Appendix C

Potential Loss and Impact Summaries

1. Natural Hazards

Some Risk Sources:

- ❑ Winter Storm
- ❑ Earthquake
- ❑ Landslide, Mudslide
- ❑ Sinkholes
- ❑ Erosion
- ❑ Windstorms
- ❑ Hurricanes
- ❑ Tornadoes
- ❑ Thunderstorms and Lightning
- ❑ Wildfire
- ❑ Flood
- ❑ Tsunami
- ❑ Volcanic eruptions
- ❑ Drought
- ❑ Heat

Possible Losses or Adverse Results:

- ❑ Damage to public and private buildings and infrastructure
- ❑ Disruption of transportation
- ❑ Disruption of utilities (gas, electricity, water, sewers)
- ❑ Disruption of communications
- ❑ Disruption of food supply
- ❑ Disruption of entity revenues
- ❑ Disruption of entity services and disaster response activities
- ❑ Dislocation of families
- ❑ Disruption of emergency medical care
- ❑ Environmental contamination
- ❑ Opportunistic criminal activity
- ❑ Injury of citizens and employees
- ❑ Fires and explosions
- ❑ Release of hazardous materials into environment
- ❑ Loss of/inability to mobilize public workforce
- ❑ Loss of/inability to access public equipment
- ❑ Loss of computer based information

Possible Strategies:

- ❑ Assess and determine vulnerability to natural hazard events
- ❑ Adopt written emergency action plan, have it available on short notice, and practice it regularly
- ❑ Assign disaster responsibilities to specific employees in advance
- ❑ Enter into mutual aid agreements with other entities for potentially disrupted or overwhelmed services
- ❑ Pre-arrange financing for disaster response activities

- ❏ Pre-arrange with vendors for emergency equipment, supplies, and additional workers
- ❏ Adopt and publicize evacuation plans
- ❏ Adopt plan for coordinating state and federal disaster relief
- ❏ Include natural hazard vulnerability and mitigation techniques in initial development and post-disaster redevelopment decisions
- ❏ Prepare contingency plans for shelter of displaced citizens
- ❏ Adopt building code requiring disaster resistant construction

2. Contracts and Legal Relationships

Some Risk Sources:

- ❑ Contracts for entity purchase or supply of goods and services
- ❑ Contracts to perform or receive construction services
- ❑ Award of franchises (example: cable television)
- ❑ Real estate leases (lessor or lessee)
- ❑ Real estate purchase or sale
- ❑ Contracts of easement
- ❑ Contracts for joint use of owned or non-owned facilities
- ❑ Contracts to jointly operate program with another entity
- ❑ Equipment and motor vehicle leases
- ❑ Notes, mortgages, and loans
- ❑ Mutual aid agreements
- ❑ Grant agreements
- ❑ Insurance contracts
- ❑ Employee credit/purchasing cards for which entity is responsible
- ❑ Contracts with vendors that allow entity employees access to "government rates" for personal purchases (example: cellular telephone service)

Possible Losses or Adverse Results:

- ❑ Failure to comply with mandatory procurement practices
- ❑ Civil rights violations
- ❑ Contract executed beyond entity authority
- ❑ Third party default on contract with public entity
- ❑ Contractor/vendor/franchisee provides defective goods or services
- ❑ Public entity vicarious liability for contractor/vendor/franchisee actions
- ❑ Public entity default on contracts and agreements
- ❑ Public entity liability for providing defective goods or services
- ❑ Cost overruns on construction projects
- ❑ Damage to property leased by public entity
- ❑ Entity's insurance contracts fail to cover its insured losses
- ❑ Contracts (including insurance) lost or destroyed and cannot be enforced
- ❑ Employee credit/purchasing card is lost or stolen by a third party and used for non-entity transactions
- ❑ Employee misuse of credit/purchasing card
- ❑ Entity liability for employee default on obligations incurred under "government rate" purchasing plan for personal services

Possible Strategies:

- ❑ Conduct risk management/legal review of all contractual relationships
- ❑ Conduct legal review of purchasing procedures
- ❑ Include indemnity/hold harmless clauses and insurance requirements in entity contracts
- ❑ Require ongoing, documented compliance with contractual insurance requirements
- ❑ Include surety and performance bond requirements in contracts where appropriate

- ❑ Perform due diligence investigation of potential contract partners to determine solvency and ability to fulfill contractual obligations
- ❑ Include in contracts language assigning responsibility for cost overruns
- ❑ Implement loss prevention/quality assurance program to ensure high quality of entity provided goods and services
- ❑ Make advance financing arrangements for entity liability arising from contractual relationships
- ❑ Ensure that entity satisfies all contractual or lease requirements for insurance or performance/surety bonds
- ❑ Conduct thorough review and analysis of entity's insurance coverage and other risk financing mechanisms at least annually
- ❑ Keep all current and past insurance policies safe and accessible
- ❑ Conduct regular actuarial review of self-insured programs
- ❑ Establish and enforce security, appropriate use and reporting procedures and requirements for all purchasing/credit cards issued to employees

