (EOC) or field office in or adjacent to the disaster to coordinate field operations. When an EOC or field office is opened, the Division shall notify state agencies, so that they may provide staff to carry out their emergency responsibilities.
- Section 1756 The Division of Homeland Security and Emergency Management shall keep the Commissioner of Public Safety, Governor, Executive Council, and the Legislature, as appropriate, informed of all actual or impending emergency operations.

- Section 1757 The Division of Homeland Security and Emergency Management shall provide guidance and information sufficient to allow local government to request assistance under the provisions of Minnesota Statutes, Chapter 9.061 (the "Calamity Act"), and Chapter 273.123 (reassessment of Homestead Property Damaged in a Disaster). The Division shall also present such request for assistance to the state Executive Council, when appropriate.
- Section 1758 The Director of the Division of Homeland Security and Emergency Management shall designate an HSEM staff member to serve as the State Hazard Mitigation Officer (SHMO). The SHMO shall be responsible for ensuring that the hazard mitigation requirements contained in Public Law 93-288, including implementation of the Hazard Mitigation Grant Program, are carried out.
- Section 1759 The Division of Homeland Security and Emergency Management shall facilitate long-term disaster recovery/hazard mitigation efforts by: coordinating maintenance of the *State All-Hazard Mitigation Plan* and activating the Minnesota Recovers Disaster Task Force, when appropriate.
- Section 1760 The Division of Homeland Security and Emergency Management shall administer the Public Assistance, Individuals and Households and Hazard Mitigation Grant programs provided under Public Law 93-288.
- Section 1761 The Division of Homeland Security and Emergency Management shall assist local communities in the completion of all prerequisite actions needed to construct flood protection works. The Division shall also help to obtain the concurrence of the Departments of Natural Resources and Transportation, and the Minnesota Pollution Control Agency in any project, before requesting construction assistance from the U.S. Army Corps of Engineers.
- Section 1762 The Division of Homeland Security and Emergency Management shall obtain initial damage assessment information from state and local governments. If it appears that the extent of the damage is beyond state and local capabilities, the Federal Emergency Management Agency will be requested to conduct a Preliminary Damage Assessment to determine whether a request from the Governor for a presidential disaster declaration is warranted.
- Section 1763 The Division of Homeland Security and Emergency Management shall request all appropriate state agencies to provide materials or representatives to the Disaster Recovery Centers (DRCs) that are

established, following a presidential declaration of disaster.

- Section 1764 The Division of Homeland Security and Emergency Management shall have overall responsibility for supporting both local government emergency operations planning and all-hazard mitigation planning. This responsibility includes the development and maintenance of prototype emergency operations plans, mitigation plans and supporting documents, as well as planning requirements guidance.
- Section 1765 The Division of Homeland Security and Emergency Management regional program coordinators shall review all county emergency operations plans to determine if they are in compliance with state and federal requirements and, when necessary, provide guidance for bringing them into compliance.
- Section 1766 The Division of Homeland Security and Emergency Management shall coordinate the development and conduct of emergency preparedness drills and exercises, involving multiple Minnesota state agencies.
- Section 1767 The Division of Homeland Security and Emergency Management shall be responsible for the administrative tasks associated with the State Hazardous Materials Regional Response Teams. HSEM is responsible for the overall coordination and implementation of this program.
- Section 1768 The Division of Homeland Security and Emergency Management shall serve as the initial state point of contact for shipments of high-level radioactive waste material being transported within or through the state of Minnesota. The Division shall make the notifications, and coordinate the state agency preparations and multiple state agency response activities associated with such shipments.
- Section 1769 The Division of Homeland Security and Emergency Management shall maintain contact with, and coordinate the state's contracts related to response by, designated bomb squads, hazardous materials emergency response teams and hazardous materials chemical response teams. The Division shall develop a comprehensive plan, addressing how the state shall support local government response to an act of domestic or international terrorism involving chemical, biological, nuclear, incendiary, or explosive devices or products.
- Section 1770 The Director of the Division of Homeland Security and Emergency

		Management shall serve as the state Senate point of contact for coordinating planning, preparedness, response and recovery, as they relate to incidents involving weapons of mass destruction.
Section	1771	The Division of Homeland Security and Emergency Management shall coordinate flights in search and rescue missions with the Civil Air Patrol.
Section	1772	The Division of Homeland Security and Emergency Management shall coordinate with the Federal Emergency Management Agency (FEMA) to facilitate the use of FEMA travel trailers and/or mobile homes as temporary housing for disaster victims, following a presidential declaration of disaster.
Section	1773	The Division of Homeland Security and Emergency Management shall coordinate the deployment of Bomb Squads, Hazardous Materials Chemical Assessment Teams and Hazardous Materials Emergency Response Teams, during a disaster or major emergency. Deployment may occur at the request of local authorities or when otherwise deemed necessary by the nature and scope of the incident.
Section	1774	The Emergency Response Commission staff shall provide state and local emergency response personnel with hazardous chemical storage information provided to the Commission by facilities subject to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III).
Section	1775	The Emergency Response Commission staff shall provide technical guidance and assistance to political subdivisions in meeting requirements of SARA Title III.
Section	1776	The Emergency Response Commission, through the Regional Review Committees of the Commission, shall review the SARA Title III elements contained in local government emergency operations plans.

State Patrol Division

Section	1780	The State Patrol Division shall be responsible for law enforcement and traffic control on all interstate and state trunk highways in an emergency.
Section	1781	The State Patrol Division shall use available resources to assist local police agencies with law enforcement and traffic control, when requested by proper local authority to do so.

- Section 1782 The State Patrol Division shall act as net control for the National Warning System (NAWAS) within the state for the dissemination of national and local emergency information and warnings.
- Section 1783 The State Patrol Division shall be responsible for providing assistance that may be required by the Capitol Complex Security Division to protect the personnel in the Capitol Complex during an emergency, and shall prepare plans and procedures to accomplish this.
- Section 1784 The Chief of the State Patrol Division shall be in charge of the law enforcement function and shall coordinate its emergency operations in the state, including the assignment of personnel as law enforcement representatives at the state and regional emergency operations centers.
- Section 1785 The State Patrol radio frequencies shall serve as the redundant direction and control net. The State Patrol is responsible for providing personnel to operate the radio console in the State Emergency Operations Center (SEOC), during exercises, drills and emergencies, if needed.
- Section 1786 The State Patrol Division shall provide backup radio operators to serve as duty officers to operate the radio console in the SEOC, as needed.
- Section 1787 The State Patrol Division, Air Section, shall provide immediately, at the time of a disaster or large-scale emergency, aerial photography and assessment of the disaster or emergency area. State Patrol helicopters with cameras shall be utilized to do aerial filming of the area and shall provide that information directly to the State Emergency Operations Center.
- Section 1788 The State Patrol Division, Air Section, shall request the restriction of flights and access over disaster and emergency areas, when requested by the Division of Homeland Security and Emergency Management or local authorities.
- Section 1789 The State Patrol Division, Air Section, shall provide personnel to participate in a preliminary damage assessment (PDA) effort and prepare damage survey reports (DSRs) for airports and airport facilities damaged in any type of major disaster in conjunction with the Department of Transportation, Aeronautics Division, and the Department of Natural Resources, when requested.

- Section 1790 The State Patrol Division, Air Section, shall provide transportation and/or reconnaissance, in conjunction with the Department of Transportation, Aeronautics Division, as requested by the Division of Homeland Security and Emergency Management, during a declared disaster situation.
- Section 1791 The State Patrol Division, Air Section, shall have a plan for the utilization of agency aircraft available for emergency operations, including records of agency aircraft, pilots, and available airports.
- Section 1792 The State Patrol Division, Air Section, shall coordinate with the Department of Transportation, Aeronautics Division, and the Department of Natural Resources for the provision and use of air transportation resources within state government, during a disaster.

Warehouse

- Section 1795 The Public Safety Warehouse shall assist with the relocation of furniture, equipment, and supplies from the State Emergency Operations Center to an alternate site, when feasible.

XVII. DEPARTMENT OF REVENUE

- Section 1800 The Department of Revenue shall provide materials or representatives at Disaster Recovery Centers (DRCs) to provide guidance to clients on how their tax burden shall be affected by their disaster losses), when requested by the Division of Homeland Security and Emergency Management.
- Section 1801 The Department of Revenue shall assist local governments and help citizens determine value of losses sustained as a result of a major disaster.
- Section 1802 The Department of Revenue shall assist local government in conducting a damage assessment of private homes and businesses, as needed.
- Section 1803 The Department of Revenue shall assist the Division of Homeland Security and Emergency Management and the Department of Commerce in the implementation of an energy plan which provides for the allocation and conservation of energy resources and provides staff for the state and regional emergency operations centers.
- Section 1804 The Department of Revenue shall assign personnel to assist with the compliance activities associated with the economic stabilization function.

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- Section 1804 The Department of Revenue shall assign personnel to assist with the compliance activities associated with the economic stabilization function.

XIX. MINNESOTA STATE COLLEGES AND UNIVERSITIES

Section 1900 The Minnesota State Colleges and Universities shall assist local government by providing training in fire, rescue and hazardous materials emergency operations, through the technical colleges located statewide.

XX. DEPARTMENT OF TRANSPORTATION

- Section 2000 The Department of Transportation shall provide personnel to serve on an Interagency Hazard Mitigation Team/Hazard Mitigation Survey Team, following a presidential declaration of a major disaster, when requested.
- Section 2001 The Department of Transportation shall be responsible for debris and wreckage removal from all interstate and state trunk highways, and for assistance to political subdivisions on other roadways, as requested and as resources permit.
- Section 2002 The Department of Transportation shall approve emergency construction projects on the interstate and trunk highway system before work begins.
- Section 2003 The Department of Transportation shall provide technically qualified personnel to participate in preliminary damage assessment (PDA) efforts for all interstate and state trunk highways, general aviation facilities, and for other political subdivisions' roadways, when requested and with available resources. The Department shall also provide personnel for the preparation of project worksheets for general aviation facilities and other political subdivisions' roadways, as requested.
- Section 2004 The Department of Transportation shall assist in radiological emergency response and protection efforts such as evacuation, traffic control, and supporting radiological monitoring and decontamination of state highways and vital facilities performed by others, in coordination with the Department of Health and Department of Public Safety.
- Section 2005 The Department of Transportation shall prepare emergency highway traffic plans and procedures for the regulation of highway travel, during periods of emergency, in coordination with the Department of Public Safety and local law enforcement.
- Section 2006 The Department of Transportation shall process Temporary Flight Restriction (TFR) requests, through the Federal Aviation Authority (FAA), as requested by HSEM or other appropriate authority.
- Section 2007 The Department of Transportation shall coordinate air transportation and reconnaissance with the FAA, Metropolitan Airports Commission, Department of Military Affairs, Department of Natural Resources, Department of Public Safety and general aviation, as requested by HSEM. The Department shall support

this effort through utilization of its aircraft for emergency operations, when feasible.

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| Section | 2008 | The Department of Transportation shall maintain current records of general aviation airport facilities and aircraft registered in the state. The Department shall also act as liaison with FAA for access to the FAA listing of licensed pilots. |
| Section | 2009 | The Department of Transportation shall provide emergency engineering services in disaster operations and shall assign personnel to state and regional emergency operations centers. |
| Section | 2010 | The Department of Transportation shall coordinate emergency relief efforts with the motor carrier industry to enlist their assistance in emergency response efforts. |
| Section | 2011 | The Department of Transportation shall develop procedures for receiving and disseminating information to appropriate agencies, concerning the shipment of chemicals, radiological substances, and other materials that are potentially hazardous. |
| Section | 2012 | The Department of Transportation shall assist in preparing emergency executive orders granting relief from the motor carrier safety regulations, including overweight and over-dimension permits, upon instruction from the Governor's Authorized Representative. The Department shall also coordinate state emergency declarations with the United States Department of Transportation, Federal Motor Carrier Safety Administration, to ensure consistent application of the emergency relief to interstate carriers providing direct assistance to the emergency. |
| Section | 2013 | The Department of Transportation shall coordinate with all rail, bus and waterway transportation providers, and the federal agencies with jurisdiction over these modes, as requested by the Division of Homeland Security and Emergency Management. |
| Section | 2014 | The Department of Transportation shall make the Maintenance Construction Communications network available for use as the Division of Homeland Security and Emergency Management's command net, should the direction and control net fail or become overloaded. |
| Section | 2015 | The Department of Transportation shall provide technical radio communications assistance to the Division of Homeland Security and Emergency Management and incident commanders, as requested. |

- Section 2016 The Department of Transportation shall provide technical assistance in developing radio capabilities for statewide emergency preparedness, when multiple state agencies or multiple levels of government need to carry out a coordinated response
- Section 2017 The Department of Transportation shall provide radio frequency spectrum management, as delegated by the Federal Communications Commission (FCC).
- Section 2018 The Department of Transportation shall provide for the maintenance of state radio communications systems essential to operations, during an emergency or disaster.



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PROVIDING DIRECTION TO STATE DEPARTMENTS

REGARDING INFORMATION TECHNOLOGY GOVERNANCE

I, TIM PAWLENTY, GOVERNOR OF THE STATE OF MINNESOTA, by virtue of the authority vested in me by the Constitution and applicable statutes, do hereby issue this executive order:

WHEREAS, as Governor, it is important that I provide clear direction to commissioners and state departments to take important steps, consistent with applicable law, to implement strategies that will make the provision of governmental services more efficient and cost-effective; and

WHEREAS, the Drive to Excellence Reform Initiative provides the State of Minnesota with a unique opportunity to fundamentally change the operation of state government; and

WHEREAS, the Drive to Excellence and the strategic plan set forth in the Transformation Roadmap outline methods for state government to provide faster, more reliable, and cost-effective services to Minnesota's citizens and businesses; and

WHEREAS, state departments and services need to be viewed as an integrated whole and as an enterprise, working together to support Minnesota as one organization with overall goals and objectives; and

WHEREAS, information technology is a utility function that supports operations in every state department,

WHEREAS, an enterprise strategy and structure is necessary to equalize information technology systems, eliminate redundant expenditures, strengthen security, and increase compatibility; and

WHEREAS, the recommendations in the Transformation Roadmap call for creating an enterprise-wide structure for managing information technology that will leverage investments, consolidate data collection, develop shared applications, accelerate the use of electronic forms, use enterprise-wide licensing software, and other reforms; and

WHEREAS, materials developed through the Drive to Excellence document the improved effectiveness and efficiency that can be gained from an enterprise orientation to the provision of government services;

NOW, THEREFORE, I hereby order and direct state departments to support implementation activities of the Drive to Excellence Reform Initiative by taking the following specific actions:

1. Consistent with the Commissioner of Administration's responsibilities and authority under Minnesota Statutes Chapters 16B, 16C, and 16E, the Commissioner will designate a State Chief Information Officer ("CIO") as a member of the Department's executive staff. The CIO will manage the Information Technology ("IT") resources of the State, develop and implement policies, procedures, and standards ensuring the optimal leveraging of IT across the state enterprise, and manage consistency and efficiency in IT activities including standardization of policies, procedures, data, and tools.
2. The State CIO will immediately begin to implement the IT governance recommendations of the Transformation Roadmap and report to the Governor's Subcabinet on the Drive to Excellence in 30 days, and each month thereafter, on progress toward achieving an enterprise IT Governance system.
3. The State CIO will develop and implement a plan to reorganize InterTechnologies Group, the Office of Technology, and other units as necessary and make available other resources as required to create the enterprise program management office, the central IT organization, and other organizational units necessary to implement the IT governance recommendations of the Transformation Roadmap, as appropriate.
4. The State CIO will leverage the work of the Drive to Excellence program staff and will direct adequate resources from the new enterprise IT organizational units, the Information Policy Council, and other state departments to implement the enterprise IT governance recommendations of the Transformation Roadmap, as appropriate. The State CIO will:
 - a. Refine the vision and structure of IT governance including roles and responsibilities for both central IT and state departments;

- b. Design and implement a robust enterprise-wide IT organization and track associated savings with aligned processes, management, and administrative practices;
 - c. Define a decision-making process that will be used to set standards for enterprise-wide IT, with an initial emphasis on common processes, policies, and systems;
 - d. Define and implement a Service Level Agreement process for defining, developing, and delivering common infrastructure services;
 - e. Define an exception approval process for any department- or program-specific needs determined to be inconsistent with established state architecture, technology or process standards;
 - f. Define a process for coordinating shared IT planning, program management, performance measurement, and application development among departments; and
 - g. Use reorganization orders, statutory changes and other agreements consistent with state law to achieve the goals of this order.
5. The State CIO will establish a steering committee of project stakeholders to oversee the implementation of the IT governance recommendations, ensure that business requirements are met, monitor project status, and remove obstacles to project success.
6. All other commissioners, departments, or employees of the executive branch will work with the State CIO and the Commissioner of Administration to develop, implement, and utilize strategic information technology policies, procedures, systems and services:
- a. At the request of the State CIO, departments will appoint representatives that can commit resources and speak with the authority of the department to participate in the development of policies, procedures, standards, systems, and services;
 - b. As directed by the State CIO, departments may be required to relinquish delegated authority to develop and manage IT services identified to be applicable to the enterprise; and
 - c. As directed by the State CIO, departments will provide resources and assist with the achievement of strategic enterprise objectives.
7. The Commissioner of Finance will work with the State CIO to develop appropriate funding models and control mechanisms to ensure the implementation of IT governance recommendations and finance enterprise IT functions and organization.
8. On or before December 15, 2005, and annually thereafter, the State CIO will summarize and report to the Governor the results of this initiative, including information regarding:
- a. The number, total amount, and nature of IT investments managed by the state;
 - b. Savings and service improvements attributable to enterprise-wide management of IT; and
 - c. Any conclusions or recommendations regarding Minnesota's success with an enterprise-wide approach to IT.

