

COMMUNITY LIFELINES IMPLEMENTATION TOOLKIT

*Comprehensive information and resources for
implementing lifelines during incident response*



FEMA

Version 2.1
July 2023

Organization

Content in this toolkit is organized into the following four sections:

1. [Lifelines Overview](#) **Slide 3**
2. [Situational Awareness and Reporting](#) **Slide 29**
3. [Lifelines and Operational Planning](#) **Slide 37**
4. [Icons and Templates](#) **Slide 59**

Companion documents to the toolkit may include:

- Cover Sheet
- Presenter's Guide
- Fact Sheet
- Templates
 - Lifeline Card Template
 - Tier I, Tier II, and Tier III Reporting Templates
 - Incident Approach Template

Section I: Lifelines Overview

Incorporating Community Lifelines into Response

FEMA developed the community lifelines construct to increase effectiveness in disaster operations and better position the Agency to respond to catastrophic incidents. The construct allows emergency managers to:

- Characterize the incident and identify the root causes of priority issue areas
- Distinguish the highest priorities and most complex issues from other incident information

WHY A LIFELINES CONSTRUCT?

- Lifelines provide an outcome-based, survivor-centric frame of reference that assists responders with the following:
 - Rapidly determining the scale and complexity of a disaster
 - Identifying the severity, root causes, and interdependencies of impacts to basic, critical lifesaving and life-sustaining services within impacted areas
 - Developing operational priorities and objectives that focus response efforts on the delivery of these services by the most effective means available
 - Communicating disaster-related information across all levels of public, private, and non-profit sectors using a commonly understood, plain language lexicon
 - Guiding response operations to support and facilitate integration across mission areas

Toolkit 2.1

The 4th Edition of the *National Response Framework* formalizes the community lifelines construct in national level response doctrine.

- Toolkit Version 2.1 is an *interim* product, designed to introduce adjustments which improve the community lifelines construct. Major changes include:
 - Adding an eighth lifeline focused on “Water Systems.”
 - This lifeline includes some components previously aligned under the “Food, Water, Shelter” lifeline.
 - Renaming the “Food, Water, Shelter” lifeline to “Food, Hydration, Shelter.”
 - Refining the purpose of the community lifelines construct as an impact assessment tool rather than a tool supporting stabilization. The toolkit still addresses stabilization as an objective, particularly in response planning.
 - Revising the “conditions designations” color coding scheme to focus on community impact reporting, rather than progress toward reaching stabilization targets.
 - Simplifying and standardizing situational awareness reporting products for a more streamlined approach in real world application.

Evolution of the Community Lifelines Construct

While Toolkit 2.1 still focuses on the Response Mission Area, FEMA continues to examine the application of community lifelines across the disaster lifecycle and all five mission areas.

- Driving Lifeline Resilience through:
 - **Preparedness:** Reorganizing Threat & Hazard Identification and Risk Assessments by lifeline
 - **Protection:** Assessing lifeline infrastructure vulnerability
 - **Recovery:** Transitioning from incident response to recovery
 - **Mitigation:** Reducing lifeline vulnerability through mitigation activities

The Lifelines Toolkit will continue to be refined as the construct evolves

Lifelines, Core Capabilities, ESFs

The interrelationship of Emergency Support Functions (ESF), Core Capabilities, and lifelines can be thought of in terms of means, ways, and ends.

- **Means:** ESFs and other organizing bodies—the means—are the way we organize across departments and agencies, community organizations, and industries to enhance coordination and integration to deliver the Response Core Capabilities.
- **Ways:** Response Core Capabilities describe the grouping of response actions—the ways—that can be taken to re-establish lifeline infrastructure. FEMA executes Lines of Effort (LOE) to operationalize the Core Capabilities (the ways) for response and recovery planning and operations.
- **Ends:** Lifelines describe the critical service infrastructure within a community that must be stabilized and re-established to address community impact—the ends—by alleviating threats to life and property.

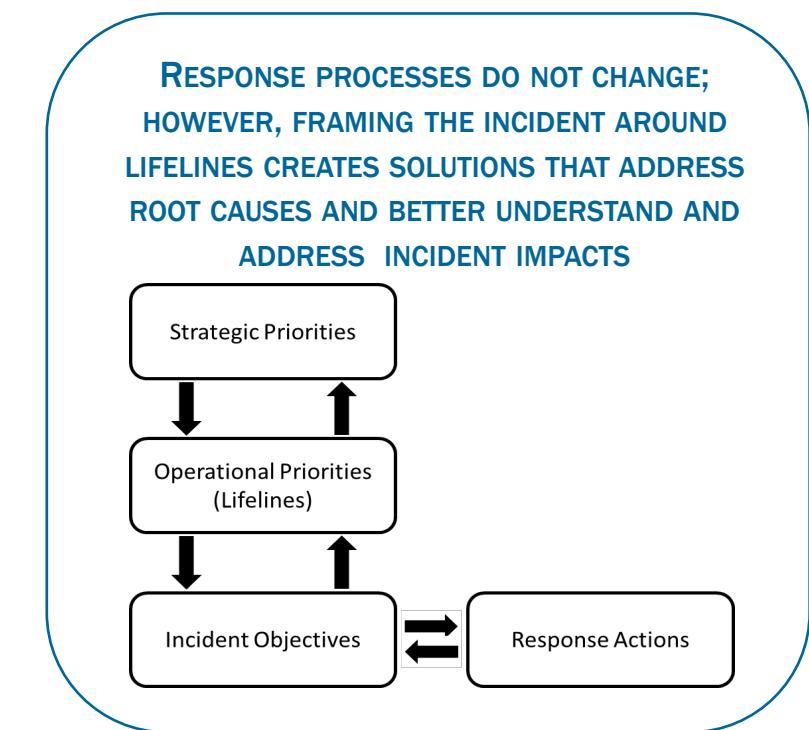
Community Lifeline Implementation

Lifelines reframe incident information to provide decision-makers with impact statements and summarize the root causes of disruptions to lifeline services. The community lifelines construct maximizes the effectiveness of federally supported, state managed, and locally executed response.

- Incorporating the community lifelines construct primarily impacts how incident information is framed, organized, and reported during response
- ESFs, Core Capabilities, response operations, procedures, and key elements of doctrine remain fundamentally the same

Implementation of the community lifelines construct provides the following benefits:

- Understanding, prioritizing, and communicating incident impacts
- Structuring and formatting decision-making support products in a streamlined approach (e.g., briefings, forms)
- Planning for incident impacts and stabilization both prior to and during incidents



Community Impact

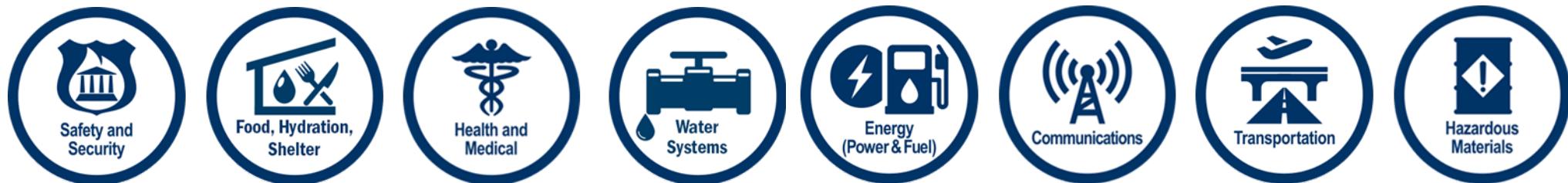
The community lifelines construct is used to identify and measure impacts that an incident has had on critical infrastructure within an affected community.

- When a lifeline is affected by a disaster, survivors may experience disruptions which reduce their ability to receive critical services and recover from the effects of the incident. These lifeline impacts are assessed and addressed based on overall impact to the community, otherwise known as Community Impact.
- Addressing community impact is an ongoing process, which occurs throughout the disaster lifecycle. Community impact is a metric that is re-evaluated from the start of an incident through the conclusion of response operations to measure and assess progress.
 - At the conclusion of response operations, and as efforts turn to recovery, all immediate community impacts should be addressed to the point that the impacted state, local, tribal, or territorial (SLTT) government no longer needs direct federal support.

Community Lifelines Defined

A CONSTRUCT FOR COMMUNITY IMPACT ASSESSMENT AND ANALYSIS

A lifeline enables the continuous operation of critical government and business functions and is essential to human health and safety or economic security.

