

## **7 Plates Showing Emergency Flood Control Activities**

PLATE 1: Recommended Method for Sandbag Levee Construction

PLATE 2: Recommended Method for Placement of Polyethylene Sheeting on Temporary Levees (when placed in the dry)

PLATE 3: Recommended Method for Placement of Polyethylene Sheeting on Temporary Levees (when placed in the wet)

PLATE 4: Recommended Methods for Anchoring Polyethylene Sheeting at the Levee Toe

PLATE 5: Recommended Method for Flashboard or Box Levees

PLATE 6: Recommended Method for Plugging Pipes, Method 1

PLATE 7: Recommended Method for Plugging Pipes, Method 2

PLATE 8: Recommended Method for Adapting Manhole for Pumping, Method 1

PLATE 9: Recommended Method for Adapting Manhole for Pumping, Method 2

PLATE 10: Recommended Method for Ringing Sand Boils

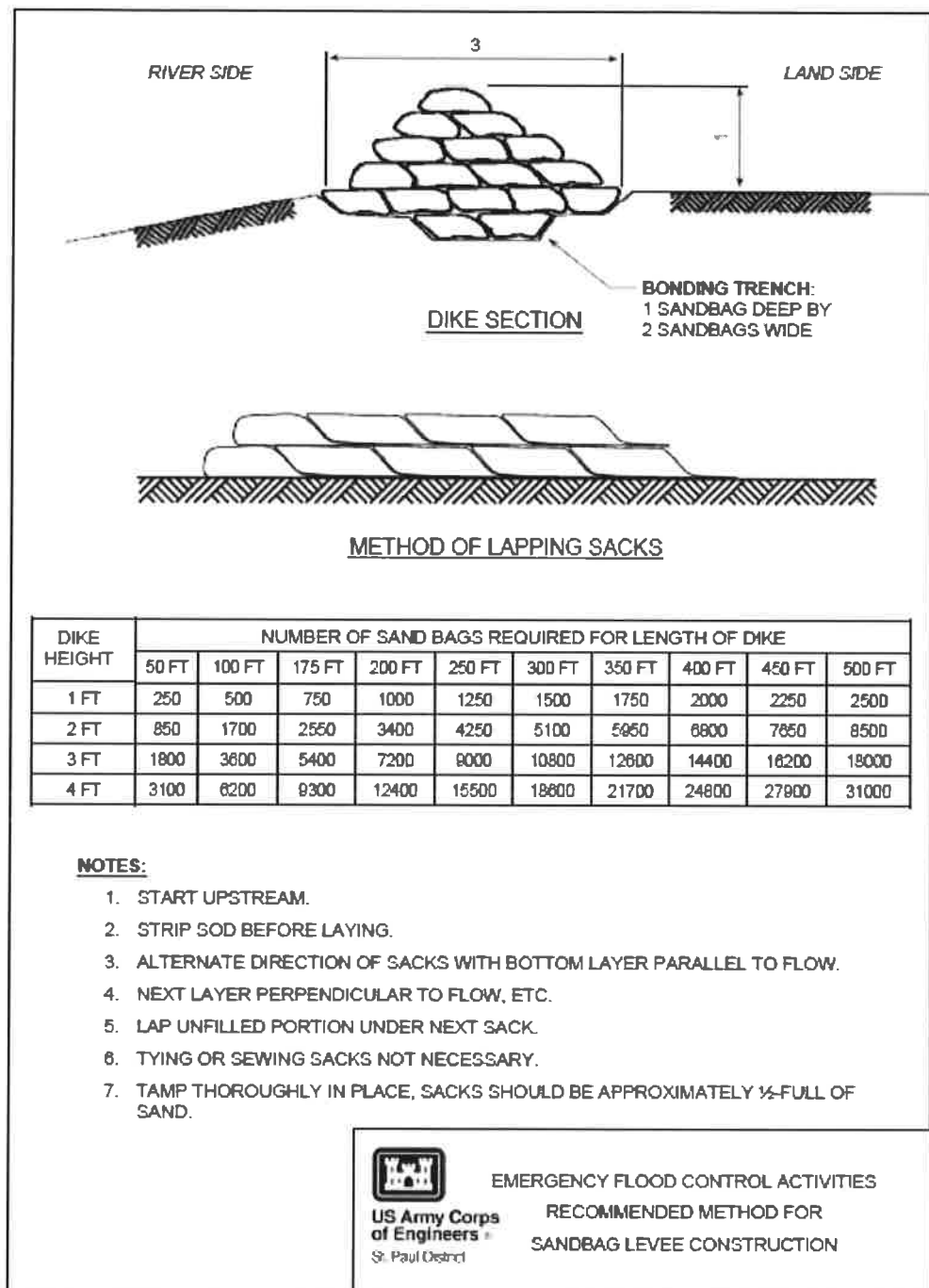


Plate 1

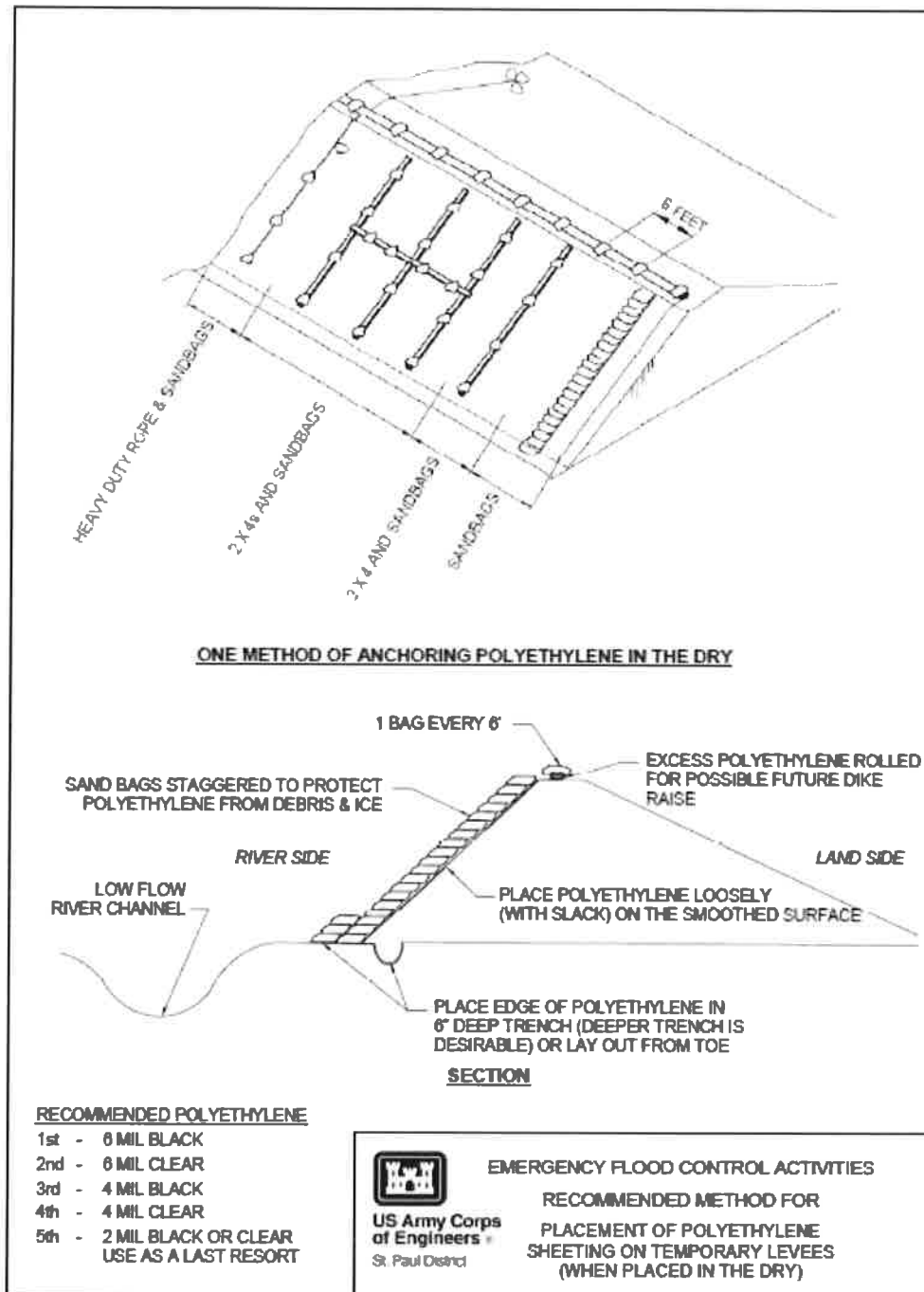


Plate 2

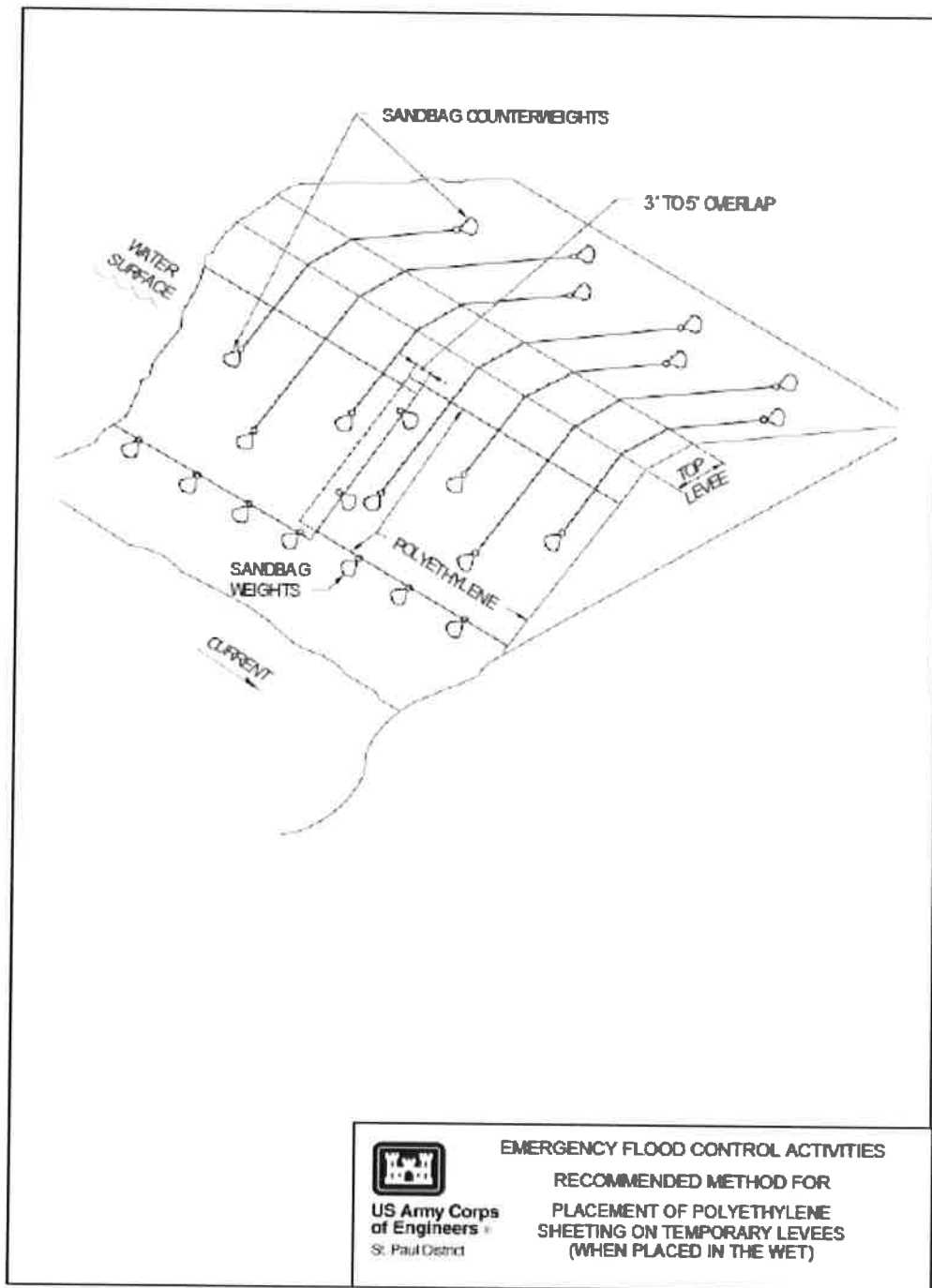


Plate 3

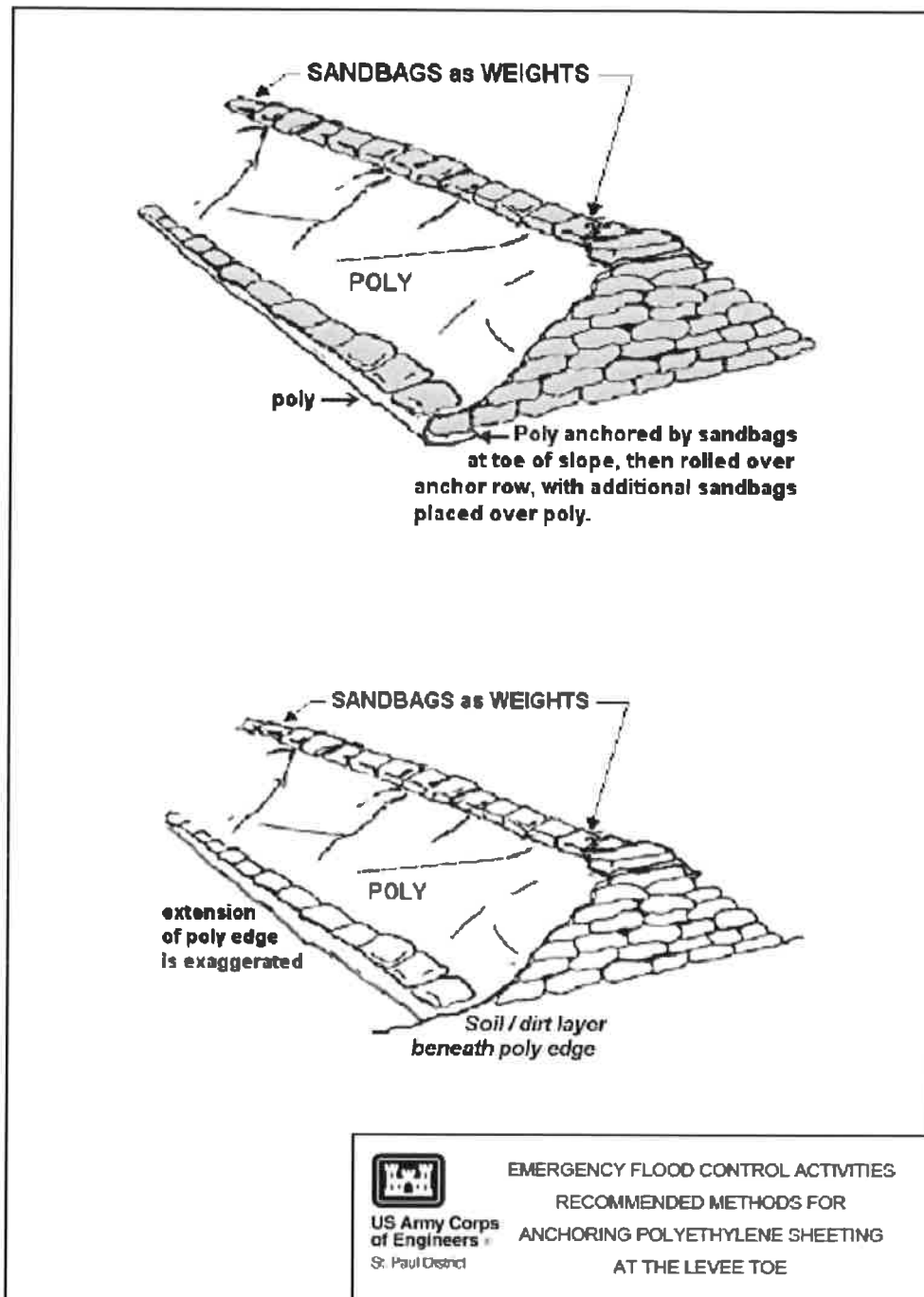


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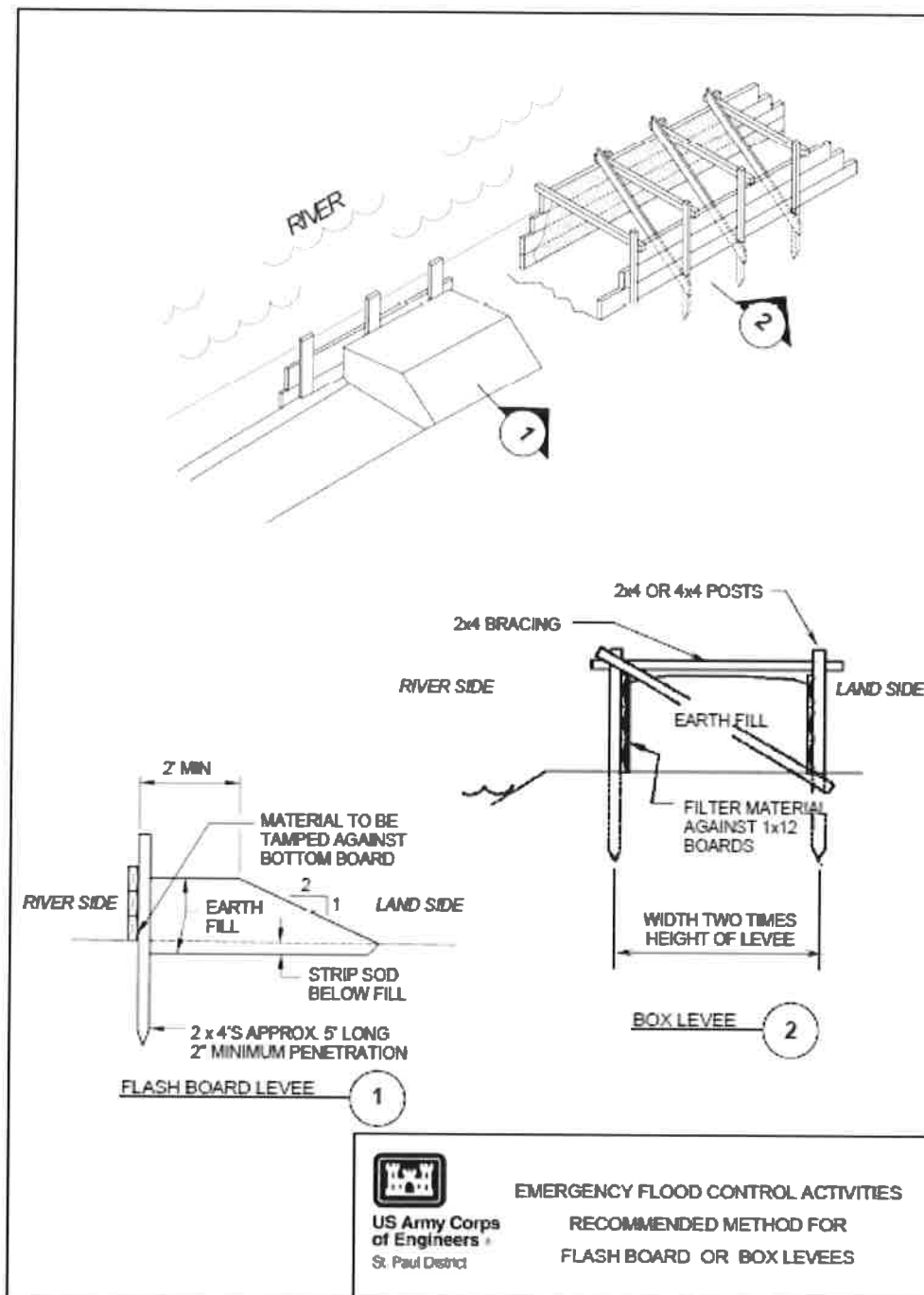


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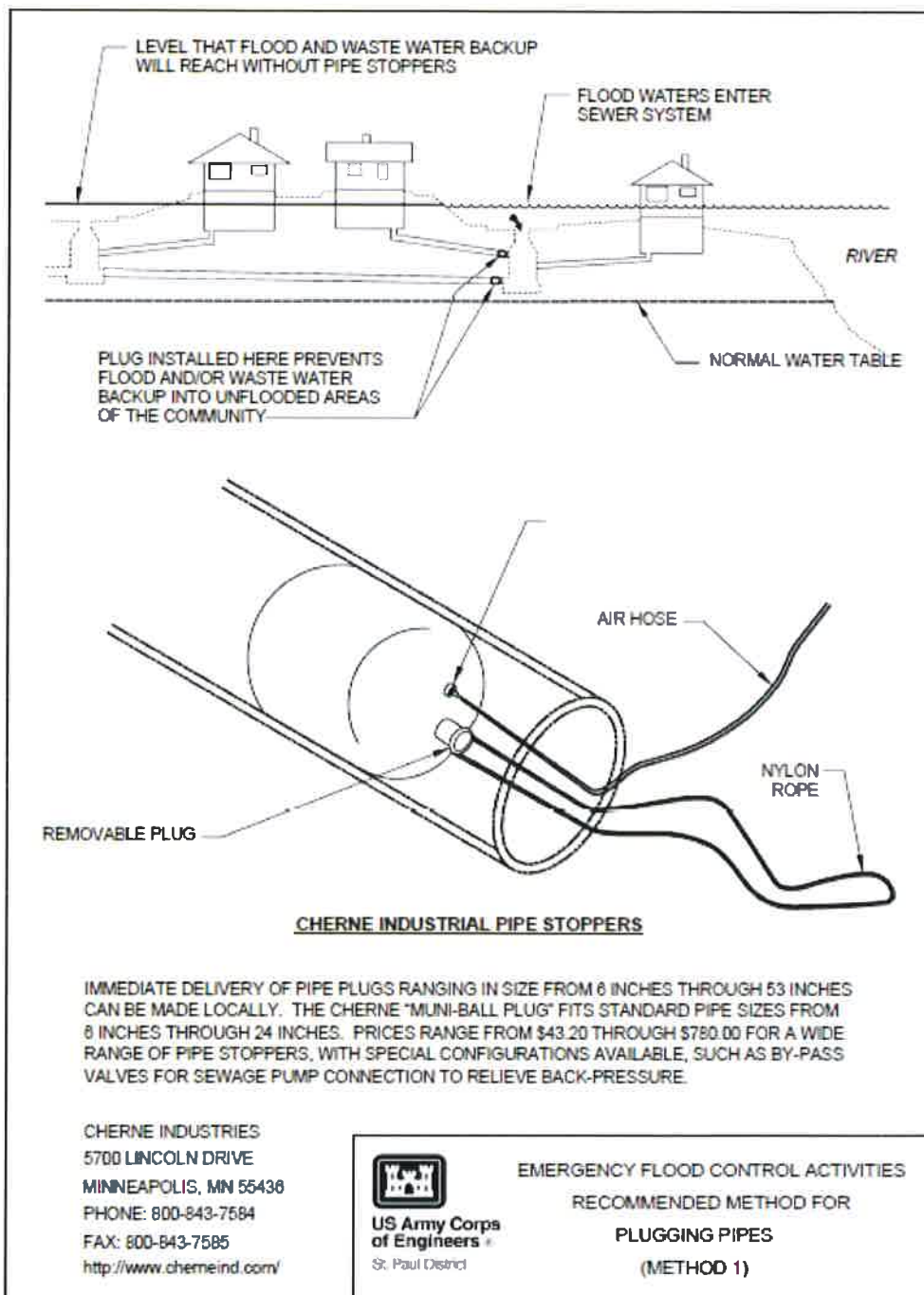
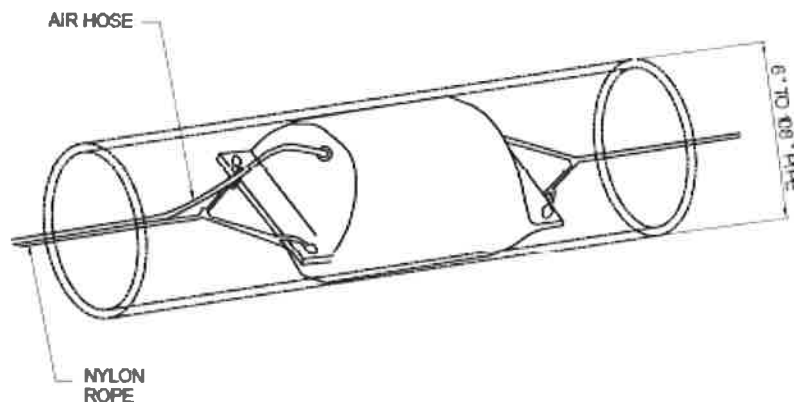


