

EMERGENCY OPERATIONS PLAN

Part II: Hazard Annexes

Storm / Flood

City of Brisbane

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TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
1.1 PURPOSE	1
1.2 SCOPE	1
1.3 SITUATION.....	1
1.4 PLANNING ASSUMPTIONS	2
2.0 CONCEPT OF OPERATIONS	3
2.1 INCREASED READINESS (PREPARATION)	3
2.2 RESPONSE	4
2.3 SHORT-TERM RECOVERY	4
3.0 OBJECTIVES.....	4
3.1 GENERAL OBJECTIVES	4
3.2 ENHANCED READINESS (PREPAREDNESS) OBJECTIVES	5
3.3 RESPONSE OBJECTIVES.....	5
3.4 SHORT-TERM RECOVERY OBJECTIVES.....	7
4.0 ROLES AND RESPONSIBILITIES	7
4.1 CITY ADMINISTRATION.....	7
4.2 FINANCE.....	8
4.3 FIRE.....	8
4.4 HOUSING & COMMUNITY SERVICES	8
4.5 HUMAN RESOURCES	8
4.6 INFORMATION TECHNOLOGY	8
4.7 PLANNING & ECONOMIC DEVELOPMENT	8
4.8 POLICE.....	9
4.9 PARK & RECREATION	9
4.10 PUBLIC WORKS	9
4.11 WATER	9
4.12 CITY COUNCIL / MAYOR.....	9
4.13 LOCAL UTILITY PROVIDER	10
ATTACHMENT 1: ESSENTIAL ELEMENTS OF INFORMATION (EEIs).....	11
ATTACHMENT 2: SAMPLE PUBLIC INFORMATION MESSAGE FOR FLOODING.....	12



1.0 INTRODUCTION

1.1 PURPOSE

This Annex to the City of Brisbane's Emergency Operations Plan (EOP) is intended to ensure an effective and coordinated response to a significant storm or flooding event. This Annex provides direction for City departments, community groups and allied stakeholders ensuring interagency coordination in accordance with the City's EOP, the California Emergency Services Act, the Standardized Emergency Management System (SEMS), and the National Incident Management System (NIMS).

This Annex is designed to accomplish the following:

- Serve as a planning document to support further development of major incident plans by City departments and agencies.
- Provide an overview of the threats that storms and floods pose to City and define the potential range of impacts.
- Provide the response management team with contextual information to guide initial response planning.

1.2 SCOPE

This Annex has been developed in accordance with the City EOP. In keeping with the EOP's "all-hazards" approach for local emergency management, the response policies and protocols for a storm or flooding event will align with those established in the EOP. The Annex supplements the EOP by providing considerations for a response to a major storm or flooding event in the City.

This Annex is primarily focused on response and short-term recovery operations. Elements related to preparedness, long-term recovery, and mitigation are addressed in the City's EOP and the *San Mateo County Hazard Mitigation Plan (2016)*.

This Annex does not alter existing City department emergency response standard operating procedures (SOPs), processes, or resources. Emergency response agencies (such as fire, law enforcement, and emergency medical services [EMS]) will adhere to existing department SOPs in accordance with all legal requirements.

1.3 SITUATION

According to the California Governor's Office of Emergency Services (Cal OES): "Floods are the second most frequent cause of disaster declarations in California (after wildfires) and account for the second highest combined losses (after earthquakes)."¹

