

**KING COUNTY, WASHINGTON
EMERGENCY MANAGEMENT PLAN
EMERGENCY SUPPORT FUNCTION (ESF) 3 ADDENDUM:**

Water Infrastructure

**PRIMARY AGENCY/
ESF COORDINATOR:** King County Department of Natural Resources and Parks
(DNRP)

SUPPORT AGENCIES: Seattle Public Utilities
Water Districts of King County
Public Health-Seattle & King County
Washington State Department of Health – Drinking Water
Program

I. INTRODUCTION

A. Purpose

The purpose of this addendum document is to outline roles and responsibilities under Emergency Support Function (ESF) 3 relating to restoration and continuity of potable water management when those services are impacted by an emergency.

B. Scope

This ESF addendum describes the source of and infrastructure used to convey potable water to customers in King County. Potable water is supplied by Seattle Public Utilities, a dozen or more utilities districts, and a number of private and community wells.

C. Activities not included in this ESF addendum are:

- Wastewater Management, Surface Water Management, and Solid Waste Management. These are already covered under ESF 3.

D. Limitations

This ESF addendum covers the potable water infrastructure but does not cover water quality and testing. Those topics are covered under ESF 11 – Agriculture and Natural Resources.

Adequate numbers of personnel with engineering and construction skills and construction equipment may not be available within the incident area.

This plan does not imply a perfect response. There may be limited Department of Natural Resources and Parks (DNRP) staff to assist local agencies (cities and local water districts), beyond DNRP's staffing of the ESF 3 Coordinator position in the RCECC.

II. POLICIES

While it is recognized and accepted that during emergencies the responding agencies must first prioritize the protection of human life and property, actions to protect Endangered Species Act listed species and critical habitat should be initiated once imminent threat to human life and property has been curtailed.

Water utilities will make every effort to include impacts to vulnerable population in considerations of prioritization for return of potable water service.

III. SITUATION

A. Emergency Conditions and Hazards

King County will periodically experience emergency and disaster situations that will require restoration of essential public services. Potential emergencies and disasters include both natural and technological incidents. See King County Hazard Identification and Vulnerability Analysis (HIVA) for a description of potential disaster conditions.

B. Planning Assumptions

Access to the incident area will be dependent upon the activities related to emergency road repairs and closures, debris, snow, and ice clearance.

Rapid assessment of the disaster and impacted area will be made to determine critical response issues and emergency response priorities.

Response will be coordinated from the Emergency Operations Centers (EOCs) in each city and the King County Regional Communications and Emergency Coordination Center (RCECC). Information will be gathered and compiled, and emergency assistance will be coordinated at the EOCs or RCECC, or both.

The King County Department of Natural Resources and Parks is responsible only for initial inspection, repair, and operation of its King County-owned facilities and conveyances or to those agencies where there are contractual agreements to manage facilities.

Previously inspected structures may require re-evaluation if subsequent incidents occur after the initial incident, or if the results of the initial inspection are inconclusive.

Normal communication may not be available and repairs to communication networks could take days, weeks, or months. In those situations, non-traditional means of communication must be established and used.

Government and relief agencies will concentrate limited resources on the most critical and life-threatening problems.

The first concern of employees will be for their families' safety. DNRP will support the efforts of employees to communicate with their families and encourage all staff to develop family emergency response plans.

IV. CONCEPT OF OPERATIONS

A. General

In the event of an emergency, the DNRP Director will be notified and may, at his or her discretion, establish a departmental information and communications center in the Department Director's office in the King Street Center or at an alternate location if necessary. A coordinator to the RCECC for ESF 3 may be requested from DNRP.

Potable water systems are regulated by the Washington State Department of Health, Office of Drinking Water. There are roughly 2500 active systems within King County. These are characterized by size, population served, and the nature of the operator (public, private, community). There are approximately 150 Group A systems in King County with 694,000 connections for service. Group B systems have fewer than 15 connections and serve 25 persons or less.

Seattle Public Utilities (SPU) provides regional water service to approximately three quarters of the King County population. Testing and certification is provided by local health departments. Primary SPU water sources include the Cedar River and the South Fork of the Tolt River. Treatment of the water from those sources is by ultraviolet and ozone filtration. Water fields are available to supplement these sources during peak demand and emergencies.

SPU's water is delivered to customers through a network of 1680 miles of water mains, six covered reservoirs, 16 pump stations, six elevated tanks, and 129 wholesale customer taps with meters. The smaller public water utilities in the county have similar, if smaller networks for serving their customers.