Pursuant to Minnesota Statutes 2004, section 4.035, subdivision 2, this Executive Order will be effective fifteen (15) days after publication in the State Register and filing with the Secretary of State and will remain in effect in accordance with Minnesota Statutes 2004, section 4.035, subdivision 3.



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[GIS Inventory Survey Results](#)

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOP Task(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
DOA	Level III Ecoregions of the Conterminous United States (LMIC/MPCA Version of USEPA Omerik Map for Minnesota - Ecoreg)	Aquatic ecoregions were defined by Omerik and associates at the Corvallis Environmental Research Laboratory of the U.S. Environmental Protection Agency. The ecoregions are based on land use, soils, land surface form and potential natural vegetation, and are used by the Minnesota Pollution Control Agency and the U.S. Environmental Protection Agency to categorize stream and lake characteristics. The Minnesota Pollution Control Agency recompled the ecoregions in terms of the Minnesota Department of Natural Resources major and minor watershed boundaries. The Land Management Information Center created the ecoregion file using the MLMIS40 DNR watershed files and a translation table. This file represents the Level III Ecoregion. There are 7 Level III ecoregion categories in Minnesota.	Unknown	1	Unknown	Arc/INFO Export	http://www.lmic.state.mn.us/chouse/metadata/ecoreg.html	Public	No	Minnesota Land Management Information Center (LMIC)	Susanne Maeder	Susanne Maeder	651-201-2488	clearing.house@state.mn.us	Please review online metadata for use constraints.
	National Agricultural Imagery Program (NAIP) Digital Orthorectified Images (DOO), Minnesota, 2006 (Interim)	This data set contains natural color imagery from the National Agricultural Imagery Program (NAIP). NAIP acquires digital ortho imagery during the agricultural growing seasons in the continental U.S.. A primary goal of the NAIP program is to enable availability of ortho imagery within one year of acquisition. <p><p>The source files are 2 meter ground sample distance (GSD) ortho imagery rectified to a horizontal accuracy of within 10 meters of reference digital ortho quarter quads (DOOQs) from the National Digital Ortho Program (NDOP). The tiling format of NAIP imagery is based on a 3.75 x 3.75 quarter quadrangle with a 300 meter buffer on all four sides. NAIP quarter quads are formatted to the UTM coordinate system using NAD83. NAIP imagery may contain as much as 10% cloud cover per tile. <p><p>This file was generated by compressing NAIP quarter quadrangle files that cover a county. MrSID compression, with mosaic option, was used. Target values for the compression ratio are (15:1) and MrSID Generation 3. <p><p>(Note: The Land Management Information Center has created this metadata record using information	Unknown	1	Unknown	MrSID	http://www.lmic.state.mn.us/chouse/metadata/nasip06.html	Public	No	USDA FSA Aerial Photography Field Office			801-975-3500	info.sales@sic.usda.gov	Please review online metadata for use constraints.
	Minnesota Soil Atlas	The Soil Atlas project provides a consistent, statewide map series and GIS data set describing soil and landscape characteristics. The data is generalized. The scale of 1:250,000, or about 1/4 inch to 1 mile, makes it possible to show areas as small as 1 square mile. The data set and maps were created in the 1970's to provide information to support generalized planning over broad areas. The maps were not intended to replace the detailed soil surveys, but to provide a more general overview, and to provide make soil description information available until such a time as soil surveys were completed statewide. The Soil Atlas map series was developed by the Department of Soil, Water, and Climate of the University of Minnesota, in cooperation with the Natural Resources Conservation Service (previously Soil Conservation Service), U.S. Department of Agriculture, and the Minnesota Geological Survey. <p><p>Two main descriptors of soils are groupings of Soil Landscape Units based on a number of factors (soil texture of the rooting zone, soil texture below the rooting zone, drainage, and color), and delineations of Geomorphic Regions, which	Unknown	1	Unknown	EPPL7, shapefile	http://www.lmic.state.mn.us/chouse/metadata/soil_atlas.html	Public	No	Land Management Information Center	Susanne Maeder	Susanne Maeder	651-201-2488	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Quarter 7 1/2 Minute Quadrangle Index (Quarter Quad), Minnesota	This is a mathematically generated grid in which each polygon represents one quarter of a standard USGS 7 1/2 minute quadrangle. The result is a 3 3/4 minute quadrangle layer which nests within the standard USGS quads and whose tile naming scheme includes reference to the parent quadrangles. Known as the "Quarter Quad" coverage.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/index_024.html	Public	No	DNR-MIS	Hal Watson	Hal Watson	651 297-2330	hal.watson@dny.state.mn.us	Please review online metadata for use constraints.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOPTask(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	Minor Civil Divisions, Minnesota, 2003	This medium-scale (generally 1:100,000) data set represents municipal boundaries in Minnesota, including changes filed with and approved by the Minnesota Department of Administration's Municipal Boundary Adjustments group through May 31, 2003. The over 3,000 municipalities (minor civil divisions or MCDs) in Minnesota include cities, townships and unorganized territories. Municipal Boundary Adjustments staff work with property owners, local governments, and state agencies to review and facilitate 375 to 400 municipal boundary adjustments annually. The majority of petitions for adjustment are from property owners and the remainder are from cities and townships. <p>->The U.S. Bureau of the Census 2000 Municipal Boundary File (TIGER) for Minnesota served as the foundation for this work. The data was first adjusted by the Minnesota Legislative Coordinating Commission (LCC) GIS Office (see Lineage Section of this metadata record for more information on the original file) and subsequently by LMIC in 2002, at the request of the Office of the Secretary of State. Most recently, boundary changes filed with and approved by the Minne	Unknown	1	Unknown	Shapefile, ArcInfo export (coverage)	http://www.lmic.state.mn.us/chouse/metadata/mcd2003.html	Public	No	Land Management Information Center	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Ground Water Contamination Susceptibility in Minnesota	A broad, generalized interpretation of ground water contamination susceptibility for the state, based on modeling relying on data inputs from the MLMSI40 (40-acre raster) soils and geology data, with additional geology inputs. This layer is not appropriate for site-specific use.	Unknown	1	Unknown	ESRI Shapefile	http://www.lmic.state.mn.us/chouse/metadata/gwc.html	Public	No	Land Management Information Center	Susanne Maeder	Susanne Maeder	651-201-2488	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Land Use, 1969 Minnesota Statewide	Nine land use/land cover classes, interpreted from high altitude air photos, are recorded for each 40-acre parcel in the state. The file has been subdivided into 100-meter by 100-meter grid cells and spatially reclassified to provide improved geographic reference. However, this processing step does not improve the original 40-acre resolution accuracy.	Unknown	1	Unknown	EPPL7, ERDAS, GeoTIFF, shapefile	http://www.lmic.state.mn.us/chouse/metadata/luse69.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota Public Lands, 1983	This data set identifies publicly administered lands in Minnesota. Land ownership data, current as of 1983 or earlier, was collected by 40-acre parcel for federal, state, metropolitan commission, and tax-forfeited lands. The data was compiled cooperatively by the Minnesota Land Management Information Center (LMIC) and the Minnesota Department of Natural Resources (DNR). A related printed report contains numerous state maps and summary tables: http://www.lmic.state.mn.us/pdf/MN_Public_Lands_1983.pdf .	Unknown	1	Unknown	EPPL7, ERDAS, GeoTIFF	http://www.lmic.state.mn.us/chouse/metadata/pub_own.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Regional Development Commission Boundaries, Minnesota	This data set shows the boundaries of Minnesota's thirteen regional development commissions. The file was created from 1:100,000-scale county boundaries from the U.S. Census TIGERLine files.	Unknown	1	Unknown	Arc/INFO Export and shapefile	http://www.lmic.state.mn.us/chouse/metadata/rdc.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	State Soil Geographic (STATSGO) data base for Minnesota	This data set is a digital general soil association map developed by the National Cooperative Soil Survey. It consists of a broad based inventory of soils and nonsoil areas that occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped. The soil maps for STATSGO are compiled by generalizing more detailed soil survey maps. Where more detailed soil survey maps are not available, data on geology, topography, vegetation, and climate are assembled, together with Land Remote Sensing Satellite (LANDSAT) images. Soils of like areas are studied, and the probable classification and extent of the soils are determined. <p>->Map unit composition for a STATSGO map is determined by transecting or sampling areas on the more detailed maps and expanding the data statistically to characterize the whole map unit. <p>->This data set consists of georeferenced digital map data and computerized attribute data. The map data are collected in 1- by 2-degree topographic quadrangle units and merged and distributed as statewide coverages. The soil map units are linked to attributes in the Map Unit Interpretation	Unknown	1	Unknown	Arc/Info coverage, DLG-3 optional, GRASS	http://www.lmic.state.mn.us/chouse/metadata/statsgo.html	Public	No	U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center			817-334-5559		Please review online metadata for use constraints.
	Soil Survey Geographic Data Base (SSURGO), Version 2, Minnesota	This data set is a digital soil survey and generally is the most detailed level of soil geographic data developed by the National Cooperative Soil Survey. The information was prepared by digitizing maps, by compiling information onto a planimetric correct base and digitizing, or by revising digitized maps using remotely sensed and other information. <p>->This data set consists of georeferenced digital map data and computerized attribute data. The map data are in a soil survey area extent format and include a detailed, field verified inventory of soils and nonsoil areas that normally occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped. A special soil features layer (point and line features) is optional. This layer displays the location of features too small to delineate at the mapping scale, but they are large enough and contrasting enough to significantly influence use and management. The soil map units are linked to attributes in the National Soil Information System relational database, which gives the proportionate extent of the component soils and their properties. <p>->Note: All Min	Unknown	1	Unknown	Arc/view shapefile, ArcInfo coverage, ArcInfo export	http://www.lmic.state.mn.us/chouse/metadata/ssurgo.html	Public	No	U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center			800-672-5559		Please review online metadata for use constraints.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOP Task(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	Geologic Map of Minnesota: Bedrock Geology, from MGS State Map Series S-20 2000 (3rd edition)	This layer describes the bedrock geologic conditions of Minnesota as delineated and classified by the Minnesota Geological Survey. It is a digital version of the Minnesota Geological Survey State Map Series S-20 (Geologic Map of Minnesota: Bedrock Geology), 3rd. edition (2000) by G. B. Morey and Joyce Meints. Scale is 1:1,000,000. The map was created in digital form in 1994, and revised in 1996 and 2000.	Unknown	1	Unknown	ARC/INFO Export	http://www.lmic.state.mn.us/chouse/metadata/stmaps20_3.html	Public	No	Minnesota Geological Survey	Joyce Meints	Joyce Meints	612 627-4780 Extension 214	meint002@tc.umn.edu	Please review online metadata for use constraints.
	National Agricultural Imagery Program (NAIP) Digital Orthorectified Imagery (DOO), Minnesota, 2003	This data set contains photographic information obtained for the National Agricultural Imagery Program (NAIP) and is comprised of scanned photographs that were acquired on color positive film. Acquisition was leaf-on with mature crops prior to harvest. Images have been orthorectified. NAIP imagery is quarter-quadrangle centered to provide consistent and repeatable coverage. The quarter-quadrangle photos have been mosaicked into MrSID format county files. <p><p>(Note that the Farm Services Agency provided one metadata record per MrSID county file; the Land Management Information Center created this metadata record to describe the whole data set. For information that FSA did not provide, the metadata for Minnesota's NAIP 2002 imagery can serve as a general guide to the NAIP program procedure -- some of the specific processing steps or accuracy assessments may differ from the 2003 program: http://www.lmic.state.mn.us/chouse/metadata/naip02.html)	Unknown	1	Unknown	MrSID (double check the version number by looking at the .txt file accompanying each MrSID file)	http://www.lmic.state.mn.us/chouse/metadata/naip03.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.
	County Highway Map Series - Georeferenced Image Files (GeoTIFF and EPPL7 formats)	This set of GeoTIFF and EPPL7 files represents the Minnesota Department of Transportation's County Highway Map Series in georeferenced image formats. These images of the standard Mn/DOT County Highway Map product can be used in GIS systems and overlaid with other GIS information. The origin of this data is Mn/DOT's Microstation CAD system, where all linework, feature type coding, and symbolization is stored and updated. To produce these data sets, Mn/DOT exported the data from Microstation into postscript files. LMIC then imported the data into GIS systems for georeferencing and further processing. The GeoTIFF data are distributed in both County Highway Map sheet and full county extents. EPPL7 data sets are distributed only as full county files. Map collars have been removed. This data set represents the Mn/DOT County Highway Map as of January 1, 2002.	Unknown	1	Unknown	GeoTIFF, EPPL7	http://www.lmic.state.mn.us/chouse/metadata/hwy_map1.html	Public	No	Land Management Information Center, Minnesota Planning	Susanne Maeder	Susanne Maeder	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.
	Telephone Exchange Service Area Boundaries for Minnesota, 2003	This data set provides a statewide view of telephone exchange service areas. It includes five separate layers <p><p>1. Boundaries of more than 700 telephone exchange service areas<p><p>2. Area codes<p><p>3. LATA zones<p><p>4. County boundaries<p><p>5. Duluth wire center boundaries<p><p>The data was compiled in cooperation with the Minnesota Department of Commerce (formerly the Department of Public Service). In addition to the digital data, printed maps are also available; see Ordering Instructions.	Unknown	1	Unknown	ARC/INFO export (coverage), shapefile, graphics (AI, EPS, GIF, GRA, JPG, PDF, PS, TIF)	http://www.lmic.state.mn.us/chouse/metadata/mntel03.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.
	Correctional Facilities, Minnesota, 2003	Instate facilities that are inspected, authorized and licensed by the Minnesota Department of Corrections.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/cor_fac.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.
	Statewide Parcel Map Inventory, Minnesota, 2004	The Statewide Parcel Map Inventory (SPMI) was designed to collect a current snapshot of parcel data development across Minnesota. The survey focused specifically on the increasing development of digital parcel data. The survey collected information identifying the method of parcel data development, the frequency of maintenance, data development standards and distribution practices, remonumentation efforts and other key information <p><p>Counties, cities outside the Twin Cities metropolitan area, tribal governments, and national forests were contacted to participate in the survey.<p><p>The 2004 survey results were compiled in a database table. An online site has been developed to view and query the results through an interactive mapping and reporting interface.<p><p> http://www.lmic.state.mn.us/chouse/SPMI/Reporting/	Unknown	1	Unknown	Microsoft Access 2000	http://www.lmic.state.mn.us/chouse/metadata/spmi04.html	Public	No	Land Management Information Center	Nancy Rader	Nancy Rader	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.
	Hospitals, Minnesota, 2003	The hospital facilities are from the Minnesota Department of Health state registration and licensure Health Care Facility and Provider Database. http://www.health.state.mn.us/divs/tpcdirectory/tpcdir.html This database offers addresses, phone numbers, administrator names and state registration or licensure status for Minnesota health care providers. Federal certification classifications are also included.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/hospital.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.
	Nursing Homes, Minnesota, 2003	The nursing home facilities are from the Minnesota Department of Health state registration and licensure Health Care Facility and Provider Database. http://www.health.state.mn.us/divs/tpcdirectory/tpcdir.html This database offers addresses, phone numbers, administrator names and state registration or licensure status for Minnesota health care providers. Federal certification classifications are also included.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/n_homes.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing_house@state.mn.us	Please review online metadata for use constraints.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOP Task(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	Minnesota Watersheds, 1999, Clipped to State Boundary	Statewide minor watershed delineations with major/minor watershed identifiers and names for provinces, major watersheds, and basins. This data set is an update to the Watershed Basins (1995) data set, which has been retained for historical purposes. The Minnesota Watersheds layer (mnwsh93) is the maintenance version of watershed delineations for the Minnesota DNR. Whereas the original file at DNR, mnwsh93, contains linework for land outside of Minnesota that drains into the state, this file, mnwsh99, contains only areas within the state boundary. The Land Management Information Center (LMIC) clipped the full DNR file to the state boundary, using a state boundary file from the Mn Department of Transportation's Basemap 1998 data set.	Unknown	1	Unknown	Arc/Info export or shapefile	http://www.lmic.state.mn.us/chouse/metadata/mnwsh99.html	Public	No	Minnesota Land Management Information Center (LMIC)	Susanne Maeder	Susanne Maeder	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Digital Elevation Model (DEM) of Minnesota: statewide, 1:24,000, Level 2, raster	This data set was created from U.S. Geological Survey (USGS) digital elevation models (DEMs). The DEMs were standardized to 30 meter grid cells, UTM Zone 15, NAD83, vertical units in feet and were joined into one statewide file (also available as county files). All the DEMs are Level 2 quality (note: USGS is investigating whether Town Line Lakes, Grand Portage and Grand Portage OE are still Level 1). The Minnesota Department of Natural Resources created the Level 2 DEMs for 88 quads in the Twin Cities metropolitan area.	Unknown	1	Unknown	ARC GRID, ERDAS, EPP17	http://www.lmic.state.mn.us/chouse/metadata/dem24ras.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota Public Land Survey System Section Corner Database: SECTIC-24K, Version 1.1a	SECTIC-24K is a digital file of the Public Land Survey (PLS) section corners of Minnesota as recorded on the most recent edition of the U.S. Geological Survey's 1:24,000 7.5-minute quadrangle maps. The database attempts to best fit the section corner locations shown on the published 1:24,000 maps, even though better 'real world' data for the location of the section corner might be available elsewhere. The SECTIC-24K data set also includes a program which has the following options: -p>-p>Utility A: Section corner extraction from the SECTIC-24K database by county, 1:24,000-scale quad, or township. -p>-p>Utility B: Conversion among PLS, UTM, or LAT/LONG coordinates, either interactively or by file conversion. It also allows NAD27 - NAD83 conversions. -p>-p>Utility C: Creation of a dBASE output file from SECTIC-24K. -p>-p>Version 1.1a fixes two bugs in Version 1.1: the file conversion option for UTM NAD83 to Lat/Long NAD83 now works and the program now runs on computers faster than 200 megahertz.	Unknown	1	Unknown	Compressed binary which is exportable to dBase format.	http://www.lmic.state.mn.us/chouse/metadata/sectic.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota Land Use and Cover: 1990s Census of the Land (8 category statewide)	This data set integrates six different source data sets to provide a generalized overall view of Minnesota's land use / cover. The six source data sets covered different parts of the state, were in differing formats, and used different legend classifications. MnDNR developed a generalized 8-category legend and translated each source data sets original detailed classification into the 8-category system. They also standardized the data to 30 meter grid cells. The data set was used to produce a 43 inch by 50 inch wall map of the same title.	Unknown	1	Unknown	Arc/INFO GRID or EPP17	http://www.lmic.state.mn.us/chouse/metadata/luse68.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Electric Transmission Lines and Substations, 60 Kilovolt and Greater, Minnesota	The Minnesota Electric Transmission Mapping Project has developed two geographic information system data sets: electric transmission lines and substations. This metadata record describes both data sets. -p>-p>The electric transmission network information consists of transmission lines, with associated substations, designed to handle 60 kilovolts or greater. Note that the data does not have network connectivity. -p>-p>Each utility company was mailed a request for the facility information which they could provide in either digital or paper form. The responses varied significantly in quality and quantity. In addition, the companies expressed concerns about providing the information because of security concerns. Data users are strongly encouraged to read the data quality section of this documentation. -p>-p>The Minnesota Electric Transmission Mapping Project is a collaborative effort between the Environmental Quality Board and the Land Management Information Center (both part of the Minnesota Department of Administration) and the Minnesota Department of Commerce.	Unknown	1	Unknown	Arc/INFO coverage and ESRI shapefile	http://www.lmic.state.mn.us/chouse/metadata/elec_trans.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Digital Raster Graphics (DRG), 1:24,000 for Minnesota	A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey (USGS) topographic map. The scanned image includes all map collar information. The image inside the map neatline is georeferenced to the surface of the Earth using the UTM Zone and datum of the original map (most Minnesota DRGs are NAD27). The DRG can be used to collect, review, and revise other digital data, especially digital line graphs (DLG). When the DRG is combined with other digital products, such as digital orthophoto quadrangles (DOQ) or digital elevation models (DEM), the resulting image provides additional visual information for the extraction and revision of base cartographic information.	Unknown	1	Unknown	GeoTIFF	http://www.lmic.state.mn.us/chouse/metadata/drgrg_24k.html	Public	No	USGS Earth Science Information Center				esc@nrcmail.er.usgs.gov	Please review online metadata for use constraints.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOG Task(s) Data Is Needed For (e.g. G.2.i)	Does the Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	Digital Raster Graphics (DRG), clipped 1:24,000 for Minnesota	A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey (USGS) topographic map. The original USGS scanned image includes all map collar information and is georeferenced to the UTM zone and datum of the printed quad map. The Minnesota Department of Natural Resources has removed the collar information to allow seamless viewing of adjacent DRGs. Where needed, DNR has also projected the files to UTM Zone 15 (extended across Minnesota), NAD83. The DRG can be used to collect, review, and revise other digital data, especially digital line graphs (DLG). When the DRG is combined with other digital products, such as digital orthophoto quadrangles (DOQ) or digital elevation models (DEM), the resulting image provides additional visual information for the extraction and revision of base cartographic information.	Unknown	1	Unknown	GeoTIFF	http://www.lmic.state.mn.us/chouse/metadata/drq24k.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	National Hydrography Dataset - Medium Resolution - Minnesota	The National Hydrography Dataset (NHD) is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. The medium-resolution NHD (scale 1:100,000) was created by merging the USGS 1:100,000 DLG linework with the USEPA RFP3 (Reach File 3) attribution. NHD contains reaches for networked features and isolated lakes, flow direction, names, stream level, and centerline representations for areal water bodies. Reaches are also defined to represent waterbodies (lakes) and the approximate shoreline of Lake Superior. Medium-resolution NHD for Minnesota is complete and available statewide.	Unknown	1	Unknown	ArcInfo coverage	http://www.lmic.state.mn.us/chouse/metadata/nhd_100k.html	Public	No	U. S. Geological Survey and U.S. Environmental Protection Agency				nhd@usgs.gov	Please review online metadata for use constraints.