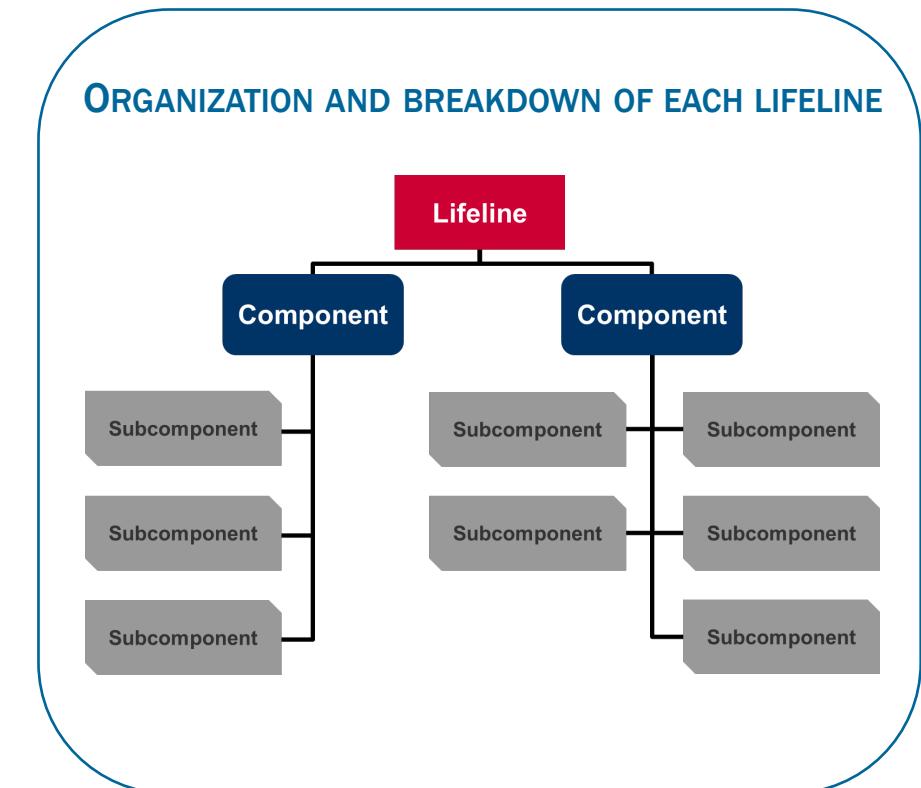


- Lifelines are the most fundamental services in the community that enable all other aspects of society to function.
- Lifelines are the integrated network of assets, services, and capabilities that are used day-to-day to support the recurring needs of the community.
- When disrupted, decisive intervention (e.g., rapid service re-establishment or employment of contingency response solutions) is required.

Deconstructing Community Lifelines

- Each lifeline is composed of multiple components and subcomponents that help define the services that make up that lifeline.
 - Components represent the general scope of services for a lifeline.
 - The components are further divided into relevant subcomponents that provide a granular level of enabling functions for the delivery of services to a community.
- Lifelines and components are fixed, but the subcomponents may be adjusted as necessary.

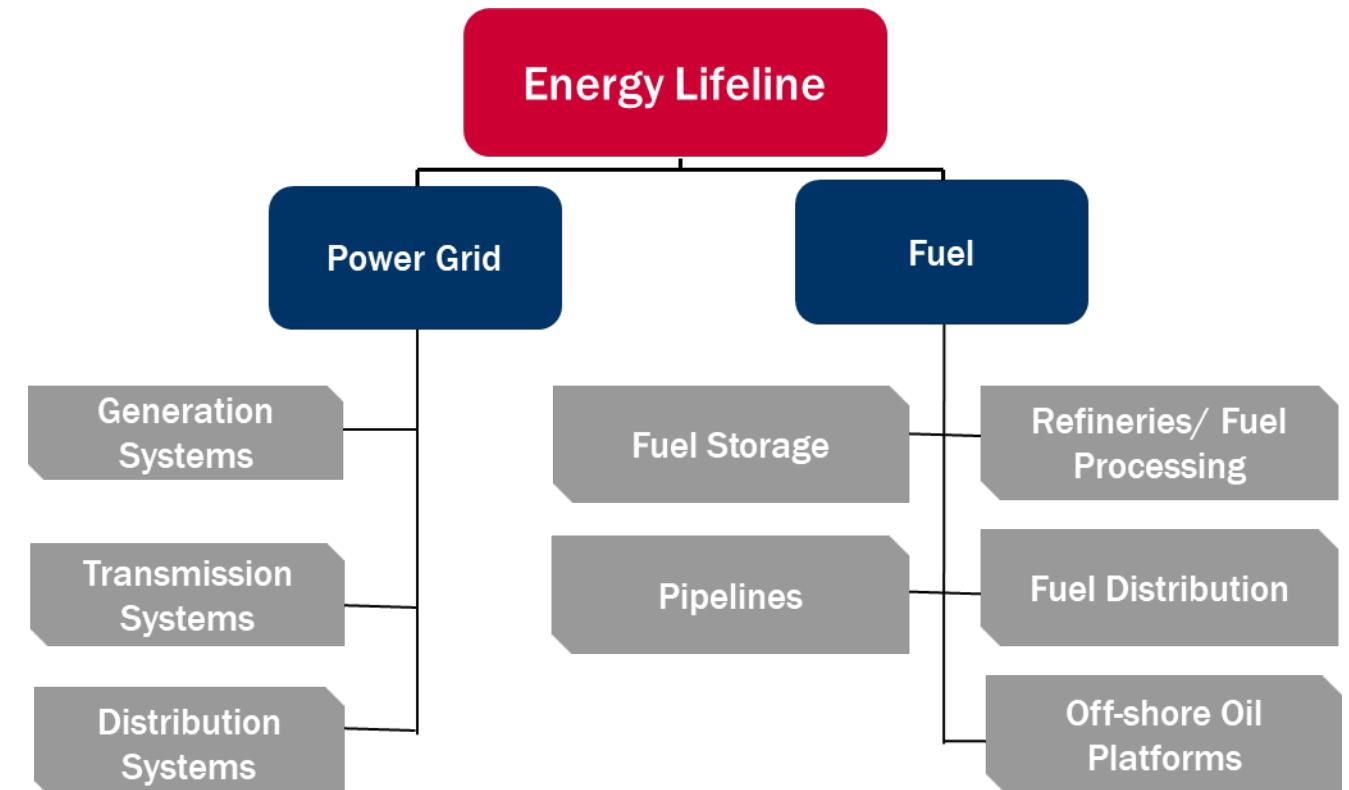
Note: Not every incident will impact all the lifelines or components.



Community Lifeline Construct

Example components and subcomponents: Energy Lifeline

- The graphic provides an example breakdown of the Energy Lifeline into its relevant components and subcomponents.
- The subcomponents define each component and are subject to change depending on incident circumstances.



Community Lifeline Components



Multiple components and subcomponents establish the parameters of the lifeline; component-level assessment is required to determine the condition of each lifeline.

1. Safety and Security

- Law Enforcement/Security
- Fire Service
- Search and Rescue
- Government Service
- Community Safety

2. Food, Hydration, Shelter

- Food
- Hydration
- Shelter
- Agriculture

3. Health and Medical

- Medical Care
- Public Health
- Patient Movement
- Medical Supply Chain
- Fatality Management

4. Energy

- Power Grid
- Fuel

5. Communications

- Infrastructure
- Responder Communications
- Alerts, Warnings, and Messages
- Finance
- 911 and Dispatch

6. Transportation

- Highway/Roadway/Motor Vehicle
- Mass Transit
- Railway
- Aviation
- Maritime

7. Hazardous Material

- Facilities
- HAZMAT, Pollutants, Contaminants

8. Water Systems

- Potable Water Infrastructure
- Wastewater Management

ASSESSMENT

Status	"What?"
Impact	"So What?"
Actions	"Now What?"
Limiting Factors	"What's the Gap?"
ETA to Green	"When?"



Safety and Security

COMPONENTS AND SUBCOMPONENTS

Law Enforcement/Security

- Police Stations
- Law Enforcement
- Site Security
- Correctional Facilities

Fire Service

- Fire Stations
- Firefighting Resources

Search and Rescue

- Local Search and Rescue

Government Service

- Emergency Operation Centers
- Essential Government Functions
- Government Offices
- Schools
- Public Records
- Historic/Cultural Resources

Community Safety

- Flood Control
- Other Hazards
- Protective Actions



Food, Hydration, Shelter

COMPONENTS AND SUBCOMPONENTS

Food

- Commercial Food Distribution
- Commercial Food Supply Chain
- Food Distribution Programs (e.g., food banks)

Hydration

- Temporary Hydration Missions (e.g., bottled water distribution)
- Commercial Water Supply Chain

Shelter

- Housing (e.g., homes, shelters)
- Commercial Facilities (e.g., hotels)

Agriculture

- Animals and Agriculture



Health and Medical

COMPONENTS AND SUBCOMPONENTS

Medical Care

- Hospitals
- Dialysis
- Pharmacies
- Long-Term Care Facilities
- Veterans' Affairs (VA) Health System
- Veterinary Services
- Home Care

Patient Movement

- Emergency Medical Services

Fatality Management

- Mortuary and Post-Mortuary Services

Public Health

- Health Surveillance
- Human Services
- Behavioral Health
- Vector Control
- Labs

Medical Supply Chain

- Blood/Blood Products
- Manufacturing
 - Pharmaceutical Devices
 - Medical Gases
- Distribution
- Critical Clinical Research
- Sterilization
- Raw Materials



Water Systems

COMPONENTS AND SUBCOMPONENTS

Potable Water Infrastructure

- Intake
- Treatment
- Storage
- Distribution

Wastewater Management

- Collection
- Storage
- Treatment
- Discharge



Energy

COMPONENTS AND SUBCOMPONENTS

Power Grid

- Generation Systems
- Transmission Systems
- Distribution Systems

Fuel

- Refineries/ Fuel Processing
- Fuel Storage
- Pipelines
- Fuel Distribution (e.g., gas stations, fuel points)
- Off-shore Oil Platforms



Communications

COMPONENTS AND SUBCOMPONENTS

Infrastructure

- Wireless
- Cable Systems and Wireline
- Broadcast (TV and Radio)
- Satellite
- Data Centers/Internet

Alerts, Warnings, and Messages

- Local Alert/Warning Ability
- Access to IPAWS (WEA, EAS, NWR)
- NAWAS Terminals

911 & Dispatch

- Public Safety Answering Points (PSAP)
- Dispatch

Responder Communications

- Land Mobile Radio (LMR) Networks

Finance

- Banking Services
- Electronic Payment Processing



Transportation

COMPONENTS AND SUBCOMPONENTS

Highway/Roadway/Motor Vehicle

- Roads
- Bridges

Mass Transit

- Bus
- Rail
- Ferry

Railway

- Freight
- Passenger

Aviation

- Commercial (e.g. cargo/passenger)
- General
- Military

Maritime

- Waterways
- Ports and Port Facilities



Hazardous Materials

COMPONENTS AND SUBCOMPONENTS

Facilities

- Oil/HAZMAT Facilities (e.g., chemical, nuclear)
- Oil/HAZMAT/Toxic Incidents from Facilities

HAZMAT, Pollutants, Contaminants

- Oil/HAZMAT/Toxic Incidents from Non-Fixed Facilities
- Radiological or Nuclear Incidents

Determining Lifeline Condition

The condition of each lifeline depends on the capability of the underlying components, and is informed by situational awareness reports, impact assessments, and conversing with partners across the public, private, and non-profit sectors.