3. Financial Operations

Some Risk Sources:

- ❑ Financial transactions
- ❑ Investment of entity funds
- ❑ Cash handling
- ❑ Dependence on state or federal revenue sources
- ❑ Entity bond rating
- ❑ Entity credit rating
- ❑ Community economic conditions
- ❑ Value of real estate or other community tax base
- ❑ Financial records
- ❑ Citizen records

Possible Losses or Adverse Results:

- ❑ Reduced revenues
  (examples: devaluation of tax base, economic recession, loss of state, federal or grant funding for projects or activities, reduced income from investments)
- ❑ Inability to sell bonds
  (examples: loss of community support for bond issues, reduction in bond rating)
- ❑ Inability to borrow funds
- ❑ Loss of entity funds through theft/embezzlement/negligence
- ❑ Loss of entity funds through bad investments
- ❑ Loss or alteration of financial records
- ❑ Unauthorized transfer of entity funds via computer
- ❑ Violation of citizen right to privacy and confidentiality

Possible Strategies:

- ❑ Implement and enforce system of internal financial controls
- ❑ Implement and enforce system of controls for investment of entity funds
- ❑ Provide adequate security at entity locations handling cash
- ❑ Provide adequate security for hard copy and computer based financial records
- ❑ Provide adequate security for any computer site used by the entity to conduct its financial transactions and transfer funds
- ❑ Provide adequate security for citizen financial records
- ❑ Back up of financial records
- ❑ Promote economic health and desirability of the jurisdiction where the entity is located
- ❑ Stay aware of state and federal initiatives that may impact revenue sources, and develop contingency plans to replace those sources
- ❑ Ensure adequate performance on projects funded by federal, state, or other sources

4. Misconduct by Public Officials and Employees

Some Risk Sources:

- ❑ Criminal acts by public officials or employees
- ❑ Sunshine/open meetings laws
- ❑ Conflicts of interest
- ❑ Gifts to public officials or employees

Possible Losses or Adverse Results:

- ❑ Litigation; attorney's fees and verdicts or fines
- ❑ Reduced desirability of jurisdiction as a place to locate; reduced property values; reduced tax base; reduced economic health
- ❑ Citizen dissatisfaction and refusal to approve bond issues and other initiatives

Possible Strategies:

- ❑ Train public officials and employees about their legal and ethical obligations

5. Acts or Omissions by Third Parties

Some Risk Sources:

- ❑ Third party criminal acts or threats of criminal acts
- ❑ Third party negligent acts
- ❑ Third party events held on public property
- ❑ Third party environmental contamination
- ❑ Government preparation for and response to third party acts

Possible Losses and Adverse Results:

- ❑ Damage to public or private property
- ❑ Contamination of public or private property
- ❑ Loss of public property or funds
- ❑ Injury or death of public employees
- ❑ Injury or death of citizens
- ❑ Disruption of local economy due to widespread property damage
- ❑ Entity costs of responding to impact of third party criminal acts on community
- ❑ Damage to/loss of entity's computer data and records
- ❑ Damage to entity's reputation and desirability of jurisdiction
- ❑ Repeated disruption of entity operations in response to threats of criminal acts
- ❑ Entity liability for failure to adequately prepare for, or respond to, third party acts
- ❑ Liability for injury to citizen resulting from third party event on public property
  (examples: food poisoning, alcohol related accidents, inadequate security, fireworks accidents, amusements and rides, hazardous condition of premises)

Possible Strategies:

- ❑ Adopt and practice contingency plans to prevent and control impact of third party actions on the community, and to provide emergency support during and after the event
  (examples: terrorist attack, bombing, takeover of government or private installations, jail riot, school shooting, environmental contamination event)
- ❑ Assess and, if necessary, increase security at public entity locations for the entity's personnel, systems, and property
- ❑ Assess security at major private facilities locations where a terrorist act could endanger the broader community and, if necessary, help the facility increase security
- ❑ Work with law enforcement officials to establish procedure for responding to threats of criminal acts
- ❑ Provide adequate security for government computer installation and data
- ❑ Require third parties to provide proof of adequate insurance coverage for liability arising from their events held on public property, including liquor liability, if applicable
- ❑ Train public employees how to address third party criminal behavior they may confront in their jobs

6. State or Federal Laws or Regulations

Some Risk Sources:

- ❑ Changes in laws or regulations or changes in their enforcement
  (examples: civil rights, election, privacy rights, employment -see #12 Workforce, land use planning authority, law enforcement practices, local government accounting and investment practices, public health, social services/welfare, environmental, disaster recovery resources, human rights, taxing authority, waste disposal)

Possible Losses or Adverse Events:

- ❑ Reduction of revenues
- ❑ Increased costs of operation
- ❑ Increased documentation/paperwork
- ❑ Reduced time for employees to deliver services
- ❑ Change in or elimination of activities or services
- ❑ Creation of unexpected liabilities for prior legal acts
- ❑ Fines and penalties
- ❑ Increased civil judgments

