

EMERGENCY RESPONSE PLAN

LAKE WHATCOM WATER & SEWER DISTRICT



September 13, 2021

LAKE WHATCOM WATER & SEWER DISTRICT
1220 LAKEWAY DRIVE
BELLINGHAM, WASHINGTON 98229

EMERGENCY RESPONSE PLAN

LAKE WHATCOM WATER & SEWER DISTRICT

*The material and data in this report were prepared
under the supervision and direction of the undersigned.*

LAKE WHATCOM WATER & SEWER DISTRICT



*Rich Munson
Engineering Technician/ Safety Officer*



*Justin Clary
General Manager*

PROMULGATION DOCUMENT

TO: District Employees

DATE: September 13, 2021

FROM: Justin Clary, General Manager

RE: 2021 Emergency Response Plan
Lake Whatcom Water and Sewer District

This Emergency Response Plan is designed to ensure that the Lake Whatcom Water and Sewer District is prepared for, and has the capability to respond to, emergencies and disasters in its role as an essential service provider, and has been designed to integrate with the Whatcom County Comprehensive Emergency Management Plan.

This Plan is intended as a comprehensive framework for District-wide disaster mitigation, preparedness, response, and recovery. It details authorities, functions, and responsibilities to establish a plan of action between the District and other local, state and federal agencies and organizations.

Every effort has been made to ensure this Plan's compatibility with planning guidance provided by the Whatcom County Sheriff's Office Division of Emergency Management, the Washington Military Department's Emergency Management Division, and the U.S. Department of Homeland Security's Federal Emergency Management Agency. This Plan has also been developed to meet the requirements of the America's Water Infrastructure Act of 2018 (AWIA), as administered by the U.S. Environmental Protection Agency.

This Plan will be used to direct and coordinate response and recovery efforts to protect the lives, health and property of citizens and customers of the District.

I request that all District employees study this Plan, and be prepared to discharge their emergency response duties, or to support the emergency responsibilities of others. Managers and supervisors should prepare, as appropriate, emergency response plans for their department, and coordinate emergency response planning through the Whatcom County Sheriff's Office Division of Emergency Management to ensure a prompt response to, and timely recovery from emergencies and disasters.

In addition, Rich Munson, Safety Officer for the District will work with the Deputy Director of the Whatcom County Sheriff's Office Division of Emergency Management to coordinate ongoing maintenance of this Plan, as well as work to maintain the organizational capabilities and resources necessary to effectively implement this Plan.



Justin Clary
General Manager

DISTRIBUTION LIST

The Distribution List for the Emergency Response Plan for the Lake Whatcom Water and Sewer District follows.

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ACRONYMS AND ABBREVIATIONS

AWIA	America's Water Infrastructure Act of 2018
CFR	Code of Federal Regulations
County	Whatcom County, Washington
District	Lake Whatcom Water and Sewer District
EOC	emergency operations center
EPA	U.S. Environmental Protection Agency
FEMA	U.S. Department of Homeland Security Federal Emergency Management Agency
ICS	incident command system
PIO	public information officer
Plan	Emergency Response Plan
RCW	Revised Code of Washington
WAC	Washington Administrative Code
WA WARN	Washington Water/Wastewater Agency Response Network

1 INTRODUCTION

This Emergency Response Plan (Plan) defines the Lake Whatcom Water and Sewer District’s (District) overall strategy for response to disruptive events. This Plan does not supersede or replace the Whatcom County (County) Comprehensive Emergency Management Plan (Whatcom County, 2017), nor does this Plan supersede or replace District procedures for safety or other procedures that are already in place—it supplements those procedures with immediate focus of management on response operations and the early transition to recovery operations following a disruptive event. In addition, this Plan has been developed to meet the requirements of the America’s Water Infrastructure Act of 2018 (AWIA, 2018), as administered by the U.S. Environmental Protection Agency (EPA).

It is the policy of the District—in order to protect lives, property, and the environment and in cooperation with other stakeholders in Whatcom County—to prevent, prepare for, mitigate, respond to, and recover from natural and manmade emergencies and disasters.

The District has established this Plan for the management of the immediate actions and operations required to respond to any event that stresses, overwhelms, or exceeds the ability of the District to ensure the continuity of essential public services (water and sewer) to its customers, as well as to support other community stakeholders.

Although operational requirements may change rapidly in disruptive events, the District is regarded as being a critical and essential service provider in Whatcom County, Washington.

1.1 Scope

This Plan applies to the District and its employees. The District is responsible for coordinating its own tactical operations.

In all emergencies, District response efforts will proceed according to these priorities:

1. Eliminate major threats to life and safety
2. Maintain essential management continuity
3. Protect critical assets
4. Eliminate major threats to public and private property
5. Protect the environment
6. Restore essential systems and services
7. Minimize economic disruption
8. Restore normal business and management operations

1.2 Limitations

The diverse nature of disruptive events makes it likely that the District cannot handle all potential incidents alone. It is neither implied nor inferred that this Plan guarantees a perfect response. No plan can shield individuals from all events. While every reasonable effort will be made to respond to disruptive events, resources and/or systems may be overwhelmed. Some events provide little or no warning to implement operational procedures, and all emergency plans are dependent upon tactical execution that may be imperfect. The District may not be able to satisfy all requests during a major event.

1.3 Law and Authorities

This Plan is established under the Whatcom County Comprehensive Emergency Management Plan (Whatcom County, 2017), on-file at the District. All laws and authorities referenced in that plan are also herein attached by reference.

1.4 Planning Assumptions

- Essential District services will be maintained as long as possible. Some or all services may be lost in a large scale and/or severe event. If so, the District will first seek to maintain important lifelines and serve special populations whose life depends on the provision of these services.
- A major, widespread catastrophe may isolate Whatcom County, and the District may need to utilize its own resources during this time.
- The District has limited capabilities to cope with complex disruptive events. Limitations exist primarily in the areas of trained personnel, equipment and emergency funds. Communications systems are particularly vulnerable to damage and /or overload during an emergency.
- Disruptive events could create significant property damage, injury, death, and disruption of essential services. These situations may also create significant financial, psychological and sociological impacts on the District and its employees.
- The District uses the U.S. Department of Homeland Security Federal Emergency Management Agency's (FEMA) Incident Command System (ICS).
- District supervisors, managers and directors have read and understand the Whatcom County Comprehensive Emergency Management Plan (Whatcom County, 2017).

2 EMERGENCY DECLARATION POWERS

2.1 Declaration of Emergency

When it is determined an emergency exists in the District that could escalate to a level beyond the capabilities of local resources, the Board of Commissioners shall adopt an appropriate resolution proclaiming a District disaster. The Board of Commissioners may also request that the County issue a similar proclamation and further request such assistance set forth herein be granted to the District for emergency purposes.

When circumstances require immediate attention, the General Manager may proclaim a disaster if there is not sufficient time for the Board of Commissioners to meet in person or by telephone. When the General Manager declares a disaster, the Board of Commissioners shall meet to affirm or rescind the proclamation as soon as possible.

A copy of the Proclamation of Emergency shall be promptly filed with the Whatcom County Sheriff's Office Division of Emergency Management.

The Proclamation of Emergency shall initiate the activation of the District emergency operations center (EOC).

If appropriate, the County may issue a local Proclamation of Emergency. A local Proclamation of Emergency is the legal instrument that authorizes extraordinary measures to solve disaster-related problems. The County Executive or in their absence, the County Deputy Executive or in the absence of both, the Executive Pro Tempore of the County Council has the authority to make a Proclamation of Emergency for the County.

2.2 Direction and Control

Direction and control of emergency management functions for the District is the responsibility of the General Manager.

Direction and control of emergency management functions for the County government is the responsibility of the County Executive under Revised Code of Washington (RCW) [38.52.070](#) (1). The County Executive has delegated that responsibility to the Director of Emergency Management, who is the Whatcom County Sheriff. The Director of Emergency Management is responsible for the direction and control of emergency management activities in the unincorporated areas of Whatcom County under County Ordinance 89-115. In the Director's absence, or by assignment, the Deputy Director of the Whatcom County Sheriff's Office Division of Emergency Management is responsible for the direction and control of emergency management activities in Whatcom County.

2.3 Emergency Authority

The responsibility for all administration of District emergency operations rests with the General Manager. In the case of absence, the District Assistant General Manager serves in this role.

The General Manager or in their absence, the Assistant General Manager may promulgate orders and regulations to protect life and property, as well as ensure the continuity of District services. These must be in writing and issued publicly. The Board of Commissioners must affirm these orders during its next regularly scheduled meeting, unless circumstances require an emergency meeting of the Board, as allowed under [RCW 42.30.070](#). During a declared Local Emergency, the County Executive or Whatcom County Sheriff may buy or commandeer supplies and/or equipment immediately required (per [RCW 38.52.070](#)).

The responsibility for all administration of Whatcom County emergency operations rests with the Whatcom County Sheriff. In the case of absence, the Deputy Director of the Whatcom County Sheriff's Office Division of Emergency Management serves in this role.

2.3.1 Emergency Contracts

When any emergency shall require the immediate execution of a contract, the General Manager or in their absence, the Assistant General Manager, may declare that an emergency exists and waive competitive bidding requirements. In such cases, the Board of Commissioners must make a written finding of the existence of an emergency and enter it into the record no later than two weeks following the award of the contract. In addition, the District is a member of the [Washington Water/Wastewater Agency Response Network](#) (WA WARN), which provides immediate access to participating agencies' resources (labor, equipment and materials) through a mutual aid agreement.

3 PLAN ACTIVATION

This Plan shall be activated whenever disruptive events occur in which normal operations cannot be performed and immediate action is required to:

1. Eliminate major threats to life and safety;
2. Maintain essential management continuity;
3. Protect critical assets;
4. Protect the environment;
5. Restore essential systems and services; or
6. Restore normal business and management operations.

3.1 Levels of Emergency

Emergency conditions vary with each incident. As a guide, three levels of emergency are specified, as follows:

1. **Level 1** Disruptive Events are handled within the District by “normal” checklists and/or response activities. While there may be some damage and/or interruption, the conditions are localized and the District can coordinate and manage the event and the site of the event remains functional. Implementation of the District’s Internal Notification Policy should be considered (see Section 6.1).
2. **Level 2** Disruptive Events exceed the capabilities of the District to manage the event and causes, or may cause, damage and/or interruption to District operations. Outside resources are needed to stabilize or mitigate the emergency. On-scene command will be established. Activation of the Whatcom County Unified Emergency Coordination Center may, or may not, be needed. The District’s External Notification Policy shall be implemented (see Section 6.2).
3. **Level 3** Disruptive Events exceed the capacity of the District to address immediate emergency response. The event may involve a single location or may be wide spread. The District may need to be self-sufficient for a period of hours to several days. The District’s External Notification Policy shall be implemented (see Section 6.2).

