Preparing the Pumps-Refinement

Fuel Management Tabletop Exercise
Summer 2022 Exercise Series
July 19th, 2022

After-Action Report & Improvement Plan (AAR-IP)

Multnomah County

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine to include the National Preparedness Goal and related framework and guidance. Exercise information required for preparedness reporting and trend analysis is included; users are encouraged to add additional sections as needed to support their own organizational needs.

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EXERCISE OVERVIEW

Exercise Name	*Preparing the Pumps-Refinement* Tabletop Exercise
Exercise Dates	Tuesday, July 19th, 2022
Scope	The three (3) hour tabletop exercise, hosted at the Multnomah Building, provided countywide partners the opportunity to engage in a discussion related to the response to a fuel disruption event following a mid-level earthquake. While the main scope of this discussion-based exercise was to test the ability for Multnomah County to organize and respond to this hazard, countywide partners provided valuable insight and feedback regarding their fuel-related efforts, resources, and considerations.
Focus Area(s)	Response
Capabilities	Operational Coordination, Infrastructure Systems
Objectives	1. Multnomah County Partners will discuss the activation of Emergency Support Function (ESF) #12 - Fuel Group in the County Emergency Operations Center, in response to a fuel disruption following a Portland Hills Fault earthquake event. 2. Multnomah County Partners will discuss the activation and operation of a Fuel Coordinating Body in response to a fuel disruption following a Portland Hills Fault earthquake event. 3. Multnomah County Partners will discuss the activation and operation of a Fuel Dispatch Center in response to a fuel disruption following a Portland Hills Fault earthquake event. 4. Multnomah County Partners will discuss the activation and operation of a Fuel Reserve in response to a fuel disruption following a Portland Hills Fault earthquake event. 5. Multnomah County Partners will discuss the activation and operation of Fuel Points of Distribution (FPODs) in response to a fuel disruption following a Portland Hills Fault earthquake event
Threat/Hazard	Earthquake/Fuel Disruption
Scenario	A 6.0 magnitude earthquake has hit the Portland West Hills at 0901 on a Tuesday in July. The earthquake has caused a number of impacts to the Olympic Pipeline, with the fuel industry expecting significant reductions in fuel/gasoline distribution to terminals at the Portland Critical Energy Infrastructure (CEI) Hub. There is no specific impact data available at this time.
Sponsor	Multnomah County Office of Emergency Management (MCEM)
Participating Organizations	A participants list can be found in Appendix B.
Point of Contact	Robert Quinn, Training & Exercise Specialist Multnomah County Emergency Management Robert.quinn@multco.us	503-307-4129

EXERCISE BACKGROUND

The 2022 Fuel *Preparing the Pumps-Refinement* Tabletop Exercise was the true engagement kick-off for county-wide response partners within the fuel management topic. Various organizations throughout the county have performed internal preparedness and planning efforts, however there had not been a collective vision and strategy for building collective resilience.

As part of the County Integrated Preparedness Plan (IPP), Infrastructure Systems was identified as a key priority focus area for emergency management-related work through June 2024 (Fiscal Year '24). The development of the County Fuel Management Plan took steps forward within that focus area, however a training and exercise strategy to assess and validate Version 1 of the plan was required.

Section 8.1 of the Fuel Management Plan Version 1 outlines a tentative Training and Exercise Plan (TEP) through the twelve months following its implementation. Event #1 was a Seminar hosted in March 2022, and the July 2022 Exercise Day addressed both Event #2: County-wide Tabletop Discussion, and Event #3: Internal County Workshop. These two exercise events identified further training needs, additional exercise opportunities, and preparedness considerations to guide the long-term strategy for implementing and maintaining the collective preparedness and resilience within this topic.

The tabletop and workshop events hosted on July 19th built towards an operations-based exercise event in June 2023, a component of the State of Oregon *Cascadia 2023*. Using lessons learned from the July 19th Exercise Day sessions, Multnomah County will activate and operate various operational elements listed in this Plan.

The Exercise Planning Team was made up of representatives from State, County, and Local government entities within Multnomah County with the responsibility to design and coordinate this exercise event. A big thank you to everyone that participated on the Planning Team your guidance and feedback were critical to the success of this event. The Planning Team can be found in Appendix B of the Tabletop Situation Manual.

