

## **FOREWORD**

The Illinois Human-Caused Hazard Mitigation Plan (IHCHMP) is part of the Illinois Multi-Hazard Mitigation Plan (IMHMP), which also includes the Illinois Multi-Hazard Mitigation Strategy (IMHMS), the Illinois Technological Hazards Mitigation Plan (ITHMP), and the Illinois Natural Hazard Mitigation Plan (INHMP). The overall mitigation plan and strategy was developed as a cooperative effort of state agencies under the coordination of the Illinois Emergency Management Agency (IEMA). It discusses the process used to identify, profile and assess human-caused hazards in Illinois and the actions that should be taken to mitigate those hazards.

The IHCHMP will continue to be reviewed and enhanced as new mitigation opportunities become available. Comments and suggestions are welcome and should be forwarded to my attention at the address below.

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## ACRONYMS

ARC	American Red Cross
CFR	Code of Federal Regulation
CMS	(Illinois Department of) Central Management Services
CRBNE	Chemical, Radiological, Biological, Nuclear and Explosives
CSEPP	Chemical Stockpile Emergency Preparedness Program
DHS	Department of Homeland Security
DMA2k	Disaster Mitigation Act of 2000
DRC	Disaster Resistant Community
EMA	Emergency Management Agency
EMAP	Emergency Management Accreditation Program
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESDA	Emergency Services and Disaster Agency (local)
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
FHMO	Federal Hazard Mitigation Officer
FY	Fiscal Year
GAR	Governor's Authorized Representative
GDN	Gamma Detector Network
GEMS	Gaseous Effluent Monitoring System
HM	Hazard Mitigation
HMGP	Hazard Mitigation Grant Program
HMST	Hazard Mitigation Survey Team (for non-flood disasters)
HUD	Housing and Urban Development
IAW	“In Accordance With”
IDNR	Illinois Department of Natural Resources
IDoA	Illinois Department of Agriculture
IDOT	Illinois Department of Transportation
IDPH	Illinois Department of Public Health
IEMA	Illinois Emergency Management Agency
IEMA-DNS	Illinois Emergency Management Agency - Division of Nuclear Safety
IEPA	Illinois Environmental Protection Agency
IHCHMP	Illinois Human-Caused Hazard Mitigation Plan
IHMT	Interagency Hazard Mitigation Team

**Acronyms** (cont.)

IHPA	Illinois Historic Preservation Agency
IMAG	Interagency Mitigation Advisory Group
IMHMP	Illinois Multi-Hazard Mitigation Plan
IMHMS	Illinois Multi-Hazard Mitigation Strategy
INHMP	Illinois Natural Hazard Mitigation Plan
INHMPCC	Illinois Technological Hazard Mitigation Planning Committee
IPRA	Illinois Plan for Radiological Accidents
I-REACH	Illinois Radio Emergency Assistance Channel
ISP	Illinois State Police
ITECS	Illinois Transportable Emergency Communications Systems
ITHMP	Illinois Technological Hazard Mitigation Plan
ITTF	Illinois Terrorism Task Force
JPIC	Joint Public Information Center
LEPC	Local Emergency Planning Committee
NARS	Nuclear Accident Reporting System
NEMA	National Emergency Management Association
NEPA	National Environmental Policy Act
NRC	U. S. Nuclear Regulatory Commission
NTH	Natural and Technological Hazards (part of FEMA)
NWS	National Weather Service
OMB	Office of Management and Budget
PDM	Pre-Disaster Mitigation
PL	Public Law
POC	Point of Contact
RACER	Radiological/Chemical Emergency Response
RAFT	Radiological Assessment Field Team
REAC	Radiological Emergency Assessment Center
RERO	Radiological Emergency Response Operations
RMS	Remote Monitoring System
RX	Reactor
SARA	Superfund Amendments and Reauthorization Act
SCO	State Coordinating Officer
SEOC	State Emergency Operations Center
SERC	State Emergency Response Commission
SHMO	State Hazard Mitigation Officer
SOP	Standard Operating Procedures

**Acronyms** (cont.)

SWMDT      State Weapons of Mass Destruction Team

TBD          To Be Determined

TSC          Technical Support Center

USEPA      U. S. Environmental Protection Agency

WMD          Weapons of Mass Destruction

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## I. INTRODUCTION

### ***Purpose***

The contents of this Illinois Human-Caused Hazard Mitigation Plan (ITHMP) are intended to provide the framework for Human-Caused hazard mitigation not only during the recovery and reconstruction process, but also on a year-round basis to identify current and proposed mitigation projects that will reduce the potential for future losses and decrease the costs to the taxpayers. The overall goals of this plan, and of the four documents comprising the Illinois Multi-Hazard Mitigation Plan (IMHMP), are universal in that they center on the need to protect lives and property, reduce the costs of disaster response, and minimize disruption to the state following a disaster. The IMHMP is comprised of four documents: three planning documents addressing natural hazards, Human-Caused hazards, respectively, along with the Illinois Multi-Hazard Mitigation Strategy (IMHMS) document. The Illinois Natural Hazard Mitigation Plan (INHMP) is the original mitigation plan for the State of Illinois, and is the comprehensive expression of the mitigation processes, programs, projects and strategies employed in the State of Illinois for hazard mitigation planning and plan implementations.

This plan, the plan for Human-Caused hazards, or the ITHMP, also includes the category of “Hazards Not-Otherwise Specified (NOS)”, which consists of those identified hazards that do not fit into the categories of natural, Human-Caused. The *Hazards N.O.S.* included in this plan as of this writing (March 2005), are the *Agricultural Epidemic* hazard, and the *Public Health Epidemic* hazard.

As previously stated, the plan will be referred to in this document, and in general, as the Illinois Human-Caused Hazard Mitigation Plan (ITHMP) to be consistent with the naming convention established by the Illinois Natural Hazard Mitigation Plan (INHMP), the central planning document in the Illinois Multi-Hazard Mitigation Plan. Throughout this plan, the processes, methods and strategies described are within the same general framework as the processes, methods and strategies described in detail within the INHMP. This plan does not contain detailed restatements of the processes, methods, strategies and overall approach to hazard mitigation planning in Illinois. Rather the ITHMP in supplement to the INHMP, and thus

contains additional information specific to the hazards identified in this ITHMP.

The Illinois Multi-Hazard Mitigation Plan will be used to increase awareness and initiate development of long-range, interagency, multi-hazard mitigation activities to be administered by the Illinois Emergency Management Agency (IEMA) and the Interagency Mitigation Advisory Group (IMAG) for the State of Illinois.

### **Scope**

The IHCHMP shall address those Human-Caused and “not otherwise specified” (NOS) hazards that have the potential to rise to the level of a regional or a statewide disaster. (In other words, those hazards presenting substantial risk to human life and private and public property with a potential to have a more widespread effect than a localized problem.) This plan focuses on Human-Caused hazards. Separate efforts are in place for natural and human caused hazards, and for hazards that are not otherwise specified such as public health and animal disease epidemics.

The IHCHMP presents mitigation plans for hazards themselves, rather than presenting mitigation plans for “events”. Emergency planning aimed at dealing with events is generally categorized as “response” planning. Thus, the mitigation plans for natural, technological, human-caused and “not otherwise specified” hazards, involve mitigation efforts that occur outside of a disaster or hazard event, either prior to or after an event has occurred.

### **Authority**

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended by (PL) 106-390 (Pre-Disaster Mitigation Program, Hazard Mitigation Grant Program and the Flood Mitigation Assistance Program - 44 CFR Part 78) addresses state mitigation planning, identifies new local mitigation planning requirements, authorizes Hazard Mitigation Grant Program (HMGP) funds for planning activities, and increases the amount of HMGP funds available to states that develop a comprehensive, enhanced mitigation plan. The Disaster Mitigation Act of 2000 (DMA 2000) emphasizes the importance of strong state and local

planning processes and comprehensive program management at the state level with a link in the planning process between the state and local mitigation programs. The Federal Emergency Management Agency (FEMA) has promulgated rules for implementation in 44 CFR Parts 201 and 206.

The Illinois Emergency Management Agency Act created IEMA and its authority to develop, plan, analyze, conduct, provide, implement and maintain programs for disaster mitigation, preparedness, response and recovery (20 ILCS 3305/5). Further, the Illinois Administrative Code restates the IEMA mandate to prepare the State of Illinois to deal with disasters, to preserve the lives and property of the people of the State and to protect the public peace, health and safety in the event of a disaster (29 Ill. Adm. Code 301.110).

### ***Illinois Characteristics***

#### **Environment and Climate**

The Illinois Environmental Protection Agency (IEPA) is the regulatory agency responsible for providing a unified, statewide program of environmental protection that is consistent with the social and economic needs of the citizens of Illinois.

The IEPA administers a wide range of programs designed to ensure clean air, water and land. Because the agency is sensitive to the needs of business and industry, it administers a coordinated review of permit applications to minimize delays in industrial permit issuance. The procedure brings together the agency's various programs to provide the convenience of "one stop" service.

The IEPA also maintains complete environmental data for all areas of the state. For example, businesses may access information about quality and quantity of water resources from streams and lakes for both treated and untreated water. The database also includes information on reserve

capacity, type of treatment for public water supplies and waste treatment facilities, and air quality information from a large network of air monitoring equipment.

Illinois is serious about planning for the waste disposal needs of the 21st century. Although approximately 13 years of capacity exists at 54 active solid-waste landfills, statewide solid-waste planning efforts are well underway. Currently, two hazardous waste landfills are active in Illinois, one with eight years capacity and the other with five years.

The IEPA also undertakes efforts aimed at pollution prevention. Efforts center on reducing the disposal and release of toxic substances, integrating existing regulatory programs to promote toxic pollution prevention and stimulating prevention strategies. The first program of this type began in 1991 with the cooperation of The Illinois Chamber. The Industrial Material Exchange Service (IMES), the third largest in the nation and largest in the Midwest, functions as an information clearinghouse; directory and marketing facilitator for materials that otherwise might be placed in landfills. To date, IMES has helped industries save or avoid disposal costs of more than \$112.5 million and has diverted the equivalent of 278.8 million gallons of waste from landfills.

The IEPA employs a large professional staff that is experienced in balancing the needs of the various constituencies to be served in the diverse economic climate that is Illinois.

In addition, the Illinois Department of Commerce and Economic Development administers the **Small Business Environmental Assistance Program**. This program helps small businesses understand and comply with state and federal air pollution regulations. Section 507 of the 1990 Clean Air Act Amendments requires each state to operate a small business assistance program, and this program was deliberately established at the state's non-regulatory commerce agency to alleviate small businesses fear of seeking assistance in answering environmental compliance questions.

The program serves as a free, confidential and non-regulatory resource to small business owners around the state. Through the program, professional staffs work as a liaison between small

businesses and state (IEPA) and federal (USEPA) regulators. The staffs create "plain language" publications, answer compliance questions, respond to written and verbal regulatory inquiries, coordinate environmental compliance workshops, and direct businesses to other pertinent technical assistance providers. Services include a toll-free help line (800-252-3998), on-site consultation, and permit applications on the DCEO website. Free business assistance tools include easy-to-read regulatory fact sheets and guides, a Directory of Environmental Consultants, and a quarterly newsletter called *Clean Air Clips*. All client information is confidential and remains anonymous to the Illinois EPA.

Over 109,000 businesses have benefited from the program services since its inception in 1994.

### **The Illinois Climate**

Illinois residents enjoy the variety of four distinct seasons. January high temperatures average near 30 degrees Fahrenheit in the north and the low 40s in Southern Illinois. In July, average highs vary from the mid-80s in Northern Illinois to near 90 degrees in Southern Illinois. April and October highs average in the low-60s in Northern Illinois and near 70 degrees in Southern Illinois. Northern Illinois experiences approximately ten days a year with temperatures below zero; Southern Illinois typically records only one day below zero. Northern Illinois averages 18 days each year with temperatures greater than 90 degrees, while Southern Illinois averages 45 days in the 90-plus range.

The wettest seasons are typically spring and summer, with about four inches of precipitation monthly; during fall and winter, only about one to two inches of precipitation are recorded. Average annual snowfall varies from near 38 inches in Northern Illinois to about 10 inches in Southern Illinois. Southern Illinois generally records only about three days per winter with snowfalls topping one inch; Northern Illinois typically averages about 12 such days each winter.

Illinois generally records about 220 sunny days each year and about 50 days with fog. Ground frost generally is found from late December until early April, reaching depths of nearly 30 inches in Northern Illinois, while Southern Illinois often records no significant ground frost. On

average, the state experiences five snowstorms each winter during which at least 10 percent of the state is impacted with six or more inches of snow.

In spring and summer, thunderstorms are the major source of precipitation, with five to seven thunderstorm days recorded during each of those months.

- Updated February 2004

## **Illinois Infrastructure**

### ***Transportation & Telecommunication***

Illinois' modern transportation system utilizes air, ground transportation, rail, waterways and telecommunications technologies to provide direct routes to every U.S. market and also international ports.