Possible Strategies:

- ❑ Monitor legislative and regulatory initiatives
- ❑ Present entity's position to legislators and regulators when appropriate
- ❑ Prepare in advance for compliance

7. Economic Conditions

Some Risk Sources:

- ❑ Negative changes in general or local economic conditions
- ❑ Inflation
- ❑ Increase in interest rate

Possible Losses or Adverse Results:

- ❑ Erosion of value of government assets
- ❑ Unexpected increase in cost of resources and supplies entity needs to provide services necessitating reduction of government services provided
- ❑ Increased difficulty or cost of borrowing funds and selling bond issues
- ❑ Relocation of citizens and business to other jurisdictions with fewer economic problems

Possible Strategies:

- ❑ Identify and address emerging economic problems in the community
- ❑ Advance contracts for resources and supplies needed by government to provide services

8. Government Activities and Services

Some Types of Activities and Services:

- ❑ Governing functions
  (examples: adoption of ordinances and regulations, taxation, licensing and permits, land use and zoning, registration and titles, building codes, fire codes)
- ❑ Management and administrative functions
  (examples: personnel, purchasing, legal, finance, risk management, fleet management, grounds and building maintenance, record keeping)
- ❑ Communications with the public
  (examples: advertising events, materials promoting the jurisdiction, web site content, warnings, notice of public meetings, statements to the media, e-mail, letters, newsletters and articles)
- ❑ Operation of equipment and machinery
  (examples: aircraft, motor vehicles, construction equipment, watercraft, mobile equipment)
- ❑ Transportation
  (examples: airports, train stations, bus stations, public transit systems)
- ❑ Recreational facilities and activities
  (examples: amusement parks, athletic facilities, auditoriums, beaches, campgrounds, golf courses, ice skating rinks, marinas and docks, parks, playgrounds, recreation centers, shooting ranges, summer camps, skateboard/rollerblade facilities, sporting events, swimming pools and water parks, winter sport/skiing sites, zoos)
- ❑ Educational facilities
  (examples: schools, libraries, museums)
- ❑ Public safety
  (examples: law enforcement, parking enforcement, animal control, fire and rescue, disaster response, emergency medical services, jails and correctional facilities, vehicle impound facilities)
- ❑ Public infrastructure
  (examples: highways, streets, sidewalks, bridges, culverts, tunnels, sewage collection and treatment, stormwater collection, dams)
- ❑ Refuse and recycling
  (examples: incinerators, recycling plans, landfills, garbage dumps, refuse and recycling collection)
- ❑ Public health
  (examples: cemeteries, public hospitals and clinics, school nurses, health department, vaccination programs, mental health programs, substance abuse programs, residential programs)
- ❑ Social services
  (examples: day care for children and elderly, public housing, homeless shelters, welfare, foster care, child protective services, senior services)
- ❑ Public buildings and premises
  (examples: existing buildings, new construction projects, parking facilities, vacant buildings, unimproved land)
- ❑ Public utilities
  (examples: water, electricity, gas, nuclear)
- ❑ Professional services and activities
  (examples: physicians, psychologists, accountants, lawyers, architects, engineers, information technology, nursing, dental, physical and occupational therapists, teachers)
- ❑ Courts and juvenile justice system
- ❑ Hazardous materials use

Some Possible Adverse Results:

- ❑ Liability for bodily injury or property damage due to unsafe condition of publicly owned or occupied buildings
  (examples: unsafe walking surface conditions, inadequate lighting and security, overcrowding and lack of crowd control, lack of fire and building code compliance, contamination with hazardous materials (lead paint, asbestos, PCB's), infestation with vermin, plumbing and electrical system malfunction)
- ❑ Liability for bodily injury or property damage due to unsafe condition of public infrastructure and grounds
  (examples: unsafe walking and driving conditions (surface damage, missing manhole covers and grates), unsafe road design (banking, visibility, railings, emergency shoulders, drainage), inadequate lighting, inadequate signage, inadequate hazard warnings, malfunctioning traffic signals, failure to clear after storm, falling trees and other objects, unsafe design or condition of playground or other outdoor recreational sites, drowning hazards, overcrowding and lack of crowd control, inadequate spectator protection, inadequate supervision (such as lifeguards for pools and beaches), inadequate severe weather contingency plans for outside recreational areas (such as beaches, pools, golf courses, camp grounds)
- ❑ Liability for bodily injury or property damage at construction sites
  (examples: adjacent property, underground utilities and resulting disruption of service, passersby, unsafe conditions of premises affecting building occupants, contractor and subcontractor employees, suppliers and public employees)
- ❑ Liability for bodily injury or property damage arising from law enforcement activities
  (examples: excessive force (such as firearm, K-9, pepper spray/tear gas, use of handcuffs), accidents during operation of police vehicle (including hot pursuit, response to officer in distress), assault and battery; inmate injury.)
- ❑ Liability for bodily injury or property damage arising from fire and rescue and emergency medical services
  (examples: failure to dispatch timely, failure to deliver services, accidents during operation of fire engine/ambulance, lack of consent to treat or transport, failure to follow medical protocols, failure of equipment, injury of citizens during rescue/treatment, medication errors)
- ❑ Personal injury liability
  (examples: false arrest, detention or imprisonment, malicious prosecution, wrongful eviction, defamation (slander or libel exposing a person to ridicule, scorn or contempt), and invasion of privacy)
- ❑ Liability for discrimination/violation of civil rights/abuse of discretion
  (examples: discrimination based upon age, disability, gender, national origin, personal views, pregnancy, race, religion, sexual orientation or other categories protected under state or federal law. Includes discrimination in access to public facilities and programs, public employment, law enforcement activities, obtaining licenses and permits, planning and zoning decisions. Also includes free speech and privacy issues in various settings.)
- ❑ Liability for bodily injury or property damage due to operation of aircraft, watercraft, motor vehicles, public and school transit systems and mobile equipment
  (examples: liability for bodily injury and property damage arising out of the use of owned, non-owned and hired equipment, unlicensed operator, inadequate operator training, inadequate background check/reference check for operator, intoxication of operator)
- ❑ Food service
  (examples: food poisoning, foreign object in food, unanticipated closure of facility due to unsanitary conditions or infestation)
- ❑ Liquor service
  (examples: host liquor liability for actions of guests/patrons served, license to serve, private events on public property, server inadequately trained, service to minors)
- ❑ Failure or disruption of public services delivery
  (examples: utilities, sewer back-ups, water, refuse collection, storm clean-up, social services, residential and clinical health services, hospitals, welfare benefits, public housing and homeless shelters)

- ❑ Environmental contamination
  (examples: under ground and above ground storage tanks, vehicle accidents, pipelines, waste disposal, incinerators, landfills, sewage overflow, water treatment plant malfunction, release of contaminants in building components and systems (Asbestos, PCB's, Halon, Chlorine)
- ❑ Schools
  (examples: student bodily injury, student privacy and confidentiality, student discipline, student speech, student and non-student on-campus violence, school social events, lack of parental consent and waiver for off campus activities, student Internet access, physical or sexual abuse of students by staff or other students)
- ❑ Damage to/loss of property of others in custody of government
  (examples: arts works and museum pieces on loan, impounded motor vehicles, personal effects at jail, leased equipment and motor vehicles)
- ❑ Professional liability
  (examples: failure to comply with standard of care in the profession, lack of informed consent for medical services)

Possible Advance Preparation:

- ❑ Hire responsible, well-qualified workforce and keep turnover low
  (include: appropriate investigation of incoming employees who will work with children, the elderly, or the mentally disabled; verification of job history, credentials and licensure; reference checks; skills testing; and other investigation as indicated by the requirements of the position)
- ❑ Adopt and require employees to follow appropriate standard operating procedures
  (review standard operating procedures periodically to ensure that they remain effective and relevant, and revise if not)
- ❑ Require ongoing, job specific training for all employees
  (include: loss prevention and quality of service issues, thorough and accurate recordkeeping procedures, safe operation of motor vehicles, safe operation of heavy equipment and trucks, job specific standard operating procedures, good relations with citizens, what to do when an accident or injury occurs)
- ❑ Conduct regular and thorough safety inspections of public premises and correct identified problems
  (include: periodic, documented inspections by risk management, safety personnel, or other employee external to the operation; frequent, documented inspections by supervisory personnel within the operation; education of all employees in the operation to assume responsibility for safety and address safety issues as they arise. Include inspection of grounds and outdoor recreation facilities and playgrounds. Encourage employees to report problems they observe with streets, sidewalks and other infrastructure; establish system for residents of publicly owned housing to report problems)
- ❑ Ensure adequate security for public premises
  (include: security to prevent criminal acts and ensure adequate crowd control at publicly sponsored events and privately sponsored events on public property, as needed for various government operations, after hours security for public buildings)
- ❑ Limit and carefully control use and storage of hazardous materials in public operations
  (include: compliance with federal and state OSHA and EPA regulations, substitute less hazardous materials when possible, regularly check storage and use areas for potential leaks)
- ❑ Require sponsors of non-public events held on public property to provide evidence of insurance or other financial responsibility for all potential losses arising from the event
  (include: general liability and coverage for hazardous activities that may require specialized coverage, such as fireworks.)
- ❑ Properly inspect and maintain all equipment and vehicles used in conjunction with public operations
  (include: motor vehicles, buses, mobile and non-mobile equipment, medical equipment, playground equipment, athletic equipment, power tools, ladders, ventilation equipment)