Plate 6



#### **N.B. PRODUCTS PIPE STOPPER**

N.B. PRODUCTS, INC. MANUFACTURES A RUBBERIZED PIPE STOPPER IN ALL STANDARD PIPE SIZES FROM 6" TO 108". THE COST FOR THESE DEVICES RANGES FROM \$20.00 TO \$3,000.00. ADDITIONAL EQUIPMENT REQUIRED FOR INSTALLING THE PIPE STOPPER ARE AN AIR HOSE KIT, AIR HOSE, AND NYLON ROPE. A TWO-WEEK SHIPPING PERIOD IS REQUIRED. MANUFACTURING LEAD TIME IS REQUIRED FOR SIZES OVER 60". ORDERS FOR THESE UNITS CAN BE PLACED TO:

N.B. PRODUCTS, INC.  
ATTN: C.S. MCNULTY  
35 BEULAH ROAD  
NEW BRITAIN, PENNSYLVANIA 18801  
215-345-1879



US Army Corps  
of Engineers  
St. Paul District

EMERGENCY FLOOD CONTROL ACTIVITIES  
RECOMMENDED METHOD FOR  
PLUGGING PIPES  
(METHOD 2)

Plate 7



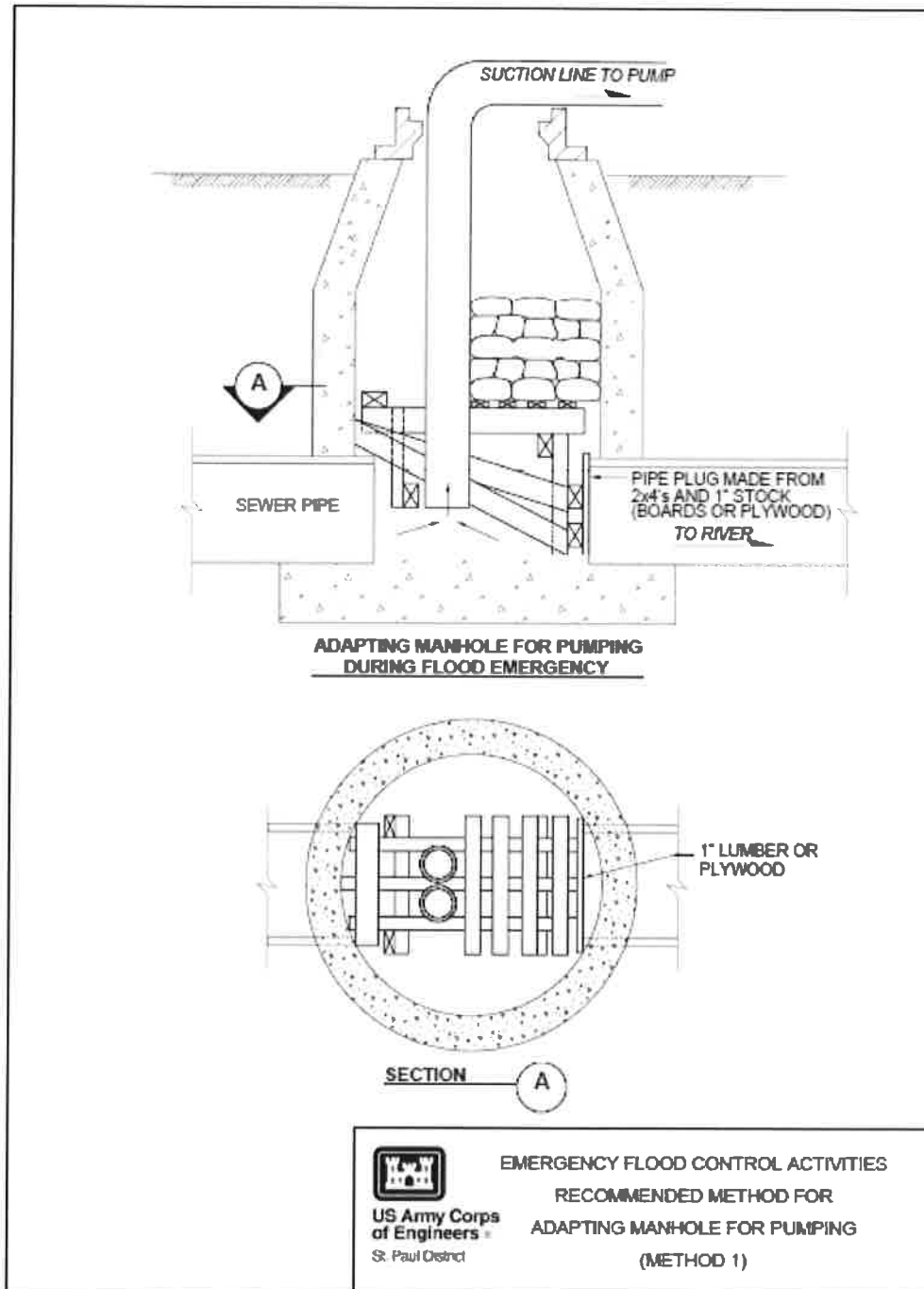


Plate 8

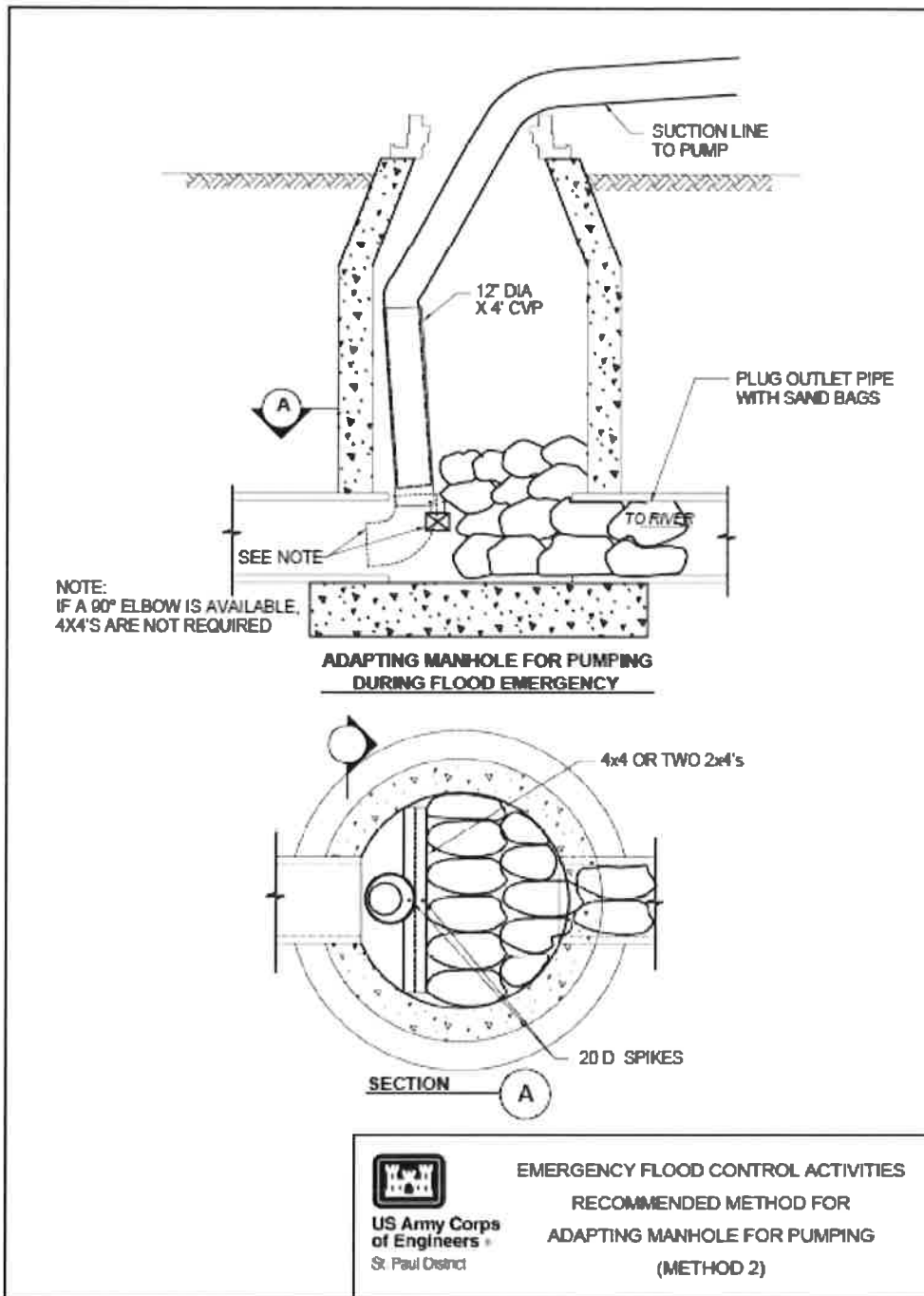


Plate 9

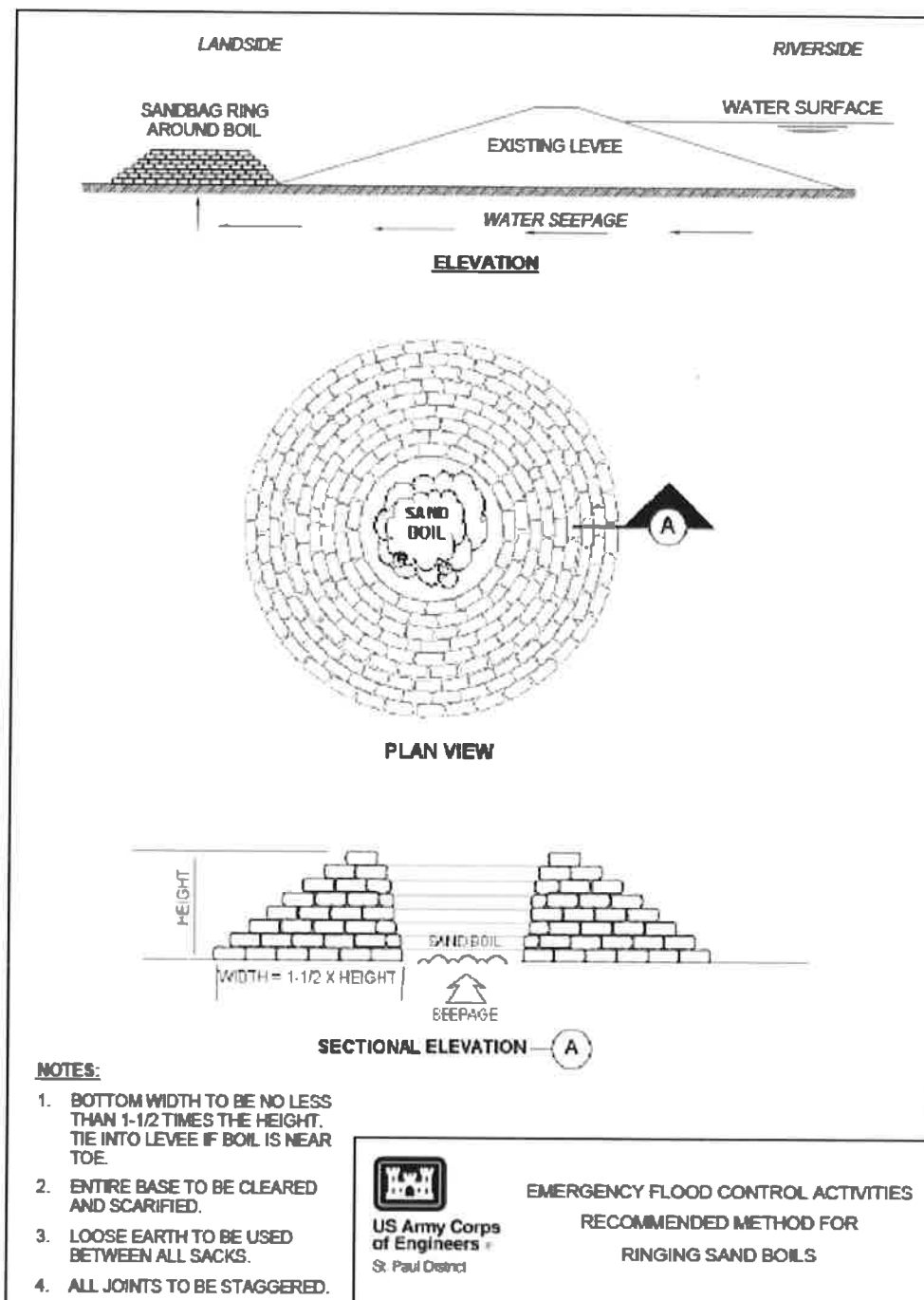


Plate 10

## **APPENDIX 2**

### **1 Steps to Reduce Flood and Water Damage in Homes and Businesses**

If flooding is anticipated, many things can be done to reduce damage to home and property before the snow melts or before a heavy rainstorm. This checklist can help you take the steps needed to reduce the severity of damage from flooding on your home, family or business.

#### ***1.1 Home & Business Preparedness***

##### **[] Check your sump pump.**

Clean the sump pump and pit, and test the pump by pouring water into the pit. Consider having a spare submersible portable sump pump. Make sure the discharge hose delivers the water several feet away from the house to a well-drained area that slopes away from the house. If the hose outlet is too close to the house foundation or on flat ground, the water may simply recycle down through the house's drain tile at the base of the foundation, or along the basement walls to the sump. Don't run the sump pump water into a rural septic system because the water may saturate and damage the drain field. In cities, don't run the sump pump water into the sanitary system; it may overload the system and cause sewage backup, and such actions may also be illegal.