### ***Illinois Interstate Highways***

Illinois lies at the heart of the nation's interstate highway system. Three coast-to-coast interstates (I-70, I-80, and I-90) pass through Illinois. These are joined by major north-south interstates, including I-39, I-55, and I-57; major east-west interstates that include I-24, I-64, and I-74; as well as I-72, I-94, I-88 and I-155. In all, 2,164 miles of interstate highway serve Illinois. Only two states have more interstate miles. Illinois also benefits from major east/west/north/south interchanges located in more than a dozen communities around the state. Augmenting the interstates are over 35,000 miles of state highways, making the interstate routes accessible from every region of Illinois. It's no wonder that Illinois is home to more than 5,700 trucking companies.

### ***Illinois Railroads***

Illinois is the center of the nation's rail network. Chicago is the largest U.S. rail gateway, and another major rail center is located in East St. Louis. In all 56 railroads are able to provide service from Illinois to every part of the United States.

*The Illinois Air Transport System*

Illinois' central location makes it a natural hub for air travel. Home to Chicago's O'Hare International Airport (the world's busiest airport), as well as a major commuter hub at Midway Airport and with more than 118 public use airports, 273 heliports and over 1,000 aviation facilities, Illinois is a convenient location for those needing air transport. In fact, an airport with commercial airline service or the capability to handle business jets serves virtually every Illinois city with a population exceeding 30,000. With over 1.6 million tons of cargo and approximately 69 million travelers passing through O'Hare each year and more than one arrival or departure every minute, it's obvious that travelers have maximum scheduling flexibility in Illinois.

*Illinois Waterways*

Illinois has 1,118 miles of navigable waterways bordering or passing through the state. These waterways provide Illinois with a link between the Atlantic Ocean (through the St. Lawrence Seaway and Great Lakes) and the Gulf of Mexico. The Port of Chicago offers terminals that handle ocean and lake vessels, as well as barges. Owned by the Illinois International Port District, the Lake Michigan port is served by seven railroads and has direct access to Interstates 90 and 94. There are also 12 other port districts in Illinois. Both the Illinois International Port District and the Tri-City Regional Port District near St. Louis are Foreign Trade Zones, providing low-cost production and warehousing facilities for imported and export-bound products. (Foreign trade zones also are located in Peoria, Lawrenceville, Rockford and the Quad Cities.)

**II. ILLINOIS HUMAN-CAUSED HAZARD MITIGATION PLAN PROCESS**

The Illinois Emergency Management Agency (IEMA), Bureau of Disaster Assistance and Preparedness (DA&P) prepared the Illinois Human-Caused Hazard Mitigation Plan (ITHMP). IEMA is responsible for leading and coordinating Human-Caused mitigation and long-term redevelopment efforts. The IEMA DA&P organized the Illinois Human-Caused Hazard Mitigation Planning Committee (ITHMPC), composed of representatives from State government, to assist the DA&P division in preparing the Plan. Members of this committee are also members of the larger Interagency Mitigation Advisory Group (IMAG). This committee

## *2007 ILLINOIS HUMAN-CAUSED HAZARD MITIGATION PLAN*

met to formulate the planning process, to provide knowledge and expertise, to discuss issues and concerns, to identify resources and mitigation measures, to interact and implement mitigation decisions and to review planning documents and the Plan. Later in the planning process the committee members met on an as needed basis at the direction of the IEMA DA&P. The Plan was completed over a three-month period.

During this three-month process the committee coordinated the development of the Plan, recognized and incorporated other sources of expertise and resources and established a mitigation strategy to protect the citizens of Illinois including life, property, environment and economic interests. Each participating agency was able to introduce it's programs, name, classify and pinpoint mitigation opportunities and subsequently comment on the preliminary and draft versions of the Plan. Appropriate comments were incorporated into the final version of the Plan and the final version was distributed to the participating agencies.

**ILLINOIS HUMAN-CAUSED HAZARD MITIGATION PLANNING COMMITTEE**

Agency	Hazard(s) Addressed
Illinois Central Management Services	Cyber Attack
Illinois Department of Agriculture	Animal Disease Epidemic
Illinois Department of Public Health	Public Health Epidemic
Illinois Terrorism Task Force	Terrorism CBRNE Civil Disturbance Cyber Attack

The Illinois Human-Caused Hazard Mitigation Planning Committee members were drawn from the Interagency Mitigation Advisory Group (IMAG). The IMAG concept brings together those agencies that can and do contribute staff, expertise and funding to mitigation efforts in Illinois. IMAG is composed of members from, but not limited to, agencies involved in emergency management, natural resources, environmental regulations, historic preservation, planning and zoning, community development, construction regulation, public information and insurance, Federal, State and local levels of government, private non-profit organizations and academic fields who have expertise in mitigation and who can offer technical assistance. This group meets annually and has the following responsibilities:

- 1) Establishing policies consistent with the State’s mitigation goals.
- 2) Developing a comprehensive strategy for the development, integration and implementation of the State’s mitigation programs.

### **III. HAZARD IDENTIFICATION and RISK ASSESSMENT (HIRA)**

#### **Illinois HIRA Process**

The Illinois Human-Caused Hazard Mitigation Planning Committee performed a technical review and evaluated all of the Human-Caused hazards shown in the Federal Emergency Management Agency “State and Local Mitigation Planning how-to guide” entitled “Integrating Manmade Hazards into Mitigation Planning”. The committee decided to divide the potential Human-Caused hazards into three categories: those extremely unlikely to occur in Illinois, those with low probability and minimal impact, or Human-Caused hazards that have in the past and in all probability will continue to impact Illinois at various levels of severity and frequency. The following pages extensively discuss the hazards with an impact: Terrorism (Chemical, Biological, Radiological, Nuclear, and Explosive), Civil Disobedience, Cyber, and both Public Health and Agricultural epidemics.

## **Human-Caused Hazards Identified**

### **Terrorism CRBNE - Hazards**

#### **Description/Profile**

Through Executive Order (2003-17), the Governor of the State of Illinois established the Illinois Terrorism Task Force (ITTF) as a permanent body, vested with powers and duties, which are described in detail. Through the ITTF, the State of Illinois has implemented specific missions, strategic goals/measures, and processes for terrorism preparedness activities.

As a mechanism to classify and establish preparedness and mitigation efforts for the wide range of terrorism related events, three (3) event structures are considered for definition. The event structures allow for the most flexible approach to terrorism events, while recognizing the unique and often times multi-level processes involved at each incident.

**Cascading Events:** Cascading events, simply defined, are presented over time (short and long term durations). Events of this nature may be preceded with an event(s) that presents a non-terrorism related profile. Too, the profile may be wide spread and not be readily identifiable as interlocking or associated. Time progression however, coupled with the correlation and compilation of intelligence data, presents the event as both a terrorist and interlocking series of incidents.

**Pre-Planned Events:** Pre-Planned events can be defined best by example. Inaugural Events, Presidential Museum Openings, U.S. Golf Tournaments, and fairs attended by significant populations or focus groups fall into this category. Preparedness efforts allows for the State of Illinois to determine asset structure and deployment requirements, posture, Area of Operations, and similar pre-event considerations. The length of time prior to, and structure of, the event determines the needs and success of the final response posture.

**Immediate Events:** Immediate events are defined as incidents that require the prompt, effective deployment of state and non-state assets, to identify, render safe, mitigate, decontaminate and

recovery from known or suspected agents. Time of deployment and intelligence are the critical factors in responding to immediate event incidents.

Taken in the broad-scope of a hazard, terrorism associated mitigation efforts are often times governed by Federal regulation. The State of Illinois supports the efforts through preparedness activities including, but not limited to the adoption and implementation of guidance; production and distribution of public information brochures, development and implementation of training programs; equipping of State and local responders; and monthly meetings of the combined ITTF Committee Membership.

**Human-Caused Hazards**

**TERRORISM CRBNE**

**IDENTIFICATION - DEFINITION**

Our identified hazard is terrorism involving chemical, radiological, biological, nuclear, and explosives sources. Terrorism is the systematic use of violence to achieve a political goal. While the methods of terrorists may vary, the intent is to create intense fear and to force someone into taking a course of action. Terrorism actually is a form of warfare conducted by individuals or small groups who seek political change through intimidation. In this kind of war, the terrorists do not have sufficient strength to fight on a battlefield or even to sustain a guerilla war against the opposing forces. Instead terrorists usually threaten or attach government facilities, businesses, and even ordinary citizens of the target countries.

## Civil Disobedience Hazards

### Description/Profile

<b>Human-Caused Hazards</b> <b>CIVIL DISTURBANCE</b>
<b>IDENTIFICATION - DEFINITION</b>
<p>Any incident that disrupts a community where intervention is required to maintain public safety is a civil disturbance. Examples are demonstrations, riots, strikes, public nuisances, and criminal activities.</p> <p>The potential for civil disturbance exists in the state of Illinois. There are major population centers with populations in excess of 100,000 and smaller communities with government offices and colleges. Cities with unions, capabilities of hosting world venues, and ethnic groups are likely areas for civil disturbance. Large-scale sporting and entertainment events, along with conferences, provide potential climate for demonstrations and possible civil unrest/civil disturbance hazards. Major sports teams are located in Chicago, the largest city in Illinois. The opportunity for the hazard to emerge exists literally anywhere there are gatherings of people, on a scale from small to large. Accordingly, our planning, training and resource management must address this potential hazard.</p>

## Cyber Attack

### Description/Profile

CMS provides information technology services on a variety of levels for many state agencies, including services that have a direct function and/or impact on law enforcement, health, life-safety, and continuity of government in Illinois. Any IT system that is connected through networks and/or accesses the Internet is subject to the risk of cyber intrusion or attack. An intruder attack or manipulation may be a deliberate effort to gain access to the state's systems or

processes; or it may be the result of a randomly initiated threat, such as a worm or virus. Possible results of such a threat include but are not limited to theft or corruption of data, loss or theft of privileged information, and theft of personal or system identity.

CMS's Bureau of Communication and Computer Services (BCCS) have responsibility for information technology functions. The bureau includes staff that specialize in mainframe, system storage, information security, application development, LAN, Unix/AIX, and web systems and design. They are responsible for assisting with IT support and resources to responding state agencies with Category 1 applications, such as IEMA (including the State Emergency Operations Center) and the Illinois State Police. CMS regularly communicates with user agencies to determine the appropriate priority level of the services that CMS provides. Category One resources are those classified as mission critical for human safety; Category Two resources are those that involve Welfare and Human Services; Category Three resources apply to Non-welfare Human Services; Category Four are resources that support state administrative functions and processes; and Category Five resources support agency-specific functions. Maintenance and restoration of service is prioritized based upon these classifications.

BCCS IT staffs maintain an up-to-date, detailed disaster recovery plan and exercised it annually (at a minimum). Each critical IT section has designated a back-up site from which it can reestablish crucial business functions. Exercises regularly include simulated recovery of computerized operations utilizing media from off-site storage locations with restoration performed at a recovery site other than the normal production site. Migration back to the primary site is simulated as a reverse of the recovery process. As a precaution against power failure/disruption, primary and back-up facilities for IT functions are equipped with UPS's, generators, and extra fuel supplies or have them on reserve.

The Information Services Division Recovery Activation Plan includes call lists and contact information for all critical staff. BCCS may respond with its own staff, contractual staff, or utilize its contracted recovery services vendor. BCCS also keeps a limited supply of extra IT equipment and cabling that could be utilized in response to a disaster.

BCCS employs a variety of IT security mechanisms. Secure passwords are required for access to all computer files and systems, and back-up tapes are generated at frequent intervals. On a regular basis, CMS creates back-up tapes that include Category 1 operating systems; the tapes are rotated in an off-site storage vault. Each individual agency is encouraged to make copies of critical applications and data, and agencies are given the opportunity to also store rotating tapes in the off-site vault. CMS's anti-virus software (using multiple applications) is up-dated approximately every four hours, including e-mail protection. The CMS Data Center in Springfield and the computer facility in the James R. Thompson Center in Chicago are equipped with FM-200 fire suppression systems to provide computer-safe fire control.

<b>Human-Caused Hazards</b>
<b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b>
<b>IDENTIFICATION - DEFINITION</b>
The Cyber-Attack – Information Systems Disruption hazard has been identified as the actual or potential disruption of the State of Illinois government information systems.

### **Mitigation Strategy Recommendations 23-25: Cyber Security**

Cyber security is an emerging and crucial concern as utility companies become increasingly dependent on information and support provided through vast computer systems. The Illinois Special Task Force recommends:

1. The Illinois Commerce Commission review and, where appropriate, implement the findings from the bi-national *Outage Task Force Report* and the NERC Critical Infrastructure Protection Advisory Group.
2. The Illinois Commerce Commission shall review electric utility company background/security checking programs for new employees and contractors to ensure the programs properly

correspond to the risk involved for the designated positions. The program should also be sensitive to the nature of the facility (e.g. nuclear; fossil).

3. The utility companies should reconfigure the Supervisory Control and Data Acquisition (SCADA) system to remove the offsite/remote access units. The computer systems of utility companies should contain adequate measures and protocols, consistently updated, to protect against the potential of a malicious cyber attack.