3.2 Emergency Operations Center

The District’s Operations and Maintenance Building, located at 1010 Lakeview Street, Bellingham, WA 98229, is the designated as the primary EOC for the District. The building has sufficient infrastructure to accommodate the data hubs and telecommunications needed in an EOC.

The District’s Administration Office, located at 1220 Lakeway Drive, Bellingham, WA 98229, is the designated as the District’s alternate EOC.

A second alternate EOC location is the Whatcom Unified Emergency Coordination Center, located at 3888 Sound Way, Bellingham, WA 98226.

4 EMERGENCY MANAGEMENT RESPONSIBILITIES

4.1 General Responsibilities

The District is responsible for the following:

1. Ensuring the safety and protection of staff, customers and contractors (life/safety);
2. Securing District buildings and facilities, as appropriate;

3. Providing for the continuation of essential services and functions;
4. Providing for the identification and preservation of essential records;
5. Ensuring appropriate notifications are made in accordance with this Plan;
6. Providing damage assessments and situation reports;
7. Appointing a liaison to work with Whatcom County Sheriff's Office Division of Emergency Management in the development and maintenance of this Plan;
8. Establishing 24-hour departmental contacts;
9. Developing the capability to continue operations in an emergency/disaster and to carry out the responsibilities outlined herein; and
10. Developing procedures that address the following:
 - The District's chain of command
 - Location of the EOC and alternate locations including equipment and supplies
 - The resources needed to manage emergency operations
 - The information needed to manage District emergency activities and how it will be obtained
 - District capabilities and responsibilities
 - District resources
 - How the District will coordinate with the Whatcom Unified Emergency Coordination Center
 - Ensuring that District staff is aware of the contents of this Plan.

It is the policy of the District that staff is available for appropriate training and emergency assignments, such as Whatcom Unified Emergency Coordination Center activities, documentation, damage assessment, and liaison with other agencies and organizations. All costs for these activities shall be the responsibility of the District.

The District has an ongoing responsibility to ensure that this Plan, and support for the Whatcom County Comprehensive Emergency Management Plan (Whatcom County, 2017), is continually updated and approved during all phases of emergency management.

4.1.1 Mitigation Activities

Mitigation activities are proactive steps aimed at reducing the impact of disruptive events. Activities the District will undertake include:

- Every five years, at a minimum, review the District's risk and resilience assessments (LWWSO, 2021a; 2021b), completed in accordance with AWIA;

- Develop capabilities and resources to enhance the District’s ability to respond to any disruptive event, whether identified or not in the risk and resilience assessment;
- Develop contingency plans and suggested operating procedures in support of this Plan;
- Coordinate with other local, county, state, and federal agencies to ensure cohesive working relationships and compatible plans are in place;
- Conduct mitigation activities to protect District supplies, services, and property;
- Participate in public education to enhance citizen and business survivability;
- Undertake an annual review of local hazards and vulnerabilities, as well as the District’s own vulnerabilities that may affect normal operations, and include mitigation activities that address those concerns;
- Develop plans for the continuation of essential services and functions during and after a disaster;
- Develop employee/family support programs;
- Provide for the identification and preservation of essential records; and
- Appoint a liaison to work with the Whatcom County Sheriff’s Office Division of Emergency Management in the development and maintenance of this Plan and associated procedures.

4.1.2 Preparedness Activities

Preparedness activities are designed to prepare District facilities and employees for emergency situations. Activities the District will undertake include:

- Conduct training activities, including tabletop and field emergency response activities, within the District and with other agencies;
- Provide timely input of emergency management needs during the District’s budget process;
- Establish a policy for 24-hour contact to activate emergency management responsibilities;
- Conduct public education;
- Develop guidelines and policies addressing the following:
 - District internal chain of command
 - Where District emergency operations will occur
 - Resources needed to manage District operations
 - Information needs for the District to manage operations

- District resources, capabilities and responsibilities
- Interdepartmental and external coordination processes
- Training on this Plan; and
- Actively participate in drills and exercises.

4.1.3 Response Activities

Response activities are emergency operations undertaken during the acute phase of a disaster. Activities the District will undertake will vary dependent upon the event, but may include:

- Initiate actions necessary to preserve life and property and the environment, utilizing available resources;
- Make appropriate notifications and initiate actions to place emergency plans into effect;
- Provide staff at the Whatcom Unified Emergency Coordination Center, if requested;
- Disseminate emergency information, as appropriate;
- Provide situational awareness;
- Execute response functions, and coordinate response and support functions with outside agencies and volunteer organizations;
- Coordinate internal operations, logistics, planning and finance functions;
- Compile event status information and provide timely reports;
- Prepare and maintain detailed documentation of events and activities;
- Provide public information and additional warnings, as appropriate;
- Support the preparation of a Proclamation of Emergency, when necessary;
- Make decisions regarding priorities and disaster response policy, when required;
- Issue appropriate policies, orders and declarations, as necessary; and
- Request local, state and federal disaster assistance, as needed, through the Whatcom County Sheriff's Office Division of Emergency Management.

4.1.4 Recovery Activities

Recovery activities are undertaken to assist in regaining a level of societal, governmental and commercial activity that existed before an emergency. Activities the District will undertake include:

- Execute damage assessment functions and assess community needs;
- Prioritize recovery projects and assign functions accordingly;

- Coordinate recovery efforts and logistical needs with other agencies and organizations;
- Prepare documentation of events, including logs, analyses and estimated recovery costs; and
- Incorporate County near- and long-term community plans into recovery and reconstruction activities.

4.1.5 Prevention and Protection Activities

Prevention and protection activities are those capabilities necessary to avoid, prevent, or stop threatened or actual acts of terrorism, and man-made or natural disasters. Activities the District will undertake include:

- Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate;
- Assist in understanding ways to identify threats and/or hazards and how to report such activity to appropriate agencies;
- Establish and maintain partnerships among Protection elements to support networking, planning, and coordination; and
- Help to ensure critical infrastructure sectors and Protection elements have and maintain risk assessment processes to identify and prioritize assets, systems, networks, and functions.

4.2 Evacuation Responsibilities

Authorization to conduct an emergency evacuation may be given by the District if an immediate evacuation is necessary to protect citizens and avoid loss of life.

However, the District recognizes that there is no law requiring a citizen to evacuate their home.

Evacuation routes will be selected to provide for rapid, safe, and controlled movement away from the hazard area.

4.3 Damage Assessment Responsibilities

Damage assessment activities will be conducted following any event where disaster intelligence and damage assessment information is needed. Initial Damage Assessment Survey information will be provided to the General Manager and other applicable District staff as soon as it is available. This information will also be forwarded to the Whatcom County Sheriff's Office Division of Emergency Management or the Whatcom Unified Emergency Coordination Center in a timely manner.

4.3.1 Initial Damage Assessment

Initial damage assessment will begin during or immediately following the disaster event and continue until an understanding of the types and magnitude of damage throughout the District is developed. Information gathered in the initial damage assessment will be used to determine critical facility and transportation route status, prioritize initial response activities, and determine the immediate need for outside assistance.

Initial damage assessment survey activities will be promptly conducted to provide District management with an understanding of the nature and extent of the event's impacts. This information will also be forwarded to the Whatcom County Sheriff's Office Division of Emergency Management or if activated, the Whatcom Unified Emergency Coordination Center. The goals of conducting an initial damage assessment survey are to determine:

- Boundaries of the disaster area and identify the jurisdictions impacted;
- Status of operating facilities and critical facilities;
- Status of key personnel;
- Hazard-specific information and access points to the disaster;
- Priorities for response and resource shortfalls; and
- Report on bridge and road impacts, as they relate to accessibility to District infrastructure.

The overall goal of the initial or urgent damage assessment process is to develop disaster intelligence that will allow the District, County and Whatcom County incorporated municipalities to respond in an organized and coordinated manner to:

- Save and protect the greatest number of people at risk;
- Protect private property as much as possible;
- Protect critical facilities and vital infrastructure; and
- Minimize environmental damage.

The District has a responsibility to quickly assess the event's impacts on personnel, facilities, and capabilities and to use field resources to collect more general information about the impacts on the community.

Initial reports should contain:

- Location;
- Type of damage;
- Magnitude of damage;
- Whether personal injury or death is involved; and
- Whether immediate assistance is needed to save lives.

Initial damage assessment reports will be made to the Whatcom County Sheriff's Office Division of Emergency Management, which will analyze the information received, develop countywide response priorities, and coordinate resources accordingly.

4.3.2 Detailed Damage Assessment

The District has procedures and checklists and train staff based upon their individual area of responsibility to complete damage assessment activities and provide timely reports in pre-determined format to the Whatcom County Sheriff's Office Division of Emergency Management. These include:

- Developing procedures to utilize available personnel to evaluate event impacts, and communicate damage assessment information from the field
- Coordinating the sectoring and reporting process with other county departments
- Coordinating the damage assessment information collection/reporting process with other county departments/offices and the Whatcom County Sheriff's Office Division of Emergency Management or, if activated, the Whatcom Unified Emergency Coordination Center
- Relaying damage assessment reports to the Whatcom County Sheriff's Office Division of Emergency Management or, if activated, the Whatcom Unified Emergency Coordination Center

4.4 Operations and Engineering Responsibilities

The District will provide for the coordination of operations and engineering support to assist the District in meeting its needs related to response and recovery, including provision for the demolition of unsafe structures, debris and wreckage clearance, temporary repair of essential facilities, and the inspection of facilities for structural condition and safety.

1. Emergency restoration of critical public facilities including water and sewer facilities
2. If needed, the District General Manager, or designee, shall coordinate with the Whatcom County Health Department to provide testing of public water systems and supplies to ensure water is potable
3. Develop and establish Policies and Standard Operating Guidelines and train staff for disaster operations and update, as necessary
4. Provide notification to the Whatcom County Sheriff's Office Division of Emergency Management or, if activated, the Whatcom Unified Emergency Coordination Center representatives regarding the operational status of water and sewer facilities

4.5 Emergency Management Responsibilities

Emergency expenditures are not normally integrated into the operating budget of local governments. Nevertheless, the District recognizes that when a disaster event occurs, the District may be required to expend unbudgeted funds to respond to and recover from such events. Therefore, the District has created and maintains at a fully-funded position contingency reserve funds at the value of one percent of the replacement cost of its water and sewer utility infrastructure (2021 Water Utility Contingency Reserve is funded at \$460,000 and 2021 Sewer Utility Contingency Reserve is funded at \$815,000).

