[Exercise Name]

**\*Note: Items highlighted in gray will or may need to be changed to reflect the details of your exercise. Delete this text box before producing and distributing this situation manual.**

Situation Manual

[Date]

[This Situation Manual (SitMan) provides exercise participants with all the necessary tools for their roles in the exercise. Some exercise material is intended for the exclusive use of exercise planners, facilitators and evaluators, but players may view other materials that are necessary to their performance. All exercise participants may view the SitMan].

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# Exercise Overview

| **Exercise Name** | [Insert the formal name of exercise, which should match the name in the document header] |
| --- | --- |
| **Exercise Dates** | [Indicate the start and end dates of the exercise] |
| **Scope** | This exercise is a tabletop exercise, planned for [exercise duration] at [exercise location]. Exercise play is limited to [exercise parameters]. |
| **Mission Area(s)** | [Prevention, Protection, Mitigation, Response and/or Recovery] |
| **Objectives** | [List exercise objectives; see page 2] |
| **Threat or Hazard** | Black Sky / Long-Term Power Outage |
| **Scenario** | [Insert a brief overview of the exercise scenario, including scenario impacts (2-3 sentences)] |
| **Sponsor** | [Insert the name of the sponsor organization, as well as any grant programs being utilized, if applicable] |
| **Participating Organizations** | [Insert a brief summary of the total number of participants and participation level (e.g., federal, state, local, tribal, non-governmental organizations (NGOs) and/or international agencies). Consider including the full list of participating agencies in Appendix B. Delete Appendix B if not required.] |
| **Point of Contact** | [Insert the name, title, agency, address, phone number and email address of the primary exercise POC (e.g., exercise facilitator)] |

# General Information

## Exercise Objectives

The following exercise objectives in Table 1 describe the expected outcomes for the exercise.

| **Exercise Objectives** |
| --- |
| [Discuss and define challenges and strategies for managing long-duration power outages] |
| [Identify and discuss alternative and temporary emergency power resources and plans] |
| [Discuss and identify local, state and regional coordination partners and priorities for power restoration] |
| [Discuss and define acceptable levels of drinking water and wastewater services] |
| [Discuss and identify recovery strategies for drinking water and wastewater systems after grid power restoration] |
| [Insert objective] |

Table 1. Exercise Objectives

The exercise schedule is provided in Appendix A.

## Participant Roles and Responsibilities

The term *participant* encompasses many groups of people, not just those playing in the exercise. Groups of participants involved in the exercise (Appendix B), and their respective roles and responsibilities, are as follows:

**Players-** Players are personnel who have an active role in discussing or performing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to the simulated emergency.

**Observers-** Observers do not directly participate in the exercise. However, they may support the development of player responses to the situation during the discussion by asking relevant questions or providing subject matter expertise.

**Facilitators-** Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.

**Evaluators-** Evaluators are assigned to observe and document certain objectives during the exercise. Their primary role is to document player discussions, including how and if those discussions conform to plans, policies and procedures.

## Exercise Scenario and Structure

This exercise will be a multimedia, facilitated exercise involving a long-duration regional power outage affecting water and wastewater utilities. The definition of a “black sky” or long-duration power outage affecting a large geographic area can vary but generally refers to a power outage lasting 30 days or longer. In many cases, the challenges experienced at the two-week mark (when onsite fuel and other resources have been depleted) are similar to those experienced at longer timeframes. A power outage of this magnitude may be the result of a natural disaster, accident, terrorist act, or significant cyber incident. This SitMan does not describe the cause of the power outage. Players will instead focus on the water sector response to and recovery from the power outage. Players will participate in the following [five] modules:

Module 1: [First Four Hours]

Module 2: [Twenty-Four Hours]

Module 3: [Four Days]

Module 4: [Two Weeks]

Module 5: [Recovery]

Each module begins with a multimedia update that summarizes key events occurring within that time period.

The facilitator will guide participants through a discussion period, developed using the modules, to describe their actions, decisions and notifications as necessitated by the change in situation or resource status. Players are encouraged to ask questions of other players. Immediately following the discussion period, the facilitator will lead a “hot wash” session among participants to highlight key elements and develop a list of action items.