- ❏ Train all employees about requirements of laws relating to discrimination and civil rights
  (include: specialized training of employees who hire other public employee, training of all employees to avoid discrimination and civil rights violations against fellow employees and citizens.)
- ❏ Develop contingency plans to ensure continuation of public services and operations
  (include: post disaster, disruption of lifeline services, disruption of supplies to public agencies, lack of employee availability, inadequate equipment or workforce)
- ❏ For all construction projects, confirm potential contractors' ability to conduct the project in a safe and responsible manner, in compliance with state and federal laws and regulations.
  (examples: OSHA compliance, "Before You Dig" precautions relating to underground utilities, safeguarding of adjacent property and passersby, dealing with asbestos and lead during renovation of existing older buildings)
- ❏ Form a public risk management committee with representatives from all public operations
- ❏ Develop a system for documentation, reporting, and review of all accidents, injuries, and potential liability causing events, and for implementing any required corrective action
- ❏ Ensure that the governing board has appropriate legal advice to support its exercise of governmental functions

9. Dependence on Outside Resources

Some Risk Sources:

- ❑ Dependence on utilities
  (examples: electricity, natural gas, oil, water supply)
- ❑ Dependence on communications networks
  (examples: telephone service, cellular/digital telephone service, 911 service and dispatch system, two way radios)
- ❑ Dependence on suppliers of commodities
  (examples: food, gasoline, medical supplies)
- ❑ Dependence on contractors for emergency services
  (examples: snow plows and tree trimming for post-storm street clearing, environmental cleanup services for accidental spills)
- ❑ Dependence on mutual aid agreements

Possible Losses or Adverse Results:

- ❑ Impact of resource unavailability on ability to deliver public services
- ❑ Impact of unexpected price increase on ability to deliver services
- ❑ Impact of sudden increase in demand on ability to deliver services
- ❑ Citizen bodily injury or property damage

Possible Strategies:

- ❑ Contingency plans for delivering services despite resource disruption
- ❑ Identify critical operations and prioritize them to receive supplies
- ❑ Make resource back up arrangements in advance
  (example: provide generators and alternative water supply for hospitals and jails)
- ❑ Long term contract for purchase of energy utilities at fixed price
- ❑ Contract with multiple resource providers suppliers to avoid relying on a single source
- ❑ Mutual aid agreements with multiple neighboring jurisdictions
- ❑ Arrange with vendors and suppliers in advance for equipment and supplies required to respond to emergency conditions
- ❑ Adequate security at utilities and water treatment plants
- ❑ Confirm that potential resource providers have adequate contingency plans to minimize disruption of their operations

10. Property Loss

Some Risk Sources:

- ❑ Public buildings
- ❑ Publicly owned utilities
  (examples: natural gas, electric, water treatment, sewers)
- ❑ Publicly owned incinerators and landfills
- ❑ Construction projects
- ❑ Public infrastructure
  (examples: highways, streets, sidewalks, bridges, culverts, tunnels, sewage collection and treatment, stormwater collection, signs, dams)
- ❑ Recreational sites and equipment
  (examples: amusement parks, athletic facilities, beaches, campgrounds, exercise equipment, golf courses, ice skating rinks, marinas/docks, parks, playground equipment, shooting ranges, skateboard/rollerblade facilities, swimming pools, winter sports sites, zoos)
- ❑ Valuable objects
  (examples: art works, antiques, zoo animals, valuable books and papers)
- ❑ Motor vehicle fleet
- ❑ Watercraft
- ❑ Aircraft
- ❑ Mobile equipment
  (examples: forklifts, road maintenance, mobile command centers, refuse and recycling collection, fire and rescue trucks and equipment, ambulances)
- ❑ Police weapons
- ❑ Buses
  (examples: school, public transit, transportation of citizen-client groups)
- ❑ Animals
  (examples: police dogs, zoo animals, police horses)
- ❑ Property leased or borrowed from others
  (examples: art works, zoo animals, leased motor vehicles or other equipment)
- ❑ Computer technology
  (examples: personal computers, main frame computers, laptop computers, palm pilots, data and media, software, website)
- ❑ Business records
- ❑ Communications technology
  (examples: antenna, satellite dishes, cellular phones, portable radios, phone systems)
- ❑ Vacant publicly owned buildings
- ❑ Vehicle impound facilities
- ❑ Trees

Possible Losses or Adverse Results:

- ❑ Public building or facility damage or total loss; repair or replacement cost
  (examples: fire, boiler or machinery failure, explosion, failure of water pipes or sprinkler system, criminal activity, natural hazard or extreme weather damage, failure of electrical system, third party negligence, obsolescence)
- ❑ Inability to use public building or facility to deliver government services
  (examples: physical loss or damage, utility or service disruption, inaccessibility, contamination with hazardous materials -chemicals, asbestos, lead, biohazards etc.)
- ❑ Extra expense to continue providing government services without public building
  (examples: cost of renting temporary substitute premises and equipment; cost of expediting repairs)
- ❑ Loss of or damage to other public equipment and furnishings
  (examples: repair or replacement costs, extra expense pending repair or replacement)