Applying the following questions and understanding the incident is critical in determining the condition of a lifeline and components:

- Did the incident disrupt services to survivors provided by component capabilities?
- What is the extent of the disruption and impact on response and survivors?
- Has a solution to the disruption been identified?
- Has that solution been converted into a plan of action?
- Has that plan of action been resourced?
- Are there limiting factors that are worsening impacts to the community? If so, to what extent are they limiting services?
- Are there contingency response solutions in place? How long until emergency repairs are completed?
- When can permanent repairs begin?
- Did the incident create a surge demand exceeding component capabilities?

Analyzing Components

Lifeline components can be analyzed using six assessment categories that capture essential information for response decision-makers

Categories	Description
Component	Identify the component.
Status (<i>What?</i>)	Summarize the root cause(s) of disruption to lifelines services.
Impacts (<i>So What?</i>)	Explain the disaster impacts to specific communities, disaster survivors, and response operations. Detail how the survivor experience or response operation will improve if this component is addressed. Specify the impacted areas and population totals.
Actions (<i>Now What?</i>)	Describe the actions that are being taken to address the disrupted services. Summarize the most critical actions being taken across the whole community.
Limiting Factors (<i>What's the Gap?</i>)	Express issues that are preventing services from being re-established. Such issues can stem from another lifeline/component, resource shortfall, management, policy, etc.
Estimated Time to Status Change and Re-establishment Requirements (<i>When?</i>)	Provide current component condition or an estimated timeframe for when a change in condition is expected.

Example Component Analysis



Transportation

Categories	Description
Component	Mass Transit  Sub-component: Bus
Status	Bus service is unavailable due to road debris.
Impacts	100,000 survivors have no access to public transportation nor emergency support services.
Actions	Local jurisdictions are prioritizing route clearance to critical facilities, U.S. Army Corps of Engineers assigned to supplement state and local authorities with route clearance and debris removal efforts, modified mass transit schedules are being executed as roads become passable, micro transit being utilized on roads passable to smaller vehicles, but not buses, messaging of modified routes through numerous information/messaging platforms and outlets (radio, television, social media).
Limiting Factors	Full service will not resume until the routes are cleared and roads inspected.
Estimated Time to Status Change and Re-establishment Requirements	Full service estimated to resume in a week, with a modified service available as roads become clear.

Colors Indicate Lifeline or Component Condition

Unknown: Grey

- Indicates the extent of disruption and impacts to lifeline services is unknown.

Significant Impact: Red

- Indicates there are severe challenges and obstacles hindering the essential services and resources associated with the lifeline. Immediate attention and resources are required to address the situation and restore functionality.

Moderate Impact: Yellow

- Indicates that there are disruptions or limitations to the delivery of normal, pre-incident services and resources. The situation requires attention and proactive measures to prevent further deterioration and ensure community needs are met.
 - Restoration of this lifeline is still in progress and the community has not returned to pre-incident levels of service. This includes instances in which lifeline restoration is being addressed through temporary means.

Minimal Impact: Green

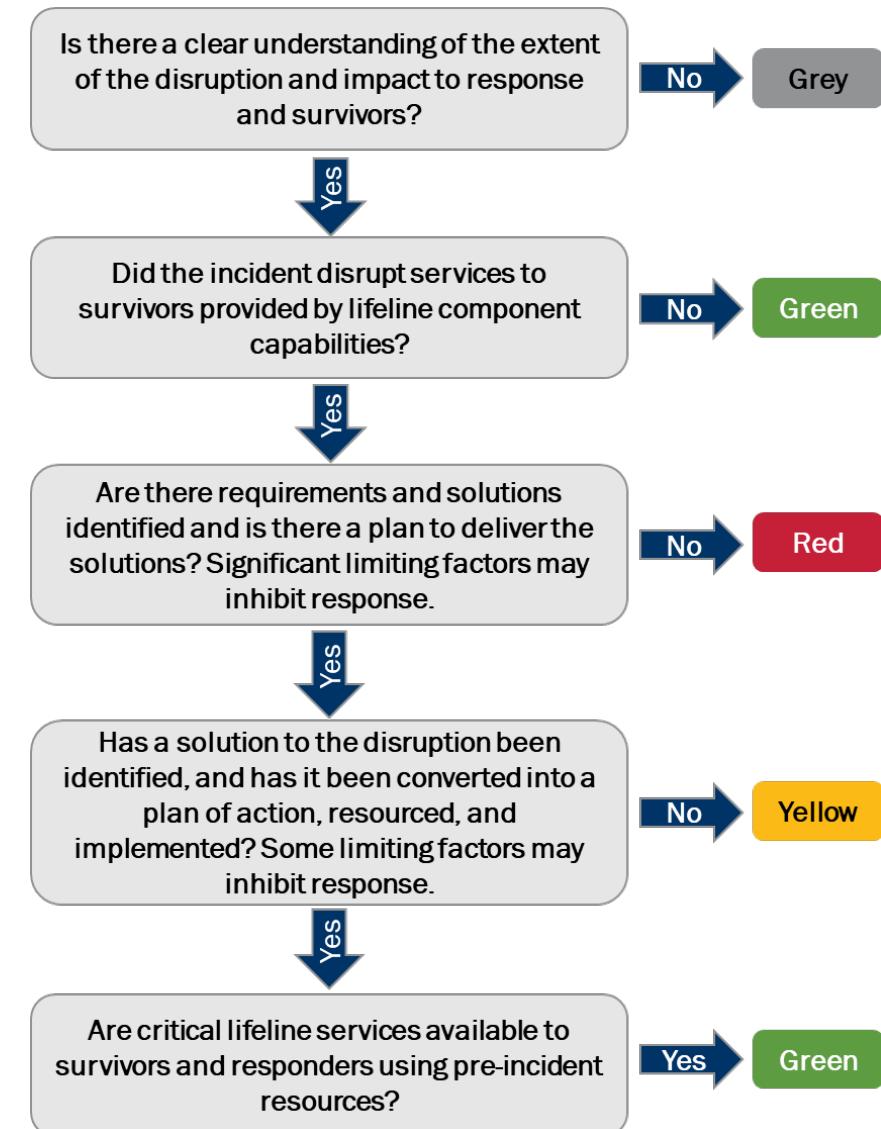
- Indicates that the lifeline is functioning at pre-incident levels, with only minor disruptions or limitations.

Administrative: Blue

- Does not indicate an operational status or condition; used for administrative purposes such as presentations and briefings.

Assigning a Condition

- Assess lifeline conditions as incident circumstances evolve and over the course of response operations.
 - A color designation represents a snapshot in time for that response operational period.
- The baseline to which lifelines should be compared is how the lifeline itself functions in pre-incident conditions.
- The flowchart shows an example of how responders may think through assigning lifelines a color.



Example Condition Designations

Below are example analyses for the Highway/Roadway/Motor Vehicle component of the Transportation lifeline and corresponding color determination for each.

Status	Example
Grey	Assessment teams have been unable to establish status of bridge infrastructure.
Red	The community is unable to be reached via roadway to deliver emergency resources and assistance to survivors. Plans to find alternative means to transport emergency supplies to survivors not yet established. No supplies currently being delivered.
Yellow	Emergency supplies have been identified and resourced, but transportation issues are restricting and limiting delivery and therefore not back to pre-disaster conditions.
Green	The main transportation route is re-established. All community needs met.
Blue	Blue does not indicate an operational status or condition; it is used for administrative purposes, such as presentations and briefings.

FEMA's Implementation of Community Lifelines

FEMA incorporates the community lifelines construct into its planning and reporting products. This section provides an overview and examples of how the lifelines have been implemented to date.