	National Hydrography Dataset - High Resolution - Minnesota	The high resolution National Hydrography Dataset (NHD) is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. The original medium-resolution NHD (scale 1:100,000) was created by merging the USGS 1:100,000 DLG linework with the USEPA RFP3 (Reach File 3) attribution. High resolution NHD (scale: 1:24,000) adds more accurate and detailed stream and lake information to the original 1:100,000-scale NHD. High resolution NHD contains reach codes for networked features and isolated lakes, flow direction, names, stream level, and centerline representations for areal water bodies. Reaches are also defined to represent waterbodies (lakes) and the approximate shoreline of Lake Superior. USGS is working in cooperation with several agencies to create high-resolution NHD data for all major watersheds in Minnesota, using the DNR 1:24,000 streams and lakes linework as the base. These agencies include the Minnesota Pollution Control Agency, the Land Management Information Center, the Spatial Analysis Research Center	Unknown	1	Unknown	ArcInfo export file of Geodatabase	http://www.lmic.state.mn.us/chouse/metadata/nhd_24k.html	Public	No	U. S. Geological Survey and U.S. Environmental Protection Agency				nhd@usgs.gov	Please review online metadata for use constraints.
	Regionally Significant Ecological Areas - Minnesota Environmental Atlas (EPPL7) and GeoTIFF formats	This is an analysis of regionally significant Terrestrial and Wetland Ecological Areas in the seven county metropolitan area. Individual forest, grassland and wetland models were integrated to identify and rank the Terrestrial and Wetland Ecological Areas. The scores are determined by examining important ecological attributes of the ecological patches including size, shape, cover type diversity, and adjacent land use. The results represent a probability that the modeled conditions exist in any given area, due to limitations of the data layers. The ecological models were run on a hybrid land cover data layer created from Landsat images, National Wetland Inventory polygons and grassland polygons. Due to the inaccuracies of the Landsat data, the final ecological patches were visually checked using the Met Council's 2000 DOOs. This version of the dataset has been converted from shapefiles to raster formats (EPPL7 and GeoTIFF) by the Land Management Information Center for use with the Minnesota Environmental Atlas and with other raster applications.	Unknown	1	Unknown	Minnesota Environmental Atlas (EPPL7 format) zipfile and GeoTIFF in zipfile	http://www.lmic.state.mn.us/chouse/metadata/eco_pat.html	Public	No	Land Management Information Center, Minnesota Planning	Susanne Maeder	Susanne Maeder	651-201-2488	clearing.house@state.mn.us	Please review online metadata for use constraints.
	2000 Block Population	A polygon dataset at which population data was collected and tabulated for the 2000 census. The block boundaries are physical features, such as streets, highways, rivers, lakes, pipelines, and power lines; and political boundaries, such as counties, cities, and towns.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/blocks.html	Public	No	LCC-GIS Office	Lee Meilleur	Lee Meilleur	651-296-0098	lee.meilleur@commissions.lsq.state.mn.us	Please review online metadata for use constraints.
	2002 Minnesota Congressional Districts	This is a polygon data set for the 2002 Congressional Districts	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/cong02.html	Public	No	LCC-GIS Office	Lee Meilleur	Lee Meilleur	651-296-0098	lee.meilleur@commissions.lsq.state.mn.us	Please review online metadata for use constraints.
	2002 Minnesota Legislative Districts	This is a polygon data set for the 2002 Minnesota Legislative Districts. One file contains house district boundaries; the other contains senate district boundaries.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/leg02.html	Public	No	LCC-GIS Office	Lee Meilleur	Lee Meilleur	651-296-0098	lee.meilleur@commissions.lsq.state.mn.us	Please review online metadata for use constraints.
	2000 Minnesota Precincts	A polygon dataset for Minnesota precinct boundaries. More information of the changes made to TIGER 2000 is shown in Section 2: Lineage	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/precincts*.html	Public	No	LCC-GIS Office	Lee Meilleur	Lee Meilleur	651-296-0098	lee.meilleur@commissions.lsq.state.mn.us	Please review online metadata for use constraints.
	National Pipeline Mapping System	Note: This record was created on 2/11/04 and updated 1/31/07 at the Minnesota Land Management Information Center (651-201-2489 or clearing.house@state.mn.us) using information from the NPMS metadata record online at: https://www.npms.phmsa.dot.gov/ Check this online location for any updates to the U.S. DOT metadata. The U.S. Department of Transportation (U.S. DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA) is working with other federal and state agencies and the pipeline industry to create a National Pipeline Mapping System (NPMS). The NPMS is a full-featured geographic information system (GIS) containing the location and selected attributes of the major gas transmission and hazardous liquid transmission pipelines, and liquefied natural gas (LNG) facilities operating in United States and other offshore entities. Michael Baker Jr., Inc. (Baker), as the primary contractor assumes all responsibilities of the NPMS National Repository regarding NPMS database updates, synchronization, and maintenance. Source data is contributed annually by pipeline operators to the National Repository. This metadata is for	Unknown	1	Unknown	Contact the Pipeline and Hazardous Materials Safety Administration for available formats and media.	http://www.lmic.state.mn.us/chouse/metadata/npms.html	Public	Yes	US DOT, Pipeline and Hazardous Materials Safety Administration (PHMSA)	Samuel Hall	Samuel Hall		gsps@dot.gov	Please review online metadata for use constraints.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOP Task(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	Zip Codes, Minnesota	This data set approximates polygon boundaries for zip codes within Minnesota. The polygon boundaries are approximate since the U.S. Postal Service assigns zip codes to linear features (streets), not to geographic areas. Since neither the U.S. Postal Service nor the U.S. Census Bureau maintains official zip code boundary files or maps, LMIC created this file in order to be able to map data aggregated by zip code. LMIC worked with regional post office sites to delineate areas within which letter carriers delivered mail with the same zip code.	Unknown	1	Unknown	ARC/INFO export (coverage) or shapefile	http://www.lmic.state.mn.us/chouse/metadata/mnzip.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota Public School Program Locations, School Year 2005-06	The point locations of school programs are a result of an ongoing project to identify current school program locations where Food and Nutrition Services Office (FNS) programs are utilized. The FNS Office is in the Department of Education. The Land Management Information Center created the data set using school building locations provided by the school districts and program locations from a MDE database. The records cover traditional K-12 programs, but if locations for alternative learning centers and other special programs were provided, LMIC added these locations. also <p><p>Note that multiple programs may occur at the same location and are represented as separate points. For example, a junior and a senior high school may be in the same building, but each has a separate record and point in the data layer.	Unknown	1	Unknown	Shapefile and coverage	http://www.lmic.state.mn.us/chouse/metadata/pubsch06.html	Public	No	Land Management Information Center	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota School District Boundaries, School Year 2005-2006	This file represents the boundaries of all public school districts in the state of Minnesota for school year 2005-2006. Minnesota school districts identify their current elementary, middle and high school attendance area boundaries on a yearly basis using large format maps supplied by the Land Management Information Center (LMIC). This file is maintained at LMIC but is also supplied to the State of Minnesota Legislative Coordinating Commission GIS Office. The LCC keeps the official school district information for the State of Minnesota. This school district file was dissolved from a file containing both the school district and attendance boundaries to produce just school district boundaries.	Unknown	1	Unknown	Shapefile, coverage	http://www.lmic.state.mn.us/chouse/metadata/sd06.html	Public	No	Land Management Information Center	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota School District and Attendance Boundaries, School Year 2005-2006	This file represents the boundaries of all public school districts and school attendance areas in the state of Minnesota for school year 2005-2006. Each year Minnesota school districts identify their current elementary, middle and high school attendance area boundaries. This district attendance file is maintained at LMIC but is also supplied to the State of Minnesota Legislative Coordinating Commission. The LCC keeps the official school district information for the State of Minnesota.	Unknown	1	Unknown	Shapefile, coverage	http://www.lmic.state.mn.us/chouse/metadata/sdist06.html	Public	No	Land Management Information Center	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Major Watersheds (MAJOR99), derived from 1999 DNR Minnesota Watersheds File	The file, MAJOR99, represents the 81 major watersheds delineated by the Minnesota Department of Natural Resources for the 1979 Watershed Mapping Project. The 81 major watersheds are consistent with the United States Geological Survey's 8-digit Hydrologic Unit Code (HUC). MAJOR99 is derived from the DNR Minnesota Watersheds 1999 file (MNWSHPY3). It is created by collapsing the Minnesota Watersheds boundaries in MNWSHPY3 based on that file's major watershed codes.	Unknown	1	Unknown	Arc/INFO Export or Shapefile	http://www.lmic.state.mn.us/chouse/metadata/major99.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	National Wetlands Inventory (NWI), Minnesota	NWI digital data files are records of wetlands location and classification as defined by the U.S. Fish and Wildlife Service (USFWS). This data set is available in 7.5 minute by 7.5 minute blocks containing ground planimetric coordinates of wetlands point, line, and area features and wetlands attributes. The original digital data as well as the hardcopy maps that were used as the source for the digital data are produced and distributed by the USFWS's National Wetlands Inventory project. <p><p>The Minnesota Land Management Information Center (LMIC) converted the Minnesota NWI files to ARC/INFO coverage format and edge-matched the files. In cooperation with the Minnesota Department of Natural Resources and USFWS, LMIC revised the legends to correct errors, to add items for individual portions of the NWI code, and to add translations to the Circular 39 wetland classification system.	Unknown	1	Unknown	Shapefile or ARC/INFO coverage	http://www.lmic.state.mn.us/chouse/metadata/nwi.html	Public	No	Minnesota Land Management Information Center (LMIC)	Nancy Rader	Nancy Rader	651-201-2489	clearing.house@state.mn.us	Please review online metadata for use constraints.
	Minnesota State Historic Preservation Office (SHPO) Architecture-History Inventory Database	The SHPO Architecture-History database consists of architectural and historic properties (buildings, structures, objects, districts, and landscapes) identified and inventoried by the SHPO, state and federal agencies, and local units of government in the course of their historic preservation activities. These activities are carried out through provisions of the National Register of Historic Places Program as specified in the National Historic Preservation Act, the Minnesota Historic Sites Act, and the Minnesota Field Archaeology Act.	Unknown	1	Unknown	.dbf	http://www.lmic.state.mn.us/chouse/metadata/arch_his.html	Public	No	State Historic Preservation Office (SHPO) - Minnesota Historical Society	Scott Anfinson	Scott Anfinson	612.725.2411	scott.anfinson@mnh.soc	Please review online metadata for use constraints.
	Minnesota State Historic Preservation Office (SHPO) Archaeological Inventory Database	The SHPO Archaeological database consists of archaeological properties identified and inventoried by the SHPO, Office of the State Archaeologist, cooperating state and federal agencies, and professional archaeologists in the course of their archaeological research activities. For the past 30 years these activities have been carried out through provisions of the National Historic Preservation Act, the Minnesota Historic Sites Act, and the Minnesota Field Archaeology Act.	Unknown	1	Unknown	.dbf	http://www.lmic.state.mn.us/chouse/metadata/arch_inv.html	Public	No	State Historic Preservation Office (SHPO) - Minnesota Historical Society	Scott Anfinson	Scott Anfinson	612.725.2411	scott.anfinson@mnh.soc	Please review online metadata for use constraints.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOPTask(s) Data Is Needed For (e.g. G.2.)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	County Well Index (CWI) Version 4 - 2004	The County Well Index (CWI) is a PC-based database system developed by the Minnesota Geological Survey for the storage, retrieval, and editing of water well information. Data is entered into the database by staff at the Minnesota Geological Survey and the Minnesota Department of Health. The data base contains basic information on well records (e.g., location, depth, static water level) for wells drilled in Minnesota. The data base also includes information on well construction, stratigraphy, and some water chemistry for many of the wells. The data are grouped together by county--pp--Most information in County Well Index is entered from the Water Well Driller Log form, which was submitted by the well driller to the Minnesota Department of Health at the time the well was constructed. Submission of a Water Well Driller Log is a requirement of the Minnesota Water Well Construction Code, passed by the State Legislature in 1974. While the County Well Index does not represent all wells in the state, it is the single most complete listing of state wells.	Unknown	1	Unknown	Microsoft Access	http://www.lmic.state.mn.us/chouse/metadata/cwi.html	Public	No	Minnesota Geological Survey	Tim Wahl	Tim Wahl	612-627-4780	twahl@umn.edu	Please review online metadata for use constraints.
	Well Location Points (Digitized) from the Minnesota Geological Survey's County Well Index (CWI) - 2004	WELLS is a shapefile of well locations created from wells listed in the Minnesota Geological Survey's County Well Index (CWI) data base. Specifically, this coverage contains wells for which the locations have been verified by the Minnesota Geological Survey, the Minnesota Department of Health, or another agency, and a well location has been obtained either by digitizing the location from a USGS 7.5-minute quadrangle map, by field survey, or by GPS location. Attribute information about the wells includes key fields from County Well Index, including owner name, use type, location, aquifer, and water levels. Additional descriptive information about the wells is found in the full County Well Index data set--pp--The information in County Well Index was entered by the Minnesota Geological Survey from the Water Well Driller Log form, which was submitted by the well driller to the Minnesota Department of Health at the time the well was constructed. Submission of a Water Well Driller Log is a requirement of the Minnesota Water Well Construction Code, passed by the State Legislature in 1974. While the County Well Index does not represent all	Unknown	1	Unknown	Shapefile; full state file	http://www.lmic.state.mn.us/chouse/metadata/wells.html	Public	No	Minnesota Geological Survey	Tim Wahl	Tim Wahl	612-627-4780	twahl@tc.umn.edu	Please review online metadata for use constraints.
	United States Congressional Districts within the State of Minnesota - 1994	This coverage, CON94, represents the boundaries for the U.S.-pp-Congress House of Representatives districts within the state of Minnesota.	Unknown	1	Unknown	Shapefile	http://www.lmic.state.mn.us/chouse/metadata/con94.html	Public	No	State of Minnesota Legislative Coordinating Commission, Geographic Information Systems Office	Lee Meilleur	Lee Meilleur	651-296-0098	lee.meilleur@commissions.leg.state.mn.us	Please review online metadata for use constraints.
	State of Minnesota Legislature - Senate District Boundaries - 1994	This coverage, SEN94, represents the Senate District Boundaries for the State of Minnesota Legislature.	Unknown	1	Unknown	Arc Export or Shapefile	http://www.lmic.state.mn.us/chouse/metadata/sen94.html	Public	No	State of Minnesota Legislative Coordinating Commission, Geographic Information Systems Office	Lee Meilleur	Lee Meilleur	651-296-0098	lee.meilleur@commissions.leg.state.mn.us	Please review online metadata for use constraints.
DNR	1150k Digital Raster Graphic - Collars Removed 124k Digital Raster Graphic - Collars Removed 1250k Digital Raster Graphic - Collars Removed 2000 Iowa USGS Black and White DOQ - WMS Source 2000 Minnesota Deer Harvest 2001 Minnesota Deer Harvest 2002 Minnesota Deer Harvest 2002 USGS Color DOQ of Twin Cities - WMS Source 2003 Minnesota Deer Harvest 2003-2004 FSA Color DOQs - WMS Source 2004 DNR Wildlife CIR Imagery - WMS Source 2004 FSA Color Aerial Photography - WMS Source 2004 Iowa FSA Color DOQs - WMS Source 2004 Minnesota Deer Harvest 2004 USGS Color DOQ of Twin Cities - WMS Source 2005 FSA Color Aerial Photography - WMS Source 2005 Met Council DOQ - WMS Source 2006 FSA Color Aerial Photography - WMS Source Bedrock Geology from MGS State Map Series S-20 2000 (Digital Version 3) - Line Bedrock Geology from MGS State Map Series S-20 2000 (Digital Version 3) - Polygon BWCA boundary based on the 1978 legislation Census 2000 Block Population Census 2000 Minor Civil Division Population Census 2000 Tract Population City Streets		Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOP Task(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
		Control Point Generated PLS - lines Control Point Generated PLS - polygons County Seats County State-Aid Highways County Well Index Dept. of Revenue Minor Civil Divisions DNR 100k Hydrography DNR 100k Lakes - Fisheries Surveyed Lakes DNR 100k Lakes - Minnesota's Large Lakes DNR 100k Lakes - Muskie Lakes DNR 100k Lakes - Stream Trout Lakes DNR 100k Lakes - Walleys Rearing Ponds DNR 100k Lakes and Rivers DNR 100k Streams DNR 100k Water - Lakes - OLD DNR 100k Wetlands DNR 100k Wetlands - OLD DNR 24K Lakes DNR 24K Perennial Streams DNR 24K Streams DNR Administered State trails DNR Building Locations DNR Division of Enforcement Administrative District Areas DNR Division of Enforcement Officer Patrol Areas DNR Division of Fisheries Administrative Areas	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		DNR Division of Forestry Administrative Areas - 2002 DNR Division of Forestry Administrative Areas - Current DNR Division of Trails & Waterways Administrative Areas DNR Division of Waters Administrative Areas DNR Division of Wildlife Administrative Areas DNR Field Team Areas DNR Fisheries Acquisitions DNR Fisheries Lake Survey - Target Sampling Stations DNR Forestry Color Infrared DOQ DNR Forestry Color Infrared DOQs - File Source DNR Forestry Color Infrared DOQs - WMS Source DNR Forestry SRM sites DNR Office Locations DNR Regions DNR Site Locations DNR Wildlife Management Area Land Cover - Publicly Accessible DOT Basemap Airport Runways DOT Basemap Railroads DOT Basemap Roads - All Types DOT Official County Highway Map DOT Official Metro Highway Map DOT Official State Highway Map Ecological Land Type Associations of Minnesota Ecological Provinces of Minnesota Ecological Sections of Minnesota	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Ecological Services - Terrestrial Invasives Ecological Subsections of Minnesota Ephanol Plants Exploration and Engineering Boring Hole Locations Farm Services Administration (FSA) Color Orthophotos 2002 Farm Services Administration (FSA) Color Orthophotos 2003-2004 FEMA Base Flood Elevations FEMA Cross Sections FEMA Flood Hazard Areas FEMA Floodways Forest Access Routes Forest Access Routes - Statewide Forest Inventory - Common County CSA Forest Inventory - Common Forest Service CSA Forest Inventory - Common State CSA Forest Inventory - DNR Forestry CSA FSA 2002 Digital Orthophoto Metadata FSA 2003-2004 Digital Orthophoto Metadata GAP Land Cover - Image GAP Land Cover - Raster GAP Land Cover - Tiled Raster GAP Land Cover - Vector GAP Stewardship - All Ownership Types GAP Stewardship - County Lands GAP Stewardship - Federal Lands	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.

