ALASKA DIVISION OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT

Alaska Assessment

GUIDEBOOK

DHS&EM PLANNING SECTION

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Alaska Assessment Guidebook
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Alaska Assessment

The Goal for *Measuring Preparedness*

The Alaska Division of Homeland Security and Emergency Management's (DHS&EM) goal is to measure community disaster preparedness and:

- Identify gaps in capacity and capabilities
- Meet Federal grant requirements
- Capture preparedness activities and response assets
- Support our return on investment.

Overview

Every community has an obligation to understand the risks it faces. Knowledge of these risks allows a community to make informed decisions about how to manage risk and develop capabilities. Risk is a product of a threat or hazard, the vulnerability of a community or facility to a threat or hazard, and the resulting consequences that may impact the community or facility. By considering changes to these elements, a jurisdiction can understand how to best manage risk exposure.

This guide provides a comprehensive approach for identifying and assessing risks and associated impacts. It expands on existing local, tribal, territorial, and other risk methodologies by broadening the factors considered in the process.

This is a step-by-step process:

- Step One is the community profile and summary of activities
- Step Two assesses the various threats and hazards facing a community
- Step Three assesses community vulnerability to those hazards using varying time, season, location, and community factors
- Steps Four and Five estimate the consequences of those threats and hazards and establish desired outcomes
- Step Six captures the results of the assessment for planning and preparedness activities across mitigation, response, and recovery

For example: a jurisdiction identifies earthquake as a hazard and assesses its vulnerabilities if an earthquake strikes at different times, seasons, or locations. Using the core capabilities, the jurisdiction assesses the impacts and identifies the desired outcomes.

Using the assessment, jurisdictions can develop strategies to effectively achieve desired outcomes. The strategy should consider finding, connecting to, and strengthening community resources by leveraging the expertise and capability of individuals, communities, the private and nonprofit sectors, faith-based organizations, and all levels of government. To fill gaps a jurisdiction can utilize resources such as local and state appropriations as well as State and Federal grants to support building and sustaining capabilities. A continuous cycle of assessing capabilities, plans, and programs and incorporating the results into future assessments allows a jurisdiction to manage changes to its risk.

The assessment process consists of six basic steps:

1. ***Community / Jurisdiction Profile*** Review the community's baseline information and reported activities.
2. ***Identify the Threats and Hazards of Concern*** Based on past experience and expert judgment identify the threats and hazards of concern.
3. ***Give Threats and Hazards Context*** Develop context that shows how those threats and hazards may affect the community.
4. ***Examine the Core Capabilities Using the Threats and Hazards*** Identify impacts to the community
5. ***Set Desired Outcomes*** Use core capabilities and estimated impacts to set desired outcomes in Community Preparedness Report.
6. ***Apply the Results*** Plan to build to the desired capability level with appropriate community assets and mutual aid. Identify mitigation opportunities and implement preparedness activities.

These six steps are adaptable to the needs and resources of any jurisdiction. The process can be employed by a small, one-person department as well as a larger organization with greater needs and resources.

Core Capabilities

Core capabilities identified in the National Preparedness Goal provide common language for preparedness across the whole community and cover three integrated mission areas: Mitigation, Response, and Recovery.

Table 1: Core Capabilities by Mission Area.

Mitigation	Response	Recovery
Planning		
Public Information and Warning		
Operational Coordination		
Community Resilience Long-term Vulnerability Reduction Risk and Disaster Resilience Assessment Threats and Hazard Identification	Critical Transportation Environmental Response/ Health and Safety Fatality Management Services Mass Care Services Mass Search and Rescue Operations On-scene Security and Protection Operational Communications Public and Private Services and Resources Public Health and Medical Services Situational Assessment	Economic Recovery Health and Social Services Housing Natural and Cultural Resources Infrastructure Systems

Planning, Public Information and Warning, and Operational Coordination are core capabilities common to all mission areas.

See Appendix A for the Core Capability Descriptions

Step 1 Community / Jurisdiction Profile

Section I - This is a collection of the community's critical information and activities that took place over the previous 12 months or four quarters. (July 1, 2016 to June 30, 2017)

Section 2 – Please list any planning products which exist in the jurisdiction.

Section 3 – NIMS Assessment Questions

Section 4 - Response Summary

This section will be filled out by the emergency management point of contact or public safety personnel. Information from this section will help gage the jurisdictions complexity and capabilities.

Activities will usually fit into one or more of the following areas: Planning, Organization, Equipment, Training and/or Exercise (POETE).