ANALYSIS OF CAPABILITIES

Aligning exercise objectives and capabilities provides a consistent structure for evaluation that surpasses single exercise events to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned capabilities, and performance ratings for each capability as observed during the exercise and determined by the evaluation team.

The National Preparedness Goal steered the focus of homeland security toward a capabilities-based planning approach using 32 identified Core Capabilities. Capabilities-based planning focuses on planning under uncertainty because the next disaster can never be forecast with complete accuracy. Therefore, capabilities-based planning takes an all-hazards approach to planning and preparation that builds capabilities, which can be applied to a wide variety of incidents. States and urban areas use capabilities-based planning to identify a baseline assessment of their homeland security efforts by comparing their current capabilities against the Core Capabilities. This approach identifies gaps in current capabilities.

Exercise Objective	Core Capability	Rating
Multnomah County Partners will discuss the activation of Emergency Support Function (ESF) #12 - Fuel Group in the County Emergency Operations Center, in response to a fuel disruption following a Portland Hills Fault earthquake event.	Operational Coordination	S+
Multnomah County Partners will discuss the activation and operation of a Fuel Coordinating Body in response to a fuel disruption following a Portland Hills Fault earthquake event.	Operational Coordination	S+
Multnomah County Partners will discuss the activation and operation of a Fuel Dispatch Center in response to a fuel disruption following a Portland Hills Fault earthquake event.	Supply Chain Integrity and Security, Infrastructure Systems	M
Multnomah County Partners will discuss the activation and operation of a Fuel Reserve in response to a fuel disruption following a Portland Hills Fault earthquake event.	Supply Chain Integrity and Security, Infrastructure Systems	M-
Multnomah County Partners will discuss the activation and operation of Fuel Points of Distribution (FPODs) in response to a fuel disruption following a Portland Hills Fault earthquake event.	Supply Chain Integrity and Security, Infrastructure Systems	M-

Table 1. Exercise Objectives and Associated Capabilities

Ratings Definitions

Performed without Challenges (P): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Performed with Some Challenges (S): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M): The targets and critical tasks associated with the capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.

Unable to be Performed (U): The targets and critical tasks associated with the capability were not performed in a manner that achieved the objective(s).

EXERCISE FINDINGS

The following sections provide an overview of the performance related to each exercise objective and associated capability, highlighting strengths and areas for improvement. The reference sections below include an abbreviation to where the content can be found in the Exercise Evaluation Guides (EEG):

<div align="center">O1-CT1 = Objective #1, Critical Task #1</div>

Objective 1 – Fuel Group Activation

Multnomah County Partners will discuss the activation of Emergency Support Function (ESF) #12 - Fuel Group in the County Emergency Operations Center, in response to a fuel disruption following a Portland Hills Fault earthquake event.

Core Capability: Operational Coordination

Strength(s)

- *Strength 1 – Fuel Group Ownership*: Responsibility for staffing and organizing the ESF #12 Fuel Group was agreed-upon by participants, and will remain within the scope of the County Fleet Services Team. (Reference: O1-CT1)

- *Strength 2 – Initial County Fuel Actions:* The initial actions taken post-fuel impact were detailed by the Fleet Services participants in the room. Those actions include: checking capacity of storage, both remotely and in-person; initiating or entering coordination with Emergency Management partners; initiating coordinating with the fuel supplies or contractors; and building a fuel-specific common operating picture. (Reference: O1-CT1)

- *Strength 3 – Fuel Group Communication & Messaging:* The Fuel Group Lead discussed their expectations to compile fuel-related situational awareness information and/or guidance from local partners and share that with the Public Information Officers (PIOs). The County Fuel Management Plan-Tab 5 does include template PIO messages for use as well. The State of Oregon Department of Energy confirmed they would be the main coordinator with the fuel companies, and will be working on public messaging for use by local partners. (Reference: O1-CT1)

Area(s) for Improvement

- *Area for Improvement 1*: Internal Notification of ESF #12 Activation Need Unclear

    o Reference: O1-CT1

    o Analysis: During Module 1 the participants discussed both internal and external notification methods for becoming aware that a fuel disruption had taken place. The external notification was identified as both the State of Oregon ECC directly to the County Emergency Management, and via news media. However the internal process for how the County Emergency Management Team would notify the ESF #12 (and other operational elements) was not clear. For ESF #12 to begin activating their structure, a more formal notification or activation process/system needs to be implemented.