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		GAP Stewardship - Major Private Lands GAP Stewardship - Miscellaneous State Lands GAP Stewardship - Private Conservancy Lands GAP Stewardship - Tribal Lands Generalized DNR 100k Lakes for Web Visualization Geographic Names Geomorphology of Minnesota Geomorphology of Minnesota - Isolated Landform Structures Grant In Aid ATV Trails Grant In Aid Off-Highway Motorcycle Trails Grant In Aid Ski Trails Grant-In-Aid Snowmobile Trails Index to USDA-ASCS 1936-1939 Air Photos Index to USGS 1950 Historic Air Photos International Coalition Land Use/Land Cover Iowa USGS 100k Topo Quads - WMS Source Iowa USGS 24k Topo Quads - WMS Source Karst Feature Inventory Points Lake Aeration Permit Locations Lake APM Permit Locations Lake APM Permit Locations - Lake History Lake Basin Fetch and Maximum Length/Width Lake Basin Littoral Zone - 15 Foot Standard Lake Basin Littoral Zone - Observed Lake Basin Morphology	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Lake Bathymetric Aquatic Vegetation Lake Bathymetric Contour Map Image Lake Bathymetric Contours Lake Bathymetric DEM Shaded Relief Image Lake Bathymetric Digital Elevation Model (DEM) Lake Bathymetric Metadata Lake Bathymetric Outline Land Cover - Minnesota Land Cover Classification System Landsat TM False Color Composite Image Landsat-Based Land Use-Land Cover (Raster) Landsat-Based Land Use-Land Cover (Vector) LCMR-CH01 Linear Corridors in Project Areas - Phase 2 LCMR-CH01 Spatial Corridors in Project Areas - Phase 2 LCMR Corridor Project Areas - Phase IV LCMR-CH01 Corridor Project Areas - Phase 2 Major River Centerline Traces in Minnesota Major Roads Major Roads - MDA Cartographic Major Watershed Index MCBS Native Plant Communities MCBS Railroad Rights-of-Way Prairies MCBS Sites of Biodiversity Significance Met Council 2000 Digital Orthophoto Quad (DOQ) - 0.6 meter Metro Region Elevation Contours Metro Region Spot Elevations	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Military Bases Minnesota 1990 Congressional Districts - Historic Minnesota 1990 House Districts - Historic Minnesota 1990 Senate Districts - Historic Minnesota 2002 Congressional Districts Minnesota 2002 House Districts Minnesota 2002 Senate Districts Minnesota 2006-2007 Snowmobile Trails Minnesota 2007 Deer Permit Areas Minnesota Campaign for Conservation Conservation Vision Zones Minnesota Conservation Reserve Program (CRP) GIS Database: CRP Signups 1 through 12 Minnesota County Boundaries Minnesota County Boundaries - lines Minnesota Digital Elevation Model - 30 Meter Resolution Minnesota Digital Elevation Model - 93 Meter Resolution Minnesota Digital Elevation Model - Tiled 30 Meter Resolution Minnesota Digital Elevation Model - Tiled 93 Meter Resolution Minnesota DNR 200-Foot Riparian Zone Minnesota DNR Forest Stand Inventory Minnesota DNR Forest Stand Inventory Version 2 Minnesota Hydrologic Units - Flow Network Lines Minnesota Hydrologic Units - Pour Points Minnesota Hydrologic Units - Sheds (polygons) Minnesota Land Use and Cover - A 1990's Census of the Land - Tiled Minnesota Land Use and Cover - A 1990's Census of the Land (Image)	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.

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		Minnesota Land Use and Cover - A 1990's Census of the Land (Raster) Minnesota School Districts Minnesota State Boundary Minnesota Trout Streams Minnesota Watersheds Minnesota Wild and Scenic River Districts Minnesota Zip Code Boundaries Minor Civil Divisions (1990) Miscellaneous Roads MN Conservation Reserve Program (2006) MN Normal Annual Precipitation Average 1971-2000 MN Precipitation Average (1961-1990) - Line MN Precipitation Average (1961-1990) - Polygon MN Temperature Average (1961-1990) - Line MN Temperature Average (1961-1990) - Polygon MN Wet Project & Poster Image Municipal Boundaries National Forest Boundaries National Wetlands Inventory - Statewide Raster National Wetlands Inventory Lines National Wetlands Inventory Points National Wetlands Inventory Polygons National Wildlife Refuges Native American Reservations Native American Treaty Boundaries in Minnesota	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Off Highway Vehicle Trails Original Land Survey Bearing Trees PLS Corners with Prerequisite Vegetation Information PLS Sections with Designated Trout Streams PLS Town-Range Boundaries Populated Places Prerequisite Vegetation PRIM Metadata (Scanned Public Recreation Information Map) Priority Landscapes for Grassland Conservation (Raster) Priority Landscapes for Grassland Conservation (Vector) Priority Landscapes for Wetland Conservation (Raster) Priority Landscapes for Wetland Conservation (Vector) Public Land Survey (PLS) Control Points Public Recreation Information Maps Public Waters Inventory (PWI) Basin Delineations Public Waters Inventory Maps Quaternary Geology of Minnesota - MGS 1982 State Map Series Rare Natural Features - points Rare Natural Features - polygons Rare Species Guide - polygons Reinvest in Minnesota (RIM) Active Conservation Easements Reinvest in Minnesota (RIM) Master Conservation Easements Restorable Depressional Wetland Inventory Rockford Scanned Plat Map Metadata Scanned Plat Maps by Township	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Scientific and Natural Area Boundaries Scientific Natural Area Sites Scientific Natural Area Units Section Level Public Land Survey - lines Section Level Public Land Survey - points Section Level Public Land Survey - polygons Shaded Relief of Minnesota Elevation - Black & White Shaded Relief of Minnesota Elevation - Color Shoreland Habitat Restoration Sites Soils and Land Surfaces of Minnesota (Cummins and Grigal) SSURGO Soils State Forest Boundaries State Forest Campgrounds and Day Use Areas State Forest Roads State Lands - Acquired State Lands - All Administrators based on Forestry Cartography - Designed for FIM State Lands - Consolidated Conservation State Lands - Federal Lease State Lands - Tax Forfeit State Lands - Trust Fund State Lands - Volstead State Lands by Administrator - County State Lands by Administrator - Ecological Services State Lands by Administrator - Fisheries State Lands by Administrator - Forestry	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.

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		State Lands by Administrator - Other DNR Units State Lands by Administrator - Parks and Recreation State Lands by Administrator - Trails and Waterways State Lands by Administrator - Wildlife State Owned Lands - Easement Interests State Owned Lands - Fee (and other) Interests State Park - State Recreation Area - State Wayside Land Cover Types State Park Statutory Boundaries State Park Statutory Boundary Centroids State Park Trails State Wildlife Management Area - Acquisitions and Administration Land Types State Wildlife Management Area All Facilities - lines State Wildlife Management Area All Facilities - points State Wildlife Management Area Boundaries State Wildlife Management Area Boundaries - Publicly Accessible State Wildlife Management Area Cover Types State Wildlife Management Area Public Facilities - lines State Wildlife Management Area Public Facilities - points STATSOG Soils Stream Gage Watershed Areas Streams with Assigned Kettle Numbers Streams with Measured Kettle Routes The Lawrence Group Roads The Nature Conservancy Preserves and Managed Areas Township Administered Roads	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Township Level Public Land Survey - lines Trails and Waterways Administered ATV Trails Trout Lake Designation Trout Stream Special Regulations Trout Stream Winter Regulations Twin Cities Metro Hybrid Landcover 2000 (Raster) Twin Cities Metro Parcels - Public Sector and Academic Version Twin Cities Metro Regionally Significant Ecological Areas USDA-ASCS 1936-1939 Air Photos USFWS Waterfowl Production Areas USFWS Waterfowl Production Areas - Historic (1998) USFWS Wetland Management District Conservation Easements USGS 1:100000 (1 by 1/2 Degree) Quadrangle Index USGS 1:120000 (Quarter 7 1/2 Minute) Quadrangle Index USGS 1:240000 (7 1/2 Minute) Quadrangle Index USGS 1:250000 (2 by 1 Degree) Quadrangle Index USGS 1:625000 (15 Minute) Quadrangle Index USGS 24k Digital Raster Graphic (DRG) Metadata USGS Digital Orthophoto Quad (DOQ) - 1 meter USGS Digital Orthophoto Quad (DOQ) - 10 meter USGS Digital Orthophoto Quad (DOQ) - 3 meter USGS Digital Orthophoto Quad (DOQ) Metadata Voyagers National Park Water Access Sites in Minnesota Waters Extension - lake_wildb	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
		Waters Extension - lake_wievd Waters Extension - meas_klevp3 Waters Extension - well_geopp3 Waters Extension - well_logb3 Waters Extension - well_objp3 Waters Extension - well_objdb Watershed Management Districts and Organizations Waypoints on Forest Access Routes Wild and Scenic Recreational Rivers Wildfires Tracked by Minnesota DNR WindLogics Minnesota Wind Analysis - Wind Speed at 30 meters WindLogics Minnesota Wind Analysis - Wind Speed at 80 meters	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public	Unknown	DNR and other federal, state and local sources	Tim Loesch, DNR GIS Operations Supervisor	DNR	651-259-5475	Tim.Loesch@dnr.state.mn.us	In some instances, possible public use constraints. Contact DNR.
DOAg	FSA Air Photos, 2003-04	Natural color air photos, statewide, 1-meter resolution	B.4.d, C.4.f, D.3.f., E.3.e, E.3.f.	1	High	GIS (MSID, ECW, GeoTIFF)	http://www.lmic.state.mn.us/chou/se/metadata/naip03-04.html	Public	No	Land Management Information Center; DNR; NRCS; MDA	Nancy Rader	Land Management Information Center	651-201-2489	clearing.house@state.mn.us	
	Poultry Production Operations	Location of poultry (chicken, turkey, etc.) production operations.	B.4.d, C.4.f, D.3.f., E.3.e, E.3.f.	2	High	Non-spatial relational database	No	Non-Public	Yes	MN Board of Animal Health	Ray Scheierl, Lucinda Dahlberg	MN Board of Animal Health	651-201-6833	ray.scheierl@bah.state.mn.us lucinda.dahlberg@bah.state.mn.us	This data exists in a database where locations are not spatially managed - locations only exist in township-range-section codes or lat/long pairs
	Rendering Facilities	Location of facilities capable of rendering large numbers of carcasses for disposal	E.3.f	1	Medium	Non-spatial relational database	No	Unknown	Unknown	Existing: Licensing Information System (LIS); Potential: Compliance Information System (CIS)	Mike Dollow or Dave Syverson	MDA	651-201-6497	mike.dollow@state.mn.us	Significant work would be required to make it robust enough to be useful in pandemic response... Mr. Syverson is very familiar with these facilities and their locations.
	Egg Processing Facilities	Location of egg processing facilities with high risk of human-bird exposure	B.4.d, C.4.f, D.3.f., E.3.e	1	Medium	Non-spatial relational database	No	Unknown	Unknown	MDA LIS	Mike Dollow or ?	MDA	651-201-6497	mike.dollow@state.mn.us	Unknown if data source is being updated or if location data is reliable.