POETE will also be used in the Community Preparedness Report (CPR). In the CPR, jurisdictions will use this POETE framework as the basis for assessing their current capability levels (Activities and Assets). For each core capability, they assess how close they are to their *desired* level of preparedness.

Table 2 presents the definitions of the five POETE elements as they are used in the CPR. CPR respondents can refer to these definitions as they complete the capability assessments.

Table 2: Planning, Organization, Equipment, Training and Exercise (POETE) Definitions.

Capability Element	Definition
Planning	Analysis of information and development of policies, plans, procedures, mutual aid agreements, strategies, and other publications that comply with relevant laws, regulations, and guidance.
Organization	Individual teams, an overall organizational structure, and leadership at each level in the structure that comply with relevant laws, regulations, and. Paid and volunteer staff who meet relevant necessary qualification and certification standards.
Equipment	Major items of equipment, supplies, facilities, and systems that comply with relevant standards.
Training	Content and methods of delivery that comply with relevant training standards.
Exercise	Exercises and actual events that provide opportunities to demonstrate, evaluate, and improve elements to perform assigned missions and tasks to necessary standards

See Appendix B: Planning, Organization, Equipment, Training and Exercise (POETE) Framework for more information.

Section 5 - Mutual Aid / Agreements Summary

Any Mutual Aid agreements, Master Agreements or ongoing Delegations of Authorities should be entered.

Specific Mutual Aid questions related to POETE will be asked in the Community Preparedness Report (CPR).

Step 2 Identify Threats or Hazards of Concern

Alaskan communities face a variety of threats and hazards from natural, technological, or human-caused incidents. Table 3 provides examples of the types of threats and hazards.

- Natural hazards are those resulting from acts of nature
- Technological hazards are those resulting from accidents or the failures of systems and structures
- Threats or human-caused incidents are those resulting from the intentional actions of an adversary

The focus in this step is on deciding what should be on the list. For example, a coastal jurisdiction in Southeast Alaska might include a tsunami while an inland jurisdiction that would not be directly impacted would not.

The jurisdiction should select the hazard that will have the highest impact to the community.

Table 3: Hazard Categories

Natural	Technological	Human-Caused
Resulting from acts of nature.	Involves accidents or the failures of systems and structures.	Caused by the intentional actions of an adversary.
• Avalanche • Earthquake • Flood • Landslide • Tsunami • Volcanic eruption • Wildfire • Winter storm • Disease outbreak • Epidemic	• Airplane Crash • Dam/Levee Failure • Hazardous Materials Release • Power Failure • Radiological Release • Train Derailment	• Civil Disturbance • Cyber Incidents • Sabotage • School Violence • Terrorist Acts

Jurisdictions should consider threats and hazards that occur in a neighboring community. For example, an industrial accident at a chemical plant in one community could impact communities downwind of where the accident occurred.

The best source to determine the jurisdiction's highest hazard or threat is the community Hazard Mitigation Plan. Contact the State Mitigation Officer or the State Lead Planner for further direction.

Step 3 Identified Threats and Hazards in Context

Once the threat or hazard is identified, it is important to put it in context. Explain briefly the different conditions under which a threat or hazard might occur; a jurisdiction can use its own expert judgment or advanced analysis of probability and statistics to describe the different threat and hazard conditions. This context will help identify capabilities later in the process. This step should consider the when and where for each threat or hazard:

- When might a threat or hazard occur, what time of day, what season?
- Where might the threat or hazard occur, populated areas, coastal zones, industrial or residential areas?

More than one description of the event may be needed if conditions such as time of day, season, or the impact area make a significant difference in how a threat or hazard affects the community. If a jurisdiction is flood prone, it will need multiple descriptions to reflect different conditions such as differing storm intensities and time of year. Is it day or night? Is it during peak tourist season? The jurisdiction should recognize that past experience with threats and hazards may not be indicative of the future threat and hazard environment. Many other factors are subject to change including demographics, climate, and the built environment; those changes should also be considered when developing the threat and hazard descriptions. The descriptions drive discussion or modeling that approximates impacts. Table 4 provides example descriptions.