Planning products include:

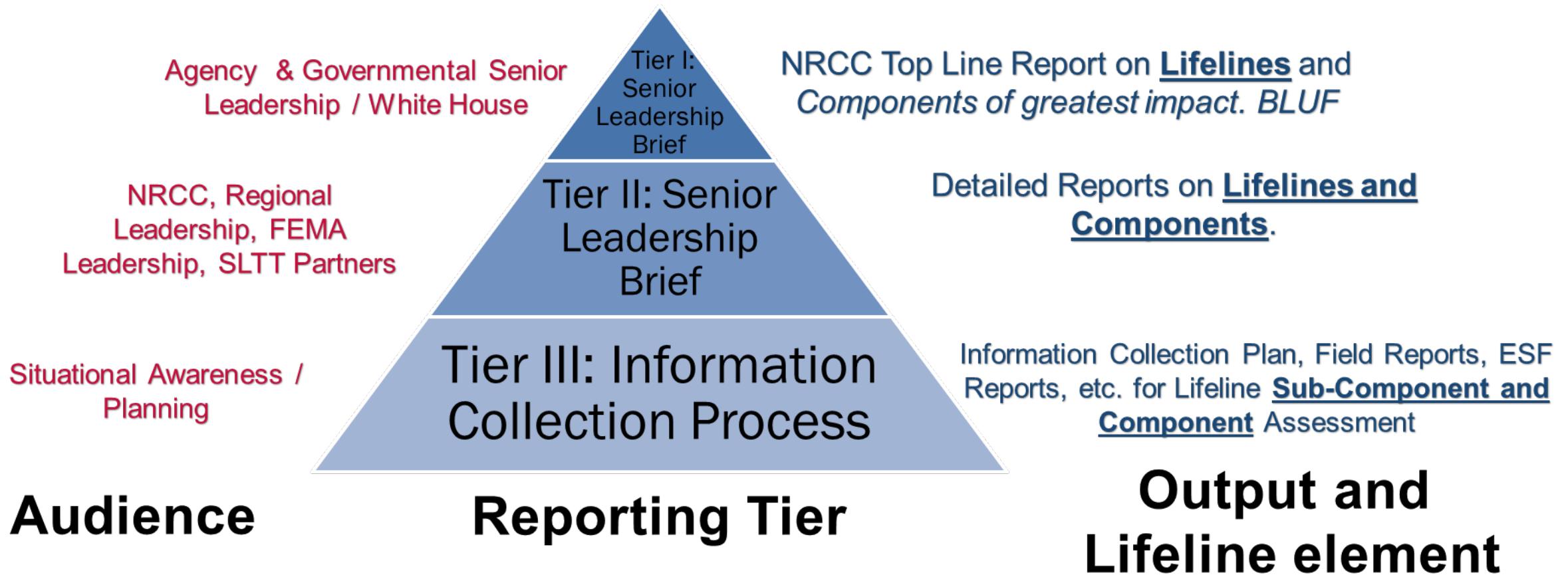
- All Hazards Plans
- Information Analysis Brief
- Incident Action Plan
- Incident Approach
- National/Regional Support Plan (N/RSP)

Reporting products include:

- Tier I: Senior Leadership Brief
- Tier II: Senior Leadership Brief

Section II: Situational Awareness and Reporting

FEMA Standardized Situation Reporting Construct



The Situation Reporting Construct enables the collection, analysis and dissemination of incident information to generate the *What? So What? Now What? And When?* for decision makers.

Lifeline Integrated Reporting Process

FEMA's Situation Reporting Construct was revised to better integrate the community lifelines construct by discussing the impacts, response actions, and issues associated with lifelines, components, and sub-components using a tiered structure across all levels of the response.



Tier I: Senior Leadership Brief

- Executive Summary of the disaster and lifelines with details on most impacted components
- Significant FEMA and/or Interagency Actions
 - Information should reflect high level status, impacts, actions being taken to re-establish lifelines, or limiting factors for each lifeline

Tier II: Senior Leadership Brief

- Synopsis of lifeline condition and response efforts
 - Information should reflect status, impacts, actions, limiting factors, and an anticipated timeline to re-establish each lifeline component as well as more detailed information on the operational environment and state by state and tribe impacts.

Tier III: Information Collection Process

- Granular information regarding lifeline components to include status, actions, key messages, limiting factors
 - Charts, graphs, etc.
 - Geographic Information System (GIS) products
- Data collection from all incident levels to include field, regions, state, national, and interagency
- Answers Essential Elements of Information (EEI) to inform lifeline components and sub-components

Tier I: Senior Leadership Brief

The Tier I: Senior Leadership Brief includes executive-level information summarizing the situation, condition, critical impacts, actions, and limiting factors for each lifeline.

- **Current Situation:** Includes the most pertinent information in each stage of response.
- **Lifeline Assessment:** Assessing and reporting on lifeline conditions is recommended by Situation Unit and validated by leadership.
- **Lifeline Condition:** Is based on the underlying components, and is informed by situational awareness reports, impact assessments, and conversing with partners across public, private, and non-profit sectors.
- **Additional Products may Include:** Force Laydown Map, updated information on Incident Management Assistance Team (IMAT) and Liaison Officer (LNO) locations, RRCC status, State Emergency Operations Center (EOC) status, and overall posture including Emergency/Disaster Declarations.



FEMA

Senior Leadership Brief

TROPICAL STORM / HURRICANE Ian

October 4, 2022 6:00 p.m. ET

Current Situation:**LIFELINES SUMMARY**

Law Enforcement/Security:
Fire Service:
Search & Rescue:
Government Service:
Community Safety:

SAFETY & SECURITY

Food:
Hydration:
Shelter:
Agriculture:

FOOD, HYDRATION, SHELTER

Medical Care:
Patient Movement:
Public Health:
Medical Supply Chain:
Fatality Management:

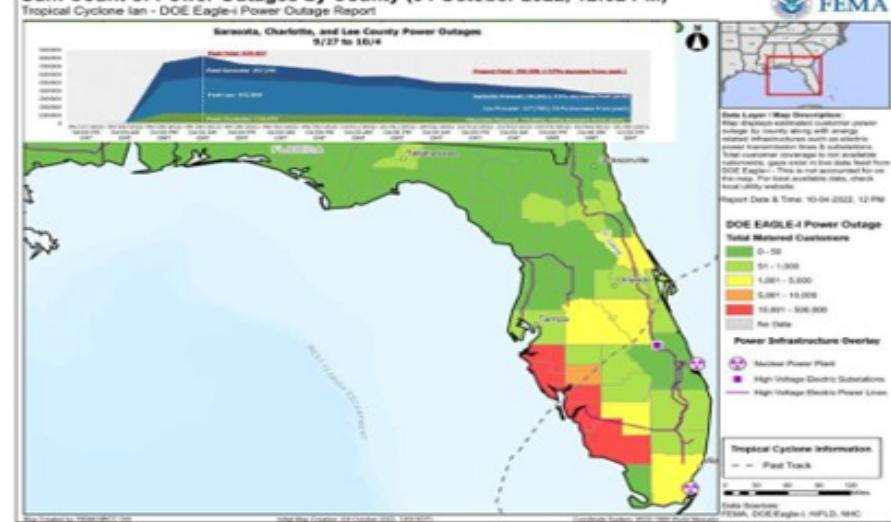
HEALTH & MEDICAL

Drinking Water Infrastructure:
Wastewater Infrastructure:

WATER SYSTEMS

Sum Count of Power Outages by County (04 October 2022, 12:02 PM)

Tropical Cyclone Ian - DOE Eagle-4 Power Outage Report

**ACTIVATIONS & EMERGENCIES**

REGIONS

NRCC

- NRCC:

- Declaration:
- State of Emergency:
- State EOC:

- Declaration: State EOC:
- IMAT:

- Declaration:
- State EOC:
- IMAT:

LIFELINES SUMMARY

Power Grid:
Fuel:

ENERGY

Infrastructure:
Alerts, Warnings & Messages:
911 & Dispatch:
Responder Communications:
Finance:

COMMUNICATIONS

Highway/Roadway/Motor Vehicle:
Mass Transit:
Railway:
Aviation:
Maritime:

TRANSPORTATION

Facilities:
Hazmat, Pollutants, Contaminants:

HAZMAT

Tier II: Senior Leadership Brief

- The Tier II: Senior Leadership Brief identifies the status, impact, actions, limiting factors, and estimated time to condition change and re-establishment requirements for each lifeline component as well as an overall regional response picture.
- This product provides greater detail than a Tier I: Senior Leadership Brief based on information received as part of the Tier III: Information Collection Process.
- For smaller events, a Tier I may be utilized over a Tier II if there are limited lifeline impacts.

Tier III: Information Collection Process

- The Tier III: Information Collection Process serves as a formalized process for collecting and analyzing sub-component, component, and assessed community lifeline statuses and impacts.
- It also serves as the basis for compiling Tier I and Tier II reports with EEIs and Critical Information Requirements (CIR) associated with the incident.
- The Information Collection Process incorporates Information Collection Plans, Information Collection Tools, as well as field, LNO, branch, and/or division reports.