Does the County Fleet Services Team have any additional notification method with their fleet services/fuel partners?

- *Area for Improvement 2:* Organizational Structuring of Fuel Group Operations with Local Partners

  - Reference: O1-CT1

  - Analysis: This exercise tested Version 1 of the County Fuel Management Plan that focused on how County Government would activate and operate an ESF #12 – Fuel Group. The participants were interested in exploring a combined municipality and county ESF #12 – Fuel Group as fuel resources would be extremely limited and general coordination would be easier as a combined entity. The municipal and county fleet services teams will need to collaborate on finalizing fuel organizational structure and location integration.

    The discussion touched on whether there would be separate fuel groups for municipalities, County government, and private sector partners that coordinate with one another, or one fuel group with representatives from all. Is the integration of Fuel Group operations only with governmental partners? Does the Fuel Advisory Committee integrate private sector partners enough into the post-incident discussion?

- *Area for Improvement 3:* Staffing the ESF #12 Fuel Group

  - Reference: O1-CT2

  - Analysis: While the County Fleet Services Team has agreed to oversee the Fuel Group operations, the staff available and prepared to assist with the EOC and field operations are not as clear. This was discussed during the July 19th *Preparing the Pump-Development* workshop event, where the Fuel Group organizational structure was adjusted to a Final DRAFT status and specific County and local partner employee positions were listed as "likely to fill the spot". The workshop event was unable to fully develop the specific roles that would fill roles in the Fuel Group, something the MCEM and County Fleet Service will need to collaborate on.

    Multnomah County is a very health and human services-focused organization that may not have the personnel with appropriate technical knowledge to succeed within fuel group. There is a need to identify other staff pools with similar enough skillsets to fill these technical roles more seamlessly and solidify how this happens while keeping other essential work functions intact (COOP considerations).

- *Area for Improvement 4:* Procuring Fuel from Local Partners, and the Authority to do so.

  - Reference: O1-CT3

  - Analysis: Version 1 of the County Fuel Management Plan does not address severe situations where fuel may need to be procured from local sources/partners that maintain fuel reserves. There is currently no resource to reference regarding the fuel storage within Multnomah County outside governmental operations and no operational procedures or legal guidance for how to procure these resources, if needed. Are there formal agreements that can be developed ahead of time (e.g., Gresham talking with local gas stations)?

    The Oregon Department of Energy encourages building relationships and having discussions with local stations. They also cautions that when an event impacts multiple jurisdictions, being careful about implementing fuel rationing; those efforts should be coordinated statewide to give consistent messaging and clear instructions for collective desired actions

    This process is something Lincoln County, Oregon has addressed in their County Fuel Management Plan and could be something Multnomah County, and partners, reference. The State Fire Marshal's Office also maintains a list of fuel storage tanks in the County that can be used to build such a resource.

Objective 2 – Fuel Coordinating Body (Fuel Advisory Committee)

Multnomah County Partners will discuss the activation and operation of a Fuel Coordinating Body in response to a fuel disruption following a Portland Hills Fault earthquake event.

Note: The terminology for this group is adjusted from "Fuel Coordinating Body" to "Fuel Advisory Committee" to reduce confusion around roles with the ESF #12 Fuel Group.

Core Capability: Operational Coordination

Strength(s)

Exercise evaluators observed the following strengths:

- *Strength 1 – Purpose of Fuel Advisory Committee Confirmed*: The participants were able to work through how the Fuel Advisory Committee will collaborate with the ESF #12 Fuel Group. The ESF #12-Fuel Group is responsible for gathering and consolidating fuel information for the Fuel Advisory Committee to then make recommendations on. Recommendations may include fuel-related decisions and messaging, which is then reviewed and considered by the County EOC Leadership and Public Officials to make final decisions. Reference. (Reference: O2-CT1)