- ❑ Revenue lost on damaged/destroyed public property leased to others
- ❑ Loss of/damage to valuable objects
  (examples: replacement cost, repair and restoration cost, expedited restoration of deteriorating objects - wet paper or cloth, for example)
- ❑ Loss of/damage to motor vehicle, bus, watercraft, aircraft, mobile equipment
  (examples: individual vehicle accident or damage - cost of repair or replacement, damage or destruction of major portion of fleet or unique equipment - cost of repair or replacement and cost of temporary replacement if needed to continue delivery of services)
- ❑ Property leased or borrowed from others
  (examples: cost of repair or replacement, for leased items, lessor's loss of rental income while under repair.)
- ❑ Computer technology
  (Examples: cost of repair or replacement of hardware due to damage, loss or obsolescence; sabotage or theft of data by hacker or employee; cost to restore software and data; extra expense to replace resources pending replacement or repair)
- ❑ Business records
  (examples: cost of restoration of records, lost or delayed revenue)
- ❑ Publicly owned incinerators and landfills
  (example: environmental contamination from refuse)
- ❑ Public infrastructure: loss of use or reduced capacity
  (examples: damage due to natural disaster, failure to maintain leading to more rapid deterioration)

Possible Strategies:

- ❑ Fire alarm and sprinkler systems; fire extinguishers; fire resistant construction when feasible
- ❑ Regular and documented fire drills
- ❑ Regular inspection of premises for fire hazards
- ❑ Maintain thorough and accurate inventory of building contents with values
- ❑ Regularly assess condition of water supply and waste pipes and address maintenance issues
- ❑ Assess security needs of each building, both during the work day and after hours, and implement appropriate building and perimeter security precautions
- ❑ Regular inspection of boilers and machinery
- ❑ Assess and control for hazards posed by operations on adjacent property
- ❑ Assess susceptibility of location to natural hazard events before building
  (examples: wildfire, flood, earthquake, landslide, sinkholes, hurricane, tsunami, windstorm)
- ❑ Construct or retrofit buildings to withstand reasonably expected natural hazards events
- ❑ Conduct due diligence investigation of all property for environmental contamination before acquisition
- ❑ Train all employees about fire safety issues presented in their operations
- ❑ Conduct routine maintenance of public infrastructure
- ❑ Business records: hard copy and computer
  (example: regular, off-site back up of software and data; advance planning for restoration)
- ❑ Computer technology
  (examples: regular inventory and labeling of equipment, sign out policies for portable equipment, surge protection, internal access to system areas limited to need, security against unauthorized internal and external penetration, off-site back up of all software and data, limit employee access to Internet to employees with a business need, regularly update virus protection, train employees about virus hazards, establish and enforce written procedures regarding use of computer and Internet technology.)

- ❑ Identify in advance all hazardous materials used or stored on premises and take appropriate action to avoid contamination of public facilities and land with these materials
  (examples: strictly enforced procedures for disposal of hazardous substances; regular inspection of storage tanks and pipelines, ensure compliance of landfills and incinerators with environmental regulations)
- ❑ Confirm licensure and/or appropriate training of all employees and contractors operating motor vehicles, aircraft, watercraft, fire and rescue equipment or other hazardous machinery on behalf of the public entity
- ❑ Consider lightning protection systems where needed to protect property, such as rooftop mounted antennas and satellite dishes
- ❑ For construction projects, require appropriate financial security that contractor will complete the project on time, within budget and in compliance with project specifications, building and fire codes, and other state and federal legislation and regulations
- ❑ Property of others held or used by public entity: reach agreement in advance as to risk of loss during use, and make appropriate arrangements to finance any loss
  (examples: works of art on loan, public safety equipment on loan)
- ❑ Plan for financing replacement or repair of damaged or destroyed property, including property under construction; replacement of obsolete property and equipment; and extra expense associated with continuing operations following loss of, or damage to, business property

11. Use of Technology

Some Risk Sources:

- ❑ Mainframe computers
- ❑ Network servers
- ❑ Desktop personal computers
- ❑ Laptop computers
- ❑ Internet
- ❑ E-mail
- ❑ Web site
- ❑ Cellular telephones
- ❑ Two way radio systems

Possible Losses or Adverse Results:

- ❑ Physical loss of equipment
  (examples: fire, theft, power surges, sabotage, natural disasters, physical impact, environment, viruses, obsolescence)
- ❑ Loss of data
  (examples: theft, sabotage, malfunction, user error, viruses, crash due to power surges, hacker attack)
- ❑ Breach of citizen privacy and confidentiality through unauthorized access to data
  (example: outside party gains access to citizen credit card numbers, social security number, or other personal data.)
- ❑ Breach of open meetings laws
  (example: discussion of issues subject to open meetings laws in non-public forum such as e-mail)
- ❑ Employee e-mail use or contents create legal exposure
  (examples: sexual harassment, discrimination, defamation, offensive content, transmission of viruses, discovery in legal proceedings, lost productivity due to employee use for non-work related purposes)
- ❑ Web site contents or operations create legal exposure
  (examples: copyright infringement, trademark infringement, defamation, offensive material, discriminatory material, violation of business model patents, virus transmission, links to other sites without written permission, liability based on contents of other sites to which entity web site links, inaccurate or misleading content, prolonged lack of site availability for transactions or informational purposes, errors in processing online transactions, release or theft of confidential citizen information)
- ❑ Hacker attacks
  (examples: disabling operation of site, insertion of objectionable material, deletion of material, use of system by hackers to launch attacks against other sites)
- ❑ Employee Internet use
  (examples: lost productivity due to employee use for non-work related purposes, employee visits to objectionable sites, employee storage of objectionable material on entity computers, potential breach of employees' constitutional right to free speech by prohibiting non-work related visits to some web sites but not others, use of entity cell phone for non-entity business, use of Internet to order goods for employee's personal use)
- ❑ Software loss or damage
  (examples: obsolescence, physical destruction, destruction by computer malfunction, destruction by virus)
- ❑ Software inadequacy
  (examples: inadequate for purpose intended, incompatible with other systems)
- ❑ Software intellectual property issues
  (examples: violation of commercial software licensure terms, ownership of source codes for software designed for the entity. ownership of entity data in the computer systems of vendors)

- ❑ Inability to deliver services due to technology failure
  (example: inability to provide 911 police/fire and rescue services due to failure of supporting technology, inability to process citizen payments of tax bills, fines etc.)
- ❑ Motor vehicle accidents due to cell phone or computer use while driving on entity business
- ❑ Fraudulent transactions on e-government sites

Possible Strategies:

- ❑ Regularly back up and store data and software off-site in secure location
- ❑ Implement security measures for data and systems
  (examples: internal security levels based on need to access, internal and external protection against unauthorized access, monitoring of access, firewalls, restricted physical and remote access, monitor system traffic for attempted breaches, identify and install manufacturer patches to correct software vulnerabilities, encryption of sensitive citizen information)
- ❑ Protect computers against risks of physical loss or damage
  (examples: surge protection, locking down equipment, especially laptops, strict sign out requirements for laptops, require immediate reporting of loss or damage, thorough annual inventory of equipment, appropriate workstations for equipment)
- ❑ Identify system vulnerabilities to outside access
  (examples: use ethical hacker, monitor websites of software providers)
- ❑ Require appropriate identifying information for all e-government transactions
- ❑ Adopt contingency plans for continuing to operate and provide services without technology
- ❑ Implement, train employees and officials about, and enforce policies and procedures governing use of the Internet and e-mail
  (examples: limit use to business use; prohibit e-mail content that is defamatory, obscene, discriminatory, offensive or harassing; train and educate employees about policies and procedures; train governing board members about e-mail issues, including Sunshine Laws; train employees about viruses and e-mail attachments; train employees and officials about discoverability of e-mail contents during litigation or under Freedom of Information Acts.)
- ❑ Avoid inappropriate postings or changes to web site
  (examples: limit internal authority to make changes and postings to entity's web site, prohibit posting of materials on web site by any employees other than those authorized, appropriate internal and external firewalls and security, train employees who have the authority to change the web site about relevant legal exposures)
- ❑ Require employees to immediately report theft of any entity owned technology equipment in their possession
  (examples: cell phones, lap tops)
- ❑ Establish and enforce safety rules controlling use of cell phones or computers while driving on entity business
- ❑ Centralize control of all software installation

12. Workforce

Some Risk Sources

- ❑ Employment practices
  (examples: hiring, discipline, incentive programs, termination, turnover, retirement, right to privacy and confidentiality, benefits)
- ❑ Volunteer workforce
- ❑ Independent contractors
- ❑ Worker substance use
- ❑ Employees or volunteers under age 18
- ❑ Employee recreational activities
- ❑ Worker injury or illness
- ❑ Workplace policies, procedures, and rules
- ❑ Employment of workers who are not American citizens
- ❑ Providing references for former employees
- ❑ Inadvertent creation of non "at will" employment relationship with employees
- ❑ Employee pre-existing health conditions
- ❑ Employment related laws and regulations