63 U.S.-Canada Power System Outage Task Force, *August 14th Blackout: Causes and Recommendations*, April, 2004, page 131

Final Report of the Special Task Force: *System Safety and Security*

## **Agricultural Epidemic**

### **Description/Profile**

There are a large number of cultivated plant and livestock diseases that could occur in Illinois. Some diseases are very minor in impact, while others could be devastating to the livestock industry and to the economic welfare of the state. In addition, there are a number of diseases that also have a human health impact. Almost all the bio-terrorist agents of concern today also can affect cultivated plants and livestock as well.

Several serious animal disease outbreaks have occurred outside the United States recently. Foot and Mouth Disease in Taiwan's swine population in 1997 resulted in the slaughter of more than five million hogs. The recent Classical Swine Fever (Hog Cholera) epidemics in the United Kingdom, Mexico, and the Netherlands have resulted in the slaughter of more than 10 million hogs. Ongoing problems with this disease in Haiti, Cuba, and the Dominican Republic continue to be a threat to the U.S. swine industry. The occurrence of Bovine Spongiform Encephalopathy (BSE) in Great Britain has resulted in a large number of beef and dairy cattle destroyed and the disease continues to be identified. The importation of animal products from foreign countries,

the ease of travel throughout the world, the lifting of restrictions on animal health movement as a result of Free Trade Agreements, and the presence of international airports underscore Illinois' vulnerability to an outbreak of an EAD.

Although concerns about animal diseases are increasing, the public gives it little attention. Protecting animal agriculture in the United States requires cooperation, participation and partnership. While the USDA has assumed leadership in combating the EAD problem, they do not have the resources or the desire to assume these responsibilities alone. Consideration must be given to the fact that an outbreak of an EAD within the State of Illinois could be devastating to the economy. The State/local response is the first line of defense in an animal health disaster, the quality of which likely will determine the final economic impact to the State.

Natural and man-made disasters have been occurring with increasing frequency worldwide. With the advent of large animal production facilities and an ever-increasing pet population, the need for a disaster response plan is imperative. Local response to a disaster is limited and federal response will be secondary or non-existent.

**Human-Caused Hazards**  
**AGRICULTURAL EPIDEMIC**

**IDENTIFICATION - DEFINITION**

An epidemic refers to the outbreak and rapid spread of a disease in a community affecting a significant number of people or animals in a relatively short period of time.

Agriculture is the process of producing food, feed, fiber and other desired products by cultivation of certain plants and the raising of domesticated animals (livestock). Agriculture is also known as farming. An agricultural epidemic, therefore, is an epidemic stemming from cultivated plants and/or livestock sources.

## **Mitigation Efforts**

Illinois' agricultural livestock industry plays a critical role in the state economy. The threat of introducing a disease to cultivated plants and/or a foreign animal disease in the United States, either through natural or intentional means, remains high. Cooperation among states is essential to prevent, identify, eradicate and recover from a foreign animal disease. As a result, plans for mitigation of this hazard include:

- 1) Expanding the scope of the Central States Animal Emergency Coordinating Council (CSAECC). To enhance the effectiveness of responding to a foreign animal disease, the CSAECC should share the results of its activities and expand into other states. The CSAECC plans to work with states in the Midwest Governor's Conference and the Midwest Association of State Departments of Agriculture (MASDA) to broaden the scope of the Council to include other states. A logical function of this expansion would be to conduct a functional exercise with the larger group.
- 2) Develop an electronic tracking system. One component of the grant proposed to develop and implement an electronic tracking system for animal movement and animal disease surveillance. Grant funds are insufficient to develop a system (hardware, software, and data gathering) that would adequately address animal movement in a foreign animal disease outbreak or animal emergency. Additionally, USDA has stated its authority in developing this tracking and monitoring protocol. The Council remains ready and willing to immediately work with USDA to conduct a pilot project that tests an electronic tracking system that can be duplicated nationwide.
- 3) Seek additional funding. Additional funding will be needed to maintain the Council, the relationships that have been developed, and the response to a foreign animal disease/animal emergency.
- 4) Address technology, personnel and communication needs. Many states have fundamental needs in these areas, including: a) GPS mapping of livestock and all the hardware and software

required, b) training for veterinarians, lab staff, livestock producers and others to create a corps of first responders at the local level, and c) a group of identified epidemiologists who are familiar with the response plan and able to leap into action on a moment's notice.

5) Expand relationships with USDA/APHIS personnel. Federal/state cooperation could be enhanced through greater federal participation in regional exercises.

6) Coordinate a network of state labs to maintain routine diagnoses in extraordinary circumstances. Approximately one-third of the animal disease diagnostic labs in the US are represented in the Council. The Council urges USDA to expand the number of labs eligible to perform FAD testing to maintain routine diagnoses in extraordinary circumstances.

## Public Health Epidemic

### Description/Profile

<b>Human-Caused Hazards</b> <b>PUBLIC HEALTH EPIDEMIC</b>
<b>IDENTIFICATION - DEFINITION</b>
<p>An epidemic refers to the outbreak and rapid spread of a disease in a community affecting a significant number of people or animals in a relatively short period of time.</p> <p>A public health epidemic could be any condition that affects or has the potential to affect the public health of the citizens of Illinois. Some examples could be a pandemic influenza outbreak, a smallpox outbreak, an <i>e coli</i> 0157:H7 outbreak, and a terrorist event involving anthrax.</p>

## **Mitigation Efforts**

An example of one of the mitigation efforts performed by the IDPH is the Immunization Program for Pandemic Influenza. The Immunization Program promotes the use of vaccinations to prevent the occurrence and transmission of diseases; distributes vaccines to public and private providers statewide through the Vaccines For Children Plus program; conducts surveillance and investigation of preventable childhood and adult diseases; provides educational and motivational resources to providers, day care centers, schools, colleges, hospitals and the general public through community partnerships with public campaigns, community coalitions, volunteer groups, vaccine manufacturers, professional organizations and federal agencies; conducts assessment of vaccine coverage levels among various target populations; conducts quality assurance reviews of clinics and providers using any federally purchased vaccines; implements initiatives as required by CDC to accomplish objectives set forth in annual grant guidance and the Healthy People 2010 goals.

In coordination with the University of Illinois - School of Public Health (UIC-SPH) and the Center for Advancement of Distance Education at the University of Illinois at Chicago (CADE-UIC), IDPH developed a Learning Management System (LMS) capable of delivering 60 courses provided by UIC-SPH and the IDPH Training and Resource Center (TRC) on bio-terrorism preparedness and response and public health.

The LMS includes workforce development data training needs assessment, course registration, learning evaluation and a course clearinghouse. It maintains training needs, assessment data, individual and agency training record keeping, and course participation for staff in all local and state public health agencies in Illinois.

IDPH partnered with the Illinois Public Health Association, Illinois Department of Human Services and the Regional Offices of Education throughout Illinois to produce training programs which address bio-terrorism preparedness and response for school superintendents, principals, administrators, and school nurses.

The Division of Laboratories prepared an informational packet to distribute to State of Illinois hospital labs. This packet included a CDC Bio-safety training video, CDC Response to Bio-terrorism videos, IDPH reporting requirements, Level A laboratory training manual, shipping instructions for Infectious/Diagnostic specimens, public health laboratory contacts, and other CDC informational items.

IDPH implemented an emergency alert system in early May 2003. It can send alerts to all local health departments, hospital emergency rooms, laboratories, and other public health partners. Alerts can be sent via fax, e-mail, voice (land and cell phone), and pager (numeric and alpha) and will be sent simultaneously via a multi-cast mechanism. Alert groups have been developed within the system. The categories are dependent on different emergency event scenarios. This system is tested on a regular basis to ensure applicability.

### ***Operational Experience and Likelihood of Occurrence***

The State of Illinois experiences events that require reporting and/or response on a routine basis. Operationally the experience gained from these activities allows Illinois the unique opportunity to use both historical perspective and hypothesis to develop and implement a comprehensive mitigation strategy against all identified threats. Provided below are reporting data for specific incidents.

### ***Illinois Hazard Rating Process***

The overall objective of this process is to devise a method to compare and evaluate Human-Caused hazards in Illinois. In order to accomplish this task, a period of time was selected, data was collected on the Human-Caused hazards and categories for evaluation were identified. These categories were sub-divided into three divisions and scores for each division were given. The exact procedure is discussed in the next several pages and this section is concluded with a table revealing the results of this process.

There are four categories (Historical/Probability, Vulnerability, Severity of Impact and Population) that will identify and define the ratings of each hazard, noted in the five tables on the next three pages. The first table will identify what has occurred in the past as a guide to projecting the probability for future occurrences. The second table will identify the number of citizens who might be impacted based on individual criteria identified in the methodology. The third table will estimate the severity by considering health and safety, continuity of operations, property, facilities, infrastructure, environment, economic and financial situation. The fourth category is population with two tables: table 4A is based on the 2000 census population and table 4B is based on the projected population growth for the next ten years.

The first three tables are weighted three times as much as the last two tables combined. Each hazard (for example flood) will have a score from each of the five tables. These tables are displayed and the score to be used is identified on the following pages by table. This last column under each hazard will be the total overall score of the five tables. This overall score will be evaluated, as shown below:

- Low – 0 to 12 (green)
- Guarded – 13 to 24 (blue)
- Elevated – 25 to 36 (yellow)
- High – 37 to 48 (orange)
- Severe – 49 to 60 (red)

For example, under flood there will be a number from each of the five tables. These five numbers will be totaled to arrive at the overall risk for floods. This rating process is being done by county for all major natural hazards in Illinois. These numbers will be transferred onto a separate spreadsheet by county and colored coded as indicated above to readily indicate the hazard ratings.

-The number of times that a disaster has occurred in a jurisdiction in the past 50 years

**1) HISTORICAL/PROBABILITY (frequency)**

-The information is being used to determine and evaluate the likelihood for future disasters

Low (6)	0 to 10 occurrences in the last 50 years
Medium (12)	11 to 50 occurrences in the last 50 years
High (18)	More than 50 occurrences in the last 50 years

**2) VULNERABILITY (percentage of people)**

-The relationship of where people live in or near the hazard area  
 -The percentage of people that will be adversely affected should the hazard occur

Low (6)	Less than 10% of the total population of the jurisdiction
Medium (12)	10% to 25% of the total population of the jurisdiction
High (18)	More than 25% of the total population of the jurisdiction

**3) SEVERITY OF IMPACT (injuries, fatalities, personal property & infrastructure)**

-The worst conceivable impact to human life and property, which could result from a hazard  
 -The essential facilities are defined for this purpose as PUBLIC SAFETY (fire, police & local government) and UTILITIES (electric, gas, telephone water & sewer)

Low (6)	Minor injuries (under 50) & property damage (under \$1,000,000), or less than 24 hour shutdown of essential facilities
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Medium (12)	Serious injury (more than 50), major property damage (structural stability) (\$1,000,001 to \$15,000,000), or 24 to 72 hour shutdown of essential facilities
High (18)	Multiple deaths (more than 5), property destroyed or damaged beyond repair (More than \$15,000,000), or more than 3 days of shutdown for essential facilities

**POPULATION-COMBINED FOURTH CRITERIA based on 1/3 the value of the above tables.** The committee was instructed to include growth as a factor for the risk assessment. After a review of the data the committee concluded that giving the future growth equal weight with the other factors skewed the risk assessment. Counties range in population from approximately 5,000 to 5,000,000. To say a population growth of 25% in a smaller county (1, 250) would have more of an impact than a larger county with 10% growth (500,000) was not acceptable to the committee.

The committee also determined that because of the large population disparity between counties the Vulnerability and Severity of Impact didn't fully distinguish the quantity of people that could be exposed to risk. The committee decided to give the population of the counties equal weight with the growth factor. The planning committee discussed the impact of population on the risk assessment at length. While population is acknowledged to be an important factor to be considered, it is of lesser significance than the first three criteria and has been assigned 1/3 the value. On a scale of 100 the first three tables would receive 30 each and the remaining 10 was allocated to population.

**4A) POPULATION (number in jurisdiction)**

- The actual 2000 population census figure per jurisdiction
- The quantity will be used to identify a slight increase in risk

Low (1)	0 to 100,000 population in the jurisdiction
Medium (2)	100,001 to 500,000 population in the jurisdiction
High (3)	More than 500,000 population in the jurisdiction

**4B) POPULATION GROWTH (percentage of increase)**

- The projected population growth in a jurisdiction over the next 10 years
- The population growth estimates will be used to identify a potential increase to risk

Low (1)	% of decrease to 10% projected population increase in the jurisdiction
Medium (2)	11% to 25% projected population increase in the jurisdiction
High (3)	More than 25% projected population increase in the jurisdiction

- 1 Likelihood of Occurrence
2. Vulnerability of people, property, environment, and the entity itself

***Rating Human-Caused Hazards***

This section required an individual analysis by hazard, as indicated below:

- Human-Caused Hazards - All counties are susceptible to the hazards identified regardless of intentional or accidental events.
- Scope and Magnitude - Illinois is nearly 56,000 square miles in size, with the average county around 545 square miles. The effects of Human-Caused Hazards vary greatly based on the scope and magnitude. Each county requires individualized and incorporated analysis and cannot be adequately described within the confines of this document.

- Illinois is the home of multiple “high-risk” facilities that have been identified on both the State and Federal levels. In addition, Illinois has a robust network of transportation, financial, and commodities markets within its’ borders.

