[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** | Pandemic Flu |
| **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** |
| --- |
| [Define or refine participants’ roles and responsibilities for managing the consequences of a pandemic flu incident, which should be reflected in their ***plans, policies and procedures*** and other preparedness elements currently in place or under development] |
| [Build relationships between utilities and stakeholders] |
| [Determine neighboring utility water infrastructure capabilities and needs] |
| [Identify other needed enhancements related to ***training and exercises*** and other preparedness elements currently in place or under development] |
| [Insert objective] |

Table 1. Exercise Objectives

The exercise schedule is 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 Structure

This exercise will be a multimedia, facilitated exercise. Players will participate in the following [four] scenario modules:

Module 1: [Initial Outbreak]

Module 2: [Moderate Outbreak]

Module 3: [Severe Outbreak]

Module 4: [Long-Term Considerations]

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 scenario 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: [Initial Outbreak]

## Scenario

[November 24, 2023]:

[An outbreak of an unusually severe respiratory illness is identified overseas, outside the continental U.S. At least twenty-five cases have occurred, affecting all age groups, including a chicken farmer and his four-year-old daughter, who both tested positive for human influenza (flu). Twenty patients have required hospitalization at the local provincial hospital, five of whom have died from pneumonia and acute respiratory failure. Surveillance in surrounding areas is increased, and new cases begin to be identified throughout the province. Specimens collected from patients located within the original outbreak area are sent to the World Health Organization (WHO) Reference Center for Influenza at the Centers for Disease Control and Prevention (CDC) in Atlanta.

The CDC determines that the flu strain is a subtype never before circulated among humans. Isolates of the new strain, now being collected from patients in various overseas outbreak locales, are sent to the Food and Drug Administration (FDA) and CDC so that they can begin work on producing a reference strain for vaccine production. Vaccine manufacturers are requested to go into full production as soon as they are able. The new flu virus begins to make headlines in every major newspaper and becomes the lead story on major news networks. Key U.S. government officials are briefed daily, and surveillance is intensified throughout many countries, including the United States.]

## Key Issues

* [The four-year old girl was infected without coming into direct contact with the family’s poultry, so human-to-human transmission is suspected. This is later confirmed by the CDC.]

## 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.

1. [How and from whom does your utility receive updates about public health issues? What information would you receive from your primacy agency and local or state public health department?]
2. [What procedures have been developed to respond to a widespread disease outbreak at your utility and in your community (e.g., social distancing, mask requirements, work from home)? How have you integrated these procedures into your emergency protocols and procedures?]
3. [Based on your procedures, what steps would your utility consider taking at this point to increase your level of preparation for a pandemic flu?]
4. [What coordination measures with outside vendors (e.g., chemical suppliers, cleaning product suppliers, PPE suppliers), contractors and other partners are in place at your utility that may assist in the process of preparing for a potential pandemic flu?]
5. [What procedures have been developed by your utility address its continuity of operations?]

# Module 2: [Moderate Outbreak]

## Scenario

[December 2023 and January 2024]:

[Flu outbreaks begin to develop outward from the initial outbreak overseas, with sporadic cases occurring in more geographically separated areas. States and local areas are asked to intensify flu surveillance activities.

Travel agencies are experiencing a significant slowdown in their business. Cancellations for vacation trips overseas are at an all-time high and even business travel to the initial outbreak area has significantly decreased. The public is very concerned because a vaccine is not yet available and will take up to nine months to produce.

Later in January, the CDC reports abnormally high numbers of flu cases in four major U.S. cities. In most cases, the patients have been in direct contact with a friend or family member who traveled overseas, and the virus can be traced back to ill airline passengers. Over the next month, a major outbreak begins in one of the four major cities where the virus had been isolated. This city is a major hub for international U.S. travel, and city and state officials are considering restricting airline traffic.]

## Key Issues

* [Cases are reported in all age groups, children appear to be the most severely affected and fatality rates approach 2 percent.]
* [The flu is spreading, despite efforts to isolate it.]
* [Local and state businesses are beginning to experience personnel shortages, including chemical distributors for disinfection chemicals. These personnel shortages have led to a reduction in chemical availability nationwide. While there are no shortages across the nation yet, many utilities are looking into diversifying their options for obtaining necessary water treatment chemicals.]
* [Health measures that emphasize quarantining when sick, social distancing and hygiene, such as limiting physical interaction in the workplace, canceling meetings and public gatherings, and wearing face masks are put into place.]

## 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. [How and from whom would you receive updates about the progression of the pandemic?]
2. [Given the current conditions, what are the primary concerns and potential actions at your utility? Does this change as the flu threat increases?]
3. [What are your critical chemicals for treating water and wastewater to regulatory standards or discharge permit limits? How can your utility safely store a stockpile of these chemicals? What are the implications of stockpiling?]
4. [How will your utility ensure an adequate supply of PPE, including gloves, masks, and face shields? How will you ensure that you have adequate supplies of cleaners, disinfectants, and hand sanitizer?]
5. [What are your utility’s policies and protocols for employee health screening, testing, and quarantining?]
6. [How will communications be handled to internal staff, to utility management and boards, to the public, and to officials?]
7. [Does your utility have the resources to facilitate remote work for employees that are not required to be on-site (e.g., laptops, collaboration software, phones/VOIP/headsets, secure network access, adequate internet bandwidth)?]
8. [For employees that are required to be on-site, such as operators, what measures can your utility implement to make workspaces safer during the pandemic (e.g., modify workspaces to maintain social distance between employees, install signage and physical barriers, limit access to communal areas, such as break rooms, improve ventilation and air filtration]?
9. [How does your utility address questions about health risks to operators from exposure to infectious flu virus in untreated wastewater?]