## Exercise Guidelines

* This exercise will be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
* Respond to the scenario using your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from your training.
* Decisions are not precedent setting and may not reflect your organization’s final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions.
* Issue identification is not as valuable as suggestions and recommended actions that could improve [prevention, protection, mitigation, response or recovery] efforts. Problem-solving should be the focus.
* Assume there will be cooperation and support from other responders and agencies.
* The basis for discussion consists of the scenario narrative and modules, your experience, your understanding of your Emergency Response Plan (ERP), your intuition and other utility resources included as part of this material or that you brought with you.
* Treat the scenario as if it will affect your area.

## Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise and should not allow these considerations to negatively impact their participation. During this exercise, the following apply:

* [The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems and processes will be evaluated.]
* [The exercise scenario is plausible, and events occur as they are presented.]
* [All players receive information at the same time.]

# Module 1: [First Four Hours]

## Key Issues

* [All power in the area is lost without warning. Initial reports indicate that the outage is widespread, impacting multiple counties.]
* [Many cell towers continue to operate on backup power, but mobile networks begin to fail due to overload.]

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 1. Identify any critical issues, decisions, requirements or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

**Water/Wastewater Utility**

1. [Does your utility have emergency power?]
   1. [In administration buildings?]
   2. [For treatment and distribution?]
2. [Does your utility have system pressure?]
3. [Is your utility delivering water?]
4. [Is your utility collecting wastewater?]
5. [What are your utility’s first three notifications?]
6. [What are your utility’s security concerns?]
7. [How is your utility communicating with customers and personnel?]
8. [Do processes or procedures exist to guide your actions, and if not, which ones would be helpful to develop?]

**Electric/Gas Utility**

1. [Does your utility have emergency power?]
   1. [In administration buildings?]
2. [Is your utility delivering electricity/gas anywhere?]
3. [What are your utility’s first three notifications?]
4. [What are your utility’s security concerns?]
5. [How is your utility communicating with customers and personnel?]

**Emergency Management Agency (EMA)**

1. [Does your EMA have emergency power?]
   1. [At the Emergency Operations Center (EOC)?]
   2. [In other EMA facilities/field offices?]
2. [What are your first three notifications?]
3. [How is the EMA communicating with utilities, the public?]

# Module 2: [Twenty-Four Hours]

## Key Issues

* [Electric utilities are informing the media and the public that they do not have a time estimate for when power will be restored.]
* [Fuel suppliers are unreachable by phone and email.]

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 2. Identify any critical issues, decisions, requirements or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. [Which sectors should be the highest priority for power restoration and how is this determined?]
   1. [Do prioritized plans already exist?]
   2. [Would prioritization change for a short-term versus a long-term event?]
2. [Which water sector facilities should be the highest priority?]
   1. Has your utility prioritized operations or conducted a critical facility assessment? What essential operations can you maintain at minimum levels and for how long (e.g., maintaining minimum pressure, processing wastewater)?]
   2. [Do electric utilities have an inventory of these facilities?]
   3. [What regular coordination activities does your utility engage in with electric utilities?]
3. [Who are your water and wastewater utility’s critical customers?]
   1. [What level of service are you providing critical customers?]
   2. [How are you communicating with critical customers?]
4. [When are EOCs activated?]
   1. [What is the role of local emergency management and elected officials in power restoration prioritization with the electrical utilities?]
   2. [What is the role of the primacy agency in power restoration prioritization?]
      1. [Do they or should they coordinate with their energy counterparts at the state level?]
5. [Is your utility communicating with your power provider to find out when service is expected to be restored?]
   1. [What other information from your power provider do you want to know?]
   2. [Are there alternative means of contacting your power provider if landlines, cell phones, and email are down?]
6. [What fuel types are needed to run utility generators?]
   1. [How long can your utility operate on emergency/back-up power with the fuel you have on-site?]
   2. [Is your fuel supplier prepared to provide fuel during an extended regional power outage?]
   3. [Is the fuel prioritized?]
7. [Has your utility planned for how long generators can run continuously before being taken offline for regular maintenance?]
8. [What message will your utility communicate to the public about water and wastewater at this point?]
   1. [How will you communicate messages to customers and the media?]
9. [Can the EMA assist the water utilities in other ways?]
10. [How does emergency management prioritize who gets a generator and when?]
11. [What concerns do public health agencies have?]
    1. [At the residential level (e.g., in-home sanitation and hygiene)?]
    2. [At the institutional level (e.g., hospitals, schools)?]
12. [Are public health agencies in communication/coordination with water and wastewater utilities?]
13. [What is the message from public health agencies to the public?]