Not all the water for the utilities comes from surface water sources. Many of the utilities have multiple wells from which they draw some, most, or all of their water supply.

The Department of Natural Resources and Parks will attempt to support county and

local jurisdiction response and recovery activities. Close coordination will be maintained with federal, state, and local jurisdiction officials through the King County RCECC. The priority of tasks will be determined jointly with the King County RCECC Incident Manager in accordance with adopted emergency response plans.

B. Organization

The Department of Natural Resources and Parks is responsible for the coordination of solid waste management, surface water management, river and floodplain management, wastewater treatment, and parks and trails management. The several water utilities of King County have and maintain their own emergency plans, procedures, direction and control systems, and resource management processes. While the Incident Command System is widely used, the application of this system may not be uniformly incorporated among the many organizations delivering potable water in the county. Potable water is contained within ESF 3 of the Infrastructure Branch under the Operations Section in the RCECC when it has been staffed/activated to level 2 or higher.

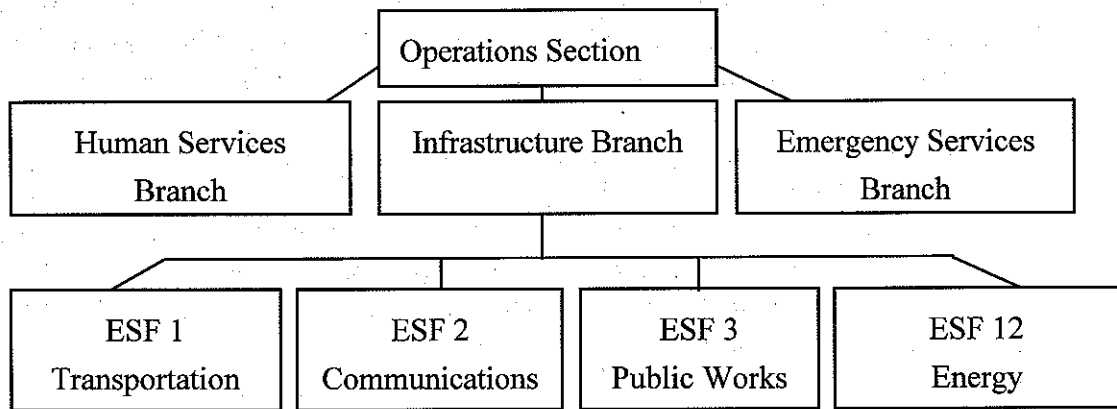


Figure 1 ESF 3 - Public Works and Engineering in the RCECC

C. Procedures

When emergency conditions disrupt the normal potable water operations of the local water utilities or group wells, issues related to the emergency conditions will be routed to the appropriate water utility operating center or the ESF 3 Coordinator.

Each water utility or group well is responsible for having and maintaining their own emergency procedures, testing protocols, and organizational structure.

The King County Department of Natural Resources and Parks is responsible only for initial inspection, repair, and operation of its King County-owned facilities and conveyances unless there are contractual agreements in place obligating us to manage other facilities.

D. Mitigation Activities

- Each of the water utilities serving King County should have their own mitigation plans that include maintenance and replacement of conveyance systems
- Not all water utilities have corrosion protection as part of their conveyance systems

E. Preparedness Activities

Each water utility should have its own emergency operations plans, procedures, and training regimen. Coordination of preparedness efforts is most often done in conjunction with the emergency management organization affiliated with the county or city served. Exercises of emergency plans and procedures vary widely from one water utility to the next. Only rarely are water utility impacts included in exercises of emergency plans and regional processes. The Water and Sewer Utility Association provides some centralized guidance for preparedness obligations of the many regional water utility organizations.

F. Response Activities

Responsibility for the assessment, prioritization, and repair of impacted water systems is borne by the local utility. The assigned ESF 3 coordinator in the RCECC will represent the water, sewer, solid waste, and surface water interests. If a subject matter expert from one or more of these service areas is needed in the RCECC, the ESF 3 coordinator will make that recommendation and seek the most appropriate representative available. Most coordination can be done virtually where communications between the RCECC and remote operating centers can be maintained.

G. Recovery Activities

Recovery activities can be broken down into short term repairs and long term recovery. Short term repairs are temporary fixes or work around efforts.