Table 4: Example Descriptions

Threat/ Hazard Group	Threat/ Hazard Type
Natural	**Earthquake / Tsunami**
Description 1: *An earthquake 9.0 or greater with an extended duration occurring in south-central Alaska; significant impacts to critical infrastructure including transportation, supply chain, energy, healthcare and emergency response. Fatalities ≥ 500 people.* **Month:** *November-March* **Communities Affected:** *16 (Potentially 390,000 people affected)*	
Threat/ Hazard Group	**Threat/ Hazard Type**
Technological	**Energy Failure**
Description 1: *A refinery fire destroys a primary distillation tower at the Kenai Peninsula Tesoro Refinery. Processing of gasoline, diesel, aviation fuel, and other products directly impacts three of Alaska's most populated boroughs: Anchorage, Kenai Peninsula and Matanuska-Susitna.* **Month:** *January - December* **Community Affected:** *Boroughs of Anchorage/Matsu/ and Kenai Peninsula (Pop. Est. 490,000)*	
Threat/ Hazard Group	**Threat/ Hazard Type**

Human-Caused	Terrorism
Description 1: *Terrorist attack on different portions of the Trans-Alaska Pipeline causing the pipeline to spill out over the tundra and into major river systems. The Pipeline is consequently shutdown until further notice.* **Month**: *January – December* **Community Affected:** *Entire state and west coast oil supply.*	

Select ***ONE*** Threat/Hazard for input into the Alaska Assessment not one from each category.

Step 4 Estimated Impacts and Desired Outcomes

Using the descriptions developed in Step 3, the jurisdiction will next need to assess how each threat and hazard may impact the community. The assessment of impacts is completed by using the core capabilities. The impacts are then paired with the jurisdiction's desired outcomes. The impacts, with core capabilities and desired outcomes, allow jurisdictions to gain an understanding of what is needed to manage risk. Examples of Estimated Impacts are shown in Table 5.

Table 5: Example Estimated Impacts *(Earthquake from Table 4)*

Response	**Critical Transportation**	Major damage to road system and airports limiting evacuation of affected residents and limiting emergency response. • 10,000 potential evacuees. • 5,000 potential medical evacuees. • 300 miles of road destroyed. • 25 bridges impassable.

	Environmental Response/Health Safety	Major damage to natural gas and petroleum distribution.
		• Chemical release in urban areas.
		• Petroleum releases in urban areas.
		• Structural fires to residential and commercial facilities.
		• Increased need for:
		  ○ Hazardous Materials (HazMat) and Medical Teams.
		  ○ 2,000 Responders: Safety Plans and PPE.
		  ○ Epidemiological Assets.

	Fatality Management Services	• 500+ fatalities • 2,000+ Needing bereavement counseling. • 100+ Animal/pet fatalities. • Disaster Mortuary Operational Support Teams (DMORT) • Refrigeration Units
	Infrasturcture Systems	• 350,000 Homes without Power. • 200,000 Homes without Heat. • 300 Miles of Key Roads impassable.

Working with community leaders, the jurisdiction should establish desired outcomes. The desired outcomes should explain what the jurisdiction wants to achieve for each core capability and on what timeline. These outcomes should be developed with the whole community in mind. For example, in the Response and Recovery mission areas, desired outcomes can be bounded by time (e.g., must be accomplished within 72 hours, 60 days, six months, one year). Desired outcomes for the Mitigation

mission area may be better presented in terms of percentages (e.g., 100%, 75%, or 50%). Examples of desired outcomes are shown in Table 6.

Table 6: Example Desired Outcomes *(Earthquake from Table 4)*

Response	**Critical Transportation**	Within 72 hours of the event, establish physical access (debris removal and temporary repairs) to the affected area through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors.
	Environmental Response/Health Safety	Within 24 hours of the event, identify and characterize chemical hazards for access by transportation and emergency response personnel. Within 14 days of an acute environmental incident, make recommendations for medical screening, provide guidance and resources on health hazards, and develop epidemiological information screening forms.
	Fatality Management Services	Within 96 hours of a request to support a mass fatality incident, establish initial morgue operations and prepare for the arrival of federal support to recover/collect up to 500 fatalities over a geographically dispersed area and provide counseling to bereaved.
	Infrasturcture Systems	Within 72 hours of an incident, re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, while transitioning to recovery.

Given the wide variety of threats and hazards that may affect a community, jurisdictions can leverage a range of skills to estimate the impacts of those threats and hazards. Those impacts should, at a minimum, span the core capabilities.

Displaced households, fatalities, injuries/illnesses, direct economic impacts, indirect economic impacts from supply chain system disruption, and disruption to infrastructure are some of the impacts that should be considered. As the impacts of a threat or hazard affect more than the public sector, the jurisdiction should work with their community partners, including the private and nonprofit sectors and faith-based organizations.

Step 5 Community Preparedness Report (CPR)

The final step involves applying the assessment results to manage risk. Using Step 4, a jurisdiction determines the resources required to achieve its desired outcomes. A jurisdiction may find it simply needs to sustain existing capabilities, or it may identify a resource shortfall or capability gap.
If existing capabilities and capacities need to be supplemented to reach a desired outcome, jurisdictions can build capability or fill gaps by establishing mutual aid agreements with surrounding jurisdictions. Cities, boroughs, and regions should work collaboratively to build, sustain, or deliver capabilities. Finally, a jurisdiction may choose to build and sustain capabilities through the use of available funding and technical assistance.