To minimize the impacts of the disaster as well as maximize the potential for federal reimbursement of disaster expenses, the District will make a sincere effort to follow jurisdictional procurement procedures and will adhere to procurement standards in the Code of Federal Regulations (44 CFR 13.36).

The District has:

1. Create an On-Call Small Works Roster to assist in obtaining required materials, supplies, and services during a declared emergency
2. Pre-screen vendors who are not on the On-Call Small Works Roster to ensure proper licenses, Unified Business Identifier Numbers, insurance coverage, and other required documents
3. Assign personnel to be responsible for documentation of disaster activities and costs and to utilize effective administrative methods to keep accurate detailed records distinguishing disaster operational activities and expenditures from day to day activities and expenditures
4. If needed, provide District staff to the Whatcom Unified Emergency Coordination Center in support of disaster response and recovery activities
5. If needed, help in declaring an emergency
6. If needed, request additional resources via mutual-aid agreements and/or through normal emergency management channels
7. If needed, provide staff/services to support activation of the Whatcom Unified Emergency Coordination Center and otherwise assist in emergency/disaster response and recovery activities
8. Maintain accurate expense records
9. Ensure public information, and other incident related information functions remain in place for as long as needed during the recovery phase
10. Conduct public damage assessments
11. Request public assistance available under the Stafford Act
12. Coordinate repairs and/or replacement of damaged facilities and/or equipment

13. Demobilize resources and return to normal activities

4.6 Logistics Management and Resource Support Responsibilities

The District will:

1. Expend available resources prior to seeking resource assistance through the Whatcom County Sheriff's Office Division of Emergency Management
2. Seek equipment, supplies, and personnel from the County, regional municipal agencies, and other local sources
3. Request resource needs beyond the capacity of the District from the State Emergency Operations Center through the Whatcom County Sheriff's Office Division of Emergency Management
4. Track resources assigned to the incident and the status of these resources
5. Develop and maintain lists of equipment and service providers necessary to support District responsibilities and functions during disaster operations
6. Follow jurisdictional procurement procedures and adhere to procurement standards in the Code of Federal Regulations (44 CFR 13.36)
7. Coordinate all requests for outside resources as well as the allocation and distribution of these resources through the Whatcom County Sheriff's Office Division of Emergency Management or, if activated, the Whatcom Unified Emergency Coordination Center
8. Track resources assigned to the incident and the status of these resources, and determine if resources should be re-assigned or demobilized
9. Identify and secure appropriate resources to meet anticipated emergency/disaster operational requirements and maintain agency resource contact lists
10. As applicable, provide resources, transportation, facilities and services in response to requests for resources from the Whatcom Unified Emergency Coordination Center
11. Request outside resources through the Whatcom Unified Emergency Coordination Center
12. Develop procedures for emergency procurement of supplies and services and coordinate these activities with the Whatcom County Sheriff's Office Division of Emergency Management

4.7 Energy Responsibilities

The District will advise energy providers of essential services required for emergency operations for the health and safety of the population.

4.8 Long-term Recovery Responsibilities

The Whatcom County Sheriff's Office Division of Emergency Management or, if activated, the Whatcom Unified Emergency Coordination Center will coordinate countywide recovery and restoration activities.

1. The District is responsible for preparing work contracts, and for the collection and documentation of all costs associated with disaster response and recovery activities
2. Costs to repair damage to District facilities will be the responsibility of the District. If available, reimbursement will be provided through state and federal programs
3. Recovery from smaller disruptive events will be coordinated by the District with assistance provided by Whatcom County Sheriff's Office Division of Emergency Management
4. The District will provide the Whatcom County Sheriff's Office Division of Emergency Management public damage assessment information
5. Provide technical assistance and advice on recovery and mitigation activities, as appropriate
6. The District will coordinate public information and assistance activities with the Whatcom County Sheriff's Office Division of Emergency Management

4.9 Public Information and External Affairs Responsibilities

To provide for the effective development, coordination, and dissemination of information to the public in case of natural, human-caused, or technological emergencies or disasters, the functions of emergency public information include the dissemination of accurate and timely information, which: promotes personal safety and survival, offers advice on protection of private property, provides accurate information on the actions of government and expected role of citizens, neutralizes rumors, and outlines assistance programs offered by local, state, federal, and volunteer agencies. The District's Crisis Communication Plan (LWWSD, 2020) defines the procedures and provides the tools for disseminating information to the public, government agencies, the media, and other stakeholders during a disaster or internal crisis. Following summarizes content of that plan:

1. The District General Manager will serve as the Public Information Officer (PIO). In cases where necessary, the General Manager may designate another individual to serve as the PIO based on their ability to write media releases, speak effectively, understand media procedures, and evaluate emergency situations.
2. The PIO will manage the District public information response through all phases of natural, human-caused, or technological events in collaboration with the Whatcom County Sheriff's Office Division of Emergency Management, as appropriate, for District activities.
3. Upon activation of the Whatcom Unified Emergency Coordination Center, all public information disseminated to the news media and citizens will be coordinated with the

Whatcom Unified Emergency Coordination Center to ensure release of compatible and accurate information.

4. If a Joint Information Center is established, all public information disseminated to the news media and citizens by municipal PIOs will be coordinated with the Joint Information Center to ensure release of compatible and accurate information.
5. Upon request, the Whatcom County Sheriff's Office Whatcom County Sheriff's Office Division of Emergency Management will support PIO functions.
6. The Whatcom County Sheriff's Office Division of Emergency Management will request additional PIO personnel through normal emergency management channels to be assigned and to support the District if requested.
7. Depending upon the nature and/or severity of the event, it may be necessary to coordinate emergency public information with neighboring counties and the Washington State Emergency Information Center.

4.10 Employee Responsibilities

The District has employees whose regular duties and training give them obvious roles in emergency response, as well as employees whose regular duties and training do not lend themselves to specific roles during emergencies. Following defines District positions defined as essential (required during an emergency), and those that are non-essential (not required during an emergency). It should be noted that, on a case-by-case basis, non-essential staff may be required to provide assistance during an emergency.

Essential Position	Non-essential Position
General Manager	Construction Engineer
Assist. General Manager/District Engineer	Utility Systems Support Specialist
Operations & Maintenance Manager	Administrative Assistant
Finance Manager	AP/Payroll/Benefits Administrator
Engineering Technician/Safety Officer	Accounts Receivable Technician
Lead Maintenance Worker	Accounting Clerk
Water Treatment Plant Operator	
Maintenance Electrician	
Maintenance Worker I/II	

Both types of employees may be required to assist emergency response efforts. In general, employees who are directed to participate in emergency response activities will report to their respective departments to receive instruction, unless alternate arrangements have been made by the department in its planned emergency procedures.

In an emergency, the District will determine the number of employees required for response activities and communicate that information to employees by whatever means necessary.

In general, employees will continue to work in their normal jobs and with their regular supervisors during emergency response efforts. However, depending on circumstances, they may be directed to undertake duties outside their normal responsibilities. Such direction will be given either directly, or through an employee's acting supervisor.

When an emergency or disaster occurs, District staff who are directed to report for emergency duties will report to their normal assigned work location for assignment to duty by supervisors.

During emergency operations, non-essential administrative activities may be suspended. Personnel not assigned to essential duties may be assigned to other departments to provide support services during and immediately after a disaster. Depending on how geographically widespread the emergency is and travel impediments, there may be alternative assignments of personnel between jurisdictions, more proximate to the employees' residences.

During the work on any major emergency, coordination of the deployment, work and care of emergency workers, whether staff or volunteer, is essential to avoid chaos and to use staffing wisely.

Emergency workers, whether "emergency responders" or other personnel, need to have the assurance that their families are safe and able to cope with the emergency without them. Please refer to Resource A, Working with Family Members, of the District's Crisis Communication Plan (LWWSO, 2020).

The emergency may require employees to work extraordinary hours. They may be unprepared to remain at work for such extended periods of time. They may not be able to return home for several days. They may be concerned about the welfare of their families. They may have a need for rest, as well as adequate food and clothing to work the emergency. Some may have medical needs, e.g., insulin dependent individuals. Some may have spiritual needs if the emergency results in significant injury to citizens, fellow workers or family members.

Employees may have child care needs; day care for emergency worker's children must be considered.

The District will use available personnel for field operations or management, in this order:

- District employees
- Skilled individuals from other agencies, organizations, and businesses
- Volunteers

Washington State will indemnify District employees acting as emergency workers for acts done in good faith compliance, except for willful misconduct, gross negligence or bad faith (per [RCW 38.52.195](#)).

5 MUTUAL AID AGREEMENTS

District resources may be stretched to exhaustion during an emergency. Mutual aid may be requested and employed by the District when local resources have been or are about to be depleted. Generally, mutual aid starts locally and ascends in the following manner:

- [Washington Water/Wastewater Agency Response Network](#) (WA WARN) (the District, as well as a number of other Whatcom County local governments, is a party to this mutual aid agreement)
- State of Washington
- Federal (coordinated through the Washington Military Department's Emergency Management Division)

6 REPORTING AND NOTIFICATIONS

It is the policy of the District that upon the discovery of emergency, employees shall take immediate actions to mitigate or stabilize the emergency. This includes, but is not limited to, rendering first aid and/or calling 911.

6.1 Internal Reporting and Notifications

1. District employees must directly notify their immediate supervisor or manager.
2. The supervisor or manager will report the emergency to the General Manager, and if they are not available, the Assistant General Manager/District Engineer. To allow the supervisor or manager the ability to rapidly engage the problem operationally, the General Manager/Assistant General Manager will notify:
 - The Whatcom County Sheriff's Office Division of Emergency Management Deputy Director;
 - The Whatcom County Sheriff's Office Division of Emergency Management Deputy Director will notify the Whatcom County Sheriff;
 - The Whatcom County Sheriff or designee will notify and update the County Executive.

In the event that an employee's immediate supervisor is not available, notification will be made to the next highest level in the chain-of-command, which will be the General Manager. Leaving a voicemail message does not constitute an acceptable notification, but a message should be left and the next person on the list must be contacted.

The supervisor/manager or their designees must ensure that additional notifications are made in accordance with any site or incident specific plans or regulatory requirements.

As soon as possible after emergency notifications have been made, the employee in charge is to complete an Activity Log (ICS 214) (<https://training.fema.gov/icsresource/icsforms.aspx>). Incident Reports involving injury to non-employees or property damage shall be forwarded to the General Manager and Engineering Technician/Safety Officer for purposes of processing insurance claims. Incident Reports involving injury to employees shall also be forwarded to the General Manager and Engineering Technician/Safety Officer, along with the employee-originated (supervisor, if employee is unavailable) accident/illness report within 24 hours.