# Module 3: [Four Days]

## Key Issues

* [Local water and wastewater utilities are both facing moderate personnel shortages as a result of personnel that are unable or unwilling to come to work.]
* [Electric utilities are publicly stating that they expect the outage to continue for several more days.]
* [Many cell towers have exhausted fuel for backup power and are offline.]

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 3. Identify any critical issues, decisions, requirements or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. [What are the minimum staffing levels needed to provide water and wastewater services at your utility if some employees are unable or unwilling to come to work? What cross-training strategies can be employed to help fill emergency staffing needs?]
   1. [What are your procedures for ensuring that critical employees are available to support operations for an extended emergency?]
   2. [If there are gasoline shortages, what procedures do you have to encourage carpooling, providing fuel to employees for commuting or having employees shelter-at-work?]
2. [Who maintains your utility’s generators? What emergency contract provisions are in place?]
   1. [Does your utility have a fuel system maintenance plan?]
3. [What is the longest amount of time your utility estimates that it can deliver “essential” services assuming no new fuel or treatment chemicals are available for two weeks?]
4. [If your water utility is unable to provide services, who has primary responsibility for arranging for alternate drinking water and wastewater services?]
5. [Does your utility need to update any advisories or notifications to the public?]
6. [How is your utility communicating internally and externally?]
7. [Is your utility considering leveraging mutual aid support for personnel, equipment and supplies (e.g., through WARN?]
8. [What are the electrical utility’s priorities at this point?]
9. [How do electric utilities trying to restore power depend on water services?]
10. [Are critical customers prioritized for power restoration (e.g., water utilities, hospitals, fire departments, law enforcement)?]
11. [Are fuel suppliers prioritizing deliveries to critical customers (e.g., water utilities, hospitals, fire departments, and law enforcement)?]

# Module 4: [Two Weeks]

## Key Issues

* [Fuel supplies remain limited.]
* [Fuel suppliers continue to prioritize critical customers.]
* [Public health agencies are continually adjusting their messaging to the public as conditions change.]
* [Cell towers and mobile networks are slowly coming back online, providing limited cell service.]
* [Significant portions of the population are leaving the impacted area due to the lack of power and running water.]

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 4. Identify any critical issues, decisions, requirements or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. [Will dual power feeds and pigtail hookups be a viable option for a grid outage of this duration?]
2. [Is your utility able to obtain fuel for generators from reliable suppliers for a power outage lasting two weeks or longer?]
3. [What steps may need to be taken to provide critical customers, such as hospitals and other health care facilities, with water and wastewater services?]
4. [What are the minimum acceptable levels of water and wastewater service during a prolonged power outage?]
5. [Are there any other outside agencies that water utilities may need to coordinate with?]
6. [Are drinking water utilities willing to keep their system pressurized with water that does not meet Safe Drinking Water Act requirements?]
   1. [Will the primacy agency support this strategy?]
   2. [Would a boil notice suffice in this situation? If not, what notification would be made?]
   3. [While this strategy may help with firefighting and basic sanitation, what impacts will this have on water system critical customers such as hospitals or large commercial users?]
   4. [Are there lasting impacts to the utility or any of its users that should be considered?]
   5. [Could some services zones be “turned off” in favor of other service zones?]
   6. [How important is it for emergency management to avoid a mass migration outside of the affected area?]
7. [Are wastewater utilities willing to bypass all or portions of their treatment processes and discharge wastewater that does not meet Clean Water Act requirements?]
   1. [Will the primacy agency support this strategy?]
   2. [Are there lasting ramifications to the environment or the wastewater utility that have to be considered?]
   3. [Have you considered and coordinated with drinking water plants that have downstream water intakes that might not be treating water prior to distribution?]
8. [How will water and wastewater services be provided to hospitals and health care facilities that are in no power zones?]