Jurisdictions can use the assessment results to make informed decisions about how to allocate limited resources. These results can also be used to brief community leaders, senior officials, and the public on resource requirements. When implemented, these plans and projects reduce the gap between capabilities and desired outcomes

Filling out the Community Preparedness Report (CPR)

The CPR starts with the Common Core Capabilities that are applicable to all of the Mission Areas – Planning, Public Information and Warning, and Operational Coordination – and continues with the remaining required Core Capabilities.

The following is a description for each category:

Priority: Establish what level of priority this is for the jurisdiction. This is based on a High / Medium / Low scale.

> ***Example:*** *If the jurisdiction has completed a Mass Search and Rescue plan and exercised the plan to validate it; the priority for this Core Capability could be listed a Low.*

Desired Outcome: This information is brought forward from *Step 4: Estimated Impacts and Desired Outcomes.*

Solution Area: Each one of the POETE elements is evaluated with a set number value on a 1-5 scale. See Appendix B: Planning, Organization, Equipment, Training and Exercise (POETE) Framework for more information.

Choose the value or statement that best fits your jurisdiction.

Gap Description: The gap description should provide further information as to what is impeding progress or what is currently being done to reach the desired outcome.

Mutual Aid: This section explains what level mutual aid plays in meeting the desired outcome.

Mutual Aid Description: The Mutual Aid description should provide further information as to what is impeding progress or what may improve this element. See Table 7: Example Mutual Aid Levels

Table 7: Example Mutual Aid levels

Capability: ***Public Information and Warning***	**Priority: Medium**
Solution Area: Organization	(3) Much (40-60%) of the required organizational structure exists
Gap Description: Jurisdiction does not have the capability to disseminate timely information during certain events	
Mutual Aid:	(4) Most (60-80%) of the required organizational structure exists
Mutual Aid Description: Level increases with support from state and federal partners.	

Appendix A: Core Capability Descriptions

Capabilities Common to All Mission Areas	
Capability	**Description**
Planning	Systematically develop strategic, operational, and community-based approaches to meet objectives.
Public Information and Warning	Deliver coordinated, prompt, reliable, and actionable information to the whole community to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available.
Operational Coordination	Establish and maintain a unified and coordinated operational structure and process.

Mitigation Mission Area	
Capability	**Description**
Community Resilience	Lead the integrated effort to recognize, understand, communicate, plan, and address risks so that the community can develop a set of actions.
Long-term Vulnerability Reduction	Build and sustain resilient systems, communities, and critical infrastructure and key resources to reduce their vulnerability to natural, technological, and human-caused incidents.
Risk and Disaster Resilience Assessment	Assess risk and disaster resilience so that decision makers, responders, and community members can take informed action to reduce risk and increase their resilience.
Threats and Hazard Identification	Identify the threats and hazards that occur in the geographic area; determine the frequency and magnitude; and incorporate this into analysis and planning processes so as to clearly understand the needs of a community or entity.

Response Mission Area	
Capability	**Description**
Critical Transportation	Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives.
Environmental Response/Health and Safety	Guidance and resources to address all hazards in support of the responder operations and the environment of affected communities.
Fatality Management Services	Provide fatality management services including body recovery and victim identification, temporary mortuary solutions, reunifying family members and caregivers with remains, and providing counseling to the bereaved..
Mass Care Services	Provide life-sustaining services with a focus on hydration, feeding, sheltering, and support for reunifying families.
Mass Search and Rescue Operations	Deliver search and rescue capabilities with the goal of saving the greatest number of endangered lives in the shortest time possible.
On-scene Security and Protection	Ensure a safe and secure environment through law enforcement and related security and protection operations for people and response personnel within affected areas.

Operational Communications	Ensure the capacity for timely communications in support of security, situational awareness, and operations.
Public and Private Services and Resources	Provide essential services and resources to the affected Population, to include emergency power to critical facilities, fuel support for emergency responders, and access to community staples (e.g., grocery stores, pharmacies, and banks) and first response services.
Public Health and Medical Services	Provide lifesaving medical treatment and avoid additional disease and injury.
Situational Assessment	Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

Response/Recovery Mission Area	
Capability	**Description**
Infrastructure Systems	Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services.