#### IV. MITIGATION STRATEGY CONSIDERATIONS

##### ***Terrorism CBRNE***

<p>Human-Caused Hazards</p> <p><b>TERRORISM CBRNE</b></p>
<p>MITIGATION STRATEGY CONSIDERATIONS</p>
<p><i>(a) The use of appropriate building construction standards</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “use of appropriate building construction standards” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for construction are in-place outside of this context.</p>
<p><i>(b) Hazard avoidance through appropriate land-use practices</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “avoidance through appropriate land practices” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for land-use practices are in-place outside of this context.</p>
<p><i>(c) Relocation, retrofitting, or removal of structures at risk</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the hardening of critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for relocation, retrofitting, or removal of structures at risk are in-place outside of this context.</p>

<p><b>Human-Caused Hazards</b></p> <p><b>TERRORISM CBRNE</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><i>(d) Removal or elimination of the hazard</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “removal or elimination” of hazard(s) at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for removal or elimination of hazard(s) are in-place outside of this context.</p>
<p><i>(e) Reduction or limitation of the amount or size of the hazard</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “reduction or limitation” of hazard(s) at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for reduction or limitation of hazard(s) are in-place outside of this context.</p>
<p><i>(f) Segregation of the hazard from that which is to be protected</i></p>
<p>Through established guidance, Illinois supports and assists in the segregation of a hazard(s) at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for segregation of hazard(s) are in-place outside of this context.</p>
<p><i>(g) Modification of the basic characteristics of the hazard</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “modification of a hazard” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for modification are in-place outside of this context.</p>

<p><b>Human-Caused Hazards</b></p> <p><b>TERRORISM CBRNE</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><i>(h) Control of the rate of release of the hazard</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “release of a hazard(s)” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for release are in-place outside of this context.</p>
<p><i>(i) Provision of protective systems or equipment</i></p>
<p>Through established guidance, Illinois supports and assists in the “provision of/for protective systems or equipment” at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for protective equipment/systems are in-place outside of this context.</p>
<p><i>(j) Establishment of hazard warning and communication procedures</i></p>
<p>Through established guidance, Illinois supports and assists in the “development and implementation of warning and communication systems” at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for warning and communication systems are in-place outside of this context.</p>
<p><i>(k) Redundancy or duplication of critical systems, equipment, information, operations, or materials</i></p>
<p>Through established guidance, Illinois supports and assists in the “redundancy or duplication of critical systems, equipment, information, operations, or materials” at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and</p>

Human-Caused Hazards <b>TERRORISM CBRNE</b>
MITIGATION STRATEGY CONSIDERATIONS
“standards” for redundancy or duplication of critical components are in-place outside of this context.

***Civil Disturbance***

Human-Caused Hazards <b>CIVIL DISTURBANCE</b>
MITIGATION STRATEGY CONSIDERATIONS
<i>(a) The use of appropriate building construction standards</i>
The State of Illinois does not have legislation or regulation governing the “use of appropriate building construction standards” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for construction are in-place outside of this context.
<i>(b) Hazard avoidance through appropriate land-use practices</i>
The State of Illinois does not have legislation or regulation governing the “avoidance through appropriate land practices” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for land-use practices are in-place outside of this context.

<p><b>Human-Caused Hazards</b></p> <p><b>CIVIL DISTURBANCE</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><i>(c) Relocation, retrofitting, or removal of structures at risk</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the hardening of critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for relocation, retrofitting, or removal of structures at risk are in-place outside of this context.</p>
<p><i>(d) Removal or elimination of the hazard</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “removal or elimination” of hazard(s) at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for removal or elimination of hazard(s) are in-place outside of this context.</p>
<p><i>(e) Reduction or limitation of the amount or size of the hazard</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “reduction or limitation” of hazard(s) at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for reduction or limitation of hazard(s) are in-place outside of this context.</p>

<p><b>Human-Caused Hazards</b></p> <p><b>CIVIL DISTURBANCE</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><i>(f) Segregation of the hazard from that which is to be protected</i></p>
<p>Through established guidance, Illinois supports and assists in the segregation of a hazard(s) at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for segregation of hazard(s) are in-place outside of this context.</p>
<p><i>(g) Modification of the basic characteristics of the hazard</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “modification of a hazard” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for modification are in-place outside of this context.</p>
<p><i>(h) Control of the rate of release of the hazard</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “release of a hazard(s)” for events related to CBRNE. Existing local, State, and Federal regulation detailing the “type” and “standards” for release are in-place outside of this context.</p>
<p><i>(i) Provision of protective systems or equipment</i></p>
<p>Through established guidance, Illinois supports and assists in the “provision of/for protective systems or equipment” at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for protective equipment/systems are in-place outside of this context.</p>

<p>Human-Caused Hazards</p> <p><b>CIVIL DISTURBANCE</b></p>
<p>MITIGATION STRATEGY CONSIDERATIONS</p>
<p><i>(j) Establishment of hazard warning and communication procedures</i></p>
<p>Through established guidance, Illinois supports and assists in the “development and implementation of warning and communication systems” at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for warning and communication systems are in-place outside of this context.</p>
<p><i>(k) Redundancy or duplication of critical systems, equipment, information, operations, or materials</i></p>
<p>Through established guidance, Illinois supports and assists in the “redundancy or duplication of critical systems, equipment, information, operations, or materials” at critical or high-risk facilities. Guidance is reviewed and established through the Illinois Terrorism Task Force, Federal government, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for redundancy or duplication of critical components are in-place outside of this context.</p>

**Cyber Attack – Information Systems Disruption**

<p>Human-Caused Hazards</p> <p><b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b></p>
<p>MITIGATION STRATEGY CONSIDERATIONS</p>
<p><i>(a) The use of appropriate building construction standards</i></p>
<p>With relationship to security -- using shielding to protect systems from wireless remote access</p>

<p>Human-Caused Hazards</p> <p><b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b></p>	
<p>MITIGATION STRATEGY CONSIDERATIONS</p>	
<p><i>(b) Hazard avoidance through appropriate land-use practices</i></p>	
<p>NA - Land use will not affect cyber security. Nor will changing structures, as these physical features</p>	
<p><i>(c) Relocation, retrofitting, or removal of structures at risk</i></p>	
<p>NA --- are not the elements at risk during a cyber attack.</p>	
<p><i>(d) Removal or elimination of the hazard</i></p>	
<p>To eliminate the hazard, one would have to cut off the IT systems from external communications. This would defeat that system's primary function.</p>	
<p><i>(e) Reduction or limitation of the amount or size of the hazard</i></p>	
<p>If caught quickly enough, a cyber attack can sometimes be isolated and rendered less harmful.</p>	
<p><i>(f) Segregation of the hazard from that which is to be protected</i></p>	
<p>Use of firewalls within the network for additional protection for critical servers/files.</p>	
<p><i>(g) Modification of the basic characteristics of the hazard</i></p>	
<p>If a cyber attack is detected, the goal is to eradicate, not modify.</p>	

<p>Human-Caused Hazards</p> <p><b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b></p>	
<p>MITIGATION STRATEGY CONSIDERATIONS</p>	
<p><i>(h) Control of the rate of release of the hazard</i></p>	
<p>Slowing a cyber attack is often not practicable and will not eliminate the threat, though it may allow more time for staff to respond to isolate it.</p>	
<p><i>(i) Provision of protective systems or equipment</i></p>	
<p>Anti-virus software, firewalls, password-protected systems, anti-spy ware, human monitoring of the system, back-up tapes and equipment</p>	
<p><i>(j) Establishment of hazard warning and communication procedures</i></p>	
<p>Anti-virus programs that notify staff when an intrusion is detected; human monitoring of the system; emergency call and notification lists; automated alert systems.</p>	
<p><i>(k) Redundancy or duplication of critical systems, equipment, information, operations, or materials</i></p>	
<p>Back-up hardware and software; hot, independent alternate sites; several copies of back-up tapes at more than one location; rotate back-up tapes regularly and create new ones often.</p>	

**Agricultural Epidemics**

<p>Human-Caused Hazards</p> <p><b>AGRICULTURAL EPIDEMIC</b></p>
<p>MITIGATION STRATEGY CONSIDERATIONS</p>
<p><i>(a) The use of appropriate building construction standards</i></p> <p>The State of Illinois does not have legislation or regulation governing the “use of appropriate building construction standards” for events related to Agricultural Epidemic. Existing local, State, and Federal regulation detailing the “type” and “standards” for construction are in-place outside of this context. Depending on the location, production units with outdoor exposure cannot always control animals and birds access to livestock or feed. These producers are made aware of the need to be more cautious and more observant. Personnel shower facilities should be designed into new construction. Perimeter fencing should be installed.</p>
<p><i>(b) Hazard avoidance through appropriate land-use practices</i></p> <p>The State of Illinois does not have legislation or regulation governing the “avoidance through appropriate land practices” for events related to Agricultural Epidemic. Existing local, State, and Federal regulation detailing the “type” and “standards” for land-use practices are in-place outside of this context. Because control of birds, wildlife and rodents is difficult in an outdoor system, producers are encouraged to move large hog and poultry operations indoors. Growers are also encouraged to store crops and feed under cover or inside.</p>
<p><i>(c) Relocation, retrofitting, or removal of structures at risk</i></p> <p>Through established guidance and/or agreement, Illinois supports and assists in the hardening of critical or high-risk facilities. Guidance is reviewed and established through the Department, USDA, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for relocation, retrofitting, or removal of structures at risk are in-place outside of this context. When relocating structures, we recommend consideration be given to locating operations away from public roads and other confinement operations.</p>

<p><b>Human-Caused Hazards</b></p> <p><b>AGRICULTURAL EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p>510 ILCS 50/1 Illinois Diseased Animals Act Title 8, Chapter I, Subchapter b, Part 85</p>
<p><i>(d) Removal or elimination of the hazard</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “removal or elimination” of hazard(s) at critical or high-risk facilities. Guidance is established and reviewed through the Department, ITTF, USDA, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for reduction or limitation of hazard(s) are in-place outside of this context. Ideally, large livestock confinement operations should be no closer than 2 miles from one another. If not possible, they should be at least 300 yards apart.</p>
<p><i>(e) Reduction or limitation of the amount or size of the hazard</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “reduction or elimination” of hazard(s) at critical or high-risk facilities. Guidance is established and reviewed through the Department, ITTF, USDA, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for removal or elimination of hazard(s) are in-place outside of this context. It is recommended that consideration be given to limiting the size of individual confinement operations to lesson the risk of introduction of disease pathogens that could put all of the livestock at risk. The same consideration should be made for grain storage.</p> <p>225 ILCS 610/1 Illinois Dead Animal Disposal Act Title 8, Chapter I, Subchapter b, Part 90                      510 ILCS 30/1 Illinois Bovine Brucellosis Eradication Act Title 8, Chapter I, Subchapter b, Part 75                      510 ILCS 35/1 Illinois Bovidae and Cervidae Tuberculosis Eradication Act Title 8, Chapter I, Subchapter b, Part 80                      510 ILCS 50/1 Illinois Diseased Animals Act Title 8, Chapter I, Subchapter b, Part 85                      510 ILCS 65/1 Illinois Equine Infectious Anemia Control Act Title 8, Chapter I, Subchapter b, Part 116                      510 ILCS 90/1 Illinois Pseudorabies Control Act Title 8, Chapter I, Subchapter b, Part 115                      510 ILCS 95/1 Illinois Swine Brucellosis Eradication Act Title 8, Chapter I, Subchapter b, Part 100                      510 ILCS 100/1 Illinois Swine Disease Control and Eradication Act Title 8, Chapter I, Subchapter b, Part 105                      510 ILCS 85/0.01 Poultry Inspection Act Title 8, Chapter I, Subchapter b, Part 55</p>

<p><b>Human-Caused Hazards</b></p> <p><b>AGRICULTURAL EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><i>(f) Segregation of the hazard from that which is to be protected</i></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “segregation” of hazard(s) at critical or high-risk facilities. Guidance is established and reviewed through the Department, ITTF, USDA, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for segregation of hazard(s) are in-place outside of this context. The greatest risk of pathogen introduction to a livestock herd is bringing in infected stock. The Department of Agriculture recommends avoiding direct contact between infected and susceptible livestock, when practical. Isolation and retesting of incoming stock provides a safeguard against such transmission.</p> <p>510 ILCS 30/1 Illinois Bovine Brucellosis Eradication Act Title 8, Chapter I, Subchapter b, Part 75                      510 ILCS 35/1 Illinois Bovidae and Cervidae Tuberculosis Eradication Act Title 8, Chapter I, Subchapter b, Part 80                      510 ILCS 50/1 Illinois Diseased Animals Act Title 8, Chapter I, Subchapter b, Part 85                      510 ILCS 65/1 Illinois Equine Infectious Anemia Control Act Title 8, Chapter I, Subchapter b, Part 116                      510 ILCS 90/1 Illinois Pseudorabies Control Act Title 8, Chapter I, Subchapter b, Part 115                      510 ILCS 95/1 Illinois Swine Brucellosis Eradication Act Title 8, Chapter I, Subchapter b, Part 100                      510 ILCS 100/1 Illinois Swine Disease Control and Eradication Act Title 8, Chapter I, Subchapter b, Part 105                      510 ILCS 85/0.01 Poultry Inspection Act Title 8, Chapter I, Subchapter b, Part 55</p>
<p><i>(g) Modification of the basic characteristics of the hazard</i></p>
<p>The State of Illinois does not have legislation or regulation governing the “modification of a hazard” for events related to Agricultural Epidemic. Existing local, State, and Federal regulation detailing the “type” and “standards” for modification are in-place outside of this context. It is always recommended that growers and producers adhere to Department biosecurity guidelines and recommendations.</p>