# Module 5: [Recovery]

## Update

Power is restored. The media and the public are asking when water service will be restored and safe for all uses. Members of the public that left the impacted area begin to return, creating increased demand for water and power. Water utilities are testing water throughout their systems to ensure that it is safe to drink.

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 5. Identify any critical issues, decisions, requirements or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. [Does your utility have procedures for taking facilities off generator power and returning to grid power?]
2. [Does your utility prioritize operations for power restoration and coordinate with your power provider to ensure that these priorities are understood, addressed, and synchronized?]
3. [Do you coordinate with your power provider to minimize disruptive starts/stops when resuming normal operations?]
4. [Does your utility have a sampling and analysis plan for assessing safety of treated water?]
5. [What are your utility’s notification procedures for providing information to customers, response partners, and employees when power is restored?]
6. [What is your utility’s procedure for maintaining and repairing generators and replenishing fuel supplies?]
7. [How will your utility conduct damage assessment and document costs to apply for state and federal disaster funding?]
8. [What are your utility’s procedures for conducting an after-action assessment of its response and capturing lessons learned to update plans and procedures (e.g., risk assessment, emergency response plan and business continuity plan?]
9. [Are public health agencies coordinating with water utilities regarding messaging to the public as zones within the system are cleared for use?]
10. [What is your messaging to the public regarding safely resuming use of tap water (i.e., drinking, cooking, washing, bathing)?]
    1. [Will you need to recommend procedures to flush household water prior to resuming normal use?]
11. [What are the procedures for advising health care providers about safely resuming use of treated water?]
12. [Would the EMA conduct a post-incident hotwash with utilities, state and federal agencies and other key stakeholders to assess the effectiveness of procedures and communications plans used during the response?]

# Appendix A: Exercise Schedule

**Note:** Because this information is updated throughout the exercise planning process, appendices may be developed as stand-alone documents rather than as part of the SitMan.

| Time | Activity |
| --- | --- |
|  | **[Month Day, Year]** |
| 00:00 | Registration |
| 00:00 | Welcome and Opening Remarks |
| 00:00 | Module 1: Discussions |
| 00:00 | Break |
| 00:00 | Module 2: Discussions |
| 00:00 | Lunch |
| 00:00 | Module 3: Discussions |
| 00:00 | Break |
| 00:00 | Module 4: Discussions |
| 00:00 | Break |
| 00:00 | Module 5: Discussions |
| 00:00 | Break |
| 00:00 | Hot wash |
| 00:00 | Closing Comments |

# Appendix B: Exercise Participants

| Participating Organizations |
| --- |
| **Federal** |
| [Participating organization] |
| [Participating organization] |
| [Participating organization] |
| **State** |
| [Participating organization] |
| [Participating organization] |
| [Participating organization] |
| **[Jurisdiction A]** |
| [Participating organization] |
| [Participating organization] |
| [Participating organization] |
| **[Jurisdiction B]** |
| [Participating organization] |
| [Participating organization] |
| [Participating organization] |

# Appendix C: Relevant Plans

[Insert excerpts from relevant plans, policies or procedures to be tested during the exercise.]

# Appendix D: Acronyms

| Acronym | Term |
| --- | --- |
| DHS | U.S. Department of Homeland Security |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| SitMan | Situation Manual |
| SME | Subject-Matter Expert |
| TTX | Tabletop Exercise |
| [Acronym] | [Term] |
| [Acronym] | [Term] |
| [Acronym] | [Term] |
| [Acronym] | [Term] |
| [Acronym] | [Term] |