6.2 External Reporting and Notifications

Level 1 Disruptive Events

1. Notification to the Whatcom County Sheriff's Office Division of Emergency Management should be made by the General Manager or Engineering Technician/Safety Officer within three (3) days of the disruptive event via email to wcsodem@co.whatcom.wa.us. It is recommended that this notification use an ICS 213 form. <https://training.fema.gov/icsresource/icsforms.aspx>

Level 2 Disruptive Events

1. Notification to the Whatcom County Sheriff's Office Division of Emergency Management should be made by the General Manager or Engineering Technician/Safety Officer by requesting contact from the Whatcom Unified Emergency Coordination Center Duty Officer by contacting Prospect or What-Comm (see Emergency Reporting checklist).
2. The Whatcom Unified Emergency Coordination Center Duty Officer will, depending upon the disruptive event, make further notifications and arrange for appropriate response to support the requesting agency.

Level 3 – Disruptive Events

1. Notification to the Whatcom County Sheriff's Office Division of Emergency Management should be made by the General Manager or Engineering Technician/Safety Officer by requesting contact from the Whatcom Unified Emergency Coordination Center Duty Officer by contacting Prospect or What-Comm.
2. The Whatcom Unified Emergency Coordination Center Duty Officer will, depending upon the disruptive event, make further notifications and arrange for appropriate response to support the requesting agency to include activation of the Whatcom Unified Emergency Coordination Center if appropriate.
3. The Whatcom County Sheriff's Office Division of Emergency Management will undertake notification of Whatcom County Government and other external agencies.

REFERENCES

AWIA. 2018. America's Water Infrastructure Act of 2018. One Hundred Fifteenth Congress of the United States of America. January 3. Washington D.C.

LWWSD. 2020. Crisis Communication Plan. Lake Whatcom Water and Sewer District. November 3. Bellingham, Washington.

LWWSD. 2021a. Risk Assessment Summary Report—Water System. Lake Whatcom Water and Sewer District. February 8. Bellingham, Washington.

LWWSD. 2021b. Risk Assessment Summary Report—Wastewater System. Lake Whatcom Water and Sewer District. February 8. Bellingham, Washington.

Whatcom County. 2017. Whatcom County Emergency Management Plan. Whatcom County. March 1. Bellingham, Washington.

CHECKLISTS

EMERGENCY REPORTING CHECKLIST

CONTACTS & RESOURCES		
CONTACT NAME	UTILITY/ORGANIZATION NAME	CONTACT INFORMATION
John Gargett Wally Kost	Whatcom County Sheriff's Office Division of Emergency Management	360.676.6811
	Washington State Military Department	https://mil.wa.gov/emergency-management-division
Dave Brown	WAWARN	https://wawarn.org
	Prospect	911
	What-Comm	911

PLANNING RESOURCES:

not applicable

COORDINATION RESOURCES:

- Water/Wastewater Agency Response Network
- <https://wawarn.org/members/notices.php>

DOCUMENTATION RESOURCES:

Federal Funding for Utilities in National Disasters [FRWA] (Fed FUNDS) (EPA)

REPORTING LEVELS & NOTIFICATIONS

1. INTERNAL REPORTING

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. District employee directly notifies their immediate supervisor |
| <input type="checkbox"/> | 2. Supervisor reports emergency to General Manager or District Engineer |
| <input type="checkbox"/> | 3. General Manager/District Engineer notifies Whatcom County Sheriff's Office Division of Emergency Management Deputy Director |
| <input type="checkbox"/> | 4. The District staff who is in charge will complete Activity Log (ICS 214)
https://training.fema.gov/icsresource/icsforms.aspx |
| <input type="checkbox"/> | 5. Whatcom County Sheriff's Office Division of Emergency Management Deputy Director notifies the Whatcom County Sheriff |
| <input type="checkbox"/> | 6. The Whatcom County Sheriff or designee notifies and updates the County Executive. |

2. EXTERNAL REPORTING AND NOTIFICATION

LEVEL 1 DISRUPTIVE EVENTS

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Notification to the Whatcom County Sheriff's Office Division of Emergency Management should be made by the General Manager or Engineering Technician/Safety Officer within three (3) days of the disruptive event via email to wcsodem@co.whatcom.wa.us . |
| <input type="checkbox"/> | This notification will use an ICS 213 form https://training.fema.gov/icsresource/icsforms.aspx |

LEVEL 2 DISRUPTIVE EVENT

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Notification to the Whatcom County Sheriff's Office Division of Emergency Management should be made by the General Manager or Engineering Technician/Safety Officer by requesting contact from the Whatcom Unified Emergency Coordination Center Duty Officer by contacting Prospect or What-Comm. |
| | The Whatcom Unified Emergency Coordination Center Duty Officer will, depending upon the disruptive event, make further notifications and arrange for appropriate response to support the District. |
| <input type="checkbox"/> | This notification will use an ICS 213 form https://training.fema.gov/icsresource/icsforms.aspx |

LEVEL 3 DISRUPTIVE EVENT

<input type="checkbox"/>	Notification to the Whatcom County Sheriff's Office Division of Emergency Management should be made by the General Manager or Engineering Technician/Safety Officer by requesting contact from the Whatcom Unified Emergency Coordination Center Duty Officer by contacting Prospect or What-Comm.
<input type="checkbox"/>	This notification will use an ICS 213 form https://training.fema.gov/icsresource/icsforms.aspx
<input type="checkbox"/>	The Whatcom Unified Emergency Coordination Center Duty Officer will, depending upon the disruptive event, make further notifications and arrange for appropriate response to support the requesting agency to include activation of the Whatcom Unified Emergency Coordination Center if appropriate.
<input type="checkbox"/>	The Whatcom County Sheriff's Office Division of Emergency Management will undertake notification of Whatcom County Government and other external agencies.

EMERGENCY OPERATION CENTER CHECKLIST

ACTIVATION PHASE

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. Determine appropriate level of activation based on situation as known. |
| <input type="checkbox"/> | 2. Mobilize appropriate personnel for the initial activation of the EOC. |
| <input type="checkbox"/> | 3. Respond immediately to EOC site and determine operational status. |
| <input type="checkbox"/> | 4. Obtain briefing from whatever sources are available. |
| <input type="checkbox"/> | 5. Ensure that the EOC is properly set up and ready for operations. |
| <input type="checkbox"/> | 6. Ensure that an EOC check-in procedure is established immediately. |
| <input type="checkbox"/> | 7. Ensure that an EOC organization and staffing chart is posted and completed. (Form ICS 203) |
| <input type="checkbox"/> | 8. Communicate EOC activation with Whatcom County Sheriff's Office Division of Emergency Management. |

DE-ACTIVATION PHASE

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1. Deactivate assigned positions and close out logs. |
| <input type="checkbox"/> | 2. Notify the Whatcom County Sheriff's Office Division of Emergency Management of the planned de-activation. |
| <input type="checkbox"/> | 3. Ensure that all required forms or reports are completed. |
| <input type="checkbox"/> | 4. Proclaim termination of the emergency response. |

ANNEX 1

SYSTEM OVERVIEW

WATER SYSTEM OVERVIEW

Topic	Description
PWS ID Number	95910 – South Shore (Geneva & Sudden Valley) 08118 – Eagleridge 52957 – Agate Heights 047828 – Johnson Well
Name and Address	Lake Whatcom Water and Sewer District 1220 Lakeway Dr. Bellingham, WA 98229
Type of System	Water Utilities
Emergency Response Plan Administrator	Name: Rich Munson Title: Engineering Technician / Safety Officer Address: 1220 Lakeway Dr. Phone: 360-296-4590
Alternate Emergency Response Plan Administrator	Name: Justin Clary General Manager Address: 1220 Lakeway Dr. Phone: 360-296-4578

Source of Supply

The District operates four distinct, Washington State Department of Health-permitted water systems:

- South Shore (serving Geneva and Sudden Valley communities);
- Eagleridge;
- Agate Heights; and
- Johnson Well

These systems combined have approximately 4,100 service connections. All except Eagleridge and Johnson Well have multiple pressure zones and standby storage (storage for Eagleridge is provided by the City of Bellingham; the Johnson Well only serves two residences).

The District's Sudden Valley water treatment plant supplies water from Lake Whatcom to the South Shore system (Geneva and Sudden Valley areas). The District purchases water from the City of Bellingham to supply the Eagleridge system. Water from an artesian well is treated by the District's Agate Heights water treatment plant and supplied to the Agate Heights system.

A map of pressure zones for each service area, as well as detailed system descriptions, are included in the District's Comprehensive Water Plan.

Treatment

Lake Whatcom Basin No. 3 provides an excellent source of raw water. Many lake front homeowners consume lake water through direct withdrawal without treatment. Lake Whatcom provides a very stable source of raw water for the production of drinking water. The raw water intake for the Sudden Valley Water Treatment Plant (SVWTP) is located at the foot of Morning Beach Drive in Sudden Valley. The SVWTP, built in the early 1970s and upgraded in 1984 and again in 1993 complies with the Surface Water Treatment Rule (SWTR). It is a four filter multi-media direct filtration package plant system. The raw water is pumped into the plant through a 12-inch diameter intake pipe that is 70 feet below the lake surface extending approximately 315 feet from the shore into Basin No. 3. The water then undergoes coagulation, pre-chlorination, flocculation, filtration, disinfection and pH control. The treated water leaves the plant and enters an external reservoir for detention time, measured as the product of chlorine concentration and the contact time, as required by SWTR. After remaining in the reservoir for the required time, the water is pumped through two miles of transmission lines to three separate distribution reservoirs which supply a gravity fed distribution system.

Coagulation

As a part of the 1993 upgrade of the SVWTP an in-line flash mixer was added. The coagulant used is liquid alum (aluminum sulfate). A 1,700 gallon bulk storage tank inside the plant provides approximately a nine month supply of alum. The coagulant is pumped from the bulk storage tank to the flash mixer via a positive displacement chemical feed pump

Pre-chlorination

The SVWTP is equipped with a chlorine gas disinfection system. Pre-chlorination occurs in the flocculation tank. The raw water is dosed to maintain a 0.10 to 0.20 mg/L level of chlorine. This level is sufficient to maintain free chlorine residual throughout the treatment process.

Flocculation

After coagulation, the water enters a 10,000 gallon flocculation tank. The flocculation tank is divided into three sections. At maximum capacity the water enters the top of the first section and leaves via an overflow in the third section after approximately seven minutes.