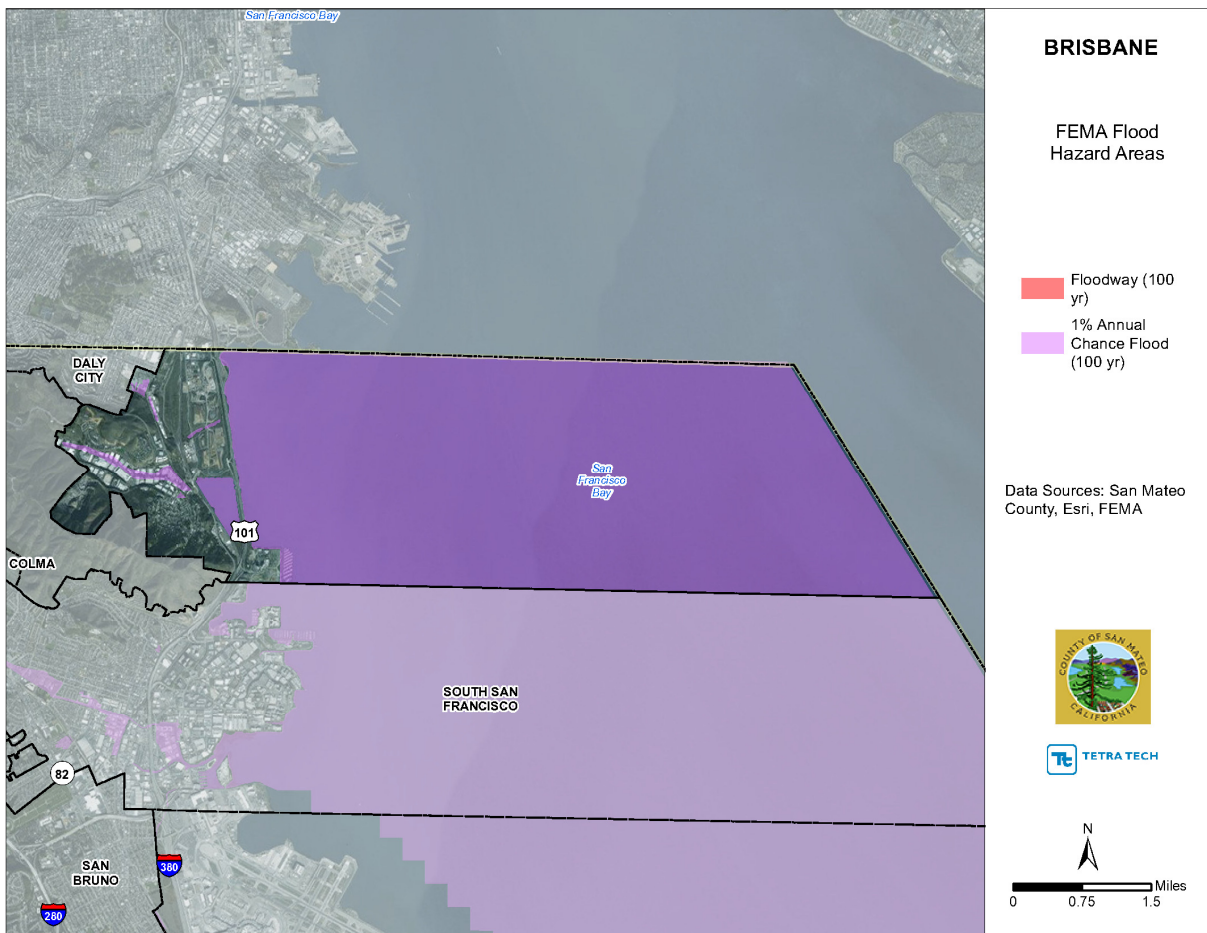
Flooding is a temporary condition in which land that is normally dry is partially or completely inundated. Flooding occurs when water bodies, such as streams, rivers, lakes, or reservoirs, are abnormally high and overflow into adjacent low-lying areas. Floods can be powerful enough to move large objects swiftly into other objects, cause damage to buildings and infrastructure, and weaken foundations and soils. Secondary impacts of flooding, including saturated soils and erosion from flooding events can cause trees to weaken and collapse, increasing the potential for property damage, infrastructure damage and loss of life.

The San Mateo County Flood Control District is responsible for flood control within the City of Brisbane. For greater detail, see the [San Mateo County Hazard Mitigation Plan \(2016\)](#).

¹ [California Catastrophic Incident Base Plan \(September 2008\)](#)



FIGURE 1: CITY OF BRISBANE 100-YEAR FLOOD ZONE²



The National Weather Service (NWS) provides notification releases to media outlets and to public agencies. Standard terminology for flood watches and warnings includes the following:

- Flash Flood Watch—it is possible that rain will cause flash flooding in specified areas
- Flash Flood Warning—flash flooding is either imminent or is occurring
- Flood Watch—long-term flooding is possible in specified areas
- Flood Warning—long-term flooding is either imminent or is occurring

1.4 PLANNING ASSUMPTIONS

1.4.1 Impact Assumptions

This Annex is based on a developing winter storm causing significant rainfall, high winds, downed trees, and flooding. General impacts can include:

- Hundreds of residents may require shelter because of evacuation or damage to homes.
- Electrical service and communications may be interrupted due to downed lines.