<p><b>Human-Caused Hazards</b></p> <p><b>AGRICULTURAL EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><i>(h) Control of the rate of release of the hazard</i></p> <p>The State of Illinois does not have legislation or regulation governing the “release of a hazard(s)” for events related to Agricultural Epidemic” Existing local, State, and Federal regulation detailing the “type” and “standards” for release are in-place outside of this context. If an animal or crop disease outbreak is suspected, the Department requires a number of disease control measures be implemented depending on the potential for disease transmission. Quarantine measures may also be imposed on crop growers or livestock producers.</p> <p>510 ILCS 30/1 Illinois Bovine Brucellosis Eradication Act Title 8, Chapter I, Subchapter b, Part 75                      510 ILCS 35/1 Illinois Bovidae and Cervidae Tuberculosis Eradication Act Title 8, Chapter I, Subchapter b, Part 80                      510 ILCS 50/1 Illinois Diseased Animals Act Title 8, Chapter I, Subchapter b, Part 85                      510 ILCS 65/1 Illinois Equine Infectious Anemia Control Act Title 8, Chapter I, Subchapter b, Part 116                      510 ILCS 90/1 Illinois Pseudorabies Control Act Title 8, Chapter I, Subchapter b, Part 115                      510 ILCS 95/1 Illinois Swine Brucellosis Eradication Act Title 8, Chapter I, Subchapter b, Part 100                      510 ILCS 100/1 Illinois Swine Disease Control and Eradication Act Title 8, Chapter I, Subchapter b, Part 105                      510 ILCS 85/0.01 Poultry Inspection Act Title 8, Chapter I, Subchapter b, Part 55</p>
<p><i>(i) Provision of protective systems or equipment</i></p> <p>Through established guidance, Illinois supports and assists in the “provision of/for protective systems or equipment” at critical or high-risk facilities. Guidance is established and reviewed through the Department, ITTF, USDA, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for protective equipment/systems are in-place outside of this context.</p>
<p><i>(j) Establishment of hazard warning and communication procedures</i></p> <p>Through established guidance, Illinois supports and assists in the “development and implementation of warning and communication systems” at critical or high-risk facilities. Guidance is established and reviewed through the Department, ITTF, USDA, and industry stakeholders. Existing local, State, and</p>

<p><b>Human-Caused Hazards</b> <b>AGRICULTURAL EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p>Federal regulation detailing the “type” and “standards” for warning and communication systems are in-place outside of this context. Bio-security guidelines and procedure documents are produced and distributed routinely to crop growers, livestock producers by industry trade organizations.</p>
<p><b>(k) Redundancy or duplication of critical systems, equipment, information, operations, or materials</b></p>
<p>Through established guidance and/or agreement, Illinois supports and assists in the “redundancy or duplication of critical systems, equipment, information, operations, or materials” at critical or high-risk facilities. Guidance is established and reviewed through the Department, ITTF, USDA, and industry stakeholders. Existing local, State, and Federal regulation detailing the “type” and “standards” for redundancy or duplication of critical components are in-place outside of this context. It is recommended that livestock producers have redundant equipment and transportation vehicles (truck/trailers) to allow for adequate down time for routine cleaning and disinfecting.</p>

***Public Health Epidemic***

<p><b>Human-Caused Hazards</b> <b>PUBLIC HEALTH EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p><b><i>(a) The use of appropriate building construction standards</i></b></p>
<p>IDPH has several laws that assist it in mitigating the potential for a public health epidemic. IDPH has general supervision authority of the interests of the health and lives of the people of Illinois. (20 ILCS 2305//2; 20 ILCS 2310/2310-15). IDPH has the authority to implement various control measures (isolation, quarantine, closure of facilities, physical examination, tests, collection of laboratory specimens, administration of vaccines, medications, or other treatments, and observation and</p>

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**PUBLIC HEALTH EPIDEMIC**

**MITIGATION STRATEGY CONSIDERATIONS**

monitoring of persons, and authority regarding animals) is set out in section 2 of the Department of Public Health Act (20 ILCS 2305/2).

The Food Handling Regulation Enforcement Act (410 ILCS 625/1 et seq.) requires each food service establishment to be under the operational supervision of a food service sanitation manager and provides that if any business establishment dealing in the sale of food items which does not comply with state or local food handling requirements, IDPH or the local departments of health may seek an injunction in the circuit court for the county in which the establishment is located.

The Sanitary Food Preparation Act (410 ILCS 650/0.01 et seq.) governs sanitary conditions of places where food is prepared, manufactured, packed, stored, sold, or distributed.

IDPH reviews construction plans, issues licenses and inspects facilities for compliance with water supply, sewage disposal and electrical systems for food-handling procedures and facilities with regard to campground and recreational areas pursuant to the Campground Licensing and Recreational Area Act (210 ILCS 95/1).

IDPH licenses occupations involved in performing lead inspection, abatement and mitigation in dwellings and child care facilities, approves lead training course providers, conducts investigations to identify and eliminate lead hazards which are sources of lead poisoning, and provides financial assistance for lead-based paint hazard reduction to low-income families under the Lead Poisoning Prevention Act (410 ILCS 45/1 et seq.).

IDPH regulates migrant labor camps and field sanitation matters under the Illinois Migrant Labor Camp Law (210 ILCS 110/1) and The Field Sanitation Act (210 ILCS 105/1 et seq.).

IDPH regulates manufactured homes and mobile homes under the following statutes:

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Illinois Manufactured Home Installers Act (430 ILCS 120/1 et seq.)

Manufactured Home Quality Assurance Act (430 ILCS 17/1 et seq.)

Illinois Manufactured Housing and Mobile Home Safety Act (430 ILCS 115/1 et seq.)

Mobile Home Park Act (210 ILCS 120/1 et seq.)

Illinois Mobile Home Tie Down Act (210 ILCS 120/1 et seq.)

Pursuant to the Private Sewage Disposal Licensing Act (225 ILCS 225/1 et seq.), IDPH issues licenses for private sewage system installation and pumping contractors, reviews plans for installation of systems and provides consultation and training for local health departments conducting the program.

IDPH regulates a variety of health care facilities pursuant to the following statutes:

Life Care Facilities Act (210 ILCS 40/1 et seq.)

Alternative Health Care Delivery Act (210 ILCS 3/1 et seq.)

Assisted Living and Shared Housing Act (210 ILCS 9/1 et seq.)

Community Living Facilities Act (210 ILCS 35/1 et seq.)

Nursing Home Care Act (210 ILCS 45/1-101 et seq.)

Illinois Prison Inspection Act (730 ILCS 135/1 et seq.)

Supportive Residences Licensing Act (210 ILCS 65/1 et seq.)

Ambulatory Surgical Treatment Center Act (210 ILCS 5/1 et seq.)

Clinical Laboratory and Blood Bank Act (210 ILCS 25/1-101 et seq.)

End Stage Renal Disease Facility Act (210 ILCS 62/1 et seq.)

Hospice Program Licensing Act (210 ILCS 60/1 et seq.)

Hospital Licensing Act (210 ILCS 85/1 et seq.)

Illinois Health Facilities Planning Act (20 ILCS 3960/1 et seq.)

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Finally, Section 2310-560 of the Department of Public Health Powers and Duties Law (20 ILCS 2310/2310-560) requires the Director of Public Health to appoint an Advisory Committee Concerning Construction of Facilities. Pursuant to section 2310-565 (20 ILCS 2310/2310-565), IDPH conducts a joint in-service training program for architects, engineers, investigators, and other persons on problems and issues related to the construction of facilities that are subject to the Ambulatory Treatment Care Act, the Nursing Home Care Act, or the Hospital Licensing Act.

*(b) Hazard avoidance through appropriate land-use practices*

IDPH is required to investigate the causes of and take means to restrict and suppress dangerously contagious or infectious diseases. (20 ILCS 2305/2 (West 2004).) If a local board of health or local authorities neglect or refuse to enforce efficient measures to restrict or suppress such disease, or neglect or refuse to act with sufficient promptness or efficiency, IDPH may enforce such measures as it deems necessary to protect the public health. (20 ILCS 2305/2 (West 2004).) IDPH has adopted the Control of Communicable Diseases Code (77 Ill. Adm. Code 690.100 et seq.), which requires that reporting entities report diseases and conditions to local health departments who, in turn, report the same to IDPH. The Control of Communicable Diseases Code additionally lists the appropriate control measures applicable to each disease.

IDPH issues licenses for occupations in performing asbestos abatement in schools, commercial and other public buildings, conducts inspections of abatement projects, reviews asbestos management plans for schools, approves asbestos training providers and conducts inspections of schools to determine compliance with State and federal laws (105 ILCS 105/1 and 225 ILCS 207/1).

IDPH regulates non-community public water supplies pursuant to the Illinois Groundwater Protection Act (415 ILCS 55/1 et seq.)

<p><b>Human-Caused Hazards</b></p> <p><b>PUBLIC HEALTH EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p>IDPH licenses plumbers and apprentice plumbers, registers irrigation contractors and plumbing contractors, performs inspections of plumbing installations, identifies and initiates enforcement against individuals doing plumbing procedures without a license, approves and provides continuing education programs, and conducts registration of irrigation and plumbing contractors pursuant to the Illinois Plumbing License Act (225 ILCS 230/0.01 et seq.)</p>
<p><i>(c) Relocation, retrofitting, or removal of structures at risk</i></p>
<p>Under the Water Well and Pump Installation Contractors’ License Act (225 ILCS 345/1 et seq.), IDPH issues permits, inspects and samples new water wells to ensure proper construction, provides grants and training to local health departments to conduct the program, and issues licenses for water well drillers and pump installation contractors.</p>
<p><i>(d) Removal or elimination of the hazard</i></p>
<p>The Sexually Transmissible Disease Control Act (410 ILCS 325/1 et seq.) and Control of Sexually Transmissible Diseases Code (77 Ill. Adm. Code 693) govern the prevention and containment of sexually transmitted diseases and their resultant complications. Pursuant to the Control of Tuberculosis Code (77 Ill. Adm. Code 696), the Tuberculosis Control program at IDPH provides technical support and consultation to local tuberculosis control agencies, maintains a central disease registry, and serves as liaison to the federal funding agency. Pursuant to the HIV/AIDS Registry Act (410 ILCS 310/1 et seq.), IDPH establishes and maintains the AIDS Registry. IDPH additionally provides funding, consultation, training and planning for the provision of medical and social support services to persons living with HIV.</p> <p>Pursuant to the following statutes, the Immunizations Program at IDPH promotes the use of vaccinations to prevent the occurrence and transmission of diseases, distributes vaccines to public and private providers, conducts surveillance and investigation of vaccine preventable childhood and adult</p>

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diseases, provides educational and motivational resources to providers, day care centers, schools, colleges, hospitals, and the general public, conducts assessment of vaccine coverage levels among target populations, conducts quality assurance reviews of clinics and providers using federally purchased vaccines, and develops and implements a statewide immunization information system: Communicable Disease Prevention Act (410 ILCS 315/0.01et seq.), Pertussis Vaccine Act (210 ILCS 235/1 et seq.), Section 8.4 of the Department of Public Health Act (20 ILCS 2305/8.4), and Section 2310-250 of the Public Health Powers and Duties Law (20 ILCS 2310/2310-250).

The Safe Bottled Water Act (410 ILCS 655/1 et seq.) prohibits the operation of a water-bottling plant or a private water source in Illinois except pursuant to a license issued by IDPH. (410 ILCS 655/10) Section 55 of the Act (410 ILCS 655/55) provides that IDPH, by its written permission, may allow a person to package water for use in public emergencies without obtaining a water bottling license if the emergency has resulted in the interruption of, or has compromised the quality of, the public drinking water supply. Water packaged shall be prominently labeled "drinking water", "for emergency use only", and "not for sale", or similar wording approved by IDPH, and shall be distributed only in the affected area and only during the emergency period. (410 ILCS 655/55).

The Illinois Poison Prevention Packaging Act (430 ILCS 40/3) authorizes the Director of Public Health to establish, by regulation, standards for the special packaging of any household substance if he finds that: (1) the hazard is sufficient to warrant specialized packaging to prevent personal injury from handling during use and/or ingestion; (2) the special packaging to be required by such standard is technically feasible, practical and appropriate for such substance.