Filtration: After flocculation the water enters a distribution trough that distributes the water to four filters. Each filter has a maximum production capacity of 360 gallons per minute (gpm). The filters are a multi-media type with 55 inches of media. The flocculated water enters a central gullet in each filter and flows down through the filter media. The filtration rate may vary and is controlled by throttling the raw water flow. The performance of the filters is monitored for head loss, effluent turbidity and filter run time.

The backwash sequence is normally an automatic sequence manually initiated after a filtration production cycle. The backwash sequence is normally controlled by a programmable logic controller (PLC), if conditions warrant, a manually controlled sequence is controlled by the operator. The filter operation is normally delayed for 1 – 4 hours following completion of the backwash cycle to allow the filter media to settle. When the filtration process is commenced all filters are filtered to waste for 20 to 27 minutes which eliminates the turbidity spike encountered whenever filters are returned to production. The filters are not put into production until the turbidity is below 0.10 nephelometric turbidity units (NTU) normally they are well below this level and into optimal production 0.025 to 0.035 NTU within an hour after start up.

Disinfection

The SVWTP is equipped with a chlorine gas disinfection system. Chlorination of the water is administered through Venturi type injectors. Pre-filtration chlorination takes place in the flocculation tank.

pH Control: Sodium carbonate in the form of dense soda ash is added for pH control. Soda ash in an aqueous solution is injected by positive displacement pump at a measured dosage rate into the influent line of the clearwell. The finished water is transferred to a 225,000 gallon reservoir. The reservoir was constructed in 1993 to comply with chlorine contact time requirements of the SWTR. The finished water is then ready for transmission to reservoirs and distribution.

Storage

The District's water storage facilities are summarized in the table below:

District Reservoir Characteristics					
Reservoir	Capacity(gal.)	Material	Approx. Base Elev. (msl)	Approx. Top Elev.	Diam. (ft)
SV Div. 7	1,000,000	Welded steel	669	703	70
SV Div. 22	500,000	Welded steel	800	835	48
SV Div. 22 #2	625,000	Welded steel	800	835	48
SV Div. 30	150,000	Welded steel	1,025	1,070	25
Geneva	500,000	Welded steel	600	635	48
AHWTP	80,000	concrete	552	567	30
LWRTC	105,700	concrete	826	846	30
Water Plant CT	160,000	welded steel	336	360	20

Transmission and Distribution

Major transmission and distribution pipelines in the District are comprised primarily of 6-inch through 12-inch diameter water mains. The District transmission mains convey treated water to the District's reservoirs. The District has detailed drawings of the entire water system. Full-size drawings are located at the District office and half-size sets are kept in each District maintenance truck.

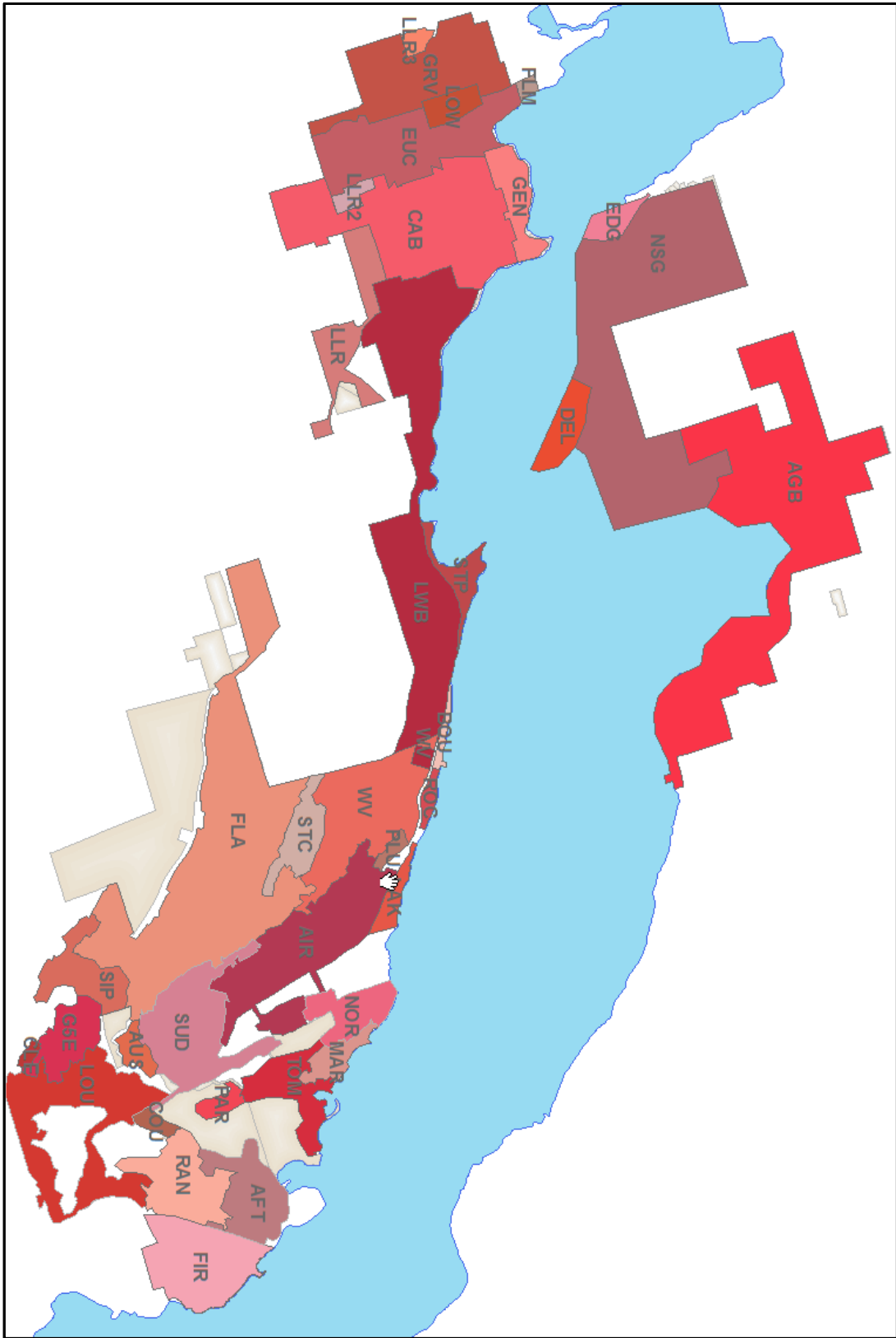
Pressure Reducing Valves (PRV)

The District has numerous pressure reducing stations. The South Shore system has 55 and Agate Heights system has three (3). All are looped except for the Agate Heights system PRV station, and most have two parallel PRVs in the station including Agate Heights system PRV station.

SEWER SYSTEM OVERVIEW

Sewage Basins

The District has two basic sewer service areas: South Shore and North Shore. All wastewater is collected and pumped into the City of Bellingham's sewer system. The District operates 28 sewer lift stations, with 13 outfitted with dedicated emergency standby power. The District also operates a 700,000-gallon sewage detention basin in Sudden Valley. The sewer system also includes one siphon and 28 air release valves. Drainage basins for each service area are shown on the map below. More detailed system descriptions are included in the District's Comprehensive Sewer Plan.



Lake Whatcom Water and Sewer District Wastewater Drainage Basins

Sewer Mains

The District sewer mains are constructed of three types of pipes: vitrified clay pipe (VCP), polyvinyl chloride (PVC), and cast iron.

VCP is made from a blend of clay and shale that has been subjected to high temperature to achieve vitrification, a process which results in a hard, inert ceramic. VCP is commonly used in gravity sewer collection mains because of its long life and resistance to almost all domestic and industrial sewage, particularly the sulfuric acid that is generated by hydrogen sulfide.

PVC pipe is made from a plastic and vinyl combination material. The pipe is durable, hard to damage, and long lasting. They do not rust, rot, or wear over time. Due to the ability of PVC pipe to withstand extreme movement and bending, it is also increasingly used in earthquake prone areas; it can withstand the rigorous shaking of the earth without experiencing any damage.

Cast iron pipe is a pipe which has had historic use as a pressure pipe for transmission of water, gas and sewage, and as a water drainage pipe during the 19th and 20th centuries. It comprises predominantly a gray cast iron tube and was frequently used uncoated, although later coatings and linings reduced corrosion and improve hydraulic flow.

CRITICAL FACILITIES

Facility	Location	Function
10" Giesbicht Well	3330 Sunny Cove Ct	Water supply source for Agate Heights
6" Giesbicht Well	3330 Sunny Cove Ct	Backup water supply source for Agate Heights
Administration Office	1220 Lakeway Dr.	Secondary EOC
Afternoon Beach	22 Morning Drive	Primary sewer lift station
Agate Bay	2516 North Shore Rd.	Primary sewer lift station
Agate Height RES	3400 Agate Heights Rd	Water reservoir for Agate Heights
Agate Heights WTP	3330 Sunny Cove Court	Primary water treatment plant for Agate Heights
Airport	2376 Lake Whatcom Blvd	Primary sewer lift station
Austin Creek	8 Acorn Pl	Secondary sewer lift station
Beecher Booster	4748 Columbus Ave	Primary water booster station
Beaver	2349 Lake Louise Road	Primary sewer lift station
Boulevard	2582 Lake Whatcom Blvd.	Secondary sewer lift station
Cable	2986 Lake Whatcom Blvd.	Primary sewer lift station
Camp Firwood	1744 Lake Whatcom Blvd	Secondary sewer lift station
Dellesta Park	2111 North Shore Dr.	Secondary sewer lift station
Detention Tank	2022 Lake Whatcom Blvd	718,000 gallon sewage storage
District Office	1010 Lakeview Street	Emergency Operations Center
Div. 30 Reservoir	5 Loganberry Lane	Primary water reservoir
Div. 22 Reservoir	10 Water Tower Ct	Primary water reservoir
Div. 22 #2 Reservoir	10 Water Tower Ct	Primary water reservoir
Div. 30 Booster	1750 Lake Whatcom Blvd	Primary water booster station
Div. 7 Reservoir	57 Grandview Ln	Primary water reservoir
Eagleridge Booster	2029 Northshore Road	Primary water booster station
Edgewater	1730 Edgewater Lane	Secondary sewer lift station