##### **[] Move valuables to higher locations.**

Take items such as irreplaceable family photo albums, high school yearbooks, personal videotapes, tax records, insurance policies, computers and backup discs, and household inventories off the bottom shelves in the lower level of your home, and move to a second floor if available.

##### **[] Plug basement floor drains if possible.**

If your floor drain has a removable grid cover, a flexible rubber ball about 1-¼ times the inside diameter of the pipe can be wedged into the drain to create a tight seal. The pressure might be quite high so brace the ball securely with a length of 2 by 4 lumber against the ceiling. Hold a board or piece of plywood on the ceiling and slide the 2 by 4 against the bottom of the board to avoid damage to plaster ceilings. For a

suspended tile ceiling, remove ceiling tiles to get access to the ceiling joists. Span a 2 by 4 across the two joists and wedge the vertical 2 by 4 between it and the ball in the drain. Some hardware stores sell a plug that has a rubber center that expands to fill the pipe when the top and bottom metal plates are squeezed.

**[] Cover basement floor drains that have permanent grid covers.**

If your floor drain cover cannot be removed, place a partially inflated inner tube around the drain, and top it with a square or two of plywood (not particle board). The plywood must be larger across than the inner tube to cover it. Brace this in place against the ceiling with 2 x 4s, as described above for the rubber ball in the drain. Be prepared for some seepage.