Information Collection Process: Visualization Tools

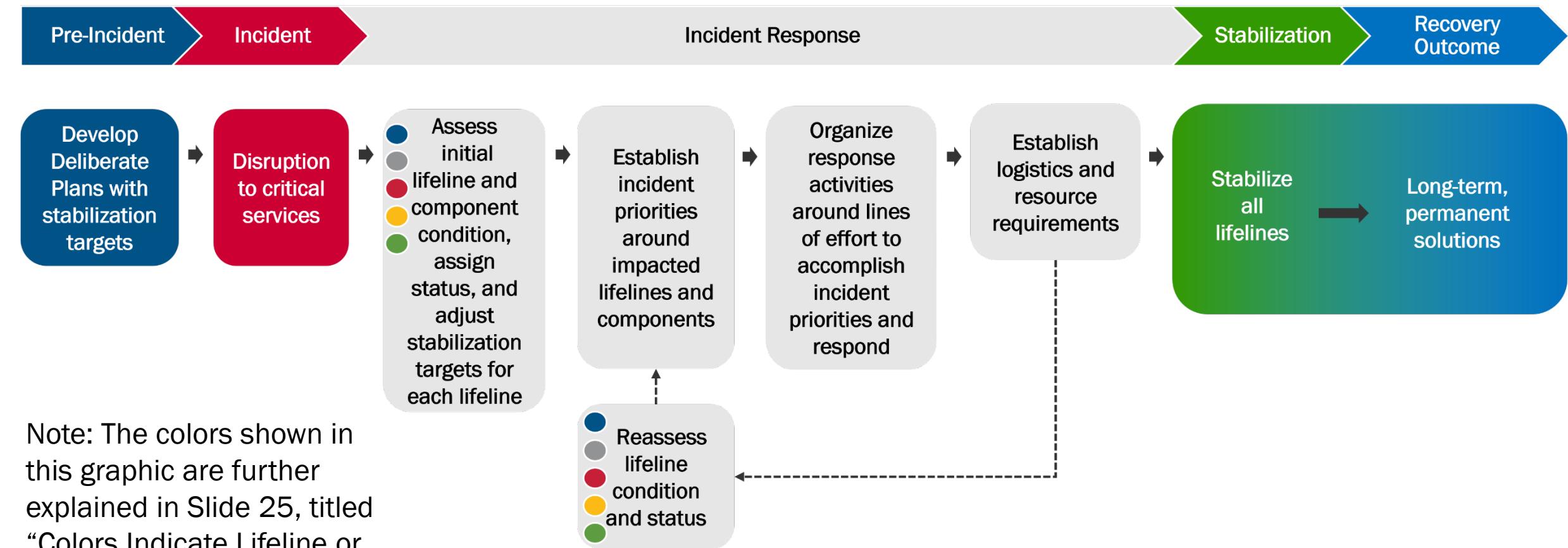
- A Tier III information collection effort may still involve visualizations of the lifeline and component conditions such as:
 - GIS products
 - Charts, graphs, and other supplemental materials which can be used for resources such as commodities



Section III: Lifelines and Operational Planning

Lifelines Drive Response and Enable Recovery Transition

Incident responders assess lifeline conditions, establish priorities, organize lines of effort, and respond until the lifelines are stabilized so that a transition to recovery may occur.



Response Planning and Incident Stabilization

Response planning focuses on providing solutions which will result in incident stabilization. Incident stabilization lessens overall community impacts as recovery begins.

- **Stabilization** occurs when basic lifeline services are provided to survivors, either by **rapid re-establishment of lifeline services** or through the employment of a **contingency response solution**.
 - Stabilization may occur through the employment of **contingency response solutions** that are intended to restore service, but only for a very limited duration or through a temporary measure.
 - An example may include emergency measures to clear debris from a roadway or the provision of mobile communications services or the utilization of a "tent" hospital to provide medical care for a community.
 - May be necessary to stabilize lifelines until temporary fixes to infrastructure are completed and may require sustained resources and continuous evaluation.
 - **Re-establishment of lifeline services**, a longer-term stabilization solution, implies the normal lifeline service providers are available within the community through emergency infrastructure repairs or other means, alleviating the requirement for contingency response solutions.
 - Examples may include emergency repairs, installation of generators to run a critical facility without grid power, or resuming the commercial supply chain to a community.

Lifeline Stabilization Targets (1 of 2)

Stabilization Targets for each lifeline are developed collaboratively with key stakeholders including local, state, regional, and national stakeholders.

Stabilization Targets should reflect goals defined in deliberate planning and should be validated and refined throughout the incident.

- **Example stabilization targets:**
 - Safety and Security Lifeline: Threats to life safety are no longer a concern for all response personnel and impacted communities. Government essential functions, including executive leadership, are operational. Sufficient search and rescue assets are on-scene to assist all survivors. Sufficient fire resources are available to support fire suppression efforts.
 - Food, Hydration, Shelter Lifeline: All survivors, their pets, and service animals have access to food and temporary drinking water. Sheltering (including reception, capacity, and wrap-around services) is supporting the displaced population. Sufficient resources are in place to sustain agricultural requirements.
 - Health and Medical Lifeline: All survivors, their pets, and service animals have access to required medical and veterinary care. Emergency medical systems are capable of managing patient movement requirements. Public health services are accessible to all survivors. Sufficient temporary fatality management support is in place to meet processing demand. Medical supply chain capable of adequately resupplying medical care providers.

Lifeline Stabilization Targets (2 of 2)

Stabilization Targets for each lifeline are developed collaboratively with key stakeholders including local, state, regional, and National stakeholders.

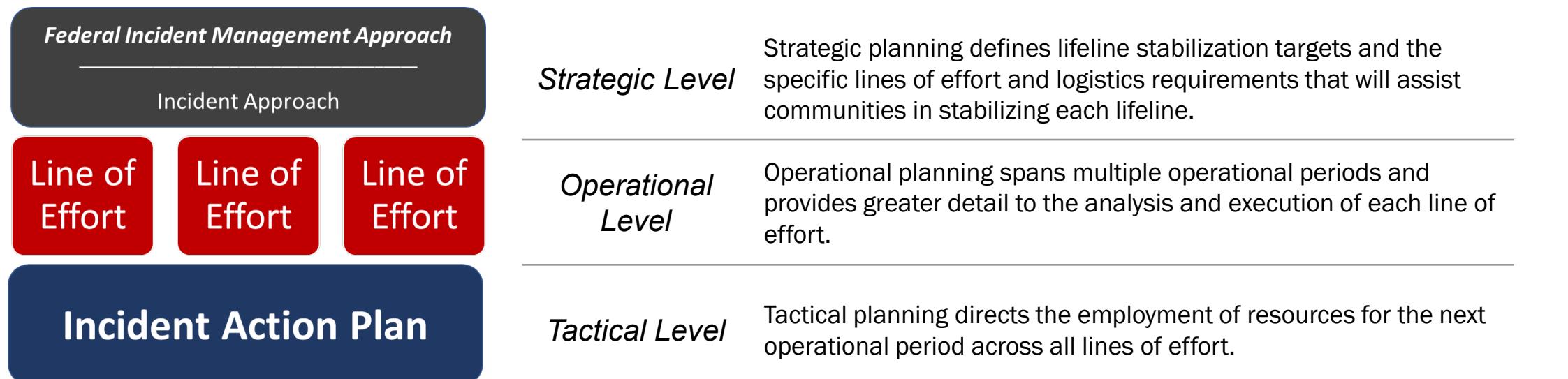
Stabilization Targets should reflect goals defined in deliberate planning and should be validated and refined throughout the incident.

- **Example stabilization targets:**
 - Energy Lifeline: Generators are providing temporary emergency power at critical facilities necessary to stabilize other lifelines. Fuel distribution is available for responders. Sufficient fuel distribution is available for survivors, including to support individuals dependent on power for life-sustaining medical care.
 - Communications Lifeline: Survivors have access to commercial communications infrastructure to contact or be contacted by emergency services. LMR communications network is operational. PSAPs are available to the public. Survivors have access to financial services.
 - Transportation Lifeline: Multimodal routes (air, rail, road, port) are clear of debris and accessible by normal or alternate means.
 - Hazardous Material Lifeline: All contaminated areas are identified and secure.
 - Water Systems: Survivors have access to temporary or permanent infrastructure providing potable water and wastewater management services. Sufficient resources are in place to support the temporary or permanent delivery of baseline water systems services.

Community Lifelines Construct and Response Planning

- **Deliberate Planning:** Incorporate lifelines into deliberate planning products, including defined stabilization targets for each lifeline.
- **Crisis Action Planning:** During an incident, deliberate stabilization targets are adjusted to the active response based on an analysis of strategies, operational priorities, and objectives.
 - This analysis provides support to leadership decisions and prioritization of response activities for each operational period, including the development of strategies, operational priorities, and objectives.

Lifelines enable crisis action planning efforts at all levels



Example: Energy Lifeline may include three distinct Lines of Effort – Temporary Emergency Power, Power Restoration, and Fuel Distribution.

Example: Food, Hydration, Shelter Lifeline may include two distinct Lines of Effort – Sheltering and Commodity Distribution.

Deliberate Planning

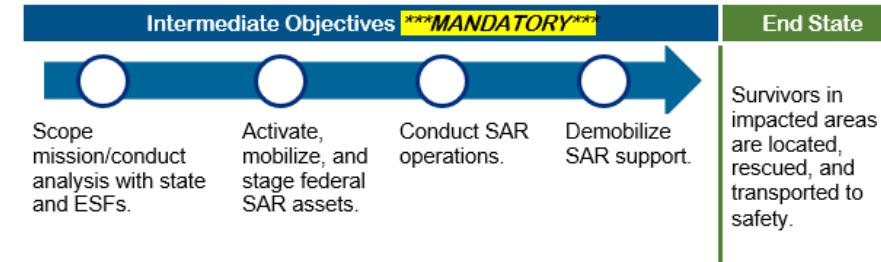
Deliberate Plan Components

- Base Plan – Identifies lifeline stabilization targets
- Annex B – Information gathering and analysis to support decisions and assess progress in achieving stabilization targets
- Annexes C & D – Strategy development and functional planning through LOEs to achieve lifeline stabilization targets

Example of Deliberate Planning

Tab X to Appendix C-2: Search and Rescue

Purpose: Provide federal assistance to support search and rescue (SAR) operations.