- *Strength 2 – Responsibilities of the Fuel Advisory Committee Confirmed*: The participants agreed and confirmed one three main responsibilities of the Committee, including: A. Prioritization of fuel for public sector operations; B. detailing messaging on fuel capacity/crunch, needed restrictions, and related messaging; and C. Making recommendations for limiting fuel use or commandeering fuel supply of external partners. (Reference: O2-CT1)

Area(s) for Improvement

The following areas require improvement to reach full capability level:

- *Area for Improvement 1*: Activation and Chain of Command still Tentative

    o <u>Reference</u>: O2-CT2

    o <u>Analysis</u>: The discussion around how the Fuel Advisory Committee would be activated transitioned more towards where within the ESF #12-Fuel Group, and the County EOC Operations Section, this Committee would be situated. Likely activation would come from the ESF #12-Fuel Group Lead, however additional discussion is needed to confirm this assumption. There was discussion around the Operations Section Lead, or Operations Section Division Supervisor, leading and facilitating the Committee efforts, while the Fuel Group would perform logistical aspects.

    During the July 19th *Preparing the Pump-Development* Workshop event, the team updated the ESF #12-Fuel Group organizational structure with the Committee reporting directly to the Fuel Group Lead, however additional validation of this reporting chain of command is needed to firm up how information flows in and out. If the Fuel Advisory Committee makes fuel recommendations expected to be decided on by Incident Commanders or local Public Officials, how are they communicating with those individuals (ex. via Fuel Advisory Committee Meetings)?

- *Area for Improvement 2*: Fuel Advisory Committee Representatives May Need to be Adjusted

    o <u>Reference</u>: O2-CT1

    o <u>Analysis</u>: Moving forward, the Committee will need to refine the scope of who is part of the Committee (e.g., counties, cities, big local orgs) versus who would be coordinating directly to the State of Oregon or regional coordinating groups. The discussion noted it is still unclear where/how fuel coordination and needs would be communicated for entities like Metro, TriMet, large fuel supply company representatives, airports, large hospital systems, utilities, etc.

    There was also discussion about revising the list for some of the more general items (ex. Business Representative). There cannot be one representative for all businesses within the County, there will need to be additional work refining who exactly should be on this Committee.

- *Area for Improvement 3*: Meeting Structure & Frequency

    o <u>Reference</u>: O2-CT2

    o <u>Analysis</u>: The participants agreed this Committee would need to meet at least one time per operational period, however there was discussion about the scale of the incident influencing meeting frequency. The attendees recommended having the Committee meet during non-activation times to work through decisions such as meeting frequency, meeting agendas, and finalizing Committee responsibilities.

Objective 3 – Fuel Dispatch Center

Multnomah County Partners will discuss the activation and operation of a Fuel Dispatch Center in response to a fuel disruption following a Portland Hills Fault earthquake event.

Core Capability: Supply Chain Integrity and Security, Infrastructure Systems

Strength(s)

- *Strength 1 – Role of the Dispatch Center Validated*: The participants confirmed the responsibilities of a Fuel Dispatch Center to be: A. acquiring and tracking fuel inventory data from local partners to share with response partners; and, B. submitting resource requests for additional fuel resources and coordinating delivery operations with the FPODs. (Reference: O3-CT1)

- *Strength 2 – Staffing Skills and Types Were Identified*: While the participants weren't able to define specific roles or staff to fill this function, they did identify the skills and general positions that may fit, including: personnel with dispatch experience or skills, and individuals that engage with fuel inventory on a regular basis. (Reference: O3-CT1)

Area(s) for Improvement

- *Area for Improvement 1*: Fuel Dispatch Center Staffing Undefined

    o <u>Reference</u>: O3-CT1

    o <u>Analysis</u>: The participants were able to share personnel types that may be able to fill this function, such as: personnel with daily dispatch responsibilities and/or those working with fuel inventory regularly. There was no clear description for who would staff this function by the end of this discussion. Support for this the Fuel Dispatch Center would need to come from PIO, State partners, County EOC Operations Section leads, facilities staff, dispatch personnel, and other call center personnel.