Possible Losses or Adverse Results

- ❑ Fines or penalties for noncompliance with federal or state occupational safety and health requirements
  (examples: bloodborne pathogens, lockout/tagout, electrical work, lateral support for excavation, tree trimming, walking surfaces and ladders, hazardous materials, recordkeeping and posting, machinery guarding, respiratory protection, job safety analysis, confined space entry, manual material handling, ingress and egress, first aid)
- ❑ Costs of employee work related injury or illness
  (examples: workers' compensation benefits, medical expenses, liability for employee injury not covered by workers' compensation, lost productivity during recovery, cost of replacing skilled employee, employer responsibility for pre-existing health conditions)
- ❑ Liability for judgment and defense costs for employment practices litigation
  (examples: discrimination in any facet of employment based on race, age, pregnancy, religion, national origin, marital status, number of children, disability and other factors under state and federal law; sexual harassment; failure to accommodate or other violations of Americans with Disabilities Act; Family Medical Leave Act; breach of employee confidentiality or privacy)
- ❑ Litigation alleging defamation of employee
  (examples: during disciplinary activities, post employment references)
- ❑ Liability to injured third parties for negligent hiring, training, supervision or retention of employees
  (examples: inadequately qualified, trained or supervised employee injures third party during hazardous operations, employee intoxicated on the job injures third party)
- ❑ Losses from employee intentional acts against the employer or other employees
  (examples: theft, arson, pilferage, violent acts, harassment)
- ❑ Citizen dissatisfaction due to inadequate public services.
  (examples: inadequate hiring procedures, inadequate on the job training, inadequate pool of potential employees, excessive turnover or early retirement due to lack of competitive pay and benefits or unpleasant working environment)
- ❑ Penalties or liability for failure to properly administer employee benefits
  (examples: failure to enroll or incorrect enrollment for benefits, failure to maintain benefits, failure to provide notice about post-termination benefits continuation, negligent selection of vendors for employee benefit plans, breach of fiduciary duty related to retirement plans)

- ❏ Penalties for employing non-citizens in violation of federal immigration laws
- ❏ Non-employee work-related injury or illness
  (examples: independent contractor without workers' compensation insurance, volunteers)
- ❏ Costs of worker injury during after-hours recreational/fitness activity
  (example: employee sponsored teams during non-working hours, law enforcement personnel engaging in off duty exercise to maintain required physical fitness level)
- ❏ Liability to third parties for actions of independent contractor
  (example: contractor operations damage property of or cause injury to third party)
- ❏ Liability to third parties for actions of volunteer
  (examples: volunteer damages property of or causes injury to third party, volunteer abuse of children, elderly or disabled in volunteer's care)

Possible Strategies:

- ❏ Prepare written policies and procedures governing all aspects of the employment relationship from hiring through post employment, and have these policies and procedures reviewed and approved by legal counsel prior to implementation, and train all supervisors and managers.
  (examples: job advertising, job application, job interview, hiring, probation, family medical leave, reasonable accommodation of employees with disabilities, supervision, discipline, references for prior employees, off-duty recreational and fitness activities, substance abuse testing for employees in sensitive or hazardous positions, benefits, termination, workers' compensation procedures and prompt reporting of work related injuries, written records of employment matters, confidentiality of employee information, due process in employee discipline/termination proceedings)
- ❏ Prepare and periodically update written job descriptions for all positions, including identification of essential functions of the job, and review for compliance with the Americans With Disabilities Act.
  (examples: identify essential functions of the job - what needs to be accomplished, not precisely how it must be accomplished)
- ❏ Obtain professional analysis of any physical fitness standards required for public safety personnel or other employees and verify that they are job related and a matter of business necessity.
- ❏ Implement written policies addressing areas of employee activity that pose potential problems; obtain review and approval of legal counsel before implementation; and train employees.
  (examples: sexual harassment, Internet and e-mail use, requirements for driving entity owned vehicles, use of cellular phones while driving, use of passenger restraint systems while driving, use of entity owned vehicles on non-entity business, transporting non-employees in entity owned vehicles, law enforcement officer off duty employment, intoxication/drug use on the job, commercial drivers' license driver requirements, violent or intimidating employee conduct in the workplace)
- ❏ Adopt a safety program to reduce injuries and property damage arising out of entity operations
  (examples: enlist visible upper management support of the safety program, entity-wide safety committee, individual department safety committees, reporting and review of all accidents, injuries and near misses, analysis of entity loss experience to identify problem areas for intervention, establish safety rules and impose discipline for failure to comply, recognize operations with good safety records, identify and comply with applicable OSHA standards, identify and comply with other applicable standards, such as National Fire Protection Association, conduct regular inspections of entity premises, equipment and tools for safety hazards, train all employees about safety issues applicable in general and to their specific operation, ensure employees have adequate training and experience before undertaking hazardous operations, periodically retrain employees to update information and ensure)
- ❏ Require independent contractors to have appropriate safety program and commit to follow applicable OSHA standards.

- ❑ Require independent contractors to comply with federal and state laws and regulations relating to employment.
- ❑ Require independent contractors to indemnify and hold harmless the entity for liability arising out if its operations under the contract.
- ❑ Prepare written volunteer job descriptions and orient volunteers to safety issues and required standards of conduct before they begin working.
- ❑ Reduce workforce turnover
  (example: improve hiring practices, improve benefits and pay, improve work environment)
- ❑ Administer employee benefits program through well-qualified internal or external personnel.
- ❑ Require Americans With Disabilities Act compliant health examination of employee after a contingent job offer has been made, but before the employee has begun work.
- ❑ Document all employee training
- ❑ Obtain prior legal review of any employee handbook.