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	SSURGO Soils	Detailed soil surveys including attributes such as depth to water table	E.3.f	2	High	GIS for most	http://www.lmrc.state.mn.us/chouse/soil.html	Public	No	Land Management Information Center; NRCS	Nancy Rader	Land Management Information Center	651-201-2489	clearing.house@state.mn.us	Also use Web Soil Survey for quick and easy maps. Risk exists where some SSURGO soils are not available: http://www.lmrc.state.mn.us/chouse/soil_status_map.html
	Sawmills	Facilities where large amounts of sawdust are produced, which can be used in composting and on-site disposal	E.3.f	1, but incomplete	Medium	GIS	No	Public	No	MDA Gypsy Moth Unit, MN DNR	Erich Borchardt	MDA	651-201-6428	erich.borchardt@state.mn.us	No clear responsibility for maintenance and updating, no metadata.
	Commercial Feed Facilities	Facilities where animals, animal parts, and other energy sources are converted into animal feed.	B.4.d, C.4.f, D.3.f., E.3.e	1, but incomplete	Medium	GIS	No	Unknown	Unknown	MDA LIS & ArcSDE	Mike Dolbow	MDA	651-201-6497	mike.dolbow@state.mn.us	LIS Locations recently converted into spatial databases, currently no set system for maintenance or updates.
	Meat Processing Facilities	Facilities where meat is processed ONLY IF products are sold in-state	E.3.f	1, but incomplete	Medium	Non-spatial relational database	No	Unknown	Unknown	MDA LIS	Mike Dolbow	MDA	651-201-6497	mike.dolbow@state.mn.us	No clear responsibility for maintenance and updating, no metadata.
	Meat Processing Facilities	Facilities where meat is processed AND sold between states	E.3.f	2	Medium	Unknown	Unknown	Unknown	Unknown	Potential: USDA?	Unknown	USDA	Unknown	NA	Data sharing between federal and state agencies would help.
	24K Hydro Features	Water Resources to protect	E.3.f	1 & 2	Medium	GIS	http://deli.dnr.state.mn.us/metad ata.htm?id=L26000072102 http://deli.dnr.state.mn.us/metad ata.htm?id=L26000072102	Public	No	MDA & MN DNR Data Resource Sites	Hal Watson	DNR	651-259-5508	hal.watson@dnr.state.mn.us	Important resources to be aware of during disposal
	Wildlife Management Areas	Nearby areas where wild birds are at risk	B.4.d, C.4.f, D.3.f., E.3.e	1&2	Medium	GIS	http://deli.dnr.state.mn.us/metad ata.htm?id=L390004670201	Public	No	MDA & MN DNR Data Resource Sites	Steve Benson	DNR	(218) 327-4149	steve.benson@dnr.state.mn.us	Important resources to be aware of during disposal
	Traffic & Transportation Data	Information about transportation networks and usage to minimize human exposure to birds if they need to be moved for disposal	E.3.f	1 & 2	Medium	GIS	Yes for roads: http://www.dot.state.mn.us/masps/gisbase/html/metadata.html - No for traffic	Public	No	Mn/DOT	Bob Wolbeck	Mn/DOT	651-366-3880	gisinfo@dot.state.mn.us	Important for some disposal operations traffic data is usually accessible by the web, but not for the entire state.
	Contingent Closures of environmental spills	Information about places where harmful chemicals might be sealed underground in areas that are unsafe to dig.	E.3.f	1 & 2	Low	GIS	Yes: http://gis.mda.state.mn.us/WebSite/metadata/ContingentClosures.htm , for example	Public	No	MDA & MPCA	Gary Elsner & Sara Mueller	MDA & MPCA	651-201-6268	gary.elsner@state.mn.us	Unknown if more than Contingent Closure data is required
BAH	Minnesota Premises database	Database with premises owner, contact, location	A.2.a-f, B.3.a-d, C.3.b-f, D.2.c-g, E.2.c-f, F.2.a-f	1	High	Table	No	Non-Public	Yes	BAH	Ray Scheierl	BAH	651-201-6833	Ray.Scheierl@bah.state.mn.us	
	Minnesota Poultry Database	Database with premises owner, contact, location	A.2.a-f, B.3.a-d, C.3.b-f, D.2.c-g, E.2.c-f, F.2.a-f	1	High	Table	No	Non-Public	Yes	BAH	Lucinda Dahlberg	BAH	320-23105170	Lucinda.Dahlberg@state.mn.us	
DHServ	State Operated Services (SOS) site locations	Locations of SOS sites in relation to other SOS sites	Annex J, D, 4; D, 5;	No	Medium					SOS and Land Management Information Center					
	State Operated Services vendors	Locations of SOS sites and locations of their vendors		No	High					SOS and Land Management Information Center					
DOCom	None														
DOEd	School District boundaries	School district boundaries for 340 school districts in MN.	No specific tasks	1	high	GIS shapefile	http://www.lmrc.state.mn.us/chouse/metadata/sd06.html	Public	No	Existing, Updated for Sy2006-2007	Scott Freburg	MDE	651-582-8789	scott.freburg@state.mn.us	
	School District Attendance boundaries	Elementary, middle and high school attendance boundaries within each school district (if exists)	No specific tasks	1	low	GIS shapefile	http://www.lmrc.state.mn.us/chouse/metadata/sdatt06.html	Public	No	Existing, Updated for Sy2006-2007	Scott Freburg	MDE	651-582-8789	scott.freburg@state.mn.us	
	School Program Building Locations	Public, nonpublic, charter, ALC, ALP and other program locations.	No specific tasks	1	high	GIS shapefile	http://www.lmrc.state.mn.us/chouse/metadata/pubsh06.html	Public	No	Existing, Updated for Sy2006-2007	Scott Freburg	MDE	651-582-8789	scott.freburg@state.mn.us	
DOEmp/Econ/Dev	QCEW Employer List	MN Employers	N/A	1	Low	GIS	No	Non-Public	Yes	Existing	Steve Hine	DEED	651-297-3111	steve.hine@state.mn.us	Data is geocoded. Data source is the unemployment insurance program. Data is private
DOEmp/Rel	State workforce data	all data regarding state workforce	all Pandemic Supplement	1	High	table	Unknown	non-public	yes	existing		DOER/Finance			Statewide personnel system, SEM4 Data includes work locations
	Situational event data	current event data indicating extent/impact of event	all Pandemic Supplement	unknown	high		unknown	unknown	unknown	Unknown					knowing areas impacted will help us manage state resources and provide more strategic response
DOH	Vaccine/antiviral inventory	Ask Jeff Shaw		3											No vaccine exists yet, so no data. No inventory of antivirals now.
	PPE inventory/needs	Would we ever track this? Ask Megan Thompson		4											Text inventory now, not comprehensive
	Ventilators, neg. pressure rooms	Ask Megan Thompson		1											Tracking system, no geographic component
	Patient tracking - hospital bed availability	Megan Thompson - ask about a mapping component to MNTrac		1											Tracking system, no geographic component
DOLabInd	PPE supplies	Location & quantity of inventories of PPE (primarily N95 respirators)	Annex F, E.3	4	H		U	U	U	P					
	Affected Employers	Location & size of businesses within an area affected by pandemic	Annex F, E.2.	4	M		U	P	U	E		DEED			able to search DEED database by any given ZIP code
DOPubSaf	CAD/Mobile map	Full state map	6.a, 6.b, 6.c, 6.d, 6.e, 6.f, 6.g, 6.h, 6.i, 6.j, 6.k, 6.l	1	High	Flat file	No	Non-Public	No	Existing-MetroGIS and TIGER	Leroy Van Grootheest		651-201-7130	leroy.vangrootheest@state.mn.us	MSP does share map data with other State and law enforcement agencies
	Over-Underpasses	Highway Over Highway locations	6.a, 6.b, 6.c, 6.d, 6.e, 6.f, 6.g, 6.h, 6.i, 6.j, 6.k, 6.l	1	Low	Shape File	No	Non-Public	No	Existing	MNDot	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: Data Resources**

Agency Name	HPAI / Pandemic Data Name	Description	List Agency MEOP Task(s) Data Is Needed For (e.g. G.2.i)	Does The Data Currently Exist? (1 = Yes within my agency) (2 = Yes within a different agency) (3 = No) (4 = Unknown)	Data Importance For Pandemic Response? (High / Medium / Low)	Format(s) (table, flat file, GIS, etc.)	Is Metadata Available? (Yes / No / Unknown) (If yes, provide link if available.)	Legal Status (Public / Non-Public / Unknown)	Are There Data Security Issues? (Yes / No / Unknown)	Data Source (Existing or Potential)	Source Primary Contact Name (If known)	Source Primary Contact Agency (If known)	Source Primary Contact Telephone (If known)	Source Primary Contact E-mail (If known)	Comments / Notes
	Bridges	Named Bridges and Bridges over water locations	6.a, 6.b, 6.c, 6.d, 6.e, 6.f, 6.g, 6.h, 6.i, 6.j, 6.k, 6.l	1	Low	Shape File	No	Non-Public	No	Existing	MNDot	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	
	Mile Post Markers	State Mile Post Marker locations	6.a, 6.b, 6.c, 6.d, 6.e, 6.f, 6.g, 6.h, 6.i, 6.j, 6.k, 6.l	1	Low	Shape File	No	Non-Public	No	Existing	MNDot	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	
	State Patrol Districts/Stations	State Patrol Districts & Stations Boundaries	6.a, 6.b, 6.c, 6.d, 6.e, 6.f, 6.g, 6.h, 6.i, 6.j, 6.k, 6.l	1	Low	Shape File	No	Non-Public	No	Existing	MNDot	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	
DORev	NA	Na	NA												
DOT	MN Base map	Includes:Transportation, Water Resources, Rasters, Geology and Ecology, Boundaries, and planning data	R.1, R.2,R.10	Yes	Medium	GIS/Shape files, rasters, ARC/INFO coverages, CAD.dgn)	Yes	Public	No	MvDOT	Dan Ross	MvDOT	651-366-4077	dan.ross@dot.state.mn.us	Can be accessed by MNDOG tool used internally
EMS Board	None														
HSEM		Our agency needs the compilation of the other agencies layers to better develop a comprehensive response to the incident. We do not create any layers on our own.													
		However, the REP GIS has a bunch of layers that could be included, but again - we don't create the information, just compile it. Plus LMIC is our contractor for this endeavor.													
OET	MNet Sites	location of any network location on Mnet	Providing network connectivity and telecommunications support	1	H	SYBASE database on UNIX platform	unknown	unknown	Yes - this should be need to know only	existing	Jim Coleman (DBA) Andre Scales (Application)	OET	651-201-1159 (Jim Coleman) 651-201-1207 (Andre Scales)	jm.coleman@state.mn.us andre.scales@state.mn.us	LMIC has some of this information, they created our network map for us. But the detail is in our ARS system.
	State of MN office locations	location of any state office location whether state owned or leased	Providing network connectivity and telecommunications support, providing alternate site	2	H	?	no	public	No	potential	Bev Kroiss	Administration	651-201-2540	bev.kroiss@state.mn.us	I believe most of this information is on paper documentation. No electronic format.
PCA		Environmentally Regulated Facilities (Air permits, water discharge permits, Hazardous Waste Generators, Solid waste facilities, Petroleum storage, remediation sites, etc.) Impaired Waters, Water quality standards, Surface water monitoring stations, ground water monitoring stations, Air monitoring stations, Surface water discharge stations (Note: This list only includes data generated by PCA—we also manage wide range of basemap data and data sets generated by other agencies.)	Unknown	1	Unknown	Arc Export or Shapefile likely, other may be possible	Unknown	Public / Non-public	Unknown	PCA and other federal, state and local sources	Tad Schindler, Supervisor - PCA GIS and Web Services Unit	PCA	651-297-8378	Tad.Schindler@state.mn.us	In some instances, possible public use constraints. Contact PCA.

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: GIS Staff Resources**

Agency Name	Name	Title	Agency Name or Name of the Company or Agency if the Position is Outsourced	Describe this person's role in pandemic response.	How important is this person's role in pandemic response? (High / Medium / Low)	Work Location Address	Work Location City	Work Location Zipcode	Work Telephone	Work Telephone: Cell	E-Mail Address	Describe GIS Skills	Comments / Notes
DOA	Brent Lund	GIS Programmer	LMIC	Creates and supports custom web mapping applications - MapSever	Medium	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2487		brent.lund@state.mn.us	Somewhat familiar with ESRI's tools more focused on programming.	Develops GIS web applications
	Chris Ciatek	GIS Data Clearinghouse Supervisor	LMIC	Manages a team of 4 GIS technicians who coordinate and collect GIS data for the state.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2481		chris.ciatek@state.mn.us	Very familiar with critical data providers at a federal and state level. Does not use ESRI's tools very often.	Connections to data providers is key to ensure that the needed data to respond a pandemic is available.
	David Arbeit	Director, GDA/LMIC	LMIC	Supervises GDA and LMIC staff.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2460		david.arbeit@state.mn.us	Years of experience with GIS, connections to national, state and local GIS communities. Does not use ESRI's tools very often.	Connections to data providers is key to ensure that the needed data to respond a pandemic is available.
	Desired	GIS Pandemic Coordinator	LMIC	This person would work closely with HSEM and state agencies to collect and manage pandemic data.	High	658 Cedar Street, Suite 300	St. Paul	55155			-	Very familiar with ESRI's ArcGIS tools; ability to communicate with agencies, ability to manage large data bases, familiar with emergency response issues, procedures and protocols.	While this individual does not exist, if funding were available they would plan an important role in pandemic response.
	Jim Dickerson	GIS Data Coordinator	LMIC	Provides critical GIS systems support for HSEM's DisasterLAN GIS and LMIC based web-mapping applications.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2484		jm.dickerson@state.mn.us	Very familiar with ESRI's ArcGIS tools; uses daily.	Develops GIS web applications
	John Hoshal	GIS Services Supervisor	LMIC	Manages a team of 6 GIS technicians who provide support to other state agencies.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2482		john.hoshal@state.mn.us	Familiar with ESRI's ArcGIS tools though not using them everyday.	Currently manages a staff of 6 GIS analysts, co-chair of GCGI Emergency Preparedness Committee. Co-project manager on IPPG HPAI / Pandemic GIS needs analysis.
	Nancy Rader	GIS Data Coordinator	LMIC	Helps coordinate the collector of key GIS data for the State.	Medium	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2489		nancy.rader@state.mn.us	Somewhat familiar with ESRI's ArcGIS tools though not using them everyday.	Maintains MN Geographic Data Clearinghouse webpages; coordinates Governor's Council on Geographic Information.
	Norman Anderson	GIS Project Manager	LMIC	Provides critical GIS data and mapping support for HSEM's DisasterLAN GIS and HSEM's REP program.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2483		norm.anderson@state.mn.us	Very familiar with ESRI's ArcGIS tools; uses daily.	Currently provides on-site GIS support to HSEM at the EOC on a fee-for-service basis.
	Pete Olson	GIS Senior Programmer	LMIC	Responsible for GDA/LMIC's network/computing systems that support GIS software.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2467		pete.olson@state.mn.us	Very familiar with GIS tools including ESRI's. Critical knowledge of computer and network systems. Does not use ESRI's tools very often.	Provides critical computer, network and software support.
	Jim Krumrie	GIS Technician	LMIC	Provides technical support to LMIC GIS services clients.	Medium	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2469		jim.krumrie@state.mn.us	Very familiar with ESRI's ArcGIS tools; uses daily.	Serves as alternate GIS LMIC staff for HSEM at the EOC.
	Sandi Kultunen	GIS Project Manager	LMIC	Provides project management and technical support to LMIC GIS services clients.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2486		sandi.kultunen@state.mn.us	Very familiar with ESRI's ArcGIS tools; uses daily.	Serves as alternate GIS LMIC staff for HSEM at the EOC.
	Susan Maeder	GIS Data Coordinator	LMIC	Helps coordinate the collector of key GIS data for the State.	Medium	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2489		susan.maeder@state.mn.us	Familiar with ESRI's ArcGIS tools though not using them everyday.	Maintains MN Geographic Data Clearinghouse webpages; coordinates Governor's Council on Geographic Information.
	Fred Logman	GIS Project Manager	LMIC	Part-time staff involved with HPAI / pandemic GIS study, GIS strategic planning, etc.	High	658 Cedar Street, Suite 300	St. Paul	55155	651-201-2495		fred.logman@state.mn.us	Very familiar with GIS concepts and applications. Does not use ESRI's ArcGIS tools.	Co-project manager (along with Hoshal) on IPPG HPAI / Pandemic GIS needs analysis.
DOAg	Mike Dolbow	GIS Coordinator	MDA	GIS Technical Support for surveillance, sampling, testing, disposal, and public education	High	625 Robert Street North	Saint Paul	55155	651-201-6497		mike.dolbow@state.mn.us	Data & Server Administration, Web Services, Desktop cartography	Assumed voluntary role as advanced GIS support to BAH.
	Jim Gonsoski	GIS Technician	MDA	Backup GIS Support	Medium	625 Robert Street North	Saint Paul	55155	651-201-6529		jim.gonsoski@state.mn.us	Database Design, Application Development, Desktop cartography	Currently in a temporary position, likely to be permanently funded soon
	TBA	GIS Technician	MDA	Primary Mapping Support	High	626 Robert Street North	Saint Paul	55156	NA		NA	Database Administration, Field Data Coordination, Desktop Cartography, Mobile GIS Coordination	This would be a person primarily dedicated to producing maps and other GIS resources for field personnel.
DNR	Tim Loesch	GIS Operations Supervisor	DNR	Unknown	Likely High	500 Lafayette Road	St. Paul	55155	651-259-5475		tim.loesch@dnr.state.mn.us	Highly skilled in ArcGIS, data administration, data coordination, etc.	