# Module 3: [Severe Outbreak]

## Scenario

[February and March, 2024]

[Outbreaks begin to be reported throughout the United States. By March, there is widespread occurrence of pandemic flu cases across the country. Rates of workplace absenteeism begin to rise. Schools, including colleges, and universities, are closed to limit the spread of the virus. States issue travel restrictions and visitor quarantine requirements. Nonessential businesses are required to close, and restaurants are limited to providing takeout service only. Phones at physician offices and health departments begin to ring constantly.

Despite the preventive measures in place, police departments, local utility companies and mass transit authorities begin to experience personnel shortages, resulting in some disruption of routine services. Hospitals and outpatient clinics also become short-staffed as physicians, nurses and other healthcare workers become ill. Elderly patients with chronic, unstable medical conditions hesitate to leave their homes for fear of becoming seriously ill with the flu. Intensive care units at local hospitals become overwhelmed, and soon there are widespread shortages of mechanical ventilators for treatment of patients with pneumonia. Family members are distraught and outraged when loved ones die within a matter of a few days. Further deterioration in health care and other essential community services occurs over the next eight weeks in your community.

CDC has just announced that they are very close to developing a vaccine for the strain of virus causing the pandemic. They believe that the vaccine will be available shortly, but it will be in limited supply.

Meanwhile, the neighboring community’s water treatment plant operator is out sick, and the utility manager has contacted your utility as a backup for water supply if they are unable to treat water.]

## Key Issues

* [The local water and wastewater utilities are both facing moderate personnel shortages caused by personnel becoming infected by the virus, having to care for sick family members, taking care of children home from school and those characterized as the “worried well.”]
* [State health directives change frequently, requiring utilities to continually adjust operations and communicate new protocols to employees.]

## 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 non-essential functions can you suspend or adjust to maintain enough critical personnel and supplies for necessary functions (e.g., collecting samples from fewer public sampling sites?]
2. [How can you maximize use of equipment or processes that can function via remote access?]
3. [Given the potential spread of the flu, could you depend on mutual aid agreements (such as WARN) for additional support personnel? Where else could you turn for additional support personnel? Can utility employees be cross-trained to staff additional roles?]

# Module 4: [Long-Term Considerations]

## Scenario

[April – November, 2024]

[Cases continue to rise throughout April but begin to plateau in early May as preventive measures and lockdowns show signs of reducing the spread of the virus. The CDC announces that a vaccine will be submitted to the FDA for emergency use authorization in June, though production and distribution bottlenecks will limit the initial supply once approved. After prioritizing vulnerable populations, the CDC does not expect the bulk of the population to be vaccinated until the end of October, at earliest. Public health officials issue warnings about the possibility of outbreaks and a resurgence if the public stops taking steps to limit the spread, such as wearing masks and maintaining social distance, and schools and nonessential businesses fully reopen too quickly.

By June, cases gradually begin to decline and hospitalizations decrease. States begin to relax restrictions on travel and businesses begin to reopen. The FDA authorizes emergency use of the vaccine and the first doses are administered to populations with health risk factors, including the elderly, young children, and those with certain underlying medical conditions. The roll-out is slow and demand far exceeds supply. States are overwhelmed with the logistics of administering the vaccine.

In September, vaccine production and availability have increased. The federal government is assisting states with vaccine logistics and administration. A rumor is circulating across social media that the vaccine causes flu. Some members of the general public refuse to get vaccinated despite assurances from the FDA, CDC and state health departments that the vaccine is safe and effective. By the end of October though, nearly 70 percent of the general public is vaccinated.

In November, cases of seasonal flu begin to increase. Though not as infectious or deadly as the pandemic flu strain, initial symptoms are similar and cause widespread anxiety that it is a resurgence of the much more virulent pandemic flu.]

## Key Issues

* [As the pandemic persists, the public – including employees at local water and wastewater utilities – begin to experience “pandemic fatigue” and are less vigilant about maintaining social distance, wearing masks, and avoiding gatherings both on-site and in their off hours.]
* [Utility employees are overheard discussing their holiday vacation plans.]
* [Many employees that have been working remotely are reluctant to return to work even after being vaccinated.]
* [Opportunities for operator continuing education units (CEUs) are scarce as training courses and conferences are canceled making it difficult to maintain operator certifications.]
* [Work absenteeism increases as flu season begins.]

## 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. [How does your utility communicate a consistent message to employees about remaining vigilant and maintaining safe practices both at work and in their time away from their jobs?]
2. [What steps will your utility take to bring employees back to work? How will you communicate that it is safe to return to work?]
3. [Is the utility prepared and equipped to quickly pivot back to remote work if there is a resurgence in cases?]
4. [How will your utility communicate to employees the importance of getting vaccinated?]
5. [Based on lessons learned from the pandemic, what updates should you make to your utility’s health and safety plan and emergency response plan?]

# 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 | 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] |