- *Area for Improvement 2*: Connection Between the Fuel Dispatch Center and FPODs Still Needs to be Clarified

    o <u>Reference</u>: O3-CT1

    o <u>Analysis</u>: These two functions are listed separately in Version 1 of the Fuel Plan, with operational responsibilities that would significantly overlap. There needs to be additional clarification on how these two functions will integrate, and how they will perform separately to further define staffing and operations.

    This was discussed during the July 19th *Preparing the Pump-Development* Workshop, where the updated organizational chart had the FPOD locations reporting to the Fuel Dispatch Center to better integrate operations. Validation of this organizational structure is needed.

- *Area for Improvement 3*: Inventory Tracking does not have a Consistent Tool or Process

    o <u>Reference</u>: O3-CT2

    o <u>Analysis</u>: Inventory tracking and information tools are needed for managing reserves, distribution, and deliveries. Only 6 County Government fuel tanks currently have remote tracking systems, and there is no shared dashboard and/or collaboration tool for tracking fuel across multiple organizations. Integrating situational awareness tools would benefit the Fuel Group as discussed in Objective 1 findings.

    There needs to be a consistent process and tool to measure fuel burn rates, fuel needs, and distribution operations. Systems such as Fuel Cloud and SalesForce are currently being used throughout Multnomah County. Jurisdictions may currently use the same systems, but there is not ability to view or share information/data at this time.

    Some considerations discussed at the tabletop included: how to gather information and how to report or share/visualize? What is interoperability of central repository for putting in the information and how often is it updated? Who manages and operates it? If there are costs, who pays? Who maintains the system/tool?

- *Area for Improvement 4*: Collaboration and Clarification of Logistical Functions Between the EOC Logistics Section and Fuel Dispatch Center

    o <u>Reference</u>: O3-CT2

    o <u>Analysis</u>: The Fuel Dispatch Center will perform a wide range of Logistics functions and coordination for their operations (ex. deliveries) that will need to be worked through with the current County EOC Logistics Section scope. It was discussed during the tabletop that all resource requests from the FPODs would go through the Fuel Dispatch Center, and subsequently to the Logistics Section for procurement. Operational logistical functions, such as coordinating and completing fuel deliveries, that the EOC Logistics Section has been completing in Multnomah County will need to be further discussed.

Objective 4 – Fuel Reserve

Multnomah County Partners will discuss the activation and operation of a Fuel Reserve in response to a fuel disruption following a Portland Hills Fault earthquake event.

Core Capability: Supply Chain Integrity and Security, Infrastructure Systems

Strength(s)

Exercise evaluators observed the following strengths:

- *Strength 1 – Fuel Sourcing Networks are Well Known*: Normal local fuel providers were identified as the first line for requests. The State of Oregon may be able to support staffing and management/tracing support. It was shared that the National Guard is not an option, there are no guard reserves that deploy with fuel, they would be requesting local resources and their trucks are not compatible with local infrastructure. (Reference: O4-CT1)

Strength 2 – Primary Fuel Types to Focus on Determined: The Fuel Plan includes a list of 12 fuel types for the County to consider during a Fuel Group activation, the participants in this exercise determined the primary focus should be on the following two: A. Diesel; and, B. Regular Gasoline. This determination will help build Fuel Group capabilities and tools with a narrowed focus. (Reference: O4-CT1)

Area(s) for Improvement

The following areas require improvement to reach full capability level:

- *Area for Improvement 1*: Leadership Expectations for Establishing a Fuel Reserve

    o <u>Reference</u>: O4-CT1

    o <u>Analysis</u>: Version 1 of this Plan includes a concept of operations that includes the County Chair making decisions regarding fuel limitations and reserve. Through this tabletop discussion, the participants identified uncertainty around how County Leadership would be put in the position to make these decisions, what information they would receive to inform the decision, and who would be communicating this information to that role. Additional clarification on the flow of information, and expectations for County Leadership around fuel limits and reserves is needed.

- *Area for Improvement 2*: Scope and Purpose of a Fuel Reserve

    o <u>Reference</u>: O4-CT1

    o <u>Analysis</u>: The participants discussed the need to further define what a fuel reserve is. Is it a minimum quantity that the County and/or local partners needs to have on hand? Is it quantity needed to operate FPODs? The group believes FPODs will eventually lead to/or become a fuel reserve, but what would a reserve look like prior to FPODs?