**Minnesota GIS Pandemic Needs Analysis
Resource Inventory: GIS Staff Resources**

Agency Name	Name	Title	Agency Name or Name of the Company or Agency if the Position is Outsourced	Describe this person's role in pandemic response.	How important is this person's role in pandemic response? (High / Medium / Low)	Work Location Address	Work Location City	Work Location Zipcode	Work Telephone	Work Telephone: Cell	E-Mail Address	Describe GIS Skills	Comments / Notes
	6 additional GIS technicians		DNR	Unknown	Likely High	500 Lafayette Road	St. Paul	55155				Linux and Citrix Server Administration, Web Mapping Services, User support, GIS/GPS integration, Desktop Cartography, Database Design, Application Development, Database Administration, Field Data/Mobile GIS Coordination, MNICs- overhead team members	In addition to DNR staff in the GIS Services Section, DNR regional offices have a large number of staff with varying GIS skills.
BAH	Ray Scheierl	IT3, GIS Supervision	BAH	Manage the GIS activity within the BAH.	High	625 Robert Street North	St. Paul	55155	651-201-6833	651-238-3893	Ray.Scheierl@bah.state.mn.us	Works with all the GIS products that BAH has and train staff on usage and capabilities.	
	Lucinda Dahlberg	IT2, GIS Data Coordinator	BAH	Coordinates the collection of Poultry GIS information and generates maps as needed	High	622 Business Hwy 71 NE	Willmar	56201	320-231-5170		Lucinda.Dahlberg@state.mn.us	Works with all the GIS products that BAH has.	
	Gaochia Vang	IT1, GIS map creator	BAH	Generates GIS maps as requested	Medium	625 Robert Street North	St. Paul	55155	651-201-6839		Gaochia.Vang@bah.state.mn.us	Works with all the GIS products that BAH has.	
DHServ	None												
	None												
DOCom	Jeffrey Haase	Demand Efficiency Supervisor	Dept. of Commerce	SEOC Representative for the DOC	Med	85 7th Place East, Suite 500	St. Paul	55101	651.297.5648	612.201.6867	jeffrey.haase@state.mn.us	Basic map development skills, primarily using existing data layers	Several others in the Department have access, to software, but skills are limited to project review, and minor modifications.
DOEd	Ruth Ellen Luehr	Safe & Healthy Learners	MDE	This person would lead MDE's pandemic team	high	1500 Hwy 36 W	Roseville	55113	651-582-8403		ruthellen.luehr@state.mn.us	none	
	Bob Fischer	Transportation Reporting	MDE	This person would participate and has represented MDE at HSEM nuclear drills (Monticello/PI).	medium	1500 Hwy 36 W	Roseville	55113	651-582-8776		bob.w.fischer@state.mn.us	none	
	Scott Freburg	GIS Administrator	MDE	This person would provide GIS support for MDE. This person has experience as a provider of GIS support at HSEM nuclear drills (Monticello/PI).	medium	1500 Hwy 36 W	Roseville	55113	651-582-8789		scott.freburg@state.mn.us	GIS Administrator	
DOEmp/Econ/Dev	Jessica Fendos	Research Analyst	DEED	Undefined	Low	332 Minnesota St.	Saint Paul	55101	651-296.3739		jessica.fendos@state.mn.us	Medium to Advanced	Lead GIS analyst within DEED's labor market information research operation
DOEmp/Rel	Desired	GIS	NA	provide response team with GIS data to assist in response planning and logistics.	medium								We would look towards HSEM's GIS capabilities as our response would be closely coordinated with HSEM
DOH	Karen Martin		MDH	Outbreak tracking; Vaccination saturation tracking	medium	625 N. Robert Street	St. Paul	55164	651-201-5537		Karen.Martin@health.state.mn.us		
	Craig Morin		MDH	Hospital admissions for flu in metro	medium	625 N. Robert Street, 3rd floor	St. Paul	55164	651-201-5743		Craig.Morin@health.state.mn.us		
	Karen White		MDH-IDEPC	Vaccine/antiviral distribution tracking??	medium	625 N. Robert Street, 4th floor	St. Paul	55164	651-201-5561		Karen.white@health.state.mn.us	Uses GIS Could use GIS to look at how well each county is vaccinated	MIC (Minnesota Immunization Information Connection)
	?			Mapping hospital resources at a state level, like bed, ventilators, etc.	medium								
	Brian Johnson		Environmental Health	None	low	625 N. Robert Street, 4th floor	St. Paul	55164	651-201-4688		Brian.Johnson@health.state.mn.us	Began working with GIS in 1982. Works with all aspects (data entry, directing and teaching staff, software assessment, planning both in and out of dept.)	
	Mike Baker		Environmental Health	None	low	625 N. Robert Street, 4th floor	St. Paul	55164	651-201-4651		Michael.Baker@health.state.mn.us	Works with all aspects of GIS	
	Al Epp		Environmental Health	None	low	625 N. Robert Street, 4th floor	St. Paul	55164	651-201-4693		Alan.Epp@health.state.mn.us		
	Bruce Olson?		Environmental Health	None	low	625 N. Robert Street, 4th floor	St. Paul	55164	651-201-4681		Bruce.Olson@health.state.mn.us		

Minnesota GIS Pandemic Needs Analysis
Resource Inventory: GIS Staff Resources

Agency Name	Name	Title	Agency Name or Name of the Company or Agency if the Position is Outsourced	Describe this person's role in pandemic response.	How important is this person's role in pandemic response? (High / Medium / Low)	Work Location Address	Work Location City	Work Location Zipcode	Work Telephone	Work Telephone: Cell	E-Mail Address	Describe GIS Skills	Comments / Notes
	Jeff Shaw ?												
	Megan Thompson ?												
DOLabInd	Jeff Isakson	Director, MNOSHA Compliance		Representative at HSEM	M	443 Lafayette Rd N	St. Paul	55155	651-284-5310	218-349-1077	jeff.isakson@state.mn.us		
	Alden Hoffman	Manager, Industrial Hygiene, MNOSHA Compliance		Back-up to Jeff Isakson	M	443 Lafayette Rd N	St. Paul	55155	651-284-5158		alden.hoffman@state.mn.us		
	Cindy Valentine	Director, Information Technology Division		COOP Coordinator	M	443 Lafayette Rd N	St. Paul	55155	651-284-5602		cindy.valentine@state.mn.us		
	Mary Murck	Safety Director		(Internal) staff safety director	H	443 Lafayette Rd N	St. Paul	55155	651-284-5155		mary.murck@state.mn.us		
DOPubSaf	Leroy Van Grootheest	Mn State Patrol GIS	Mn State Patrol	Works with vendors to create Mobile (troopers) and CAD (dispatchers) maps which would be used during a pandemic response	High	444 Cedar Street, Suite 130	St. Paul	55101	651-201-7130	612-807-0270	leroy.vangrootheest@state.mn.us	Familiar with 911 systems CAD and Mobile maps.	Leroy does 1/2 GIS and 1/2 CAD, Mobile and RMS
	Doug Sailer	Mn State Patrol RMS	Mn State Patrol	Assists with map builds	High	444 Cedar Street, Suite 130	St. Paul	55101	651-201-7110	612-807-0475	doug.sailer@state.mn.us	Familiar with 911 systems CAD and Mobile maps and GIS	
DORev	Kent Treichel	Research Analyst	Revenue	Normal responsibilities and other duties as directed.	Low to useless	600 North Robert St	Saint Paul	55146	651-556-6150		kent.treichel@state.mn.us	Import-clean-OC data, maintain multiple boundary files, geocode data, produce maps for reports, provide spatial analysis, train other non technical staff, work with users desiring GIS products	
DOT	John Cavanaugh	Pandemic Planner	N/A	Lead Planner	High	395 John Ireland Blvd.	St.Paul	55155	218-725-2722	651285-0591	john.cavanaugh@dot.state.mn.us	User of ArcView, ARCGIS 9.x	
	Charlie McCarty	GIS Support	N/A	Unknown	Low	395 John Ireland Blvd.	St.Paul	55155	651-366-4059		charlie.mccarty@dot.state.mn.us	Skilled in ARCGIS	
	Peter Morey	GIS Support	N/A	Unknown	Low	395 John Ireland Blvd.	St.Paul	55155	651-366-4067		peter.morey@dot.state.mn.us	Skilled in ARCGIS	
	GIS Support	GIS Support	N/A	Unknown	Low	395 John Ireland Blvd.	St.Paul	55155	651366-4059		sonia.dickerson@dot.state.mn.us	Skilled in ARCGIS	
	Dan Ross	Supervisor GIS Support	N/A	Assign GIS work	Medium	395 John Ireland Blvd.	St.Paul	55155	651-366-4077		dan.ross@dot.state.mn.us	Skilled in ARCGIS	
EMS Board	None												
HSEM	Mark Kam	Sr. Planner	HSEM	Logistics Chief, DLAN Support Operations	High	SEOC; HSEM	St. Paul	55101					
	LMIC Personnel	Contractor	LMIC	GIS Position	High	SEOC; HSEM	St. Paul	55101					
OET	NONE												
PCA	Tad Schindler	Supervisor - PCA GIS and Web Services Unit	PCA	Unknown	Likely High	520 Lafayette Rd.	St. Paul	55155	651-297-8378		tad.schindler@state.mn.us	Skilled in ARCGIS	
	4 additional administrative staff + 4 dedicated users		PCA	Unknown	Unknown	520 Lafayette Rd.	St. Paul	55155					Some staff may reside in regional offices

Minnesota GIS Pandemic Needs Analysis
Resource Inventory: GIS Software Resources

Agency Name	Software Name	What is it and how is it used?	How important is this software for pandemic response? (High / Medium / Low)	Do you currently have the software or is it desired? (Existing / Desired)	Current Version Number	Number of Licenses	Primary Contact Name	Primary Contact Telephone	Primary Contact E-mail	What hardware platform does it run on? (Desktop / Server / Other)	Accessible on State Network? (Yes / No / Unknown)	Accessible on Internet? (Yes / No / Unknown)	Comments / Notes
DOA	ArcINFO (ArcGIS)	A full suite of GIS tools for mapping, spatial modeling, etc.	High	Existing	9.2	10	John Hoshal	651-201-2482	john.hoshal@state.mn.us	desktop; server	No	No	Having access to the ArcGIS toolbox during an emergency is critical.
	ArcGIS Server (IMS)	Creation of web-based mapping tools including data creation and editing (ArcGIS Server Adv.)	High	Existing	9.2	2	John Hoshal	651-201-2482	john.hoshal@state.mn.us	desktop; server	No	Yes	ArcIMS is used to create web-based mapping applications that can be accessed by many or limited through login procedures.
	ArcGIS Spatial Analyst, 3D Analyst and Network Analyst	Geospatial data analysis tools	High	Existing	9.2	1	John Hoshal	651-201-2482	john.hoshal@state.mn.us	desktop; server	No	Yes	ArcIMS is used to create web-based mapping applications that can be accessed by many or limited through login procedures.
	ArcView	Low-level GIS tools	Low	Existing	9.2	2	John Hoshal	651-201-2482	john.hoshal@state.mn.us	desktop; server	No	Yes	ArcIMS is used to create web-based mapping applications that can be accessed by many or limited through login procedures.
	ArcSDE	Geospatial data management	High	Existing	9.2	2	John Hoshal	651-201-2482	john.hoshal@state.mn.us	server	No	Yes	Will likely be ordered for FY08.
DNR	ArcView 3x – 500+ ArcGIS 9.x: ArcView – 41 ArcEditor – 27 ArcInfo – 15 Spat. Anal. – 8 3D Anal. – 4 ArcSDE – 3 ArcIMS – 1 MapServer – unlimited ArcPAD – 70+ LandView GIS – unlimited	This collection of GIS software includes mapping, modeling tools, GIS data collection tools for field use and tools for creating web-based GIS applications.	High	Existing	Various	See Software Name Field	Tim Loesch	651-259-5475	tim.loesch@dnr.state.mn.us	desktop; server	Unknown	Unknown	
DOAg	ArcGIS Server Enterprise Level, Standard Edition	Server GIS for Interactive Mapping Web Sites, open Map services, and other services	Now: Medium. Future: High	Existing	9.2	1	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Server	No	Yes	
	ArcIMS	Server GIS for Interactive Mapping Web Sites and some (mostly secured) services	Now: High. Future: Medium	Existing	9.2	1	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Server	No	Yes	Some services and web sites are restricted to internal MDA networks
	ArcSDE	Server GIS for Enterprise Geodatabase serving	High	Existing	9.2	2	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Server	No	Yes, but only via IMS and AGS services	
	ArcGIS Arc/INFO Level	Desktop GIS	High	Existing	9.2	4	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Desktop	No	No	
	ArcGIS Arc/Editor Level	Desktop GIS	Low	Existing	9.2	1	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Desktop	No	No	
	ArcGIS ArcView Level (Concurrent Use)	Desktop GIS	Medium	Existing	9.2	6	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Desktop	No	No	
	ArcGIS ArcView Level (Single Use)	Desktop GIS	High	Existing	9.2	10	Mike Dolbow	651-201-6497	mike.dolbow@state.mn.us	Desktop	No	No	2 copies available for Emergency Response.
	ArcPad	Mobile GIS	Medium	Both (see notes)	6+	~20	Mark Abrahamson	651-201-6505	mark.abrahamson@state.mn.us	PDAs	NA	No	Mark works in the invasive species unit. MDA would like to have one copy designated for emergency response, primarily to collect and immediately map field data. Would also like a Bluetooth-wireless GPS setup to connect to the laptop
BAH	ArcGIS	GIS mapping tool	High	Existing	9.2	3	Ray Scheierl	651-201-6833	Ray.Scheierl@bah.state.mn.us	Desktop	No	No	
	DeLORME Street Atlas	GIS mapping tool	High	Existing	2007	50	Ray Scheierl	651-201-6833	Ray.Scheierl@bah.state.mn.us	Desktop	No	No	
	Harvard Graphics	GIS mapping tool	Medium	Existing	3.0	15	Ray Scheierl	651-201-6833	Ray.Scheierl@bah.state.mn.us	Desktop	No	No	
	Google Earth	GIS Location tool	Medium	Existing	4.0	50	Ray Scheierl	651-201-6833	Ray.Scheierl@bah.state.mn.us	Desktop	Yes	Yes	Free Down load