**[] Plug bathroom and utility drains to reduce flooding.**

Unbolt toilets from the floor and plug the outlet pipes using the same procedure as for floor drains. Shower drains can be plugged this way too. Most washing machines and basement sinks have their drain connections about 3 feet above the floor so they may not overflow if the water doesn't get that high. If necessary, these drains can be disconnected and capped or plugged with braced rubber balls.

**[] Move snow away from the house's foundation and slope the ground.**

If the ground is sloped at least one inch per foot near the house, moving snow just 3 to 5 feet from the house will reduce problems.

**[] Contour ground surface to keep water out of window wells.**

Because windows can't withstand much pressure, build dams and contour the ground so water will naturally drain away from the house.

**[] Ensure roof gutters and downspouts are in place and functional**

As the snow melts, downspouts and extensions can carry the water away from the house. Using salt or a chemical can assist in melting the ice within the gutters, but may damage the lawn.

**[] Prepare appliances for flooding.**

Shut off appliances at the fuse box or breaker panel and unplug them if possible. Put freezers, washer, dryers and other appliances up on wood or cement blocks to keep the motors above the water level. If high water is imminent and large appliances can't be moved, wrap them in plastic, and tie it in place with cord or rope. The water will still enter the appliance, but the plastic will keep much of the silt out, making cleanup easier.

### **[] Shut off electricity to areas of the home that might flood.**

Even if floodwaters have not reached electrical outlets, the risk of electrical shock to someone entering a flooded basement is high unless all electrical breakers have been switched off, or electrical fuses unscrewed, disconnecting the electrical service to all motors and electrical appliances. Do NOT stand in water and turn off electrical service. If the floor is damp but not flooded stand on a dry piece of wood or plastic crate, in addition to using a plastic or rubber pole or a piece of dry wood to flip the switches. Do NOT stand on a metal ladder or step stool! If floodwaters have already entered the home to an unsafe level, call the power supplier and have the electrical supply to the house disconnected. Taking these precautions will reduce the chances of electrical shock

### **[] Move hazardous materials to higher locations.**

Paint, oil, cleaning supplies and other dangerous materials should be moved to reduce the chance of leaks into the floodwaters and the environment.

### **[] Plan an escape route and destination.**

If certain roads or streets are known to flood easily, know an alternate route to evacuate the area. Where would you go if your home flooded? Local shelters or the home of a family member or friend are the most common locations

### **[] Plan in advance for pets (and livestock) and assemble supplies for them.**

Make plans for your pets in the event of a flood. If you evacuate your home, **DO NOT leave your pets behind!** Although pets aren't allowed in most shelters due to health , most pets cannot survive on their own or may become lost if left behind. Have a travel carrier or crate, bedding, and leashes and collars/harnesses ready prior to evacuation. Take pet food and other supplies with you in case they're not available later. Consider packing a "pet survival" kit in advance, to be ready to go if disaster hits. During evacuation planning, visit FEMA's pet evacuation webpage listed in Section 6 for more details on preparing your pet for a disaster and evacuation. If you have livestock, evacuation is your best solution, so be sure your animals can be identified. Review FEMA's livestock evacuations webpage listed in Section 6.

### **[] Assemble supplies in case the electricity goes off.**

Gather water, food that requires no refrigeration or cooking, a non-electric can opener, a battery-powered radio, flashlights, and extra batteries.

**[] Assemble supplies for a possible evacuation.**

Gather water, nonperishable food, paper plates/cups and plastic utensils, extra clothing and shoes, blankets or sleeping bags, a first aid kit and prescription medications, cash and credit cards, important phone numbers, and any special items for babies and the elderly.

## **1.2 Family Preparedness**

**[] Discuss what to do in case of a flood.**

As in the case of wildfires, flood evacuation routes must be identified, carefully planned, and practiced. Should the primary route be flooded, closed, or inaccessible, then alternative routes must also be considered. Climbing into the attic or refusing to evacuate is NOT an option.

**[] Identify a central point of contact – an out-of-town family member or friend.**

If family members get separated during an evacuation, each should get in touch with the emergency contact. Make sure everyone has the contact's phone numbers, and that small children have contact information on a necklace card.

**[] Discuss safe emergency procedures.**

Adults need to know where electric fuse boxes, water service mains and natural gas mains are located and how to turn them off if necessary.

**[] Discuss the situation with children honestly and openly.**

Hiding the emergency situation from children will cause unnecessary stress. Answer their questions and be open, honest and caring. Emphasize the need to follow directions and stay with the family, a known adult or the school officials.

## APPENDIX 3

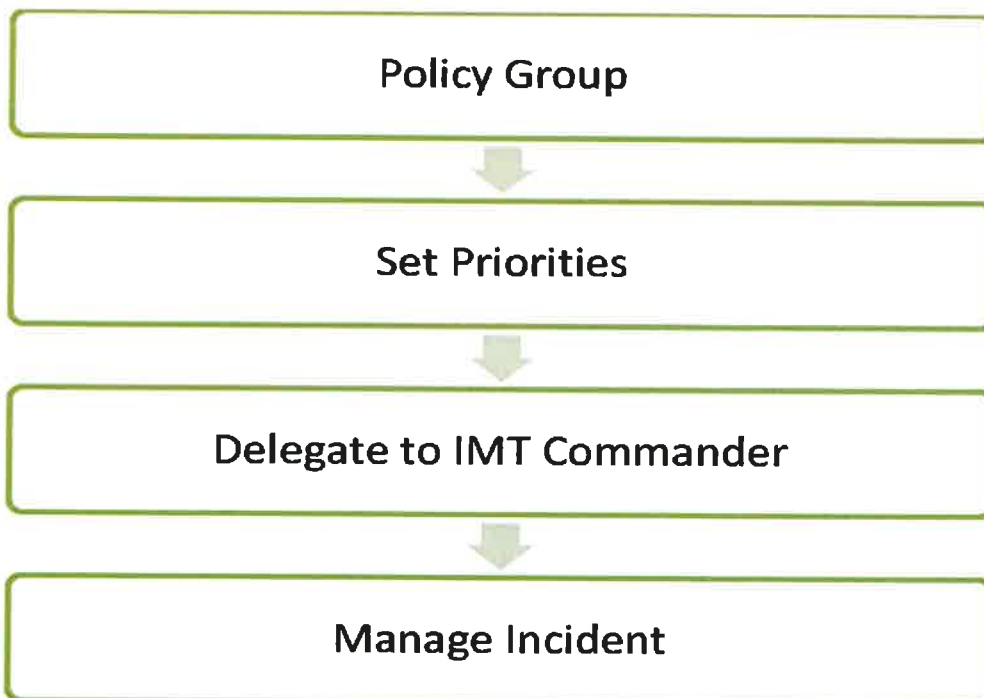
### EOC Operations

When an EOC becomes necessary, it is organized so that maximum advantage can be made of the many interdisciplinary skills and resources that exist on an everyday basis in County jurisdiction and outside support organizations.

The identified County jurisdictions are represented in the EOC by their management-level designees, who continue to act in that capacity. When assembled, this group of County jurisdictions are known as the Policy Group.

**Policy Group.** (Within jurisdictions, the day-to-day command structure and reporting channels remain intact, unless the jurisdictions internal emergency plan specifies otherwise).

The purpose of convening the Policy Group is to provide its members with a setting where they can jointly focus and coordinate on issues requiring cross-input and decisions from the County's senior leadership, and set priorities for the commander of this Incident Management Team (IMT).





## ***Lines of Authority***

Whenever the County EOC is activated, it becomes the center for coordination and leadership over any major crisis that imperils the safety and welfare of citizens which affects numerous jurisdictions.

As the County's Chief Executive, the County Board Chairman (CBC) has ultimate authority in overseeing the EOC. To support the CBC in fulfilling his/her role, there are three functional groups to assist in decision making and managing the incident. These groups are:

A. *The Community Emergency Advisory Group*—Based on the situation at the particular time, the CBC may use his/her discretion in convening an ad hoc group consisting of public and private representatives, from in and/or out of the community. This group's primary role is to provide the CBC with information and perspectives augmenting input from staff.