- *Area for Improvement 3*: Developing a Better Understanding of Fuel Needs During Activations

    o <u>Reference</u>: O4-CT1

    o <u>Analysis</u>: The participants identified the need to perform an additional analysis to predict how fuel consumption may change based on different types of emergency events to determine what size fuel reserve may be necessary. Normal operations were integrated into Version 1 of this Plan, however it is not a complete picture of all county-wide partners. (example: using 30% of the county's heavy equipment and having planned fuel accordingly vs during emergency event now using 100% of heavy equipment).

- *Reference Objective 3, Area for Improvement 2 for Fuel Reserve tracking needs.*

Objective 5 – Fuel Points of Distribution (FPOD)

Multnomah County Partners will discuss the activation and operation of Fuel Points of Distribution (FPODs) in response to a fuel disruption following a Portland Hills Fault earthquake event.

Core Capability: Supply Chain Integrity and Security, Infrastructure Systems

Strength(s)

Exercise evaluators observed the following strengths:

- *Strength 1 – Performance of Site Assessments was Agreed-Upon*: The responsible party for conducting FPOD site assessments was determined to be the facility as possible. If the site is a mobile location, the County EOC ESF #12, County Fleet Services, would take the responsibility to perform an initial site assessment with the following criteria developed: power options, spill containment, site security, accessibility/transportation flow, and equipment needs. (Reference: O5-CT1)

- *Strength 2 – Management of FPOD Sites Agreed*: While the overall management and oversight of FPOD operations and fuel movement would be the ESF #12 Fuel Group, the individual FPODs would be managed by the organization whom manages the space day-to-day. If a space is to be used as an FPOD that is not a daily fuel use space, the County Fleet Services would be responsible to manage those sites. (Reference: O5-CT2)

Area(s) for Improvement

The following areas require improvement to reach full capability level:

- *Area for Improvement 1*: Current Fuel Points of Distribution are not Useable During Catastrophic Incident.

    o <u>Reference</u>: O5-CT1

    o <u>Analysis</u>: The identified FPODs from Tab 3 of the Fuel Plan were validated for situations where infrastructure is not severely damaged, however during catastrophic incidents these sites would likely not be usable. The participants discussed potentially exploring two paths: A. Locations that are already set-up to perform fueling services; and, B. Open spaces that could as mobile FPOD locations (ex. Fields and open spaces), if needed.

    Participants noted they were surprised to only see three FPODs identified in the Plan. Local partners will need to assess larger FPOD sites with fewer numbers, or prepare for smaller FPOD locations with more locations

- *Area for Improvement 2*: Operations for Performing Site Assessments Need to be Formalized

    o Reference: O5-CT1

    o Analysis: While the "who" and general criteria for assessing sites were identified during this discussion to assist FPOD assessments, it was determined further tools and procedures were required to assist this work occur. These tools and processes need to be consistent for any FPOD site, allowing the flexibility to use the space based on what that site offers.

- *Area for Improvement 3*: Staffing and Operating FPODs Needs to More Structure

    o Reference: O5-CT2

    o Analysis: While overall management of sites was agreed-upon, the ultimate positions required, who will staff those positions, and overall operating needs are still to be developed. There is a general understanding of what an FPOD is responsible to do, however the specifics on how they are going to do so was lacking. Additional conversations around what FPOD operations would look like at both fixed and mobile sites will inform the type of personnel required to operate a location.

    Participant feedback identified that while primary FPOD sites are identified, site managers are unsure how those operation they will actually be managed.

Exercise Design and Conduct Feedback

Strength(s)

- *Strength 1 – Hybrid Environment Increased Participation*: The hybrid model expanded the ability for individuals to participate in the Fuel Day Event. The event saw approximately 33% of the participants attend in-person, with 66% participating virtually. This type of structure should be kept for future discussion-based exercise events.

Area(s) for Improvement

- *Area for Improvement 1 – Hybrid Environment Audio Capabilities*: This exercise event used video and audio equipment to assist virtual and in-person participants collaborate, however the microphone capabilities in-room were not effective for the virtual participants. The two devices used were not able to capture the in-room discussion, limiting both audio and closed captioning capabilities for virtual participation. The design team will need to explore improvements to microphone and audio capabilities in-room for hybrid meetings.