Facility	Location	Function
Euclid	1570 Euclid	Primary sewer lift station
Flat Car 2	2810 Lake Louise Road	Primary sewer lift station
Geneva	1543 Geneva St	Secondary sewer lift station
Geneva Booster	3914 Lakeway Drive	Intertie location with City of Bellingham
Geneva Reservoir	1010 Lakeview Street	Primary water reservoir
Johnson Well	3349 Agate Bay Lane	Secondary water pump station
Lakewood- WWU	2464 Lake Whatcom Blvd.	Secondary sewer lift station
LID 5 Pump House	4920 Coronado Ln	Secondary water booster station
Louise Park	4 Larkspur Ct	Primary sewer lift station
Lowe street	1589 Lowe Ave.	Secondary sewer lift station
LWRTC Res.	3400 Agate Heights Rd.	Primary water reservoir
Marina	8 Inlet Cir.	Primary sewer lift station
North Point	50 Clear Lake Ct	Primary sewer lift station
Par Lane	20 Par Lane	Secondary sewer lift station
Plum Place	15 Autumn Vista Pl.	Secondary sewer lift station
Ranch House	6 Marigold Dr.	Primary sewer lift station
Rocky Ridge	2526 Lake Whatcom Blvd	Secondary sewer lift station
Strawberry Canyon	13 Strawberry Canyon Ct	Secondary sewer lift station
Strawberry Pt.	2652 Lake Whatcom Blvd.	Secondary sewer lift station
Sudden Valley	2004 Lake Whatcom Blvd.	Primary sewer lift station
SV WTP	22 Morning Beach Drive	Primary water treatment facility for Sudden Valley and Geneva / Secondary Emergency Operations Center
The Tomb	16 Spinnaker Ln	Secondary sewer lift station
Division 7 Booster	22 Morning Beach Ct.	Primary water booster station
Division 22 Booster	22 Morning Beach Ct.	Primary water booster station

ANNEX 2

SEVERE WINTER STORM RESPONSE PLAN

CONTACTS & RESOURCES

CONTACT NAME	UTILITY/ORGANIZATION NAME	PHONE NUMBER
John Gargett Wally Kost	Whatcom County Sheriff's Office Division of Emergency Management	360.676.6811
	Washington State Military Department	https://mil.wa.gov/emergency- management-division
Dave Brown	WAWARN	https://wawarn.org
Emily Hagin	Puget Sound Energy	360.661.7873 360.319.6424
	Yorkston Oil Co.	360.734.2201
Laura McLaughlin	Washington State Department of Health Office of Drinking Water	253.395.6761

PLANNING RESOURCES:

- United States Geological Survey (USGS)

COORDINATION RESOURCES:

- Water/Wastewater Agency Response Network
- Community Based Water Resiliency (EPA)
- Puget Sound Energy
- Yorkston Oil Co.

MITIGATION RESOURCES:

- Adaptation Strategies Guide (EPA)

DOCUMENTATION RESOURCES:

Federal Funding for Utilities in National Disasters [FRWA] (Fed FUNDS) (EPA)

PREPARE

PLANNING

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Annually review and update this emergency response plan (ERP), and ensure all emergency contacts are current. |
| <input type="checkbox"/> | Each October, at a minimum, conduct briefings, training and exercises to ensure staff is aware of all preparedness, response and recovery procedures. |
| <input type="checkbox"/> | Update priority water customers list, obtain their contact information, map their locations and develop a plan to restore those customers first, in case of water service disruptions. |
| <input type="checkbox"/> | Develop an emergency drinking water supply plan and establish response partner contacts (potentially through Whatcom County Sheriff's Office Department of Emergency Management or mutual aid network) to discuss procedures, which may include bulk water hauling, mobile treatment units or temporary supply lines, as well as storage and distribution. |
| <input type="checkbox"/> | Conduct a hazard vulnerability analysis through review of historical records to understand the past frequency and intensity of winter storms and how the District may have been impacted. Consider taking actions to mitigate extreme cold, snow and ice storm impacts. |
| <input type="checkbox"/> | Complete pre-disaster activities to help apply for federal disaster funding (e.g., contact state/local officials with connections to funding, set up a system to document damage and costs, take photographs of the facility for comparison to post-damage photographs). |

COORDINATION

- | | |
|--------------------------|---|
| <input type="checkbox"/> | <p>Coordinate with WA WARN members and other neighboring utilities to discuss:</p> <ul style="list-style-type: none">• Outlining response activities, roles and responsibilities and mutual aid procedures (e.g., how to request and offer assistance)• Conducting joint tabletop or full-scale exercises• Obtaining resources and assistance, such as equipment, personnel, technical support or water• Establishing interconnections between systems and agreements with necessary approvals to activate this alternate source. Equipment, pumping rates and demand on the water sources need to be considered and addressed in the design and operations• Establishing communication protocols and equipment to reduce misunderstandings during the incident |
| <input type="checkbox"/> | <p>Coordinate with other key response partners, such as Whatcom County Sheriff's Office Department of Emergency Management staff, to discuss:</p> <ul style="list-style-type: none">• How restoring system operations may have higher priority than establishing an alternative water source• Potential points of distribution for the delivery of emergency water supply (e.g., bottled water) to the public, as well as who is responsible for distributing the water |

<input type="checkbox"/>	Understand how the local and District-specific emergency operations centers (EOC) will be activated and what the District may be called on to do, as well as how local emergency responders and the local EOC can support the District during a response.
<input type="checkbox"/>	Work with community partners to ensure the District is properly prioritized when determining plowing and road salting/sanding operations.
<input type="checkbox"/>	Ensure credentials to allow access will be valid during an incident by checking with local law enforcement.
<input type="checkbox"/>	Sign up for mobile and/or email alerts from Whatcom County Sheriff's Office Department of Emergency Management (AlertSense).

COMMUNICATION WITH CUSTOMERS

<input type="checkbox"/>	Review public information protocols with WCSO-DEM and WC Public Health. These protocols should include developing water advisory messages (e.g., boil water, warnings that service disruptions are likely due to extreme winter weather) and distributing them to customers using appropriate mechanisms, such as reverse 911. Keep in mind that the notice may need to be delivered prior to the storm to be effective.
<input type="checkbox"/>	Instruct customers on how to prevent pipe breaks in their homes (e.g., insulating outdoor faucets, drip warm water from an indoor faucet) and what to do if a pipe breaks.

FACILITY AND SERVICE AREA

<input type="checkbox"/>	Inventory and order extra equipment and supplies, as needed: Emergency Supplies: <ul style="list-style-type: none"> • Salt/de-icer/sand • Shovels/snow blowers • Tarps/tape/rope • Cots/blankets • First aid kits • Foul weather gear • Plywood • Flashlights/flares • Bottled water • Batteries • Non-perishable food
<input type="checkbox"/>	Ensure communication equipment (e.g., radios, satellite phones) works and is fully charged.
<input type="checkbox"/>	Develop a GIS map of all system components and prepare a list of coordinates for each facility.
<input type="checkbox"/>	Prepare equipment and vehicles to start and run in cold weather (e.g., tune ups, batteries, engine block heaters); including attaching plow and sand spreader to applicable District utility truck.
<input type="checkbox"/>	Document pumping requirements and storage capabilities, as well as critical treatment components and parameters.

PERSONNEL

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Identify staff and ensure they are trained to perform critical duties in an emergency (and possibly without communication), including the shut down and startup of the system. |
| <input type="checkbox"/> | Establish communication procedures with essential and non-essential personnel. Ensure all personnel are familiar with emergency evacuation and shelter in place procedures. |
| <input type="checkbox"/> | Monitor extended forecasts daily October through February to identify and properly plan for potential severe winter storm events. |
| <input type="checkbox"/> | Establish alternative transportation strategies if roads are impassable. |
| <input type="checkbox"/> | Consider how evacuations or limited staffing due to transportation issues (potentially all utility personnel) will impact your response procedures. |
| <input type="checkbox"/> | Identify possible staging areas for mutual aid crews if needed in the response, and the availability of local facilities to house the crews. |
| <input type="checkbox"/> | Encourage staff, especially those that may be on duty for extended periods of time, to develop family emergency plans. |

POWER, ENERGY, AND FUEL

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Document power requirements of each facility. |
| <input type="checkbox"/> | Evaluate condition of electrical panels to accept generators; inspect connections and switches. |
| <input type="checkbox"/> | Confirm and document generator connection type, capacity load and fuel consumption. Test regularly, exercise under load and service backup generators. |
| <input type="checkbox"/> | Fill fuel tanks to full capacity. |
| <input type="checkbox"/> | Contact fuel vendors and inform them of estimated fuel volumes needed if impacted. Determine the ability to establish emergency contract provisions with vendors and the ability to transport fuel if re-fueling contractors are not available. |
| <input type="checkbox"/> | Develop a backup fueling plan and a prioritization list of which generators to fuel in case of a fuel shortage. |
| <input type="checkbox"/> | Collaborate with PSE and EOC to ensure that the District is on the critical facilities list for priority electrical power restoration, generators and emergency fuel. |
| <input type="checkbox"/> | Prior to a forecasted storm event, stage portable generators at facilities that do not have auxiliary power (permanent backup generators). |

RESPOND

COORDINATION

- Engineering Technical/Safety Officer notifies WCSO-DEM daily, at a minimum, of system status.
- If needed, General Manager requests or offer assistance (e.g., equipment, personnel) through mutual aid networks, such as WA WARN.
- Assign a representative (likely Engineering Technician/Safety Officer) to WCSO-DEM EOC

COMMUNICATIONS WITH CUSTOMERS

- Notify customers of any water advisories and consider collaborating with local media (television, radio, newspaper, etc.) to distribute the message.
If emergency water is being supplied, provide information on the distribution locations.

FACILITIES AND SERVICE AREA

OVERALL

- Conduct damage assessments of the utility to prioritize repairs and other actions. (see Damage Assessment Plan; Annex 6 to this Emergency Response Plan)
- Check that back-up equipment and facility systems, such as controls and pumps, are in working order, and ensure that chemical containers and feeders are intact.

DRINKING WATER FACILITIES

- Inspect the service area for damage. Identify facility components (e.g., valve boxes) and fire hydrants that have been buried in snow, frozen in ice or are inaccessible.
- Monitor intake, as ice and frozen slush can block valves and cause restrictions.
- Ensure pressure is maintained throughout the system and isolate those sections where it is not.
- Isolate and control leaks in water transmission and distribution piping.
- Monitor source water quality and adjust treatment as necessary.
- Notify WA Department of Health Office of Drinking Water if operations and/or water quality or quantity are affected.
- Utilize pre-established emergency connections (e.g., Scenic intertie with City of Bellingham's water system).