Search and Rescue Line of Effort Primary Organizations and Their Roles/Responsibilities	
Organization ***MANDATORY***	Roles and Responsibilities
Primary Agencies	
FEMA - Regional Response Coordination Center (RRCC)	<ul style="list-style-type: none"> Determine and support Incident Management Assistance Team (IMAT)/Unified Coordination Staff (UCS) requests for SAR resources. Pre-position resources, as necessary. Direct the coordination, allocation, and deployment of federal SAR resources. Develop a regional SAR support strategy, including projected requirements for out-of-Region support.
FEMA - Incident Management Assistance Team (IMAT)	<ul style="list-style-type: none"> Provide technical support for SAR. Identify state and tribal requirements and available resources and set priorities for resources to support state and tribal SAR operations. Develop a state SAR support strategy (e.g., mission-capable resources, timelines, and priorities for the implementation of tasks and the use of resources). Deploy and integrate federal SAR capabilities at state EOCs and, as directed, with the Incident Commanders.
Supporting Agencies	
	•

Deliberate Planning and All-Hazards Plan Updates

- Deliberate planning incorporates defined stabilization targets for each lifeline and the LOEs to stabilize each lifeline
- FEMA is developing stabilization targets for lifelines to include in its update of regional All Hazards Plans



Region IX All Hazards Plan

December 21, 2012

U.S. Department of Homeland Security
Federal Emergency Management Agency Region IX



FEMA



FEMA Region IV
All-Hazards Plan
November 2012



FEMA



FEMA REGION 6
All Hazards Plan

March 2013



Crisis Action Planning – Products and Relationships

Stabilization: Incident Approach

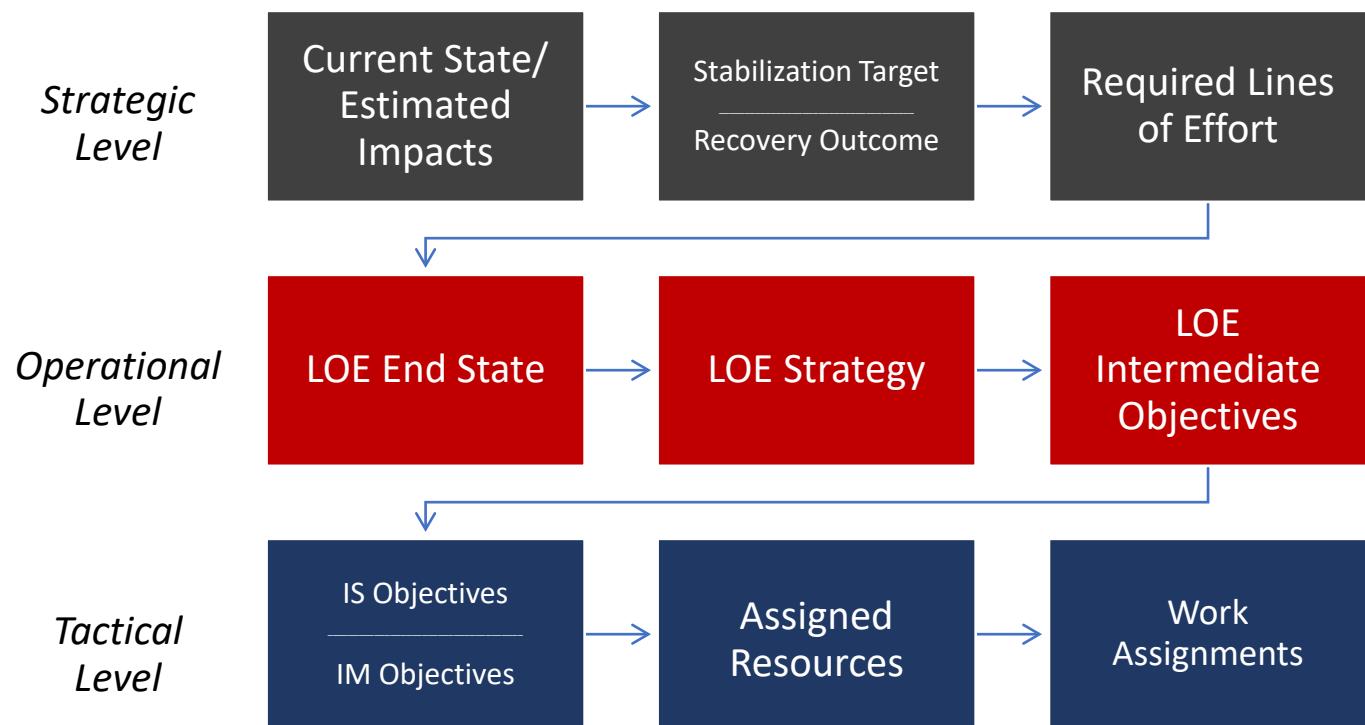
(Recovery Outcomes: Integrated Strategic Plan)

LOE

LOE

LOE

Incident Action Plan



Crisis Action Planning - Strategic

Strategic Level of Planning



Disaster Strategy Development



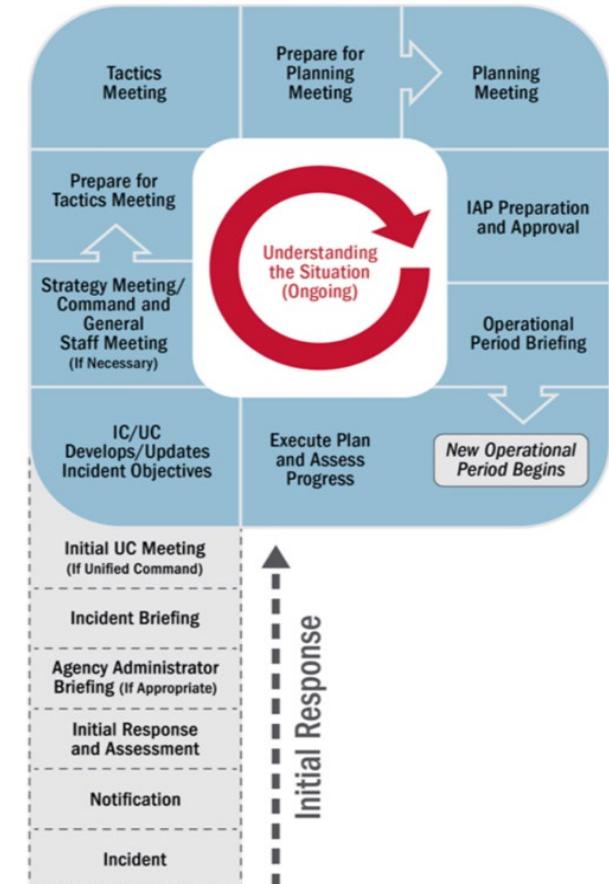
Role of Strategic Planning During an Incident

Strategic planning during the response phase of an incident provides an incident-wide approach to incident management and support. It provides a mechanism for crisis action planning that integrates deliberate plans into the operation; adapting deliberately planned LOEs to achieve lifeline stabilization. The resulting Incident Approach, focusing on lifelines, provides guidance and informs resource deployment and employment decisions, establishment of Task Forces and Crisis Action Planning Teams, and the development of incident objectives.

Current v. End States & Goal Setting

Assessment process that is foundational to FEMA Operations and widely understood as the Phase 1 “Leg” of the Incident Action Planning “P.”

- Continuously reassessed and revised
- Current State or Maximum Anticipated Impact
 - What do we know? – Facts
 - How bad could it be? – Assumptions
- End States and Goals
 - What are the Stabilization Goals we are striving to achieve?
 - What are the Recovery Outcomes we are striving to achieve?
 - How do we know we have been successful?