Minnesota GIS Pandemic Needs Analysis
Resource Inventory: GIS Software Resources

Agency Name	Software Name	What is it and how is it used?	How important is this software for pandemic response? (High / Medium / Low)	Do you currently have the software or is it desired? (Existing / Desired)	Current Version Number	Number of Licenses	Primary Contact Name	Primary Contact Telephone	Primary Contact E-mail	What hardware platform does it run on? (Desktop / Server / Other)	Accessible on State Network? (Yes / No / Unknown)	Accessible on Internet? (Yes / No / Unknown)	Comments / Notes
DHServ	ArcGIS 9 / ArcView	just purchased to effectively connect multiple service sites around the state	Medium	just received	9	1	Nancy Doucette	x13019	nancy.doucette@state.mn.us	desktop	not at this time, but hopeful for future	no	
DOCom	ArcInfo 9.1	GIS Software (Used Periodically to develop maps and other informational materials)	Medium	Existing	9.1	floating	Jeffrey Haase	651.297.5648	jeffrey.haase@state.mn.us	Desktop	No	No	
DOEd	ArcGIS	A full suite of GIS tools for mapping, spatial modeling, etc.	High	Existing	8.3 (server) 9.2 (desktop)	2	Scott Freburg	651-582-8789	scott.freburg@state.mn.us	desktop; server	No	No	
	ArcView	ArcView as part of K12 Education bundle	High	Existing	9.2	1 (up to 500 installations)	Scott Freburg	651-582-8789	scott.freburg@state.mn.us	desktop	No	No	
DOEmp/Econ/Dev	ArcView	full-featured GIS software for visualizing, analyzing, creating, and managing data with a geographic component	High	Existing	9.2	7	Jon Hill	651-25-7019	jon.hill@state.mn.us	desktop; server	No	No	Having access to the ArcGIS toolbox during an emergency is critical.
	ArcGIS Server (IMS)	Creation of web-based mapping tools	High	Existing	9.2	1	Jon Hill	651-259-7019	jon.hill@state.mn.us	desktop; server	No	Yes	ArcIMS is used to create web-based mapping applications that can be accessed by many or limited through login procedures.
	ArcIMS Route Server	It lets users perform rapid cross-country routing, set routing preferences (highway preferences, shortest route, or fastest route), and use precision settings to fine-tune results	Medium	Existing	9.2	1	Jon Hill	651-259-7019	jon.hill@state.mn.us	server	No	Yes	
	ArcSDE	Oracle read/write server connection license	Medium	Existing	9.2	10	Jon Hill	651-259-7019	jon.hill@state.mn.us	server	No	Yes	
	ArcGIS Server Standard Enterprise	High-level web mapping tools including data creation and editing	Medium	Existing	9.2	2	Jon Hill	651-259-7019	jon.hill@state.mn.us	server	No	Yes	
DOEmp/Rel	currently have none												
	Desired	track resources and event conditions	medium	desired									we would be looking to HSEM for GIS support during an event response.
DOH	ArcGIS	A full suite of GIS tools for mapping, spatial modeling, etc.	low (according to Toby McAdams) high (according to Brian Johnson)	existing	8/9	~10	no primary contact - each license held individually			desktop	no	no	
	Some will need ArcGIS and we may need more licenses, others will just need components of it. We will need to put it together to make it available. We need to develop capabilities and build where we need to.												
DOLabInd	have none			unfamiliar with examples given									
DOPubSaf	GeoMedia Professional	GIS editing software	Low	Existing	6.0	1	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	Server	Yes	No	Used for developing map attributes
	I/Mobile	Troopers access the map in their squads	High	Existing	7.9	~450	Monica Vogel	651-201-7119	monica.vogel@state.mn.us	Other - laptop	Yes	No	
	I/Dispatcher (CAD)	Dispatchers access the map in the Dispatch Center	High	Existing	7.9	37	Monica Vogel	651-201-7119	monica.vogel@state.mn.us	Desktop/Server	Yes	No	
	MicroStation	Editing POIs and roads	Medium	Existing	7.1	1	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	Desktop	No	No	

Minnesota GIS Pandemic Needs Analysis
Resource Inventory: GIS Software Resources

Agency Name	Software Name	What is it and how is it used?	How important is this software for pandemic response? (High / Medium / Low)	Do you currently have the software or is it desired? (Existing / Desired)	Current Version Number	Number of Licenses	Primary Contact Name	Primary Contact Telephone	Primary Contact E-mail	What hardware platform does it run on? (Desktop / Server / Other)	Accessible on State Network? (Yes / No / Unknown)	Accessible on Internet? (Yes / No / Unknown)	Comments / Notes
	CAD Tools	Make dynamic	Medium	Existing	7.9	37	Leroy Van Grootheest	651-201-7130	leroy.vangrootheest@state.mn.us	Desktop	No	No	
DORev	MapInfo 9.0	Desktop GIS		Existing	9.0	5	Kent Treichel	651-556-6150	see above	Desktop	No	No	
	MapMarker 13.0	Desktop Geocoder		Existing	13.0	1	Kent Treichel	651-556-6150	see above	Desktop	No	No	
	Surfer 8.0	Spatial Statistics		Existing	8.0	1	Kent Treichel	651-556-6150	see above	Desktop	No	No	
	ACE 7.8	Geocoder		Existing	7.8	more than 1	Kent Treichel	651-556-6150	see above	Desktop	No	No	
	ZP4	Address Scrubber		Existing	current	1	Kent Treichel	651-556-6150	see above	Desktop	No	No	
	Google Earth			Existing	current	1	Kent Treichel	651-556-6150	see above	Desktop	No	No	
DOT	ARCGIS 9.2	Mapping and Analysis	High	Existing	9.2	74*	Dan Ross	651-366-4077	dan.ross@dot.state.mn.us	Desktop & Server	Yes	No	Located in all our districts and CO
	ArcGIS Server (IMS)	Creation of web-based mapping tools	High	Existing	9.2	4	Dan Ross	651-366-4077	dan.ross@dot.state.mn.us	Server	Yes	Yes	
	*ArcView	Mapping and Analysis	High	Existing		51	Dan Ross	651-366-4078	dan.ross@dot.state.mn.us	Desktop & Server	Yes	No	51 of the total 74 licenses these are shared by the entire agency
	ArcINFO	Mapping and Analysis	Medium	Existing		23	Dan Ross	651-366-4079	dan.ross@dot.state.mn.us	Desktop & Server	Yes	No	23 of the total licenses that are shared by the agency
EMS Board	NONE												
HSEM	ArcMap		High	Existing		1	Mark Kam	6512017499	mark.kam@state.mn.us	Server	Unknown	Unknown	
	ArcGIS		High	Existing	9.2	3	Mark Kam	6512017499	mark.kam@state.mn.us	Server	Unknown	Unknown	
OET	NONE												
PCA	ArcIMS (2) ArcSDE (2) ArcINFO (10) ArcEditor (0) ArcView (45)	This collection of GIS software includes mapping, modeling tools, GIS data collection tools for field use and tools for creating web-based GIS applications.	High	Existing	Various	See Software Name Field	Tad Schindler	651-297-8378	tad.schindler@state.mn.us	desktop; server	Unknown	Unknown	



State of Minnesota

GIS Pandemic Needs Analysis Report

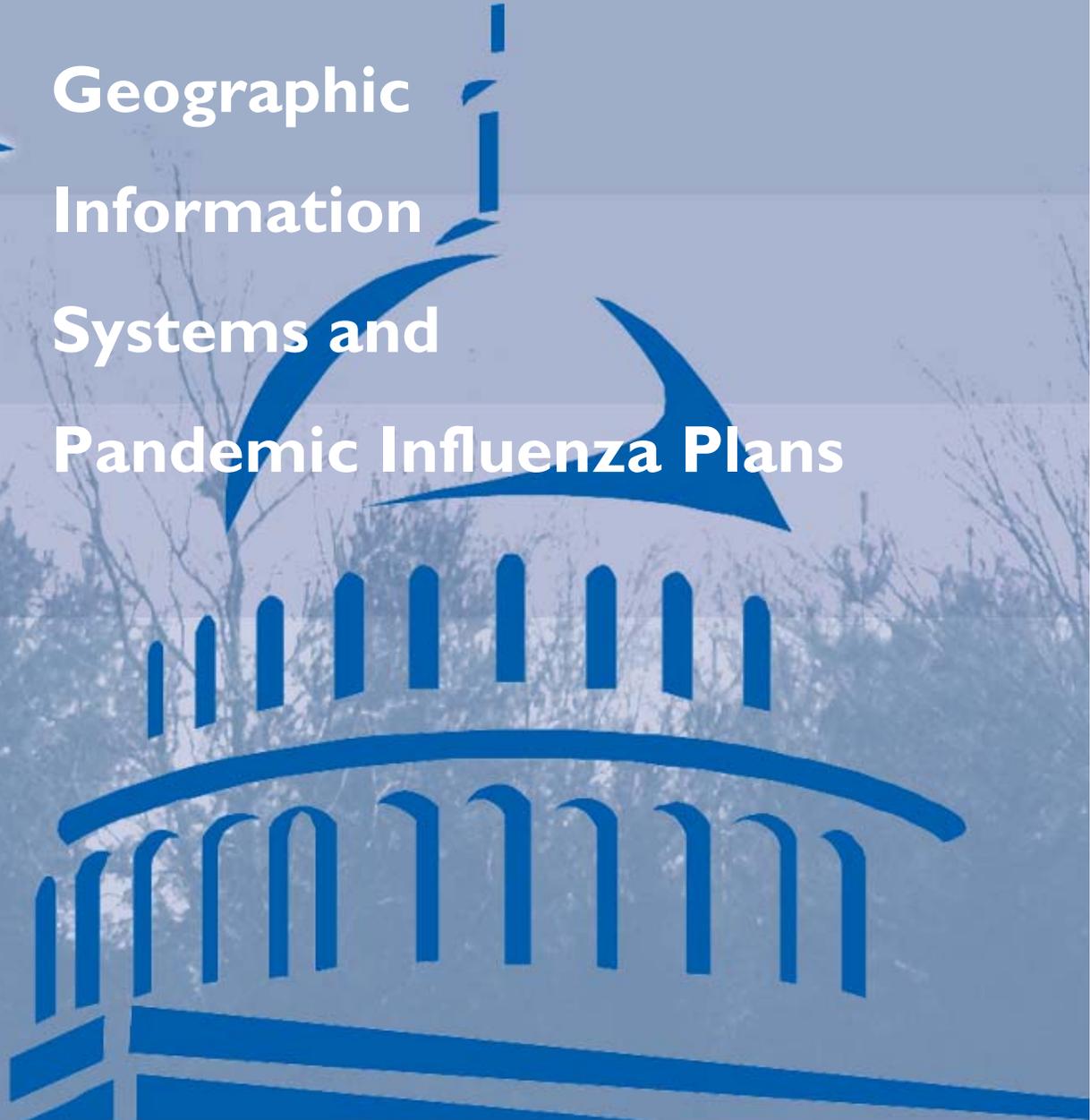
Appendices Addendum

[2007 URISA ESRI PowerPoint Show](#)



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**Geographic
Information
Systems and
Pandemic Influenza Plans**



ESRI

Christopher Kinabrew, MPH, MSW



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OUTLINE

- **Pandemic Influenza Background & Current Status**
- **Rationale for researching GIS in state & local plans**
- **Methodology**
- **Results**
- **Additional feedback from GIS contacts in state and local health departments**
- **Recommendations**



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PANDEMIC INFLUENZA

“ A pandemic occurs when a novel strain of influenza virus emerges that has the ability to infect humans and to cause severe disease, and where efficient and sustained transmission between humans occurs.”

“ Though we cannot be certain that *highly pathogenic avian influenza A H5N1* (H5N1) will spark a pandemic, we can be sure that a pandemic will occur at some point in the future.”

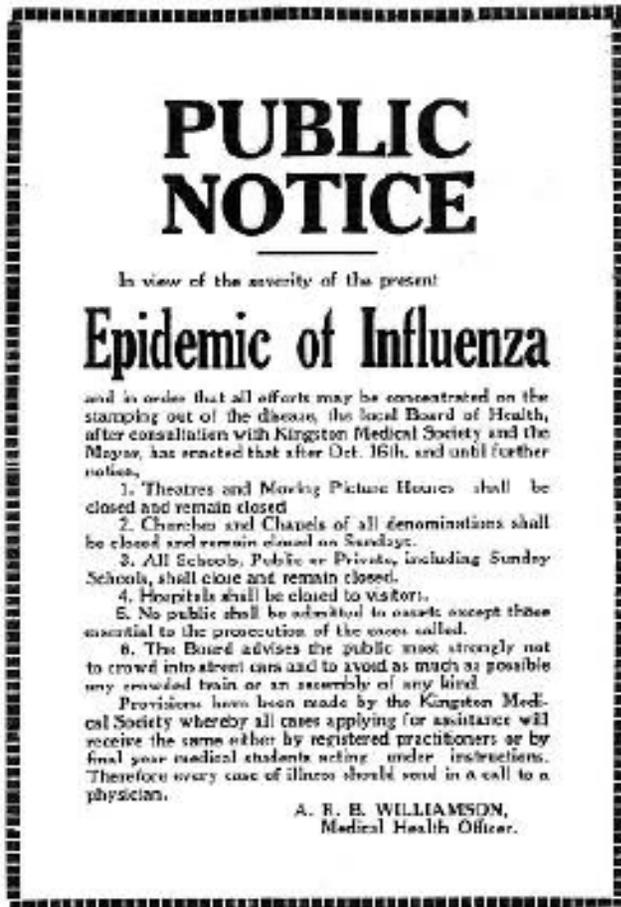
Source: *National Strategy for Pandemic Influenza: Implementation Plan One Year Summary*”

Available online at http://www.whitehouse.gov/homeland/nspi_oneyear.pdf



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HISTORICAL CONTEXT

"If the epidemic continues its mathematical rate of acceleration, civilization could easily disappear from the face of the earth within a few weeks."

Victor Vaughan

Surgeon General of the Army

October, 1918



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CURRENT SITUATION as of August 16, 2007:

World Health Organization (WHO) reports:

- 321 confirmed cases
- 194 of them fatal
- Many of these cases in SE Asia



Source (2003-2007 data available from):

http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_08_16/en/index.html



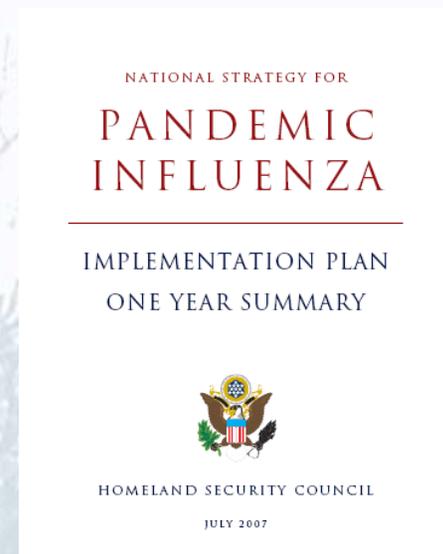
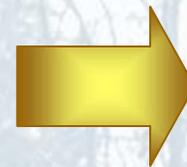
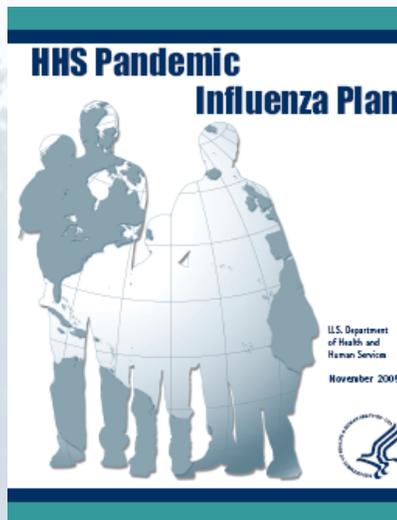
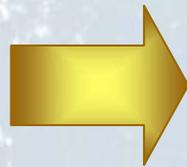
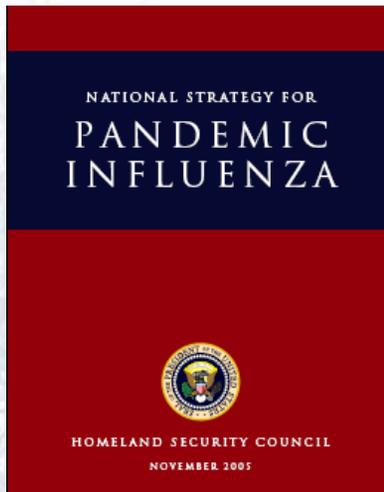
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White House recently published summary of National Strategy for Pandemic Influenza:

<http://www.whitehouse.gov/homeland/pandemic-influenza-oneyear.html>





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Association of State and Territorial Health Officials (ASTHO) recently reported:

- All states have pandemic influenza plans, which they are exercising and revising
- States as a whole have stockpiled 13 million courses of antivirals to be distributed to communities when needed
- 96% of states and territories conducted pandemic influenza exercises in 2006
- Every state will conduct exercises on community mitigation strategies and medical surge capacity in 2007
- Many state health departments have improved disease surveillance and communications infrastructure



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GLOBAL CONTEXT for GIS in Pandemic Preparedness

The distinction between WHO *phase 3*, *phase 4* and *phase 5* is based on an assessment of the risk of pandemic.