	WASTEWATER FACILITIES
<input type="checkbox"/>	Inspect the utility area, including lift stations, for damage and power availability. Inspect the sewer system for debris. If necessary, run system in manual operation. (see Damage Assessment Plan; Annex 6 to this Emergency Response Plan)
DOCUMENTATION AND REPORTING	
<input type="checkbox"/>	Document all damage assessments, mutual aid requests, emergency repair work, equipment used, purchases made, staff hours worked and contractors used during the response to assist in requesting reimbursement and applying for federal disaster funds. When possible, take photographs (with time and date stamp). Proper documentation is critical to requesting reimbursement.
<input type="checkbox"/>	Work with WCSO-DEM on the required paperwork for public assistance requests.
PERSONNEL	
<input type="checkbox"/>	Account for all staff and provide emergency care, if needed. Caution personnel about known hazards resulting from severe winter weather.
<input type="checkbox"/>	Deploy emergency operations and clean-up crews. Identify key access points and roads for employees to enter the utility and critical infrastructure; coordinate the need for snow and ice clearance with local officials and/or emergency management or prioritize it for employee operations.
POWER, ENERGY AND FUEL	
<input type="checkbox"/>	Use backup generators, as needed, to supply power to system components.
<input type="checkbox"/>	Monitor and plan for additional fuel needs in advance; coordinate fuel deliveries to generators.
<input type="checkbox"/>	Maintain contact with PSE for power outage duration estimates.

RECOVER

COORDINATION

- Continue work with response partners to obtain funding, equipment, etc.

COMMUNICATION WITH CUSTOMERS

- Assign a District representative to continue to communicate with customers concerning a timeline for recovery and other pertinent information.

FACILITIES AND SERVICE AREA

- Complete damage assessments.
- Complete permanent repairs, replace depleted supplies and return to service.

DOCUMENTATION AND REPORTING

- Compile damage assessment forms and cost documentation into a single report to facilitate the sharing of information and the completion of state and federal funding applications.
- Develop a lessons learned document and/or an after action report (AAR) to keep a record of response activities. Update the District's vulnerability assessment and ERP
- Revise budget and asset management plans to address increased costs from response-related activities.

MITIGATION

- Identify mitigation and long-term adaptation measures that can prevent damage and increase utility resilience.

ANNEX 3

EARTHQUAKE RESPONSE PLAN

CONTACTS & RESOURCES

CONTACT NAME	UTILITY/ORGANIZATION NAME	PHONE NUMBER
John Gargett Wally Kost	Whatcom County Sheriff's Office Division of Emergency Management	360.676.6811
	Washington State Military Department	https://mil.wa.gov/emergency- management-division
Dave Brown	WAWARN	https://wawarn.org
	Yorkston Oil Co.	360.734.2201
Emily Hagin	Puget Sound Energy	360.661.7873 360.319.6424

PLANNING RESOURCES:

- United States Geological Survey - USGS
- Vulnerability Self-Assessment Tool (VSAT)

COORDINATION RESOURCES:

- Water/Wastewater Agency Response Network
- Community Based Water Resiliency (EPA)
- Puget Sound Energy
- Yorkston Oil Co.

MITIGATION RESOURCES:

- Adaptation Strategies Guide (EPA)

DOCUMENTATION RESOURCES:

Federal Funding for Utilities in National Disasters [FRWA] (Fed FUNDS) (EPA)

PREPARE

PLANNING

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Annually review and update this emergency response plan (ERP), and ensure all emergency contacts are current. |
| <input type="checkbox"/> | Conduct briefings, training and exercises to ensure staff is aware of all preparedness, response and recovery procedures. |
| <input type="checkbox"/> | Update priority water customers, obtain their contact information, map their locations and develop a plan to restore those customers first. |
| <input type="checkbox"/> | Develop an emergency drinking water supply plan and establish contacts (potentially through WCSO-DEM or mutual aid network) to discuss procedures, which may include bulk water hauling, mobile treatment units or temporary supply lines, as well as storage and distribution. |
| <input type="checkbox"/> | Complete pre-disaster activities to help apply for federal disaster funding (e.g., contact state/local officials with connections to funding, set up a system to document damage and costs, take photographs of the facility for comparison to post-damage photographs). |

COORDINATION

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Coordinate with WA WARN members and other neighboring utilities to discuss: <ul style="list-style-type: none">• Outlining response activities, roles and responsibilities and mutual aid procedures (e.g., how to request and offer assistance)• Conducting joint tabletop or full-scale exercises• Obtaining resources and assistance, such as equipment, personnel, technical support or water• Establishing interconnections between systems and agreements with necessary approvals to activate this alternate source. Equipment, pumping rates and demand on the water sources need to be considered and addressed in the design and operations• Establishing communication protocols and equipment to reduce misunderstandings during the incident |
| <input type="checkbox"/> | Coordinate with other key response partners to discuss: <ul style="list-style-type: none">• How restoring system operations may have higher priority than establishing an alternative water source• Potential points of distribution for the delivery of emergency water supply (e.g., bottled water) to the public, as well as who is responsible for distributing the water |

<input type="checkbox"/>	Understand how WCSO-DEM and utility emergency operations center (EOC) will be activated and what your utility may be called on to do, as well as how local emergency responders and the local EOC can support the District during a response.
<input type="checkbox"/>	Ensure validity of District credentials (badge) to allow access (e.g., road) during an incident by checking with local law enforcement.

COMMUNICATION WITH CUSTOMERS

<input type="checkbox"/>	Develop outreach materials to provide your customers with information they will need after an earthquake (e.g., clarification about water advisories, information about earthquake mitigation).
<input type="checkbox"/>	Review public information protocols with WCSO-DEM and WC DOH. These protocols should include developing water advisory messages (e.g., boil water) and distributing them to customers using appropriate mechanisms, such as reverse 911. (see Crisis Communication Plan).

FACILITY AND SERVICE AREA

<input type="checkbox"/>	<p>Inventory and order extra equipment and supplies, as needed:</p> <ul style="list-style-type: none"> • Motors • Fuses • Chemicals (ensure at least a two week supply) • Cellular phones or other wireless communications device <p>Emergency Supplies</p> <ul style="list-style-type: none"> • Tarps/tape/rope • Cots/blankets • First aid kits • Foul weather gear • Plywood • Flashlights/flares • Bottled water • Batteries • Non-perishable food
<input type="checkbox"/>	Ensure communication equipment works and is fully charged.
<input type="checkbox"/>	Develop / deploy a GIS map of all system components and prepare a list of coordinates for each facility.
<input type="checkbox"/>	Document pumping requirements and storage capabilities, as well as critical treatment components and parameters.
<input type="checkbox"/>	Establish a seismically hardened or offsite facility to store essential records and equipment.

<input type="checkbox"/>	<p>Inspect facilities for structural stability and consider implementing actions to improve the ability to withstand damage from earthquakes, such as:</p> <ul style="list-style-type: none"> • Secure fixtures, shelves and equipment • Anchor or stabilize utility equipment to withstand earthquake forces and movements • Reinforce, secure or improve utility transmission lines and connections to withstand earthquake forces, soil movements and differential • Anchor or improve tank structures to withstand earthquake forces and movements
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PERSONNEL

<input type="checkbox"/>	Identify staff and ensure they are trained to perform critical duties in an emergency (and possibly without communication), including the shut down and startup of the systems.
<input type="checkbox"/>	Establish communication procedures with staff. Ensure all personnel are familiar with emergency evacuation and shelter in place procedures.
<input type="checkbox"/>	Establish alternative transportation strategies if roads are impassable.
<input type="checkbox"/>	Consider how evacuations or limited staffing due to transportation issues (potentially all utility personnel) will impact your response procedures.
<input type="checkbox"/>	Identify possible staging areas for mutual aid crews if needed in the response, and the availability of local facilities to house the crews.
<input type="checkbox"/>	Encourage personnel, especially those that may be on duty for extended periods of time, to develop family emergency plans.

POWER, ENERGY, AND FUEL

<input type="checkbox"/>	Document power requirements of each facility.
<input type="checkbox"/>	Evaluate condition of electrical panels to accept generators; inspect connections and switches.
<input type="checkbox"/>	Confirm and document generator connection type, capacity load and fuel consumption. Test regularly, exercise under load and service backup generators.
<input type="checkbox"/>	Maintain fuel tanks at full capacity and ensure the ability to manually pump fuel in the event of a power outage. Ensure this equipment and other hazardous materials are located in a safe zone.
<input type="checkbox"/>	Contact fuel vendors and inform them of estimated fuel volumes needed if utility is impacted. Determine your

	ability to establish emergency contract provisions with vendors and your ability to transport fuel if re-fueling contractors are not available. Develop a backup fueling plan and a prioritization list of which generators to fuel in case of a fuel shortage.
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RESPOND

COORDINATION

- Notify WCSO-DEM of system status.
- If needed, request or offer assistance (e.g., equipment, personnel) through mutual aid networks, such as WARN.
- Assign a representative of the utility to the incident command post or WCSO-DEM EOC

COMMUNICATIONS WITH CUSTOMERS

- Notify customers of any water advisories and consider collaborating with local media (television, radio, newspaper, etc.) to distribute the message. If emergency water is being supplied, provide information on the distribution locations. (See Crisis Communication Plan)

FACILITIES AND SERVICE AREA

OVERALL

- Conduct damage assessments of the utility to prioritize repairs and other actions. (See Damage Assessment Plan)
- Check that back-up equipment and facility systems, such as controls and pumps, are in working order, and ensure that chemical containers and feeders are intact.

DRINKING WATER FACILITIES

- Inspect the utility and service area for damage. Identify facility components that have been buried, are inaccessible or have been destroyed.
- Investigate drinking water wells for damage caused by liquefaction. This could result in the loss of storage for groundwater or ground subsidence.
- Ensure pressure is maintained throughout the system and isolate those sections where it is not.
- Isolate and control leaks in water transmission and distribution piping.
- Turn off water meters at destroyed homes and buildings
- Notify regulatory agency if operations and/or water quality or quantity are affected.

<input type="checkbox"/>	Utilize pre-established emergency connections or setup temporary connections to nearby communities, as needed.
<input type="checkbox"/>	Implement plans to draw emergency water from pre-determined tanks. Notify employees of the activated sites.
WASTEWATER UTILITIES	
<input type="checkbox"/>	Inspect the utility and service area, including lift stations, for damage, downed trees, and power availability. Inspect the sewer system for debris and assess the operational status of the mechanical bar screen. If necessary, run system in manual operation. (See Damage Assessment Plan)
<input type="checkbox"/>	Notify regulatory/primacy agency of any changes to the operations or required testing parameters.
DOCUMENTATION AND REPORTING	
<input type="checkbox"/>	Document all damage assessments, mutual aid requests, emergency repair work, equipment used, purchases made, staff hours worked and contractors used during the response to assist in requesting reimbursement and applying for federal disaster funds. When possible, take photographs (with time and date stamp). Proper documentation is critical to requesting reimbursement.
<input type="checkbox"/>	Work with WCSO-DEM on the required paperwork for public assistance requests.
PERSONNEL	
<input type="checkbox"/>	Account for all staff and provide emergency care, if needed. Caution personnel about known hazards resulting from earthquakes.
<input type="checkbox"/>	Identify key access points and roads for employees to enter the utility and critical infrastructure; coordinate the need for debris clearance with local emergency management or prioritize it for employee operations.
POWER, ENERGY AND FUEL	
<input type="checkbox"/>	Use backup generators, as needed, to supply power to system components.
<input type="checkbox"/>	Monitor and plan for additional fuel needs in advance; coordinate fuel deliveries to generators.
<input type="checkbox"/>	Maintain contact with PSE for power outage duration estimates.