The Vector Control Act (410 ILCS 95/1 et seq.) authorizes IDPH to investigate threats or potential threats to the public health relating to mosquitoes and other potential vectors of disease associated

<p><b>Human-Caused Hazards</b></p> <p><b>PUBLIC HEALTH EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p>with the improper storage, handling and disposal of tires, improper waste disposal, or natural conditions; conducts ongoing surveillance and monitoring activities and other arthropod vectors of disease and animals that provide a reservoir for disease-producing organisms; conduct training activities to promote pest management programs; and respond to inquiries, investigate complaints, conduct evaluations and provide technical consultation to help reduce or eliminate public health hazards and nuisance conditions associated with mosquitoes and other vectors.</p> <p>The Grade A Pasteurized Milk and Milk Products Act (410 ILCS 635/1 et seq.) provides for the establishment and enforcement of minimum standards for cleanliness and safe sanitation practices for all Grade A milk and milk products and provides for inspection and issuance of permits to operators of dairy farms, milk plants, receiving stations, transfer stations, milk hauler-samples, milk tank trucks, and certified pasteurizer sealers.</p>
<p><i>(e) Reduction or limitation of the amount or size of the hazard</i></p>
<p>All of the previously mentioned Acts give IDPH the authority to conduct necessary activities to reduce or limit the size of a public health epidemic.</p>
<p><i>(f) Segregation of the hazard from that which is to be protected</i></p>
<p>The authority to implement various control measures (isolation, quarantine, closure of facilities, physical examinations, tests, collection of laboratory specimens, administration of vaccines, medications, or other treatments, and observation and monitoring of persons, and authority regarding animals) is set out in section 2 of the Department of Public Health Act (20 ILCS 2305/2).</p>
<p><i>(g) Modification of the basic characteristics of the hazard</i></p>

<p><b>Human-Caused Hazards</b></p> <p><b>PUBLIC HEALTH EPIDEMIC</b></p>
<p><b>MITIGATION STRATEGY CONSIDERATIONS</b></p>
<p>Public Health Epidemics are prevented through the monitoring of diseases through the Control of Communicable Diseases Code (77 Ill. Adm. Code 690.100 et seq.), the Communicable Disease Prevention Act (410 ILCS 315/0.01 et seq.), and the Pertussis Vaccine Act (210 ILCS 235/1 et seq.)</p> <p>The Illinois Food, Drug and Cosmetic Act (410 ILCS 620/1 et seq.) provides IDPH with a number of powers and responsibilities with respect to food, drugs, cosmetics, or medical or other types of devices. The Act’s scope is broad, is largely patterned after the Federal Food, Drug and Cosmetic Act (21 U.S.C. 301-392), and encompasses the labeling of food, drugs, or cosmetics, and the permissible additive or adulteration levels of the same.</p>
<p><i>(h) Control of the rate of release of the hazard</i></p>
<p>All of the previously mentioned Acts and/or Administrative Codes give IDPH the authority to conduct necessary activities to control the spread of diseases that may lead to a public health epidemic.</p>
<p><i>(i) Provision of protective systems or equipment</i></p>
<p>All of the previously mentioned Acts and/or Administrative Codes give IDPH the authority to use any protective systems or equipment necessary to eliminate the spread of a public health epidemic and determine the cause of said epidemic.</p>
<p><i>(j) Establishment of hazard warning and communication procedures</i></p>
<p>IDPH is in the process of implementing an electronic reporting system, I-NEDSS, to track the reporting of infectious diseases by physicians, hospitals, health care facilities, and local health departments to the State. This system will allow IDPH to detect a potential outbreak and take steps to eliminate its spread. Broadcast faxes are used to update reporters of any and all potential communicable diseases. Press releases are used to notify the general public of any and all potential public health epidemics.</p>

Human-Caused Hazards <b>PUBLIC HEALTH EPIDEMIC</b>
MITIGATION STRATEGY CONSIDERATIONS
(k) Redundancy or duplication of critical systems, equipment, information, operations, or materials
IDPH has developed a Business Continuity Plan that ensures there is redundancy and a back-up plan for all critical departments/programs to be able to continue operations in the event of a disruption of services from our main campuses.

**V. IMPACTS and HAZARD CONSEQUENCES ANALYSIS**

***Terrorism CBRNE***

Human-Caused Hazards <b>TERRORISM CBRNE</b>
IMPACTS ANALYSIS
(a) Health and safety of persons in the affected area at the time of the incident (injury and death)
Terrorist acts have wide-ranging affects on the health and safety of the persons in the impact area(s). Statistically, 80% of all events involve the use of explosives, which result in injury to life, limb, and psychological well being of the person. With the inclusion of CBRNE agents, the persons in the impacted area(s) may be confronted with the immediate effects from chemical exposures (that would result in severe injury and or death.) that render life support missions and medical treatment useless. Events that include the use of biological agents may not present clinical symptoms to the impacted population for up to 24-48 hours. Identification of biological agent or illness begins with the medical provider’s assessment of a series of symptoms/illnesses that may/may not outline a clinically supported pattern.

Human-Caused Hazards

**TERRORISM CBRNE**

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It is expected that a biological agent may affect significant populations from and around the impact area(s). Radiological symptomology is not expected to present significant visible effects in the persons immediately in the impact area(s), when introduced by means of an explosive. However, the introduction of a large, sealed-source emitting specific types of radiation may present clinical symptoms. Symptoms from this type of exposure may be confused with other agents' symptomology presentation. Ultimately, the effect of a radiological device can be categorized into (2) main groupings, somatic and genetic/acute or chronic.

(b) Health and safety of personnel responding to the incident

IEMA and other State Agency Personnel responding to the incident shall observe life safety/health standards and practices. Personnel responding will utilize intelligence gathered from local responders to properly address any hazards that may pose a threat. The potential for responding personnel to be affected by the event will be hazard specific.

- Chemical exposures pose a risk to responders and can be addressed through victim symptomology, and monitoring/sampling. This type of exposure will be minimized through personal protective equipment measures.
- Biological agents pose a post-incident risk and may still present an unknown danger. Precautions must be taken by personnel to prevent infection or contamination through proper personal protective equipment.
- Radiological exposures to personnel pose a somatic and genetic risk to responders and their offspring. Proper equipment to measure and determine exposure dose minimizes and/or prevents an over-exposure.

Responders shall be trained to the identified levels and in accordance with guidelines and regulations before commencing field operations:

<p><b>Human-Caused Hazards</b></p> <p><b>TERRORISM CBRNE</b></p>
<p><b>IMPACTS ANALYSIS</b></p>
<p>Exclusion Zone - 120 hour of training, including but not limited to Hazmat Technician A and B, Hazmat Operations</p> <p>Warm Zone – 80 hours of training, including but not limited to Hazmat Technician A and B</p> <p>Safe Zone – At a minimum Hazmat Awareness, Unified Command, NIMS</p>
<p>(c) Continuity of operations</p> <p>Terrorism is used to instill distrust in the public towards the government in its ability to protect them. The State of Illinois has developed plans to continue government operations in the event that designated building and/or building systems fail or become uninhabitable. In addition, the State of Illinois has mobile command vehicles capable of providing independent power, communication, and telephone lines in the event that facilities in the affected area(s) should lose power and other means of communication.</p>
<p>(d) Property, facilities, and infrastructure</p> <p>The impact of a terrorist event on property, facilities, and infrastructure will be dependent on the type of event and the location it occurs. CBRNE events may render the building/property contaminated and uninhabitable for use, structurally unsound, or prohibit the transportation to and from the critical facilities. Terrorist events may target water resources, which in turn could result in a large impact on availability of fresh water.</p> <p>Medical facilities targeted in an attack would have a local effect, but medical services could be provided through a series of back-up (POD) hospitals. Infrastructure damage/interruption including power, communication, and gas line could have a significant impact, but effects are minimized through thorough planning on the part of the utility and its dedication to resume critical services.</p>

<b>Human-Caused Hazards</b> <b>TERRORISM CBRNE</b>
<b>IMPACTS ANALYSIS</b>
(e) Delivery of services
<p>Terrorist acts may delay non-critical services provided by the State of Illinois, which would result in a minimal effect on public service. It must be assumed that some terrorist acts will have significant effect on the State of Illinois to provide critical services, under provisions in place for the concept of operations and government it is assumed that the State of Illinois will begin the resumption of essential services with in a 24-72 hour timeframe.</p>
(f) The environment
<ul style="list-style-type: none"><li data-bbox="267 976 446 1008">▪ Biological</li></ul> <p>Biological impacts are largely determined on where the release occurs. Biological releases in the water, not utilized by the population, will likely have a minimal impact on wildlife, unless the disease is zoonotic. However, if the agent is released in a water source the potential for impact is much greater. The likelihood of an agent creating public health affects can be determined on the water plants filtration and treatment process, as well as the agents' ability, if any, to tolerate and stay viable through the treatment process. Biological releases in soil may pose little if any threat in the wild. However, biological agriculture weapons may create a large impact on the food availability to livestock and the population. Biological agent releases in air can have little to high impact. Impact can dependent on the agent and its means of transmission in addition to its infectious dose. Some agents are less infective through inhalation as oppose to ingestion.</p> <ul style="list-style-type: none"><li data-bbox="267 1633 479 1665">▪ Radiological</li></ul> <p>Radioactive material releases in water can affect wildlife as well as those who consume it. However, large quantities would be required to have a significant and detrimental impact to the environment. Radioactive material releases in a public water source will most likely result in a panic by the public. The impact of a radioactive material release in a public water source is dependent on the amount and</p>

<p><b>Human-Caused Hazards</b></p> <p><b>TERRORISM CBRNE</b></p>
<p><b>IMPACTS ANALYSIS</b></p>
<p>type of the material as well as the type of treatment system the facility uses. Radioactive materials release would likely result in public panic. The impact of a radioactive materials release would be dependent on the type of material being released. Sources involving a significant amount of shielding or that are in solid form would result in a small impact, if used in a dirty bomb. Sources utilizing a powder or liquid may have a larger impact in the area(s). Powder form materials would pose the highest impact when released in air.</p> <p>However, it is important to remember the source of radioactive material (cesium, cobalt), the type of radiation emitted by the source and the sources half-life.</p> <ul style="list-style-type: none"> <li>▪ Explosive</li> </ul> <p>Explosive devices used in the dispersion of chemical, biological, and radioactive materials may cause environmental impact. The contaminants dispersed in the environment are dependant on the type of building and amount of associated damage. Particulate matter and fumes from burning building materials would most likely serve as the largest impact to affected area(s) air quality, much like those seen in the attacks on September 11, 2001.</p>
<p>(g) Economic and financial condition</p>
<p>The economic and financial impacts of a terrorist event can vary based on target. Illinois is home to a large chemical industry, financial district, river system, livestock and agricultural community. The impact on the aforementioned industries would have a large impact on economic and financial status based on the target. . Specific data regarding economic impact can be found through IEMA – Economic Impact Multi-Hazards Estimates binder.</p>
<p>(h) Regulatory and contractual obligations</p>
<p>Terrorist activities will continue to impact current and future regulation, especially if activities focus on Illinois. Illinois can adapt regulations to promote more aggressive or applicable legislation to the program by utilizing legislative liaisons. Liaisons are in place to maintain direction and advise on</p>

<p>Human-Caused Hazards <b>TERRORISM CBRNE</b></p>
<p>IMPACTS ANALYSIS</p>
<p>legislation related to the program and how it may better serve the citizens of Illinois.</p>
<p>(i) Reputation of the entity</p>
<p>Terrorist activities result in the loss of confidence in the program and the government’s ability to protect citizens. However, the support services performed in the aftermath of an event can build the reputation of the program and the government’s ability to provide services to the people in time of need. The state resources and capabilities that are made available to assist in the recovery process from mutual aids and assisting agencies assist in rebuilding the public trust and lessening the potential effect on citizens.</p>

***Civil Disturbance***

<p>Human-Caused Hazards <b>CIVIL DISTURBANCE</b></p>
<p>IMPACTS ANALYSIS</p>
<p>(a) Health and safety of persons in the affected area at the time of the incident (injury and death)</p>
<p>This is highly variable, but we can generally equate the impact with the number of people involved in the civil disturbance and the number of emergency response personnel available to respond to the event. Adequate law enforcement resources such as personnel, along with mobile transport and fixed facility resources would be the main factor in successful management of a civil disturbance, along with the need for emergency medical resources and general emergency management personnel and plans implementation.</p> <p>Acts of civil disobedience have a long-ranging history that encompasses both violent and non-violent</p>

<p style="text-align: center;"><b>Human-Caused Hazards</b> <b>CIVIL DISTURBANCE</b></p>
<p style="text-align: center;"><b>IMPACTS ANALYSIS</b></p>
<p>forms. Historically, acts including the Boston Tea Party (1773), which ignited the American Revolution, to the current activities of groups supporting environmental, animal, and abortion rights have demonstrated a varying degree of impact on the health and safety of persons in the impact (focus) area. In perspective, the target audience defines the degree of impact: (abortion clinics – no impact to limited loss of life and injury to a specific target group vs. rioting following a major disaster – limited impact to large loss of life and injury to the populace). Pre-event assumptions therefore are unreliable, thereby requiring responders to assess and plan according to the degree of complexity of the event and given populace presenting injuries or loss of life.</p>
<p><b>(b) Health and safety of personnel responding to the incident</b></p>
<p>This could also be highly variable depending upon the training and equipment available to responding personnel. Fortunately, the Illinois State Police and local law enforcement personnel in Illinois undergo extensive training in the response to civil disturbances, and in the metropolitan areas of the State, have much experience in dealing with civil disturbance and crowd control in general. IEMA and other State Agency Personnel responding to the incident shall observe life safety/health standards and practices. Personnel responding will utilize intelligence gathered from Federal, State, local responders, and the public to properly address any situations that may pose a threat. The potential for responding personnel to be affected by the event will be event specific.</p> <p>Responders shall be trained to the identified levels in accordance with established guidelines and regulations before commencing field operations.</p>
<p><b>(c) Continuity of operations</b></p>
<p>State Agencies in Illinois recently participated in a Continuity of Operations planning effort resulting in an overall state plan and individual plans for the agencies. A large scale civil disturbance has the potential to temporarily disrupt operations, but plans are in place through formal mutual aid compacts</p>

**Human-Caused Hazards**

**CIVIL DISTURBANCE**

**IMPACTS ANALYSIS**

and formal mutual aid compacts, in the Case of Illinois Law Enforcement Assistance System (ILEAS), to augment law enforcement resources where and when necessary.