² Excerpted from the San Mateo County Hazard Mitigation Plan



- Structural damage to transportation and transit infrastructure may take weeks or months to repair. These systems may be damaged or disrupted including:
 - Major bridges and highways
 - Mass transit rail and bus systems
 - City streets and roads
- Damage in wastewater collection systems and treatment facilities may cause disruption of vital services and could result in uncontrolled releases of untreated sewage.
- A major flood event could generate tons of debris including vegetative, construction and demolition, and hazardous waste.

1.4.2 Response Assumptions

- Large winter storm or flood events will be preceded by weather forecasts and NWS advisories, watches, and warnings. These will provide sufficient notice to notify local residents, prepare the City's emergency response organization and implement the City's EOP.
- Major flood events could produce significant regional competition for resources. Local mutual aid fire, EMS, and law enforcement resources will be limited as other jurisdictions face similar circumstances.
- Damage and disruption may necessitate deployment of law enforcement resources to maintain public order, augment rescue operations, and secure dangerous sites.
- Resources to remove debris will initially be limited as the City mobilizes its own forces and available contractors.
- The demand for emergency public information will be immediate and sustained. Social and traditional media coverage will be extensive.
- Assistance in the form of spontaneous volunteers, donated goods, and monetary donations will begin to flow into the City. Although this may provide desperately needed resources, it will create coordination and logistical support challenges.

2.0 CONCEPT OF OPERATIONS

The EOP defines the City's general emergency response organization, authorities, policies, priorities, and procedures. In the event of a significant winter storm or flooding event, this Annex provides potential specific objectives that the emergency response organization may integrate into its operations (see Section 3 – Objectives).

2.1 INCREASED READINESS (PREPARATION)

Once weather forecasts indicate the potential for a significant winter storm or flooding, City departments will increase their readiness to conduct response operations. These efforts may include:

- Enhanced staffing
- Adjusting work hours
- Ready equipment and supplies
- Reducing non-critical operations
- Conducting flood fight and other protective operations



- Increased observation and monitoring of waterways and storm water systems

The EOC may be activated to develop enhanced situational awareness, expedite decision making, conduct stakeholder notification and coordination, develop public information, and provide greater support to City departments.

2.2 RESPONSE

The City will provide immediate response via its public safety departments coordinating in the field via the Incident Command System (ICS). The City's EOC will provide support to field personnel, coordinate the efforts of other City departments and collaborate with the San Mateo County Operational Area and other allied stakeholders utilizing SEMS.

In the first few hours and days following a major flood event, the City will:

- Respond to the community's immediate life safety needs for warning and evacuation by making use of systems including the Emergency Alert System (EAS), SMC Alert, and vehicle public address systems, as well as door-to-door notifications if needed.
- Conduct search & rescue, EMS, hazardous materials (HazMat) release, and law enforcement operations as needed.
- Assemble resources for a sustained response and for providing basic mass care, shelter, and information services to the community.
- Begin to transition from immediate emergency response efforts to sustained operations.
- Conduct sustained operations and begin to transition into recovery.

When threatened by flooding, some residents, businesses, and institutions may elect to evacuate without order or direction. A voluntary evacuation of a community may result in traffic congestion and raise concerns about protection of property. The local Incident Commander will coordinate with the Police Department for support when operations are affected by a spontaneous evacuation.

2.3 SHORT-TERM RECOVERY

The immediate response to a major winter storm or flood event will focus on saving lives, providing resources to sustain City residents, and stabilizing the situation. At some point, however, the City will transition to a phase in which recovery operations take precedence. Rapid initiation of recovery operations is critical to restoring confidence in the community.

Activities in this phase include utility restoration, limited debris clearance, de-watering, structural safety assessments, resident re-entry, sustained public information, mold and pest remediation, coordination of donations, and damage assessment. See Section 3 for objectives related to short-term recovery.