B. *The Policy Group*—This group is comprised of County jurisdictional representatives, and at a minimum includes the MABAS 39/43 Fire representatives, ILEAS representative, County Sheriff, County Public Works, Regional School Board, Hospitals, Red Cross/Salvation Army, County Health Dept. This group's primary role is to advise the CBC on critical governance issues, emergency strategies, and help develop priorities for the IMT.

C. *The Quad City Area Incident Management Team (IMT)* - This is a pre-designated team comprised of staff trained to manage large scale disasters. The team membership is organized and coordinated by Rock Island and Scott County EMA Directors. Once priorities are given by the policy board, the IMT is responsible for initiating these priorities, providing coordinated operational assistance, coordinating emergency workers and the incident command system.

## ***Division of Labor***

*Chief Elected Official* —Proclaims the disaster emergency, keeps Rock Island County (RICO) residents informed on status of emergency

operations; establishes priorities with policy group, chief spokesperson to public; instills confidence in government, rallies morale; marshals support and cooperation from all sectors of the community; coordinates with elected officials of neighboring jurisdictions; terminates the emergency.

*MABAS Representative*—Monitors fire, rescue, emergency medical services and hazardous materials issues; Provides or coordinates requested support; looks ahead to anticipate upcoming needs and problems; devises solutions for problems, actual and potential; informs subordinate elements of executive decisions, actions, and instructions.

*ILEAS Representative/Sheriff Dept.*—Monitors policing activities; provides or coordinates requested support; looks ahead to anticipate upcoming needs and problems; devises solutions for problems, actual and potential; informs subordinate elements of executive decisions, actions, and instructions.

*Public Works Director*—Coordinates support provided by Engineering, Building, Streets, and Sanitation; looks ahead to anticipate upcoming needs and problems; devises solutions for problems, actual and potential; informs subordinate elements of executive decisions, actions, and instructions.

*Finance Director/City Clerks*—Coordinates compensation, claims, cost analysis and accounting; prepares all necessary reports for later requests for financial assistance; looks ahead to anticipate upcoming needs and problems; devises solutions for problems, actual and potential.

*Attorney* - As the EOC is activated, the County Attorney becomes the legal authority which the CBC and EOC staff can look towards for legal advice as it pertains to disaster response and recovery.

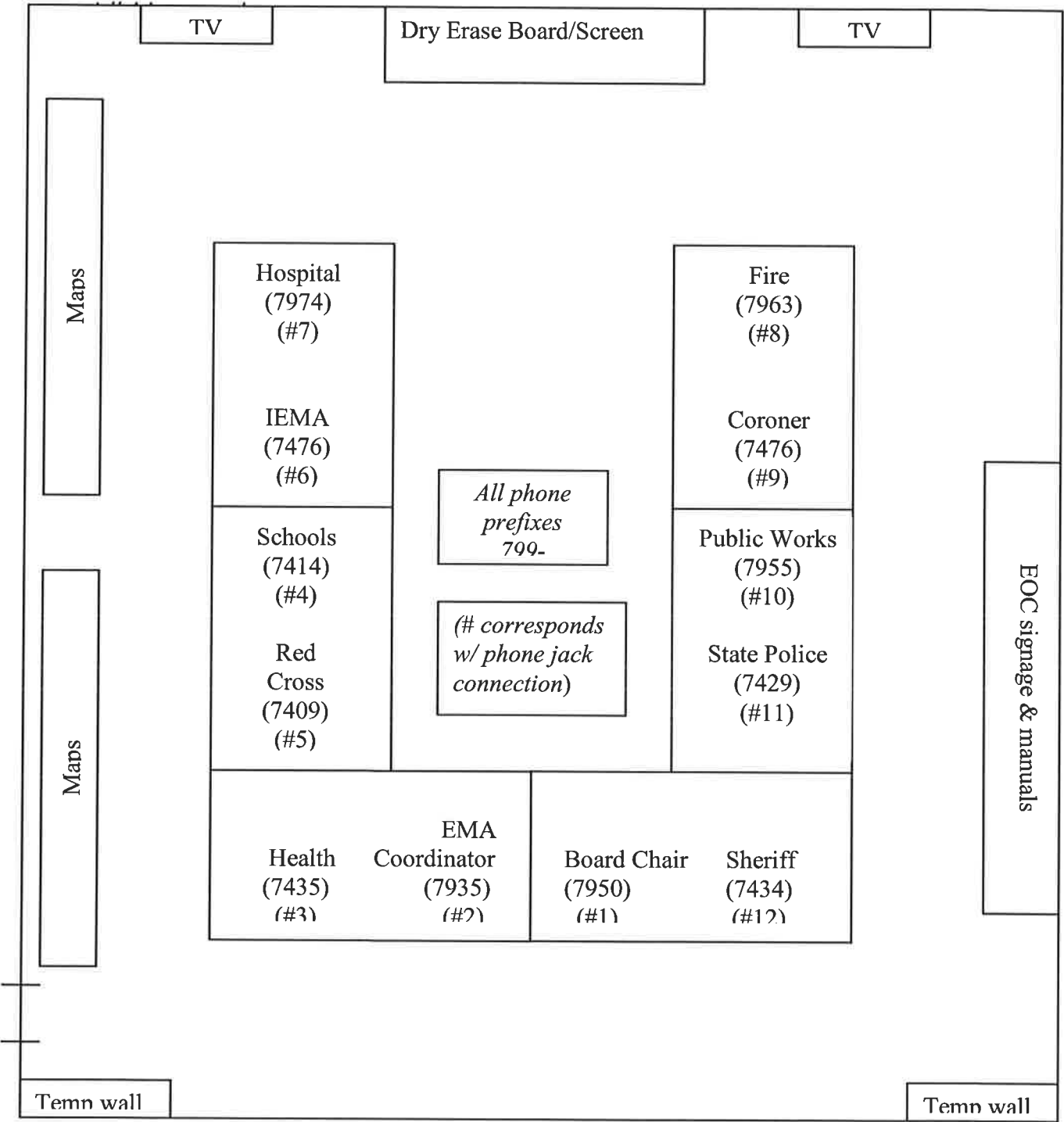
*Regional School Board*- provides assistance and advice to the CBC concerning school issues.

*RICO Public Health Dept.*- provides assistance and advice to the CBC concerning public health issues.

*Hospitals/EMS*- provides assistance and advice to the CBC concerning public issues related to emergency medical emergencies and hospital response.

*Red Cross/Salvation Army* - provides assistance and advice to the CBC concerning sheltering of displaced resident issues.