- *Area for Improvement 2 – In-Room Visuals Accessible to All*: The participants noted challenges with a single visual option. The exercise design team should ensure the visual technology and content are accessible in varying options for participants.

APPENDIX A: EXERCISE SCHEDULE

Agenda Item	Timeframe
TTX Exercise Introduction & Overview	0800 - 0815
Module 1: County Activation & ESF 12 Fuel Group	0815 - 0915
Module 2: Fuel Dispatch & Reserve	0915 - 1015
Break	1015 - 1030
Module 3: FPOD Operations	1030 - 1115
Hot Wash	1115 - 1130
End TTX Exercise	1130

Table 2. Exercise Schedule

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations
Multnomah County
• Office of Emergency Management (MCEM)
• Department of County Assets (DCA) – Facilities
• Department of County Assets (DCA) – Fleet Services
• Department of County Assets (DCA) – Information Technology
• Department of Community Services (DCS)
• County Health Department (MCHD)
Municipalities
• City of Gresham
• City of Portland – Fire & Rescue Bureau
• City of Portland – Bureau of Emergency Management
• City of Portland – Fleet Services
• City of Portland – Bureau of Environmental Services
• City of Portland – Water Bureau
• City of Troutdale
State of Oregon
• Department of Energy (DOE)
• Department of Emergency Management (OEM)
Regional Partners
• Metro
• Regional Disaster Preparedness Organization (RDPO)
• Clackamas County – Disaster Management

Table 3. Exercise Participant

APPENDIX C: IMPROVEMENT PLAN

Objective	Issue/Area for Improvement	Potential Corrective Action	Capability Element	Responsible Organization
O1: Fuel Group Activation	Internal Notification of ESF #12 Activation Need Unclear	*To be determined.*	Operational Communications	MCEM-Ops
	Organizational Structuring of Fuel Group Operations with Local Partners	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
	Staffing the ESF #12 Fuel Group	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
	Procuring Fuel from Local Partners, and the Authority to do so.	*To be determined.*	Logistics & Resource Management	DCA-Fleet & MCEM-Ops
O2: Fuel Advisory Committee	Activation and Chain of Command still Tentative	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
	Fuel Advisory Committee Representatives May Need to be Adjusted	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
	Meeting Structure & Frequency	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
O3: Fuel Dispatch Center	Fuel Dispatch Center Staffing Undefined	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
	Connection Between the Fuel Dispatch Center and FPODs Still Needs to be Clarified	*To be determined.*	Operational Coordination	DCA-Fleet & MCEM-Ops
	Inventory Tracking does not have a Consistent Tool or Process	*To be determined.*	Situational Awareness	*DCA-Fleet & Municipal Fleet*
	Collaboration and Clarification of Logistical Functions Between the EOC Logistics Section and Fuel Dispatch Center	*To be determined.*	Logistics & Resource Management	*MCEM-Ops & Logs*

Objective	Issue/Area for Improvement	Potential Corrective Action	Capability Element	Responsible Organization
O4: Fuel Reserve	Leadership Expectations for Establishing a Fuel Reserve	*To be determined.*	Operational Coordination	MCEM & DCA Director
	Scope and Purpose of a Fuel Reserve	*To be determined.*	Operational Coordination	*DCA-Fleet & Municipal Fleet*
	Developing a Better Understanding of Fuel Needs During Activations	*To be determined.*	Logistics & Resource Management	MCEM-Ops
O5: FPODs	Identified Fuel Points of Distribution are not Useable During Catastrophic Incident.	*To be determined.*	Operational Coordination	*DCA-Fleet & Municipal Fleet*
	Operations for Performing Site Assessments Need to be Formalized	*To be determined.*	Operational Coordination	*DCA-Fleet & Municipal Fleet*
	Staffing and Operating FPODs Needs to More Structure	*To be determined.*	Operational Coordination	*DCA-Fleet & Municipal Fleet*
Design & Conduct	Hybrid Environment Audio Capabilities	*To be determined.*	--	MCEM - Ops
	In-Room Visuals Accessible to All	*To be determined.*	--	MCEM - Ops