RECOVER

COORDINATION

- Continue work with response partners to obtain funding, equipment, etc.

COMMUNICATION WITH CUSTOMERS

- Assign a District representative to continue to communicate with customers concerning a timeline for recovery and other pertinent information.

FACILITIES AND SERVICE AREA

- Complete damage assessments.
- Complete permanent repairs, replace depleted supplies and return to service.

DOCUMENTATION AND REPORTING

- Compile damage assessment forms and cost documentation into a single report to facilitate the sharing of information and the completion of state and federal funding applications.
- Develop a lessons learned document and/or an after action report to keep a record of response activities. Update the District's vulnerability assessment, ERP and contingency plans.
- Revise budget and asset management plans to address increased costs from response-related activities.

MITIGATION

- Identify mitigation and long-term adaptation measures that can prevent damage and increase utility resilience.

ANNEX 4

CYBERSECURITY ATTACK RESPONSE PLAN

CONTACTS AND RESOURCES

CONTACT NAME	UTILITY/ORGANIZATION NAME	PHONE NUMBER
John Gargett Wally Kost	Whatcom County Sheriff's Office Division of Emergency Management	360.676.6811
	Washington State Military Department	https://mil.wa.gov/emergency- management-division
Dave Brown	WAWARN	https://wawarn.org
Emily Hagin	Puget Sound Energy	360.661.7873 360.319.6424
	NP Information Systems, Inc. (NPI)	360.671.4906 helpdesk@npinfo.com

PLANNING RESOURCES:

- Ongoing cybersecurity training is provided through PII Protect

COORDINATION RESOURCES:

- Cybersecurity protection is coordinated through the District's consultant IT provider (NP Information Systems, Inc.)

MITIGATION RESOURCES:

- [USEPA Vulnerability Self-Assessment Tool \(VSAT Web\) 2.0](#)

DOCUMENTATION RESOURCES:

- [Department of Homeland Security Cyber Incident Reporting](#)
- [Cybersecurity & Infrastructure Security Agency Phishing, Malware, and Incident Reporting](#)

PREPARE

UTILITY

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Identify all mission critical information technology (IT) systems, considering business enterprise, process control and communications. Document the key functions of the mission critical objectives, and identify the personnel or entity responsible for operating and maintaining each IT system. |
| <input type="checkbox"/> | The Assistant General Manager/District Engineer serves as the overall IT security lead to coordinate and oversee all cyber-related duties. This individual is provided with technical support by the District's IT consultant services provider, NPI. |
| <input type="checkbox"/> | Ensure that IT system managers enforce cybersecurity practices on all business enterprise, process control and communications systems. For example, verify adherence to user authentication, current anti-virus software and installation of security patches. |
| <input type="checkbox"/> | Identify priority points of contact for reporting a cyber incident and requesting assistance with response and recovery. Include any state resources that may be available such as State Police, National Guard Cyber Division or mutual aid programs, as well as the Department of Homeland Security National Cybersecurity and Communications Integration Center (NCCIC) (888.282.0870 or NCCIC@hq.dhs.gov). |
| <input type="checkbox"/> | Annually review and update this emergency response plan (ERP) to address a cyber incident impacting business enterprise, process control and communications systems. Account for all potential impacts on operations, and ensure emergency contacts are current. |
| <input type="checkbox"/> | Prevent unauthorized physical access to IT systems through security measures such as locks, sensors and alarms. Include workstations and process control systems (e.g., programmable logic controllers or PLCs). |
| <input type="checkbox"/> | Train all essential personnel to perform mission critical functions during a cyber incident that disables business enterprise, process control and communications systems. Include the manual operation of water collection, storage, treatment and conveyance systems. |
| <input type="checkbox"/> | Continue use of PII Protect cybersecurity training platform (annual and weekly micro-training, and email phishing campaigns) for all District staff. |
| <input type="checkbox"/> | Conduct drills and exercises for responding to a cyber incident that disables critical business enterprise, process control and communications systems. |

IT MANAGER

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Establish a program for maintaining updated anti-virus software on all critical IT systems, along with rapid installation of all security patches. |
|--------------------------|--|

<input type="checkbox"/>	Set up an automatic back-up on critical systems and ensure the process is producing a readable, uncorrupted restore file on a routine basis.
<input type="checkbox"/>	Implement rigorous user authentication, including multi-factor authentication where possible. Use individual accounts and unique passwords for each employee, and restrict IT system access privileges to the level needed for a user's duties.
<input type="checkbox"/>	Restrict internet access to process control systems unless absolutely necessary.
<input type="checkbox"/>	Where possible, separate process control system traffic from business traffic through the use of a firewall. If this is not possible, logically filter traffic through the use of a firewall.
<input type="checkbox"/>	Identify all routes of remote access to IT systems. Eliminate remote access where possible, and restrict remaining access (e.g., do not allow persistent remote access to control networks).
<input type="checkbox"/>	Assess the use of additional strategies to protect IT systems, such as application whitelisting, network segmentation with restricted communication paths and active monitoring for adversarial system penetration.
<input type="checkbox"/>	Conduct a detailed assessment of vulnerabilities in all mission critical IT systems. Consider use of the tools and subject matter experts provided by the DHS Industrial Control System Cyber Emergency Response Team (ICS-CERT) (www.ics-cert.us-cert.gov). Develop an action plan to mitigate all significant vulnerabilities identified in the assessment.
<input type="checkbox"/>	Collaborate with PCE and EOC to ensure that the District is on the critical facilities list for priority electrical power restoration, generators and emergency fuel.

RESPOND

UTILITY

<input type="checkbox"/>	If possible, disconnect compromised computers from the network to isolate breached components and prevent further damage, such as the spreading of malware. Do not turn off or reboot systems – this preserves evidence and allows for an assessment to be performed.
<input type="checkbox"/>	Notify IT personnel and/or IT vendor of the incident and the need for emergency response assistance. In addition, NCCIC can assist with IT system response and recovery (888.282.0870 or NCCIC@hq.dhs.gov).
<input type="checkbox"/>	Assess any damage to utility systems and equipment, along with disruptions to utility operations.
<input type="checkbox"/>	Execute the ERP as needed, including notification of utility personnel, actions to restore operations of mission critical processes (e.g., switch to manual operation if necessary), and public notification (if required).

<input type="checkbox"/>	Report the cyber incident as required to law enforcement and regulatory agencies.
<input type="checkbox"/>	Notify any external entities (e.g., vendors, other government offices) that may have remote connections to the affected network(s).
<input type="checkbox"/>	Document key information on the incident, including any suspicious calls, emails, or messages before or during the incident, damage to utility systems, and steps taken in response to the incident (including dates and times).

IT STAFF AND VENDOR

<input type="checkbox"/>	Review system and network logs, and use virus and malware scans to identify affected equipment, systems, accounts and networks.
<input type="checkbox"/>	Document which user accounts were or are logged on, which programs and processes were or are running, any remote connections to the affected IT systems or network(s) and all open ports and their associated applications.
<input type="checkbox"/>	If possible, take a “forensic image” of the affected IT systems to preserve evidence. Tools to take forensic images include Forensic Tool Kit (FTK) and EnCase.
<input type="checkbox"/>	If possible, identify any malware used in the incident, any remote servers to which data may have been sent during the incident, and the origin of the incident. NCCIC can assist with the forensic analysis (888-282-0870 or NCCIC@hq.dhs.gov).
<input type="checkbox"/>	Research and identify if any employee or customer personally identifiable information (PII) was compromised.
<input type="checkbox"/>	Check the system back-up time stamp to determine if the back-up was compromised during the incident.
<input type="checkbox"/>	Document all findings, and avoid modifying or deleting any data that might be attributable to the incident.

RECOVER

UTILITY

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Continue to work with IT staff, vendors and integrators, government partners and others to obtain needed resources and assistance for recovery. |
| <input type="checkbox"/> | Notify affected employees and customers if any PII was compromised. |
| <input type="checkbox"/> | Submit an incident report through WaterISAC (866-H2O-ISAC). Membership is not required to submit a report. |
| <input type="checkbox"/> | Develop a lessons learned document and/or an after action report (AAR) to document utility response activities, successes, and areas for improvement. Create an improvement plan (IP) based on your AAR and use the IP to update your vulnerability assessment, ERP and contingency plans. |
| <input type="checkbox"/> | Register for cybersecurity alerts and advisories from water sector and government partners to be aware of new vulnerabilities and threats. Two sources of cybersecurity alerts are WaterISAC, which has a basic membership that is free, and ICS-CERT (https://ics-cert.us-cert.gov/alerts). |

IT STAFF AND VENDOR

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Remove any malware, corrupted files and other changes made to IT systems by the incident. |
| <input type="checkbox"/> | Restore IT systems as required (e.g., re-image hard drives, reload software). NCCIC can assist with the IT system recovery (888-282-0870 or NCCIC@hq.dhs.gov). |
| <input type="checkbox"/> | Restore compromised files from a system back-up that has not been compromised. |
| <input type="checkbox"/> | Install patches and updates, disable unused services and perform other countermeasures to harden the system against known vulnerabilities that may have been exploited. |

ANNEX 5

BUSINESS CONTINUITY PLAN

DUE TO SIZE, MAINTAINED SEPARATELY AT THE DISTRICT ADMINISTRATION BUILDING
AND MAINTENANCE FACILITY, AND AVAILABLE TO DISTRICT EMPLOYEES
ELECTRONICALLY ON THE DISTRICT'S SERVER AT:

<X:\ENGINEERING\EMERGENCY RESPONSE\PLANS\BUSINESS CONTINUITY PLAN>

ANNEX 6

DAMAGE ASSESSMENT PLAN

DUE TO SIZE, MAINTAINED SEPARATELY AT THE DISTRICT ADMINISTRATION BUILDING
AND MAINTENANCE FACILITY, AND AVAILABLE TO DISTRICT EMPLOYEES
ELECTRONICALLY ON THE DISTRICT'S SERVER AT:

[X:\ENGINEERING\EMERGENCY RESPONSE\PLANS\DAMAGE ASSESSMENT](#)