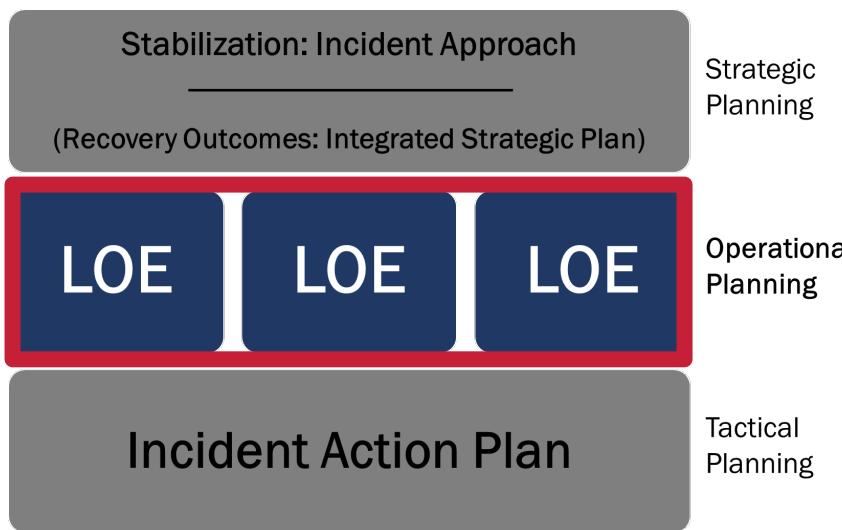


Lifeline Stabilization Problem Frame

Planning Factors (<i>Maximum Anticipated or Known Impacts</i>)	Lifeline Stabilization Targets	Federal Assistance Lines of Effort
Safety & Security: # of buildings with at least extensive damage # of fire station facilities with at least moderate damage # of police station facilities with at least moderate damage # of government offices with at least moderate damage # of dams/levees at risk of failure and/or at least moderate damage # of isolated communities # of facilities requiring federal security support # of survivors requiring SAR assistance	Safety & Security: Threats to life-safety are no longer a concern for all response personnel and impacted communities. Government essential functions, including executive leadership, are operational. Sufficient search and rescue assets are on-scene to assist all survivors. Sufficient fire resources are available to support fire suppression efforts.	Safety & Security <ul style="list-style-type: none"> Damage Assessment (Anticipated) Search and Rescue (In Progress) Restoration of Public Infrastructure – Police, Fire (Anticipated)
Food, Hydration & Shelter: # of people seeking short-term public shelter % of grocery stores w/o power	Food, Hydration & Shelter: All survivors, their pets, and service animals have access to food, water, and sanitation. Sheltering, including cellular reception, capacity, accessibility, and wrap-around services, is supporting the displaced population. Sufficient resources are in place to sustain agricultural requirements.	Food, Hydration & Shelter <ul style="list-style-type: none"> Sheltering Operations (In Progress) Temporary Housing [Repair, Rental Assistance, Direct Housing] (Anticipated)
Health & Medical: # of total injuries/fatalities #/% of total hospital beds function on H+1 # of medical facilities with at least moderate damage	Health & Medical: All survivors, their pets, and service animals have access to required medical and veterinary care. Emergency medical systems are capable of managing patient movement requirement. Public health services are accessible to all survivors. Sufficient temporary fatality management support is in place to meet processing demand. Medical supply chain capable of adequately resupplying medical care providers.	Health & Medical <ul style="list-style-type: none"> Temporary Emergency Power (In Progress) Healthcare Systems Support (In Progress)
Energy (Power & Fuel): # of households w/o power on H+1 # of natural gas pipelines leaks/breaks #/% of gas stations w/o power or out of fuel # of critical facilities w/o power # of fuel (gallons) needed for generators through H+7	Energy (Power & Fuel): Generators are providing temporary emergency power at critical facilities necessary to stabilize other lifelines. Fuel distribution is available for responders. Sufficient fuel distribution is available for survivors, including to support individuals dependent on power for life-sustaining medical care.	Energy (Power & Fuel) <ul style="list-style-type: none"> Temporary Emergency Power (In Progress)
Communications: # of facilities with at least moderate damage # of banks/ATMs inoperable	Communications: Survivors have access to commercial communications infrastructure to contact or be contacted by emergency services. LMR communications network is operational. PSAPs are available to the public. Survivors have access to financial services.	Communications <ul style="list-style-type: none"> Emergency Repairs and Augmentations to Infrastructure [Comms] (Anticipated) Temporary Emergency Power (In Progress)
Transportation: # of highway bridges with at least moderate damage # of railway bridges with at least moderate damage # of airport runways with at least moderate damage # of port facilities with at least moderate damage	Transportation: Multimodal routes (air, rail, road, port) are clear of debris and accessible by normal or alternate means.	Transportation <ul style="list-style-type: none"> Emergency Repairs and Augmentations to Infrastructure [Port] (Anticipated) Debris Management [Road, Port] (Anticipated)
Hazardous Materials: # of oil systems facilities with at least moderate damage # of total debris (tons) # of hazardous materials facilities damaged # of derelict vessels	Hazardous Materials: All contaminated areas are identified and secure.	Hazardous Materials <ul style="list-style-type: none"> Debris Management [Sunken, Derelict & Displaced Vessels] (Anticipated) Hazardous Waste (Anticipated)
Water Systems: # of households w/o potable water on H+1 #/% of water systems with at least moderate damage # of wastewater leaks/breaks	Water Systems: Survivors have access to temporary or permanent potable water infrastructure providing drinking water and wastewater management services. Sufficient resources are in place to support the temporary or permanent delivery of baseline water systems services.	Water Systems: <ul style="list-style-type: none"> Emergency Repairs and Augmentations to Infrastructure [Water] (Anticipated)

Crisis Action Planning - Operational

Operational Level of Planning



When is an LOE Operational Plan Necessary?

- Currently available resources are insufficient.
- Unconventional resource delivery sequencing is necessary due to location or environmental restriction.
- Lifeline interdependencies are preventing stabilization.
- Atypical resource types or capabilities are required to stabilize a lifeline.
- Exceptionally high duration of instability.
- Timeframe to achieve either lifeline stabilization or Recovery Outcome is unnaturally shortened due to external pressures.

Line of Effort Operational Plan

Some LOEs may have complexities that require **atypical solution sets**. These solution sets should be generated through the **Crisis Action Planning Process** and should result in an **LOE Operational Plan**. This Plan develops details of the tasks to achieve the intermediate objectives, the resources required, and identifies and mitigates risks that may inhibit achieving the objectives due to a lack of resources or other non-resource limiting factors.

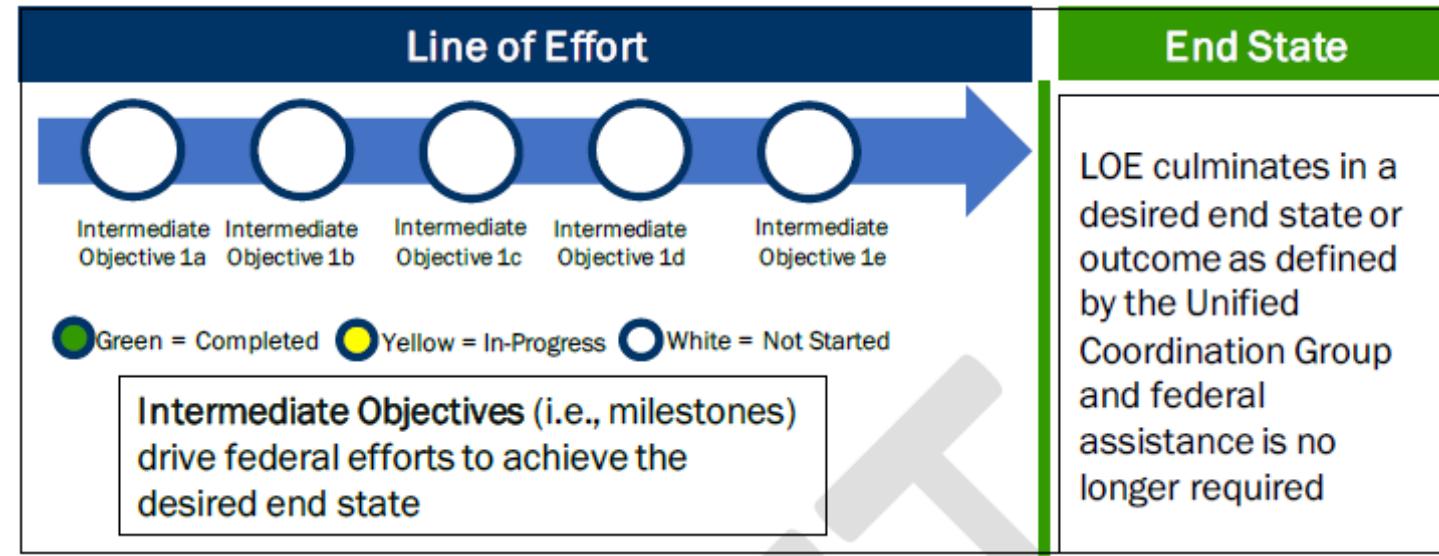
Defining Lines of Effort

LOEs are the specific mission-sets required to stabilize the lifelines and address community impact. For FEMA Operations, LOEs are activities that a state, tribe, or territory can ask FEMA and the interagency to manage to address the consequences of an incident.

- LOEs are the operationalization of core capabilities (the ways) for response and recovery planning and operations. Core Capabilities are the general competencies required during response used to conduct a preparedness assessment. Lifelines identify critical infrastructure that may be impacted by an incident, whereas LOEs address solutions to resolve lifeline instability and address impacts.
- Planning for the delivery of each LOE allows the development of strategy across all required ESFs to mobilize, employ, and demobilize resources applicable to that mission, including the identification of key intermediate objectives or milestones in the execution of that mission.
- LOEs are intended to jump-start crisis action (adaptive) planning. LOEs help incident personnel at all levels to visualize how federal interagency capabilities can support lifeline stabilization by clearly articulating and communicating the strategy to meet federal assistance requests.
- Functional LOEs are focused on addressing end states which address impacts to lifeline infrastructure.
 - Note: Each Function may address more than one lifeline