3.0 OBJECTIVES

3.1 GENERAL OBJECTIVES

Immediately following a major winter storm or flood event, and for as long as a state of emergency exists within the City, response to the event will be the first priority of all City departments and agencies. All available City Disaster Service Workers (DSW) will be directed to achieve the following objectives:

- Save lives
- Reduce immediate threats to life, public health and safety, public and private property, and the environment



- Provide necessary care, shelter, and medical services to City residents and other members of the general public
- Restore the operations of facilities, whether public or privately owned, that are essential to health, safety, and welfare of the community, including critical City facilities, utilities, and transportation infrastructure
- Assess damage to infrastructure, public facilities, and the built environment
- Expedite the restoration of services, the economy, and the community at large; and begin the process of recovery
- Keep the public informed

3.2 ENHANCED READINESS (PREPAREDNESS) OBJECTIVES

- Develop situational awareness regarding winter storm weather and flood forecasts
- Develop/refine public warning and evacuation messages
- Develop and provide public information regarding forecasts, and recommended preparedness actions
- Prepare to conduct warning and evacuation operations
- Consider activation of the EOC
- Assess and modify staffing levels/schedules
- Identify and prepare potentially needed equipment and supplies including generators
- Relocate or safeguard equipment and facilities
- Increase monitoring of protective systems
- Conduct sandbagging and other flood fight projective measures
- Reduce or halt non-critical operations
- Provide sandbag stations to the public as possible

3.3 RESPONSE OBJECTIVES

In addition to those tasks and objectives outlined in the EOP, the following specific operational objectives should be incorporated into initial response operations and planning:

- Direct and assist immediate life-saving rescue, warning and evacuation operations
- Deploy law enforcement resources to support response activities and maintain law and order
- Identify at-risk populations, notify them, and begin evacuation if warranted
- Activate the EOC as needed
- Establish contact with the San Mateo County Operational Area and allied stakeholder agencies
- Conduct emergency evacuation and rescue operations as needed
- Identify potential sites for evacuation centers to accommodate displaced populations while emergency shelters are being opened
- Assess:
 - Situation at critical facilities, including utilities
 - Situation in areas not reporting



- Condition of emergency communications systems
- Implement recall of City staff as needed
- Begin public information messaging regarding recommended personal protective actions, evacuation centers, and community assistance needed. Assess the need to activate the Joint Information Center (JIC)
- Assemble damage assessment information and submit the Cal OES Initial Damage Estimate (IDE)
- Complete an initial damage assessment of the City, identifying areas affected, major incidents, and operational status of critical services. Begin to develop Essential Elements of Information (EEI) (see Attachment 1)
- Develop a consolidated situation assessment and declare a State of Emergency
- Assess critical resource shortfalls and begin requesting support through mutual aid and the San Mateo County Operational Area. Consider resources needed for the next 14 days. Assess condition of transportation system and develop alternatives for moving critical resources into the city
- Establish perimeter control around unsafe areas
- Assess conditions at designated emergency shelter sites and begin to supply with beds, water, food, medical support, generators, sanitation, and facility security; and begin to open emergency shelters to residents and DSWs
- Identify people with special support requirements and transfer to appropriate care facilities
- Designate primary routes and implement debris clearance, route recovery, and traffic control
- Coordinate the receipt and deployment of incoming resources to prioritized missions
- Designate staging areas and begin planning to accommodate support personnel
- Ensure that an adequate system is in place to fuel and maintain generators providing power to critical facilities
- Conduct outreach for situation status and resource needs for affected facilities needing support from the City, including transit sites, schools, commercial buildings, and sites of historic/cultural significance
- Initiate social and traditional media briefings to inform residents on City operations, steps they can take, services available to them, ongoing rumor control efforts, and ways in which the community can help
- Establish shelter support coordinator teams and evaluate the shelter sites to identify:
 - Site damage
 - Critical support requirements, including shelter management personnel
 - Site security
 - Adequacy of feeding and medical care arrangements
 - Shelter demographics (gender, children, medical needs, language barriers, disability needs)
- Establish plans for how to provide care for people with special support requirements that cannot be met in congregate care shelters
- Review and enhance security plans to maintain public order
- Begin deliberate program of safety assessment of homes and businesses



- Review incident status reports to prioritize incident commands that can begin suspending emergency response operations and transition to sustained response and recovery operations
- Ensure that air quality, HazMat spills, and other environmental situations are monitored and risks addressed
- Coordinate with the San Mateo County Operational Area to survey all licensed food establishments, including the emergency shelter/evacuation centers, feeding sites, and disaster kitchens to ensure there are no unsafe food handling or other sanitation or safety concerns