Long term recovery assumes repairs will return systems, infrastructure, and services to pre-emergency capability and capacity. "Group A" public water utilities are part of the Public Assistance program under FEMA when a presidential emergency or disaster provides federal assistance. When available, federal assistance may be up to 75% of documented, eligible expenses. Eligibility, documentation and project management requirements are established by FEMA. A manager for each project will be needed as well as an applicant agent assigned from each public utility. In some cases, a community well that is not part of a public water utility may qualify as a "government like" entity. This would qualify those community wells for Public Assistance grants with the same requirements applied to public utilities. Wells serving a single household are treated under the Individual Assistance program where a presidential emergency or disaster has been declared. A separate list of eligibility criteria would apply.

Priorities for short term repairs and long term recovery of capability and capacity are the responsibilities of each water purveyor. Where there have been widespread impacts to potable water delivery, regional decisions may be required for prioritization of support to return to normal capability and capacity.

V. RESPONSIBILITIES

A. Primary Coordination Agency

DNRP shall:

- Provide an ESF 3 coordination staff person to the RCECC where needed.

ESF 3 Coordinator shall:

- Assess impacts to the potable water delivery infrastructure
- Determine emergency resources or assistance needed by water purveyors
- Seek those necessary resources through the RCECC Logistics Section/process
- Provide situation awareness on this utility class to the RCECC Infrastructure Branch Director as directed
- Provide information to the impacted water purveyors regarding emergency response and recovery efforts
- Seek subject matter experts to advise on response and recovery needs

B. Support Agencies

Public Health – Seattle & King County shall:

- As resources allow, provide staff and resources to assess the health impacts of potable water supplies, including subject matter consultation on testing and inspection where these apply.

Water Utilities in King County shall:

- Shall assess impacts to the infrastructure and water quality under their jurisdictional authority
- Provide impact assessment information and resource needs to the ESF 3 Coordinator in the RCECC
- Provide subject matter experts to the RCECC Infrastructure Branch where available staffing allows
- Conduct water quality testing, emergency repairs, and recovery efforts to return system capability and capacity to pre-emergency conditions

Washington State Department of Public Health shall:

- Oversee water quality in the state

VI. RESOURCE REQUIREMENTS

Water Quality Testing and Contractor support
Engineering and other subject matter experts

VII. REFERENCES:

ESF 11 – Agriculture and Natural Resources

VIII. TERMS & DEFINITIONS

EOC – Emergency Operations Center – Location from which emergency response and recovery activity may be directed

ECC – Emergency Coordination Center – Location from which emergency response and recovery activity may be coordinated

ESF 11 – Agriculture and Natural Resources – Chapter of the Comprehensive Emergency Management Plan (CEMP) that includes food and water quality and safety

Group A – Category of wells or water utilities that provide water to greater than 15 locations and 25 persons

Group B – Category of wells or water utilities that provide water to less than 15 locations and 25 persons

HIVA – Hazard Identification and Vulnerability Analysis – Lists the most probable natural, technological, and manmade hazards to which a community may be vulnerable. The basis for needed emergency plans and procedures

Incident Manager – Leader of an Emergency Operations Center or Emergency Coordination Center where the Incident Command Systems is being utilized

Individual Assistance – A program of emergency assistance initiated by certain criteria Beneficiaries of the program are individuals, businesses, and some non-profit organizations. Benefits may include loans or grants and other support as may apply.

Infrastructure Branch – The Infrastructure Branch is an organizational component of the Operations Section of the EOC or ECC where the Incident Command System is being applied. May include Transportation (ESF 1), Communications (ESF 2), Public Works and Engineering (ESF 3), and Energy (ESF 12).

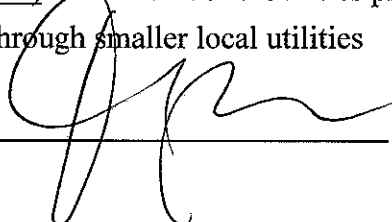
Potable Water – Potable water is suitable for drinking or food preparation

Public Assistance – Public Assistance may be available from the federal government to local government or government like non-profit organizations to assist with the costs of emergency response or repairs/recovery

RCECC – The RCECC is the location from which King County may organize or coordinate a response and recovery effort from an emergency impacting some or all of King County

Seattle Public Utilities (SPU) – Seattle Public Utilities provides potable water to most of King County either directly or through smaller local utilities

Agency Approval: _____



Date: _____

9/18/2013
M. M. M. M. M.

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