Recovery Mission Area	
Capability	**Description**
Economic Recovery	Return economic and business activities to a healthy state and develop new business and employment opportunities.
Health and Social Services	Restore and improve health and social services networks to promote the resilience, independence, health (including behavioral health), and well-being of the whole community.
Housing	Implement housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience.
Natural and Cultural Resources	Protect natural and cultural resources and historic properties through appropriate planning, mitigation, response, and recovery actions to preserve, conserve, rehabilitate, and restore them.

Appendix B: Planning, Organization, Equipment, Training and Exercise (POETE) Framework

POETE Framework
Table B1 presents the definitions of the five POETE capability elements respondents can refer to these definitions as they complete the capability assessments.

Table B1: Planning, Organization, Equipment, Training and Exercise (POETE) Definitions.

Capability Element	Definition
Planning	Collection and analysis of information to develop policies, plans, procedures, mutual aid agreements, and strategies to guide performance of tasks.

Organization	An overall organization structure with designated leadership at each level that complies with all applicable laws, regulations, and guidance. Maintain staff and volunteers who meet applicable certification standards.
Equipment	Major items of equipment, supplies, facilities, and systems that comply with relevant standards.
Training	Content and methods of delivery that comply with relevant training standards necessary to perform assigned missions and tasks.
Exercise	Exercises and actual major events that provide opportunities to demonstrate, evaluate, and improve the combined capability and interoperability of the other elements.

Within each element, communities use fixed scales to indicate how close they are to meeting their desired preparedness levels. The scales range from 1-5, with 1 generally representing little or no capability, and 5 generally representing full or nearly full capability. The detailed meanings of the 1-5 scales are different for each POETE capability element, explained in the tables below. In addition to selecting from the 1-5 scales, communities may indicate that the capability element is not relevant to a given core capability, or that their community is not responsible for providing the capability element. The "not relevant" response can be used when the capability element does not apply to the core capability. The "jurisdiction is not responsible" option can be used when another jurisdiction provides the entire capability element for the given core capability.

Planning	
Level	**Description**
Level 1	(1) No plans/annexes exist
Level 2	(2) Some plans exist, but lack some annexes or other required elements
Level 3	(3) Plans/annexes are complete and up to date
Level 4	(4) Plans/annexes are complete, up to date, and have been validated by recent exercises or real-world operations
Level 5	(5) Plans/annexes are complete, up to date, and have been validated by recent exercises or real-world operations; plans include coordination with higher levels of government and resource needs for catastrophic incidents
Planning is not required for this capability	
This jurisdiction is not responsible for providing planning for this capability	

Organization	
Level	**Description**
Level 1	(1) Very little (0-20%) of the required organizational structure exists
Level 2	(2) Little (20-40%) of the required organizational structure exists

Level 3	(3) Much (40-60%) of the required organizational structure exists
Level 4	(4) Most (60-80%) of the required organizational structure exists
Level 5	(5) All or nearly all (80-100%) of the required organizational structure exists
Organization is not relevant for this capability	
Organization for this capability is provided entirely by other jurisdictions	

Equipment	
Level	**Description**
Level 1	(1) Very little (0-20%) of the required equipment exists
Level 2	(2) Little (20-40%) of the required equipment exists
Level 3	(3) Much (40-60%) of the required equipment exists
Level 4	(4) Most (60-80%) of the required equipment exists
Level 5	(5) All or nearly all (80-100%) of the required equipment exists; sustainment needs only
Equipment is not relevant for this capability	
Equipment for this capability is provided entirely by other jurisdictions	

Training	
Level	**Description**
Level 1	(1) Very few relevant personnel (0-20%) have completed all relevant courses
Level 2	(2) Few relevant personnel (20-40%) have completed all relevant courses
Level 3	(3) Several relevant personnel (40-60%) have completed all relevant courses
Level 4	(4) Most relevant personnel (60-80%) have completed all relevant courses
Level 5	(5) All or nearly all personnel (80-100%), including many private sector reps/citizens have completed all relevant courses
Training is not relevant for this capability	
Training for this capability is provided entirely by other jurisdictions	

Exercise	
Level	**Description**
Level 1	(1) No recent exercises or real-world operations have been conducted
Level 2	(2) Limited exercises or real-world operations have been conducted; little documentation exists

Level 3	(3) Exercises or real-world operations have been conducted; After Action Review/Improvement Plan (AAR/IP) documented
Level 4	(4) Exercises or real-world operations have been conducted; AAR/IP documented; most corrective actions have been implemented
Level 5	(5) Exercises or real-world operations have been conducted, including coordination with higher levels of government; AAR/IP documented; all corrective actions have been implemented
Exercises are not relevant for this capability	
Exercises for this capability are provided entirely by other jurisdictions	