Factors may include:

- rate of transmission
- **geographical location and spread**
- severity of illness
- presence of genes from human strains (if derived from an animal strain)
- and/or other scientific parameters

Source: WHO *global influenza preparedness plan* November 2005, available at http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5.pdf



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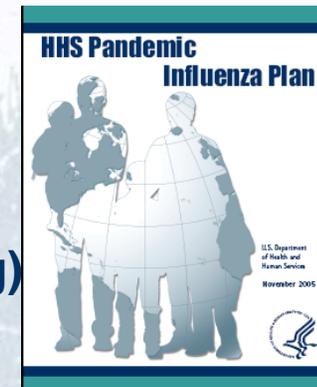
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NATIONAL CONTEXT: HHS Plan

HHS State & Local Planning Checklist contains many items suited to GIS:

- ✓ Demographic profile of communities
- ✓ Tracking numbers and location of cases
- ✓ Tracking of vaccine and antivirals
- ✓ Community Outbreak Response
- ✓ (i.e., containment strategies, social distancing)
- ✓ Surge Capacity





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NATIONAL CONTEXT: States and Locals

All 50 states and territories, as well as some large local jurisdictions, are receiving grants from CDC to accelerate and intensify current planning efforts

- State plans available at <http://www.pandemicflu.gov/plan/stateplans.html>
- Pandemic summits in each state
- Exercises

PandemicFlu.gov



AvianFlu.gov



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RATIONALE FOR REVIEWING PLANS for GIS:

- GIS should help in pandemic response
- All state health departments and most local health departments have some GIS software
- Many state and locals have trained GIS personnel within the health department
- Other state and local agencies have additional extensive GIS expertise that could be leveraged

QUESTION:

Is GIS capacity accurately reflected in State and Local Pandemic Influenza Plans?



METHODOLOGY – PART I

- Review state plans available at <http://www.pandemicflu.gov/plan/stateplans.html>
- Review available plans from 10 large local health departments' websites
- Search terms include:
 - GIS, geographic, geography, geographical
 - Also searched terms such as:
 - information system
 - location
 - map
 - spatial
 - visualization
 - demographic
- Compare and contrast



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METHODOLOGY – PART 2

Ask State and Local Health GIS contacts:

1. Have you been involved in your jurisdiction's pandemic influenza planning process?
2. Have you been involved in any pandemic influenza exercises? If so, how did you support the exercise?
3. Do you see a role for GIS in pandemic influenza preparedness and response (if so, what do you and your GIS colleagues have to offer)?



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CONSIDERATIONS and LIMITATIONS....

- Just because GIS is not mentioned in a pandemic influenza plan does not mean jurisdiction does not have GIS capacity
- RTI's June 2006 review of state plans found they varied dramatically in both strategies and level of detail, from 11 pages to several hundred (*Emerging Infectious Diseases* Vol. 12, No. 9 • September 2006)
- Many states and locals are continuing to update their pandemic influenza plans
- For brief questionnaire to health department GIS contacts, self-selection bias could be a factor
- As ESRI's Public Health Specialist, I am GIS-centric ☺



RESULTS

Specific GIS References in Pandemic Influenza Plans *

	YES	NO
STATE	7	43
LOCAL	0 ? **	6

STATE PLAN SPECIFIC REFERENCES: AZ, AR, FL, MI, NJ, NY, RI, TX

LOCAL PLAN SPECIFIC REFERENCES: ** *Could not locate plans for Chicago, Phoenix, San Antonio, Dallas County*

* *As of July 2007*



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GIS IN STATE PANDEMIC INFLUENZA PLANS

Several states had brief references to the need for or availability of GIS experts/specialists in the suggested staffing to assist in response

- Arizona
- Florida (more detail, described on next slide)
- Rhode Island
- Texas

GIS function was also listed in organizational charts of a few plans



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FL POSITION DESCRIPTION: GIS DATA SPECIALIST

- Provide liaison to various organizations and units within DOH to access maps, GIS coordinates and databases to be able to provide overlay maps with GIS locations for various facilities and infrastructure components impacting the health of the public
- Access and display maps with GIS locations, as above, in support of the Situation Status Unit and planning within ESF8
- Develop and maintain databases necessary for creating and display of overlays for GIS maps as new ESF8 data becomes available within the Situation Status Unit
- Provide advice and suggestion to Situation Status Unit and threat assessment specialists regarding current status and future concerns evident in geographic analysis of events
- Provide other duties, as required



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GIS AND DISEASE SURVEILLANCE

- AR plan includes weekly preparation of a GIS map to monitor all Medicaid claims variables for influenza diagnosis and other variables
- MI plan proposes the use of GIS in surveillance activities and the “application of GIS methodologies” in the event of novel virus activity or pandemic influenza occurrence
- NY and NJ plans specifically mention GIS integrated into their disease surveillance systems (we know there are more)



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GIS AND EMERGENCY NOTIFICATION

In (NJ) GIS mapping technology is part of a community emergency communication system (GeoNotify)

- GeoNotify is a product of ESRI Business Partner Dialogic Communications Corp
- Enables easy geographical selection of targeted notification areas, and initiates first phone warnings within 60-90 seconds of incident identification
- Based on MapObjects



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GUIDANCE TO LOCALS

AZ plan notes that community level preparedness requires knowledge of the demographic, **geographic** and cultural make-up of the community, in order to ensure all populations in a community are involved, or are, at a minimum, accounted for in the response plan.



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Besides the FL position description, only the NY State Department of Health's *Pandemic Influenza Plan* includes detailed description of how GIS will be used in the event of pandemic influenza

What does it say....?



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GIS will support real-time situational awareness and decision support in NY State for

- Executive decision makers
- Local health officials
- Health facility incident command
- Other key response parties



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According to the NY State Plan: GIS will be used to **visualize** and **analyze** incoming data in relation to key geographical information (layers)

- Health Facilities
- Transportation
- Political boundaries
- Demographic data
- Other relevant health data, ie. immunization





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Other proposed GIS applications in NY State Plan

- Vaccine inventory and tracking
- Antiviral inventory and tracking
- Clinic data management: Tracking of vaccine and antiviral administration
- Demographic profiles to help locate special needs populations
- Hospital assets
- Medical staff assets at point locations
- Volunteer rosters
- Hospital and laboratory surge capacity
- Logistics/Routing
- **Web-based tool** allows accessing and mapping of real-time data by users in the field. Also provides info on resource availability in the field.



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IN SUMMARY:

GIS is **not** specifically referenced in many of the state and local Pandemic Influenza Plans ...

However, many terms and phrases used frequently in most plans imply potential mapping applications, such as:

- Geographic progression of influenza
- Geographic clusters
- Geographic analysis
- Definition of quarantine
- Bed tracking
- Planning assumption that Pandemic Influenza will be widely dispersed geographically
- Geographically isolated populations (as a vulnerable population)
- “Snow days” for a targeted geographic area



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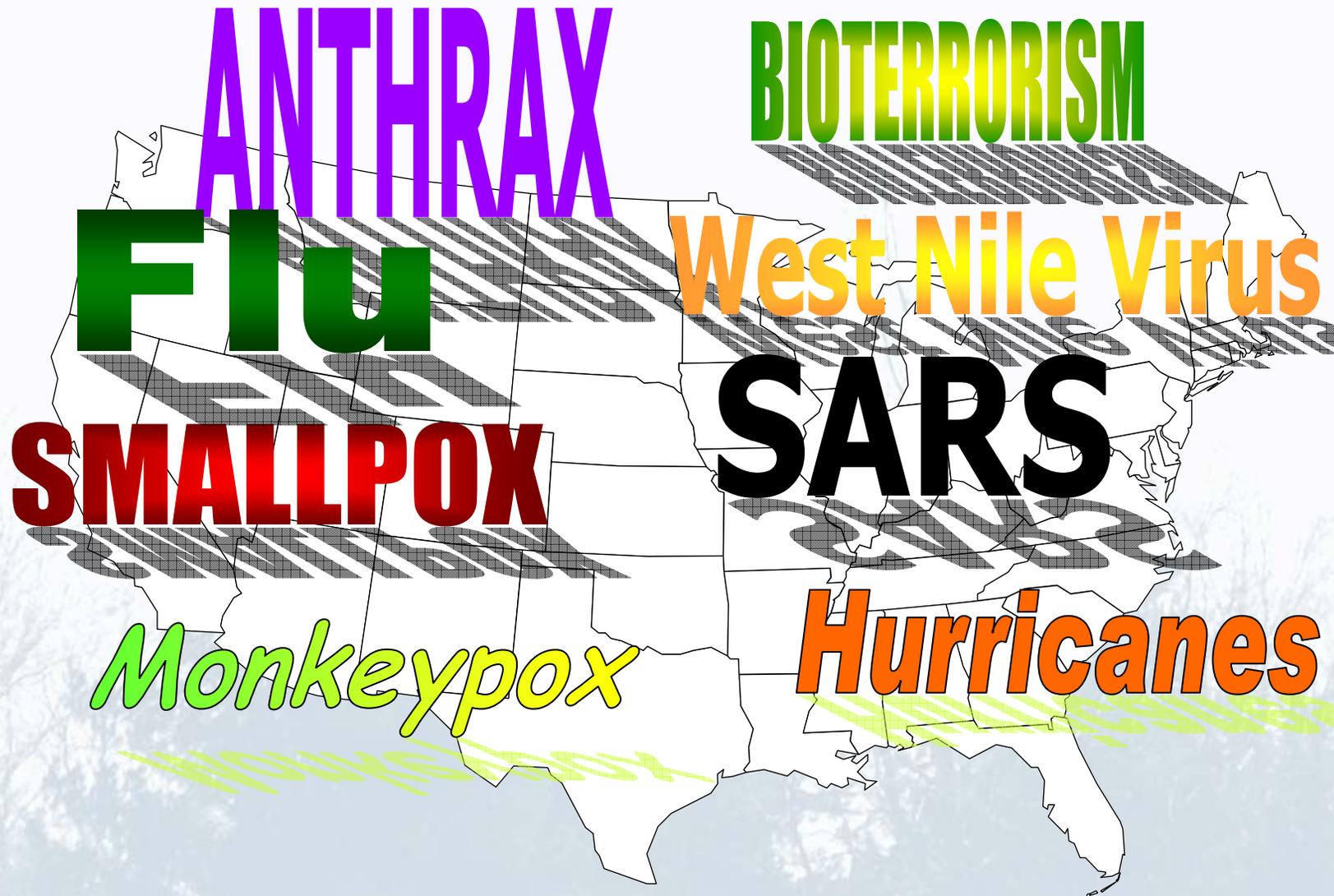


SO WHAT HAPPENED?



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**“Even if you’re on the right track,
you’ll get run over if you just
stand still.”**

- Will Rogers



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**To complement the review of available plans,
reached out to GIS contacts in state and local
health departments.**

Responses received from GIS Health User Group
colleagues from:

- 9 state health departments
- 7 local health departments
- Also, Cherokee Nation



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RESULTS FROM QUESTION #1:

Have you been involved in your jurisdiction's pandemic influenza planning process?

	YES	NO
STATE	4	5
LOCAL	2	5
TRIBAL	1	
TOTAL	7	10



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Question #1 responses included:

“Yes, I have been working closely with our counter-bioterrorism unit in creating analysis and maps to aid in decision making as well as identifying where we should have our emergency dispensing sites”

“Some, through creation of an ArcIMS site to locate centers for mass immunization”

“So far, only on the periphery... included in the emergency response structures at the Department of Health and EOC”

“We produced maps to show the location of potential sites to bury birds”

“During the planning, questions would arise from the planners that were answered by spatial analysis...”

“Often I just answer questions that might arise about GIS or mapping.”

“They would like to implement in the future...”



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But responses also included...

“There is a large implied geographical component, but the use of GIS to support or develop these elements is not explicitly described...”

“No. I have worried about this, but there have been no efforts by planners to contact any GIS staff for inclusion in the planning efforts...”

“These plans involve a lot of talk...”

“A specific expectation of GIS support for either preparedness or response has not been expressed”

“In my opinion, GIS has been underutilized in this area...”

“I have not been involved”

“Nope”



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RESULTS FROM QUESTION #2

Have you been involved in any pandemic influenza exercises? If so, how did you support the exercise?

	YES	NO
STATE	5	4
LOCAL	3	4
TRIBAL	1	
TOTAL	9	8



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The most common theme in response to Question 2 was SNS:

“GIS was used in planning the Strategic National Stockpile Warehouse Layout – the building floor was scanned into ArcView to determine square footage available, best use of storage space and flow of processes/material”

“Maps to guide persons around the facility grounds were created ... and routing maps for delivery vehicles to the points of dispensing were also created... following the exercise, the branch purchased GIS software for day-to-day use”



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There were also other uses of GIS in exercises, such as:

“Participants used my maps to make decisions about **mutual aid**, disposal areas, etc.”

“We geocoded cases, and found that the public health department did not have the **authority to quarantine** some cases since they were on federal property (so GIS can help us identify those parcels in the future to request authorization...)”

“Yes, the data would be entered into our **surveillance system** and periodically I would extract the data and create dated maps and issue them to the appropriate people”

“We are now looking at Network Analyst for **surge capacity**”



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But also included...

“Yes, I and two other GIS staff from other agencies (Ag and Emergency Management) assisted in a statewide exercise. We were highly underutilized ... and mentioned this in the post-exercise briefing.”

“They did not want our participation, but then the first thing they asked for was a map of case distribution. Even though this was noted in the after action report, the program in charge has still not involved us”

“Although I have participated in some exercises in our EOC, I have not been specifically tasked to support any pandemic drills”

“I anticipate GIS will be used for preparing maps showing locations of pharm stockpiles, emergency clinic locations, and statewide critical facilities”

“No”



RESULTS FROM QUESTION #3

Do you see a role for GIS in pandemic influenza preparedness and response (if so, what do you and your GIS colleagues have to offer)?

	YES	NO
STATE	9	0
LOCAL	7	0
TRIBAL	1	0
TOTAL	17	0



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RANKED THEMES for what GIS coordinators could offer:

- Mapping Real-Time Spread of Incidence / Clustering
- Determining Strategic National Stockpile POD locations
- Developing tools/applications and have supporting info in place (e.g., ArcIMS sites to assess vulnerable populations, ArcGIS Explorer applications, other turnkey applications)
- Locating and Identifying Vulnerable Populations
- Real-Time Mapping and Analysis regarding Vaccine Inventory
- Providing Situational Awareness to leadership and partners
- Monitoring Bed Capacity/Surge Capacity In Hospitals
- Geocoding Cases / Case Notification
- Helping Infected People Locate Treatment
- Playing a role in Mobile Response & Routing, especially in Rural Areas
- Identifying Gathering Areas in High Cluster Areas
- Calling up volunteers and staff by location
- Mapping Distribution of Care Providers



RECOMMENDATION #1

“We need to talk...”

- a. Encourage GIS coordinators and pandemic planners to discuss how to leverage current GIS capacity, and reflect in plan
 - Personnel (e.g., add GIS folks to that section!)
 - Software
 - Data
 - Applications
 - Could a GIS Committee or User Groups help support?
- Look to NY and FL plans (among others) for examples of detail... links to all plans available at www.pandemicflu.gov



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RECOMMENDATION #2

“Share tools and resources across jurisdictions...”

- Catalog what is available
- Share it through toolboxes and other sites
- Consider opportunities for publishing maps, tasks, models and services directly through ArcGIS Server
- leverage ArcGIS Explorer (new build just out)



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NEXT STEPS (for ESRI Health Team):

- Share this presentation back with State and Local Health GIS folks
- Meet with leadership of ASTHO, NACCHO, CDC
- Newsletter article for pan flu planners in state and local health departments
- Solicit GIS “tools” for toolboxes managed by ASTHO and NACCHO
- Review available national plans at <http://www.who.int/csr/disease/influenza/nationalpandemic/en/index.html>



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ACKNOWLEDGEMENTS AND THANKS TO:

Bärbel Lamar – ESRI Research Analyst – for her assistance in the initial review of the state and local plans

ESRI Health User Group Members from:

- state health departments including CA, FL, IL, KS, KY, MI, OH, TX, WV
- Cherokee Nation
- Local Health departments including:
Chicago, IL; Cobb and Douglas County, GA; Denver, CO;
King County, WA; Northern Kentucky; Tarrant County, TX



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THANKS

Any questions – or suggestions?

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Public Health Specialist

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