Civil disobedience may be used to instill distrust in the public towards the government and its ability to protect the populace, present a forum for actions/activities in conflict with policies, regulation, or positions taken by a corporate or government body, and to display a person(s) displeasure with the response to or loss of established authorities during disasters and pre-planned events. The State of Illinois has developed plans to continue government operations in the event that designated building and/or building systems fail or become uninhabitable due to an act of civil disobedience. In addition, the State of Illinois has mobile command vehicles capable of providing independent power, communication, and telephone lines in the event that facilities in the affected area(s) should lose power and other means of communication.

**(d) Property, facilities, and infrastructure**

The impact of an act of civil disobedience terrorist on property, facilities, and infrastructure is dependent on the type of event and the location(s) in which it occurs. Acts of civil disobedience may render buildings/properties/infrastructure contaminated and uninhabitable for use, structurally unsound, or prohibit the transportation of goods and services to and from critical facilities. Activists may target both government and private resources, which in turn could result in a large impact on the ability of either party to provide essential services and continue the production of goods and deliverables. Medical facilities targeted would have a local effect, but medical services could be provided through a series of back-up (POD) hospitals. Infrastructure damage/interruption including power, communication, and gas line could have a significant impact, but effects are minimized through thorough planning on the part of the utility and its dedication to resume critical services.

<p><b>Human-Caused Hazards</b></p> <p><b>CIVIL DISTURBANCE</b></p>	
<p><b>IMPACTS ANALYSIS</b></p>	
<p>(e) Delivery of services</p>	<p>Acts of civil disobedience may delay non-critical services provided by the State of Illinois, which would result in a minimal effect on public service. It must be assumed that some terror acts will have significant effect on the State of Illinois to provide critical services, under provisions in place for the concept of operations and government it is assumed that the State of Illinois will begin the resumption of essential services with in a 24-72 hour timeframe.</p>
<p>(f) The environment</p>	<p>Environmental acts of civil disobedience can be separated into distinct categories: Non-violent for the protection of a specific target(s) (environmental and agricultural/animal) and Violent to promote an individual(s) cause or primary concern. Regardless, both events have the potential to result in injuries and loss of life to the public, responders, and cause significant damage to infrastructure, economy, and the delivery of essential services.</p>
<p>(g) Economic and financial condition</p>	<p>The economic and financial impacts of a civil disobedience event can vary based on target. Illinois is home to a large chemical industry, financial district, river system, livestock and agricultural community. The impact on the aforementioned industries would have a corresponding affect on the economic and financial status of both governmental and private organizations based on the target. . Specific data regarding economic impact can be found through IEMA – Economic Impact Multi-Hazards Estimates binder.</p>
<p>(h) Regulatory and contractual obligations</p>	<p>Acts of civil disobedience will continue to impact current and future regulation, especially if activities focus on Illinois. Illinois can adopt regulations or legislation to promote more aggressive prevention</p>

<p style="text-align: center;"><b>Human-Caused Hazards</b> <b>CIVIL DISTURBANCE</b></p>
<p style="text-align: center;"><b>IMPACTS ANALYSIS</b></p>
<p>and response capability by utilizing legislative liaisons. Liaisons are in place to maintain direction and advise on legislation related to the program and how it may better serve and protect the citizens of Illinois.</p>
<p><b>(i) Reputation of the entity</b></p>
<p>Our statewide commitment to comprehensively address the civil disturbance hazard through planning, training and resource management in Illinois puts us in a good position to perform at a high level to handle civil disturbances when they occur. However, as in any emergency response situation, if response and associated recovery, preparedness and mitigation activities are not perceived as having been adequate to protect lives and property in the State of Illinois, the reputation of the our State government would suffer.</p> <p>Acts of civil disobedience result in the loss of confidence in the program and the government’s ability to protect citizens. However, the support services performed in the aftermath of an event can build the reputation of the program and the government’s ability to provide services to the people in time of need. State resources and capabilities made available to assist in the recovery process from the federal government, mutual aid organizations, and private corporations assist in rebuilding the public trust and lessening the potential effect on citizens.</p>

**Cyber Attacks**

Human-Caused Hazards <b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b>	
IMPACTS ANALYSIS	
(a) Health and safety of persons in the affected area at the time of the incident (injury and death)	
<p>When considering the Cyber Attack hazard in the context of State of Illinois Information Systems disruption, there is generally no impact to the Health and safety of persons in the affected area at the time of the incident (injury and death).</p> <p>Cyber terrorism has demonstrated itself as an ever-increasing threat to the security of computer, communications, infrastructure, and service industries beginning in the 1970s. The immediate impact on the health and safety of persons in the impact area, given the nature of the threat, cannot be easily defined nor encapsulated. Given the nature of the threat, however, the affects of a cyber attack on any of the aforementioned systems may result in the loss of life, injury, or incapacitation of both large and small populaces. As an example, a cyber attack on a medical provider’s computer system could result in the overexposure of patients to radiation therapy treatments (small target) vs. the eradication of critical/sensitive information necessary for the treatment of critical and terminally ill patients at a pharmaceutical manufacturer, which provides for the widespread distribution of medications/treatments, with incorrect mixtures/compound (large target) resulting in possibly severe implications. Pre-attack assumptions therefore are unreliable, requiring responders to assess and plan according to the degree of complexity of the event and given populace presenting injuries or loss of life.</p>	
(b) Health and safety of personnel responding to the incident	
No Impact	
IEMA and other State Agency Personnel responding to the incident shall observe life safety/health standards and practices. Personnel responding will utilize intelligence gathered from Federal, State,	

<b>Human-Caused Hazards</b>	
<b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b>	
<b>IMPACTS ANALYSIS</b>	
(c) Continuity of operations	<p>local responders, and the public to properly address any situations that may pose a threat. The potential for responding personnel to be affected by the event will be event specific.</p> <p>Responders shall be trained to the identified levels in accordance with established guidelines and regulations before commencing field operations.</p> <p>Possible significant impact, depending upon the scope, breadth, and success of the attack</p> <p>Cyber attacks may be used to instill distrust in the public towards the government and its ability to protect the populace; present a forum for actions/activities in conflict with policies, regulation, or positions taken by a corporate or government body; and to display a person(s) displeasure with the response to or loss of established authorities during disasters and pre-planned events. The State of Illinois has developed plans to continue government operations in the event that designated buildings and/or building systems fail or become uninhabitable due to an act of civil disobedience. In addition, the State of Illinois has mobile command vehicles capable of providing independent power, communication, and telephone lines in the event that facilities in the affected area(s) should lose power and other means of communication. Should an attack render a given system inoperable; adjustments will be made to continue all aspects of response/recovery. Options may include but are not limited to the use of a hardcopy system, isolation and operation of independent systems, and the reorganization of personnel and equipment to continue the delivery of time sensitive and critical strategic or tactical operations.</p>
(d) Property, facilities, and infrastructure	<p>Generally, there would be no impact on physical property or facilities. There could, however, be significant impact on the state's communications and IT infrastructure, depending upon the scope,</p>

<b>Human-Caused Hazards</b>	
<b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b>	
<b>IMPACTS ANALYSIS</b>	
	<p>breadth, and success of the attack.</p> <p>The impact of a cyber attack on property, facilities, and infrastructure is dependent on the type of event and the location(s) in which it occurs. Cyber attacks, in all probability, will have limited affect on buildings, properties, or infrastructure. However, attacks of this nature may severely affect the transportation of goods and services to and from critical facilities. In addition, consideration must be given to the possibility that the attack could have a profound affect on critical safety systems and processes that could result in the release of chemicals, runaway chain reactions (chemical), and the inability of a service provider to actively render otherwise normal processes inoperable (water and waste treatment). Individuals/groups may target both government and private resources, which, in turn, could result in a large impact on the ability of either party to provide essential services and continue the production of goods and deliverables. Medical facilities targeted would have a local effect, but medical services could be provided through a series of back-up (POD) hospitals. Infrastructure damage/interruption including power, communication, and gas line could have a significant impact; but effects are minimized through thorough planning on the part of the utility and its determination to resume critical services.</p>
<b>(e) Delivery of services</b>	
	<p>There is potential for significant impact, depending upon the scope, breadth, and success of the attack. Cyber attack may delay non-critical services provided by the State of Illinois, which would result in a minimal effect on public service. It must be assumed that some attacks will have significant effects on the State of Illinois to provide critical services, under provisions in place for the concept of operations and government; it is assumed that the State of Illinois will begin the resumption of essential services with in a 24-72 hour timeframe.</p>

Human-Caused Hazards	
<b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b>	
IMPACTS ANALYSIS	
(f) The environment	No Direct Impact, but consideration must be given to infrastructure loss that has a direct effect on the environment. Areas of concern include but are not limited to, water treatment, waste treatment/management, safety and effluent control systems at processing plants, and land management systems (dams, locks, flow control devices).
(g) Economic and financial condition	There is potential for significant impact, depending upon the scope, breadth, and success of the attack. The economic and financial impacts of a cyber attack vary based on target. Illinois is home to a large chemical industry, financial district, river system, and livestock and agricultural community. The impact on the aforementioned industries would have a corresponding affect on the economic and financial status of both governmental and private organizations based on the target. Specific data regarding economic impact can be found through IEMA – Economic Impact Multi-Hazards Estimates binder.
(h) Regulatory and contractual obligations	The State of Illinois has limited mechanisms to prevent and/or legislate prevention methods for this type of event. Regulation and contractual obligations specific to cyber related events vary in scope and complexity and cannot be adequately addressed through this document.
(i) Reputation of the entity	There is potential for significant impact, depending upon the scope, breadth, and success of the attack. Our statewide commitment to comprehensively address the security of our State government information systems, in all phases of emergency management in Illinois, puts us in a good position to

<p>Human-Caused Hazards</p> <p><b>CYBER ATTACK – INFORMATION SYSTEMS DISRUPTION</b></p>
<p>IMPACTS ANALYSIS</p>
<p>perform at a high level if a disruption to the systems should occur from any cause.</p> <p>However, as in any emergency response situation, if response and associated recovery, preparedness and mitigation activities are not perceived as having been adequate to protect lives and property in the State of Illinois, the reputation of the our State government would suffer.</p> <p>Cyber attack may result in the loss of confidence in the program and the government’s ability to protect citizens; however, the support services performed in the aftermath of an event can build the reputation of the program and the government’s ability to provide services to the people in time of need. State resources and capabilities made available to assist in the recovery process from the federal government, mutual aid organizations, and private corporations assist in rebuilding the public trust and lessening the potential effect on citizens.</p>

***Agricultural Epidemic***

<p>Human-Caused Hazards</p> <p><b>AGRICULTURAL EPIDEMIC</b></p>
<p>IMPACTS ANALYSIS</p>
<p>(a) Health and safety of persons in the affected area at the time of the incident (injury and death)</p>
<p>There are a large number of agricultural epidemics that could occur in Illinois. Some may be very minor in terms of impact, while others could be devastating to the agriculture and livestock industries and to the economic welfare of the state. In addition, there are a number of animal diseases that also have a human health impact. Almost all of the bio-terrorist agents of concern today also can affect animals as well. This is all dependent on the disease involved. Many animal disease pathogens are transmissible to humans, however most are not a human health concern.</p>

<b>Human-Caused Hazards</b> <b>AGRICULTURAL EPIDEMIC</b>	
<b>IMPACTS ANALYSIS</b>	
<b>(b) Health and safety of personnel responding to the incident</b>	
	<p>This would depend on the type of agricultural epidemic involved. For example, in the case of an animal disease epidemic, some animal pathogens would require extreme caution, while others would require only standard bio-safety procedures. Regardless, response personnel shall observe life safety/health standards and practices.</p>
<b>(c) Continuity of operations</b>	
	<p>State Agencies in Illinois recently participated in a Continuity of Operations planning effort resulting in an overall state plan and individual plans for the agencies. In an agricultural epidemic of any kind, resources would be taxed, but it would take an extreme case to maximize resources to a point of operations interruption. For example, in a case of an animal disease epidemic, some diseases would require complete depopulation of animals and a considerable down time after clean-up and disinfections, while other diseases may be treated and production allowed to continue.</p>
<b>(d) Property, facilities, and infrastructure</b>	
	<p>The impact of an agro-terrorism event on property, facilities, and infrastructure will be dependent on the type of event and the location it occurs. Cleaning and disinfections would be required for most animal diseases, and in many cases, the property would need to set idle for a period of time before production or reintroduction of livestock could continue.</p> <p>510 ILCS 50/1 Illinois Diseased Animals Act Title 8, Chapter I, Subchapter b, Part 85</p>