3.4 SHORT-TERM RECOVERY OBJECTIVES

- Develop public information to address how to safely clean-up flood damage, deal with mold, dispose of debris, and access potential sources of assistance
- Coordinate with the San Mateo County Operational Area to facilitate the recruitment, training, and deployment of volunteers and donations
- Work with the American Red Cross (ARC) and other organizations to provide information to support their Disaster Welfare Inquiry Program
- Develop a program to integrate the safety of volunteers and volunteer organizations in recovery operations
- Establish a debris management plan and begin to gather and transport debris from critical sites or routes
- Coordinate with the business community regarding business resumption activities
- Produce, regularly update, and distribute a multi-lingual, multi-format, disaster "Fact Sheet" to the media, people in shelters, field response personnel, residents and businesses
- Implement a process to allow limited entry (where safe) for recovery of personal items
- Coordinate with the San Mateo County Operational Area to provide prioritized community behavioral health services (ex. those whose homes have been red-tagged, shelter residents, children, and individuals who have suffered significant loss)
- Anticipate and support initial damage assessment visits by state and federal officials wanting to confirm the immediate and long-term unmet recovery needs of the City
- Conduct long-term recovery planning to address issues of interim housing, debris management, expedited permitting, environmental safety monitoring, coordination with non-governmental and non-profit organizations, and state/federal disaster assistance programs

4.0 ROLES AND RESPONSIBILITIES

The following lists summarize the primary and significant roles and responsibilities for each City department and stakeholder organization relative to a major winter storm or flood event:

4.1 CITY ADMINISTRATION

- Activate the EOP and EOC as needed
- Establish and communicate policy regarding City staff reporting for assignments
- Lead and manage proclamations of local emergency
- Develop and maintain communication with Mayor and City Councilmembers
- Lead emergency public information



- Assess City operations and provide legal counsel as needed

4.2 FINANCE

- Provide emergency procurement support for life-saving and emergency protective measures
- Provide Parking Division support to Police Department for access and traffic control
- Provide resource support (facility space, office equipment/supplies, contracting services, etc.)
- Oversee staff time-keeping
- Provide fiscal oversight and track expenses

4.3 FIRE

- Prioritize and conduct firefighting, EMS, swift water rescue, search & rescue, and HazMat operations
- Provide pumping of critical infrastructure and flooded properties within capabilities
- Inspect for potential damage to HazMat facilities
- Establish field Incident Command as needed
- Lead Fire and Rescue Mutual Aid coordination including swift water rescue teams
- Provide incident planning and management support as needed
- Activate volunteers in the Auxiliary Emergency Communications Service (AECS) as needed

4.4 HOUSING & COMMUNITY SERVICES

- Coordinate and provide emergency assistance
- Support damage assessment efforts
- Coordinate social services

4.5 HUMAN RESOURCES

- Account for all City staff
- Develop and coordinate human resources including contractors
- Recruit, screen, provide, and track volunteers
- Establish internal City staff communications
- Identify any employee needs (ex. child care, shelter)

4.6 INFORMATION TECHNOLOGY

- Protect, restore, and sustain City information technology resources
- Oversee communications within the incident management and response structures
- Coordinate with telecommunications service providers
- Restore and repair telecommunications infrastructure

4.7 PLANNING & ECONOMIC DEVELOPMENT

- Manage and conduct post-flood safety assessments for critical City facilities
- Coordinate and direct Safety Assessment Program (SAP) resources



- Lead damage assessment efforts

4.8 POLICE

- Prioritize and conduct law enforcement, public warning, evacuation, and security operations
- Establish field Incident Command as needed
- Lead Law Enforcement Mutual Aid coordination
- Coordinate traffic safety and road closures

4.9 PARKS & RECREATION

- Assess status of critical department facilities and potential shelter sites
- Manage emergency shelter and mass care operations (see Mass Care and Shelter Annex)
- Coordinate with the San Mateo County Operational Area for the care of unaccompanied minors