EOC Floor Diagram



## **Incident Command Systems**

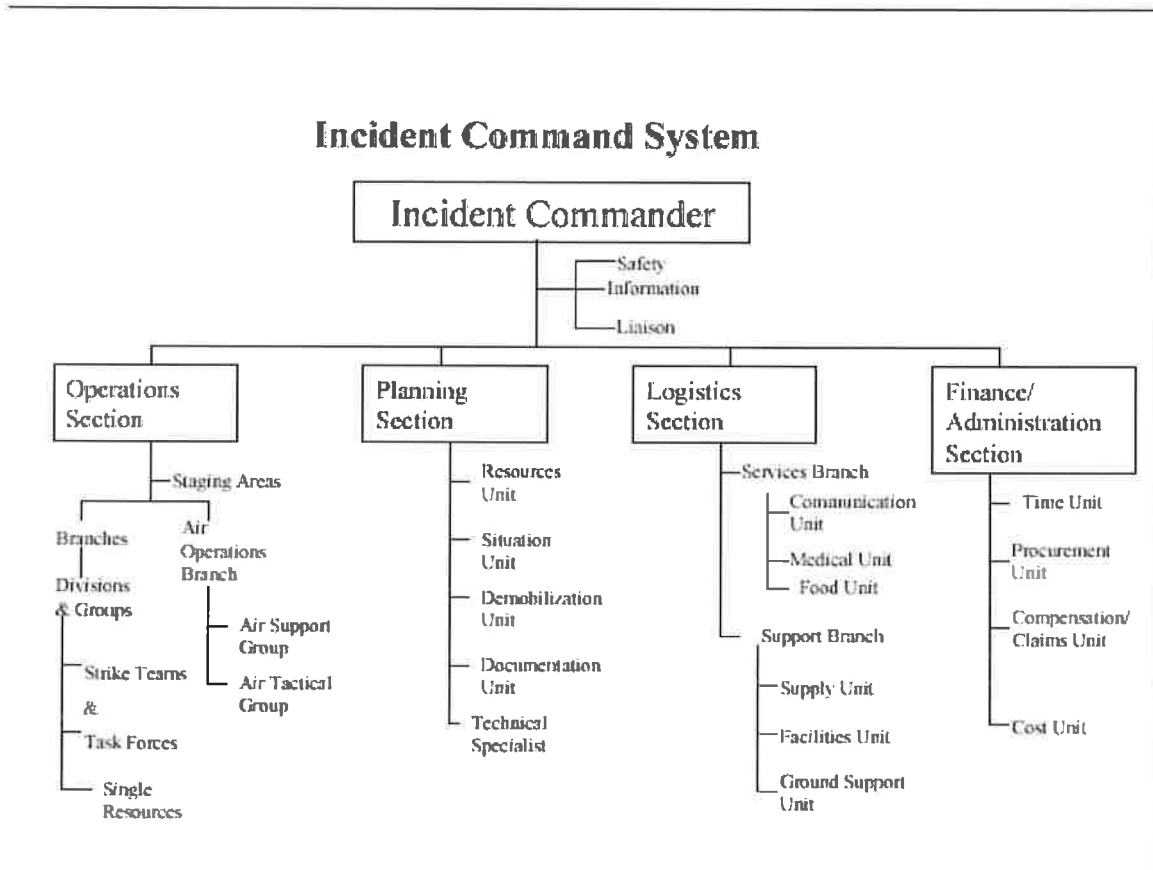
Managing a major response—especially a complex, multi-jurisdictional response—is one of the most important challenges facing our local jurisdiction. Effective coordination among local, state, and federal responders at the scene of a response is a key factor in ensuring successful responses to major incidents.

Incident Command System (ICS) is a standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional or departmental boundaries.

The Quad City Area Incident Management Team (IMT) is responsible for implementing the ICS system. When this occurs the emergency response is divided into five manageable functions essential for emergency response operations: Command, Operations, Planning, Logistics, and Finance and Administration.

Figure 1 shows a typical ICS structure.

## Organizational Structure



## Policy Board

**County Board Chairman (CBC)** The primary job of the CBC is to instill confidence in the government, rally morale and marshal support and cooperation from all sectors the County.

### Critical Responsibilities:

- Proclaim and terminate the civil emergency.
- Keep jurisdictions informed on the status of the emergency.

- Direct the management of the EOC.
- Operate as the chief spokesperson for the County.
- Set Priorities for IMT.

**County Attorney** As the EOC is activated, the County Attorney becomes the legal authority which the CBC and EOC Staff can look towards for legal advice as it pertains to disaster response and recovery.

#### **Critical Responsibilities:**

- Review contracts for emergency work and procurement.
- Draft a Proclamation of Emergency or Disaster for CBC's enactment in accordance with (20 ILCS 3305/) Illinois Emergency Management Act. Ensure a copy of the proclamation is delivered to appropriate entities, including the Governor of the State of Illinois.
- Draft orders as appropriate for enactment by the CBC.
- Draft emergency or interim ordinances, resolutions, or regulations required to facilitate emergency operations

#### **Other Duties:**

- Provide legal review of emergency plans and supporting documents to ensure compliance with local, state and federal laws.
- Monitor communications from applicable jurisdictions of the State of Illinois to ascertain if a proclamation by the Governor of a disaster or State emergency.
- Assist the Finance Director in identification and preservation of essential records.
- Document emergency-related activities and costs.

## ***Incident Management Team***

**Incident Commander (IC)** The IC is responsible for all aspects of the response, including developing incident objectives and managing all incident operations. The IC will assure that political and social issues are addressed in a timely and professional manner and that an open dialog is maintained between the Incident Management Team and other outside agencies.



### **Critical Responsibilities:**

- Ensure that safety receives priority consideration in the analysis of strategic alternatives, the development of the Incident Action Plan, and in all incident activities.
- Assess incident situation, both immediate and potential.
- Conduct risk assessment for all strategic alternatives.
- Maintain command and control of the incident management organization.
- Ensure safety and welfare of all incident personnel and the public is maintained.
- Ensure transfer of command is announced to dispatch and to all incident personnel.

- Stabilize the incident by ensuring life safety and managing resources efficiently and cost effectively.

- Determine incident objectives and strategy to achieve the objectives.

#### **Other Duties:**

- Obtain briefings and priorities from the Policy Board and/or prior Incident Commander.

- Set incident objectives.

- Brief Command and General Staff.

- Approve the Incident Action Plan.

- Determine information needs.

- Approve requests for additional resources and requests for release of resources.

- Conduct strategy meetings, reviewing/validating/revising incident objectives, strategies and tactics.

- Determine effects of control actions on environmental and ecological processes.

- Ensure that strategic/tactical options consider all resource values.

- Foster an atmosphere free of discrimination, sexual harassment and other forms of inappropriate behaviors.

- Supervise staff activities; ensure functional performance is maintained; take corrective action.

- Participate in external incident affairs as required.

- Ensure incident financial accountability and expenditures are maintained to County standards.

- Ensure incident documentation packet is complete.

- Debrief with the Policy Board.



## **Command Staff**

The Command Staff is responsible for public affairs, health and safety, and liaison activities within the incident command structure. The IC remains responsible for these activities or may assign individuals to carry out these responsibilities and reports directly to the IC. The command staff will meet briefly each operational period to coordinate daily assignments and work schedules for the operational period. The time will be set by the Incident Commander.

**Safety Officer** The Safety Officer's role is to develop and recommend measures to the IC for assuring personnel health and safety and to assess and/or anticipate hazardous and unsafe situations. The Safety Officer also develops the Site Safety Plan, reviews the Incident Action Plan for safety implications, and provides timely, complete, specific, and accurate assessment of hazards and required controls. Only one Safety Officer will be assigned for each incident. The Safety Officer may have assistant Safety Officers as necessary, and the Assistant Safety Officers may have specific responsibilities.

### **Critical Responsibilities:**

#### **DIRECT INTERVENTION WILL BE USED TO IMMEDIATELY CORRECT A DANGEROUS SITUATION.**

- Implement a safety analysis process for the incident, this will include:
  - o Completing the analysis during the planning process.
  - o Documenting the analysis for the incident package.
  - o Monitor to see that the changes are made in the Incident Action Plan and that assignments are made to help mitigate any risks identified.
- Responsible for the Incident Action Plan cover, to include a safety message, Human Resource information and public information as appropriate.
- Responsible for recommending to the Incident Commander when a Critical Incident Stress Debriefing Team should be activated.

- Responsible for "Team Health. Will facilitate "Team Building" meetings as appropriate, which includes stress, shift length, sleep/work ratio, and friction.
- Will sign off on the Medical Plan, coordinating with the Medical Unit Leader.

### **Other Duties:**

- Participate in planning meetings.
- Establish operating procedures for assistant Safety Officers.
- Analyze observations from staff and other personnel.
- Ensure accidents are investigated.
- Prepare accident reports upon request of the Incident Commander.
- Monitor incident Personal Protective Equipment (PPE) needs.
- Ensure appropriate accident/incident reports and other safety reports are completed and submitted.
- Prepare final Safety Report upon request of the Incident Commander.

***Incident Information Officer (PIO)*** The Information Officer, a member of the Command Staff, is responsible for the formulation and release of information about the incident to the news media, incident personnel, and other appropriate agencies and organizations, and for the management of all information officers assigned to the incident.

### **Critical Responsibilities:**

- Obtain briefing from Incident Commander.
- Participate with the Rock Island County EOC Joint Information Center (JIC).
- Develop policy with Incident Commander, Policy Board, CBC and incident management team members (when applicable)