Human-Caused Hazards <b>AGRICULTURAL EPIDEMIC</b>	
IMPACTS ANALYSIS	
(e) Delivery of services	<p>Terrorist acts may delay non-critical services provided by the State of Illinois, which would result in a minimal effect on public service. It must be assumed that some terrorist acts will have significant effect on the State of Illinois to provide critical services, under provisions in place for the concept of operations and government it is assumed that the State of Illinois will begin the resumption of essential services with in a 24-72 hour timeframe.</p>
(f) The environment	<p>Most animal diseases would have no environmental impact, however, some crop diseases would require a total destruction. Disposal of complete herds, which would create a large number of animal carcasses that would have to be disposed in environmentally sensitive methods, is possible.</p> <p>225 ILCS 610/1 Illinois Dead Animal Disposal Act Title 8, Chapter I, Subchapter b, Part 90</p>
(g) Economic and financial condition	<p>This would all be disease dependant, ranging from a relatively small loss to the producer to devastating to the state and national economy. Specific data regarding economic impact can be found through IEMA – Economic Impact Multi-Hazards Estimates binder.</p>
(h) Regulatory and contractual obligations	<p>If the disease required quarantines and depopulation, IDOA would do so under the Diseased Animals Act. If animals were to be destroyed, IDOA would be required to pay indemnity. These funds would probably come from the federal government. Crop losses to growers could also be compensated.</p> <p>510 ILCS 50/1 Illinois Diseased Animals Act Title 8, Chapter I, Subchapter b, Part 85</p>

<p>Human-Caused Hazards <b>AGRICULTURAL EPIDEMIC</b></p>
<p>IMPACTS ANALYSIS</p>
<p>(i) Reputation of the entity</p>
<p>The occurrence of an agricultural epidemic may result in the loss of confidence in the program and the government’s ability to protect citizens. However, the support services performed in the aftermath of an event can build the reputation of the program and the government’s ability to provide services to the people in time of need. State resources and capabilities made available to assist in the recovery process from the federal government, mutual aid organizations, and private corporations assist in rebuilding the public trust and lessening the potential effect on citizens.</p>

***Public Health Epidemic***

<p>Human-Caused Hazards <b>PUBLIC HEALTH EPIDEMIC</b></p>
<p>IMPACTS ANALYSIS</p>
<p>(a) Health and safety of persons in the affected area at the time of the incident (injury and death)</p>
<p>The Illinois Department of Public Health (IDPH) has developed policies, plans and procedures that enable the agency to become aware of, gather additional information on and act upon a potential or real emergency. IDPH is responsible for the health of the general population in Illinois. This responsibility includes certain emergency preparedness activities such as routine surveillance activities of regulated individuals or facilities as well as compliant-initiated investigations often conducted in partnership with other public agencies.</p> <p>IDPH has vaccines available for any outbreak that is vaccine-preventable. IDPH works with the local health department in an area that is affected by an epidemic to ensure that vaccine is made available to the public.</p>

<b>Human-Caused Hazards PUBLIC HEALTH EPIDEMIC</b>	
<b>IMPACTS ANALYSIS</b>	
	<p>IDPH has developed an electronic reporting system that will eventually be used by all local health departments, hospitals, and doctors offices to report the potential for an infectious disease to the local health department and the IDPH rapidly.</p> <p>IDPH is also working on the Strategic National Stockpile Plan to ensure the rapid distribution of prophylaxis needed to respond to a bio-terrorist event. Each local health department in the State has been tasked to identify locations and to develop plans for dispensing sites/ mass vaccination sites.</p>
	<p>(b) Health and safety of personnel responding to the incident</p> <p>IDPH works with the ITTF to ensure that the first responders of the State are afforded the protection that they need when responding to an incident. The ITTF has purchased personal protective equipment for fire fighters and first responders who may be called to a potential release of a biological agent. IDPH, through CDC and HRSA grant funding, is looking to ensure hospital first responders and the local public health staffs are prepared to respond to any incident.</p>
	<p>(c) Continuity of operations</p> <p>IDPH has worked with IEMA and a private contractor to develop COOP/COG plan. All command decisions effecting public health will be made at the IDPH Emergency Operations Center (IDPH-EOC).</p>
	<p>(d) Property, facilities, and infrastructure</p> <p>IDPH has the main campus buildings located at 525-535 W. Jefferson, the Penta Building, the Ridgley Building, the Immunizations Warehouse, as well as the location of our IDPH - EOC. IDPH has laboratories in Springfield, Carbondale, and Chicago. If there were a public health epidemic, staff</p>



<b>Human-Caused Hazards</b> <b>PUBLIC HEALTH EPIDEMIC</b>
<b>IMPACTS ANALYSIS</b>
<b>(i) Reputation of the entity</b>
<p>The occurrence of a public health epidemic may result in the loss of confidence in the program and the government’s ability to protect citizens. However, the support services performed in the aftermath of an event can build the reputation of the program and the government’s ability to provide services to the people in time of need. State resources and capabilities made available to assist in the recovery process from the federal government, mutual aid organizations, and private corporations assist in rebuilding the public trust and lessening the potential effect on citizens.</p>

## **VI. PLAN MAINTENANCE PROCESS**

### ***Monitoring, Evaluating and Updating the Plan***

The Illinois Emergency Management Agency and the Illinois Mitigation Advisory Group - Illinois Human-Caused Hazard Mitigation Planning Committee (ITHMPC) will meet and be responsible for reviewing and evaluating the Mitigation Plan. These committees have previously been identified in the planning process section. These combined committees will meet once a year in January, and all members will be asked to analyze the overall success and progress in implementing the Plan.

The combined committees will review each goal and objective to determine their appropriateness with respect to changing situations in the State as well as changes in policy and to ensure they are addressing current and expected conditions. The combined committees will also review the risk assessment and capabilities portion of the Plan to determine if this information needs to be updated or modified. Each strategy (goal and objective) and the associated actions will be reported on by the party responsible for its implementation, and will include which implementation processes worked well, any difficulties encountered, how coordination efforts were proceeding and which strategies or processes need to be revised or strengthened.

The committee will then create a list of recommendations that suggests ways to bring the Plan up to date, and any enhancements that can be made. The Illinois Emergency Management Agency, Bureau of Disaster Assistance and Preparedness will be responsible for making the necessary changes to the Plan, and the revised Plan must be submitted for approval to the Illinois Human-Caused Hazard Mitigation Planning Committee no later than three months after the conclusion of the committee meeting.

### **B. Monitoring Progress of Mitigation Activities**

The Illinois Emergency Management Agency, Disaster Assistance and Preparedness, is responsible for the monitoring and tracking of progress of mitigation actions. The

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Illinois Human-Caused Hazards Mitigation Committee (ITHMP) of the Illinois Mitigation Advisory Group (IMAG) has been identified in the planning process section as the committee who will monitor the progress of mitigation actions and will meet on an as needed basis, but not less than once annually, to monitor progress.

Goals, objectives and projects will be reviewed in the event of a Human-Caused hazards disaster to determine whether they need to be modified to reflect the new conditions and the findings appended to the existing Plan.

**APPENDIX A: HUMAN-CAUSED HAZARD RATINGS**

- By County (Next 2 Pages)

2007 ILLINOIS HUMAN-CAUSED HAZARD MITIGATION PLAN

HUMAN-CAUSED HAZARD RATINGS

**KEY**

SEVERE = 49 - 60  
 HIGH = 37 - 48  
 ELEVATED = 25 - 36  
 GUARDED = 13 - 24  
 LOW = 0 - 12

**HUMAN-CAUSED HAZARD RATINGS BY COUNTY**

County Name	Population	1) HISTORICAL PROBABILITY	2) VULNERABILITY	3) SEVERITY OF IMPACT	4A) POPULATION	4B) POPULATION GROWTH	TERRORISM CRBNE					CIVIL DISTURBANCE					CYBER ATTACK					AGRICULTURAL EPIDEMIC					PUBLIC HEALTH EPIDEMIC										
		1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)						
Adams	68,277	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Alexander	9,590	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Bond	17,633	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Boone	41,786	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Brown	6,950	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Bureau	35,503	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Calhoun	5,084	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Carroll	16,674	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Cass	13,695	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Champaign	179,669	6	12	18	2	3	41	6	12	12	2	3	35	6	12	12	2	3	35	6	12	12	2	3	35	6	12	12	2	3	35	6	12	12	2	3	35
Christian	35,372	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Clark	17,008	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Clay	14,560	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Clinton	35,535	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Coles	53,196	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Cook (excl. Chicago)	2,480,725	6	18	18	3	2	47	18	18	18	3	2	59	18	18	18	3	2	59	18	18	18	3	2	59	18	18	18	3	2	59	18	18	18	3	2	59
Chicago	2,896,016	6	18	18	3	2	47	18	18	18	3	2	59	18	18	18	3	2	59	18	18	18	3	2	59	18	18	18	3	2	59	18	18	18	3	2	59
Crawford	20,452	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Cumberland	11,253	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
DeKalb	88,969	6	12	18	1	3	40	6	6	18	1	3	34	6	6	18	1	3	34	6	6	18	1	3	34	6	6	18	1	3	34	6	6	18	1	3	34
De Witt	16,798	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Douglas	19,922	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
DuPage	904,161	6	18	18	3	2	47	6	18	18	3	2	47	6	18	18	3	2	47	6	18	18	3	2	47	6	18	18	3	2	47	6	18	18	3	2	47
Edgar	19,704	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Edwards	6,971	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Effingham	34,264	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Fayette	21,802	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Ford	14,241	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Franklin	39,018	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Fulton	38,250	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Gallatin	6,445	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Greene	14,761	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Grundy	37,535	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Hamilton	8,621	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Hancock	20,121	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Hardin	4,800	6	12	18	1	3	40	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28	6	6	12	1	3	28
Henderson	8,213	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Henry	51,020	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Iroquois	31,334	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Jackson	59,612	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27

2007 ILLINOIS HUMAN-CAUSED HAZARD MITIGATION PLAN

HUMAN-CAUSED HAZARD RATINGS

**K  
E  
Y**

**SEVERE = 49 - 60**

**HIGH = 37 - 48**

**ELEVATED = 25 - 36**

**GUARDED = 13 - 24**

**LOW = 0 - 12**

**HUMAN-CAUSED  
HAZARD RATINGS BY  
COUNTY**

County Name	Population	1) HISTORICAL PROBABILITY	2) VULNERABILITY	3) SEVERITY OF IMPACT	4A) POPULATION	4B) POPULATION GROWTH	TERRORISM CRBNE					CIVIL DISTURBANCE					CYBER ATTACK					AGRICULTURAL EPIDEMIC					PUBLIC HEALTH EPIDEMIC				
		1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)	1)	2)	3)	4A)	4B)
McDonough	32,913	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
McHenry	260,077	6	12	18	2	2	40	6	12	12	2	2	34	6	12	12	2	2	34	6	12	12	2	2	34	6	12	12	2	2	34
McLean	150,433	6	12	18	2	3	41	6	12	12	2	3	35	6	12	12	2	3	35	6	12	12	2	3	35	6	12	12	2	3	35
Macon	114,706	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
Macoupin	49,019	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Madison	258,941	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
Marion	41,691	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Marshall	13,180	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Mason	16,038	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Massac	15,161	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Menard	12,486	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Mercer	16,957	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Monroe	27,619	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27
Montgomery	30,652	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Morgan	36,616	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Moultrie	14,287	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Ogle	51,032	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Peoria	183,433	6	12	18	2	1	39	6	6	12	2	1	27	6	6	12	2	1	27	6	6	12	2	1	27	6	6	12	2	1	27
Perry	23,094	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Piatt	16,365	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Pike	17,384	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Pope	4,413	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Pulaski	7,348	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Putnam	6,086	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Randolph	33,893	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Richland	16,149	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Rock Island	149,374	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
St. Clair	256,082	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
Saline	26,733	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Sangamon	188,951	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
Schuyler	7,189	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Scott	5,537	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Shelby	22,893	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Stark	6,332	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Stephenson	48,979	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Tazewell	128,485	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
Union	18,293	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Vermilion	83,919	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Wabash	12,937	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Warren	18,735	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Washington	15,148	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Wayne	17,151	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
White	15,371	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Whiteside	60,653	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Will	502,266	6	18	18	3	3	48	6	18	18	3	3	48	6	18	18	3	3	48	6	18	18	3	3	48	6	18	18	3	3	48
Williamson	61,296	6	12	18	1	1	38	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26	6	6	12	1	1	26
Winnebago	278,418	6	12	18	2	1	39	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33	6	12	12	2	1	33
Woodford	35,469	6	12	18	1	2	39	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27	6	6	12	1	2	27