4.10 PUBLIC WORKS

- Conduct post-storm damage surveys/evaluations and report results to dispatch
- Conduct infrastructure protection and emergency repair
- Clear blockages from storm water drains and creeks
- Support evacuation operations including individuals requiring assistance
- Conduct debris clearance and manage debris removal
- Lead Public Works Mutual Aid coordination
- Maintain sandbag stations as possible
- Provide engineering services and construction management
- Support damage assessment efforts
- Manage City facilities and coordinate use of non-City facilities
- Support transportation function
- Conduct enhanced maintenance and dispatch operations

4.11 WATER

- Monitor potable water quality and perform sampling/testing as needed
- Restore/maintain water and wastewater infrastructure
- Restore/maintain wastewater treatment plant operations
- Provide potable water in support of mass care operations as possible
- Support damage assessment efforts

4.12 CITY COUNCIL / MAYOR

- Support public information efforts as needed
- Lead community engagement
- Review and approve the Proclamation of Local Emergency



- Visit impacted areas, shelters, and other temporary facilities to spot problems and special issues
- Consider short- and long-term recovery staff recommendations

4.13 LOCAL UTILITY PROVIDER

- Mitigate safety threats to responders and residents
- Coordinate prioritization with the City for the restoration of electrical and gas utility services



ATTACHMENT 1: ESSENTIAL ELEMENTS OF INFORMATION (EEIs)

Essential information that must be collected during the first 24-hour period:

- Weather and flood forecasts including peak intensity and duration precipitation
- Locations or boundaries of localized or general flooding
- Location and number of associated deaths or injuries
- Requirements for evacuations and estimated number of people displaced
- Significant law enforcement, fire, EMS, search & rescue, and HazMat incidents
- Status of communication systems, including:
 - City and community voice and data networks
 - City emergency radio systems
 - 911 dispatch systems
- Damage to critical public buildings and other infrastructure, including:
 - Police and fire facilities
 - Hospitals and skilled nursing facilities
 - Wastewater treatment plant
 - Schools
- Status (open, partial closure, or full closure) of roads, bridges, major surface streets, and public transportation systems
- Status of and damage to major utility systems, including:
 - Water
 - Wastewater
 - Electrical
 - Natural gas
 - Telecommunications
- Location and status of evacuation centers or shelters
- Critical resource shortfalls impacting public safety
- Results of preliminary safety assessments of critical City facilities and designated emergency shelters
- Status of City staff
- Status of San Mateo County Flood Control District flood control operations



ATTACHMENT 2: SAMPLE PUBLIC INFORMATION MESSAGE FOR FLOODING

1. Before the Flood:

- a. Find out how many feet your property is above or below possible flood levels, so when predicted flood levels are broadcast, you can determine if you may be flooded. Ask for the location of the nearest safe area. Go to myhazards.caloes.gov and see if your home is located in a FEMA 100-year floodplain.
- b. Keep a stock of food that requires little or no cooking and refrigeration; electric power may be interrupted.
- c. Keep a portable radio, emergency cooking equipment, lights and flashlights in working order.
- d. Keep first aid and critical medical supplies (prescriptions, insulin, etc.) at hand.
- e. Keep your automobile fueled; if electric power is cut off, filling stations may not be able to operate pumps for several days.
- f. Keep materials like sandbags, sand, plywood, plastic sheeting and lumber handy for emergency waterproofing.
- g. Do not stack sandbags around the outside wall of your home to keep water out of your basement. Water can seep down anyway and the pressure it puts on the walls and under the floors can cause structural damage.
- h. Bring outdoor possessions inside the house or tie them down securely.

2. When you Receive a Flood Warning:

- a. Store drinking water in closed, clean containers, bathtubs, sinks, etc. Water service may be interrupted.
- b. If flooding is likely and time permits, move essential items, valuable papers, jewelry and furniture to upper floors of your house or higher elevations.
- c. If forced or advised to leave your home, move to a safe area before access is cut off by floodwater.

3. During the Flood:

- a. Do not attempt to drive over a flooded road. You can be stranded and trapped.
- b. If your vehicle stalls, abandon it immediately and seek higher ground. Many people drown while trying to rescue their car.
- c. Avoid areas subject to a sudden flooding.
- d. If you are caught in the house by rising floodwaters, move to the second floor, and if necessary, to the roof. Take warm clothes, a flashlight and portable radio with you. Wait for help. Don't try to swim to safety.
- e. When outside the house, try to avoid flooded areas and do not attempt to cross a flowing stream where water is above your knees.