Lines of Effort

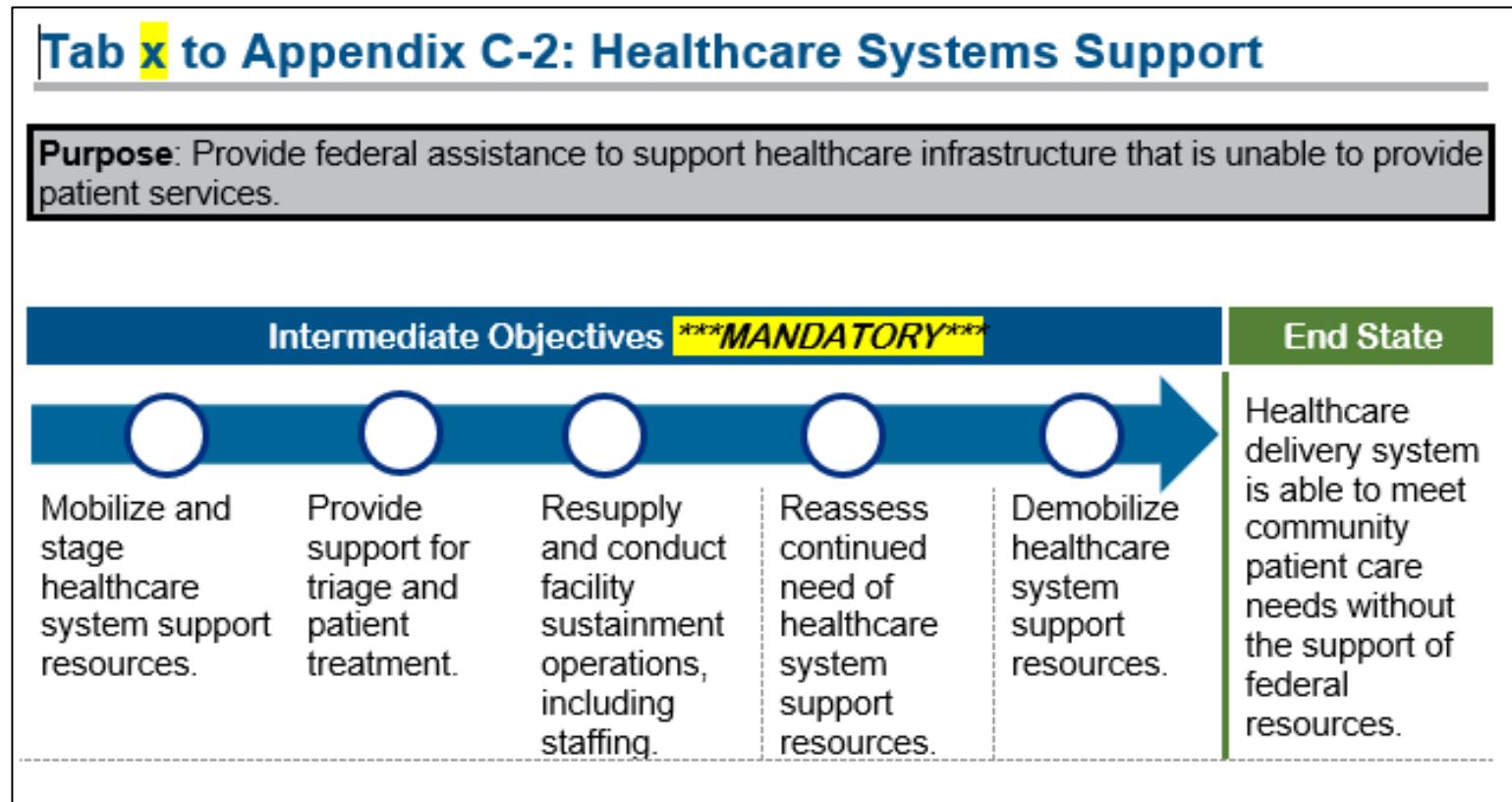
17 standard LOEs below have been agreed upon by all ten FEMA regions to be included in their All Hazards Plans currently being updated. Additional LOEs may be used or created based on region or incident.



- Damage Assessment
- Debris Management
- Emergency Repairs or Augmentation to Infrastructure
- Evacuation, Reception, Re-entry, and Return
- Fatality Management
- Hazardous Waste
- Healthcare Systems Support
- Medical Transportation
- Natural and Cultural Resource Protection & Restoration
- Private Sector Coordination
- Public Information and Warning
- Responder Security and Protection
- Restoration of Public Infrastructure
- Search and Rescue
- Sheltering Operations
- Temporary Emergency Power
- Temporary Housing (Repair, Rental Assistance, Direct Housing)

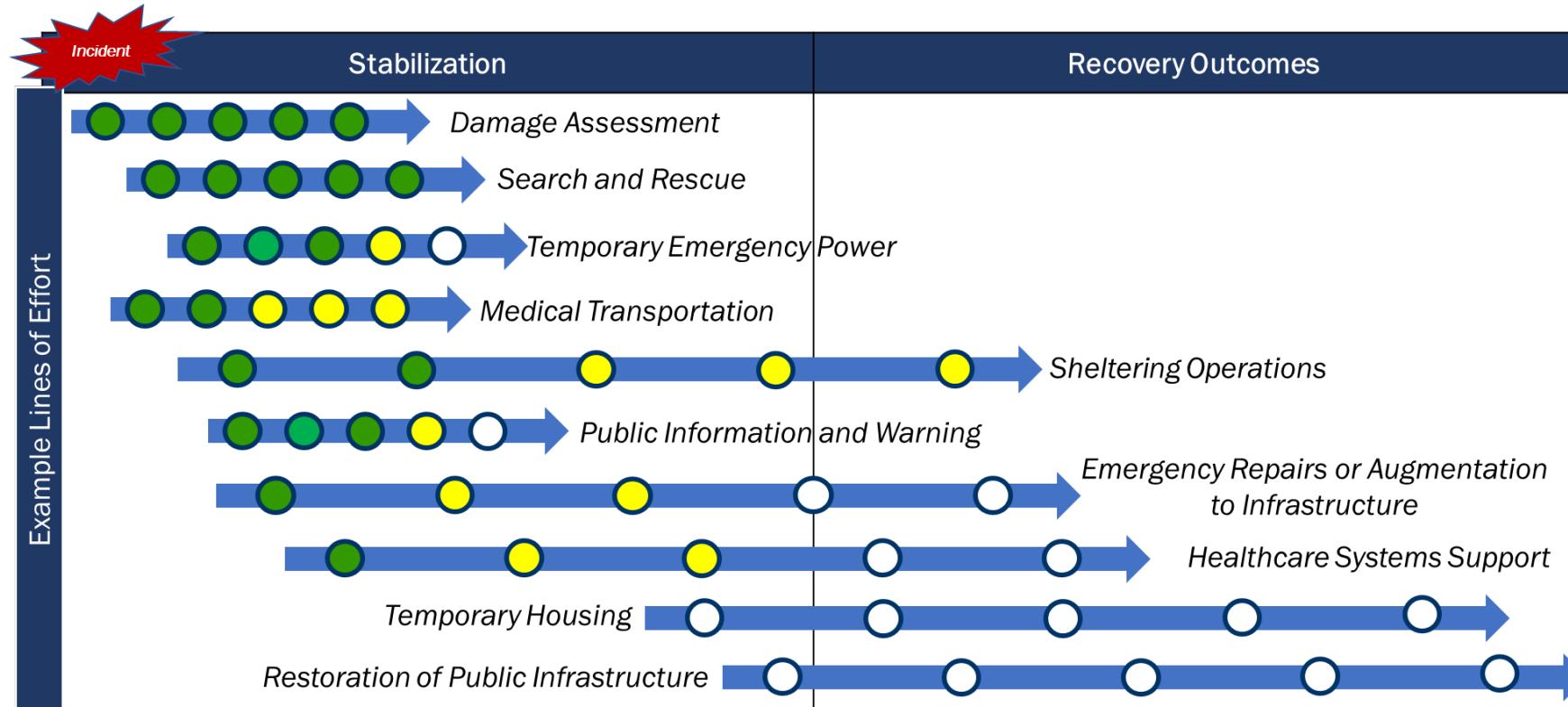
Example: Healthcare Systems Support LOE

LOE Dissection



Phasing

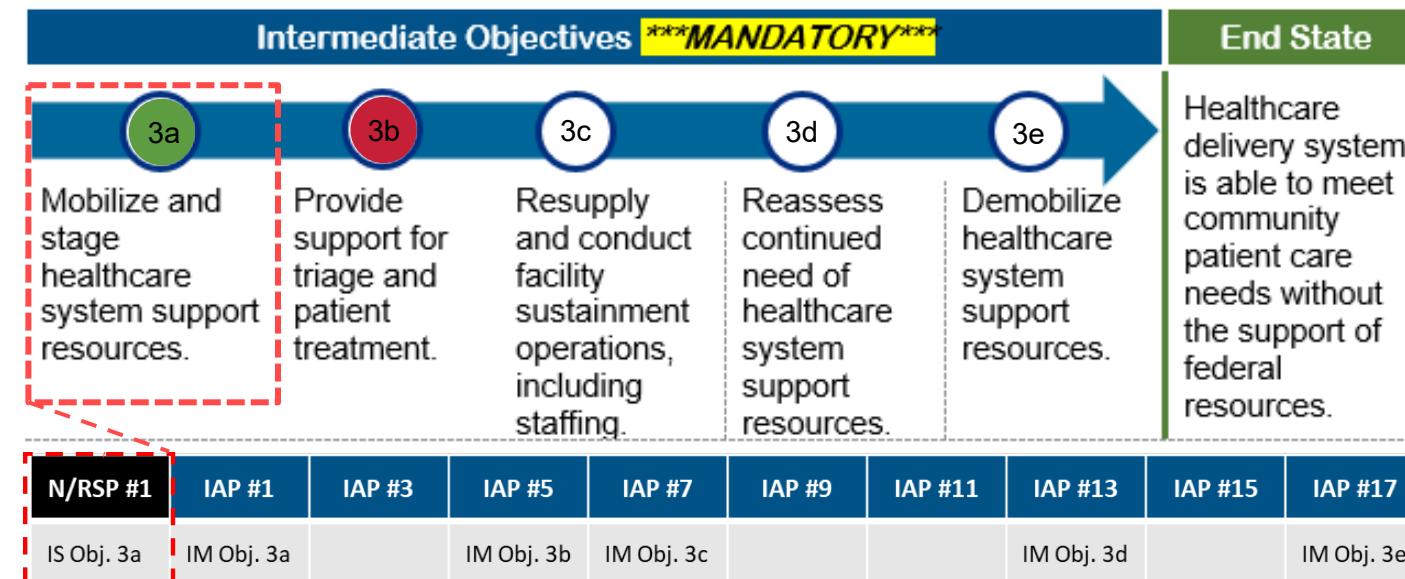
Example LOEs Across Outcome-Focused Phases



Phasing lays out the focus of the execution of LOEs in a logical sequence to break the operation into manageable parts. LOEs are initiated and conclude at different times in a disaster. It is important to recognize that phase culmination is often reached at different times in different geographic areas across a single incident.

Crisis Action Planning – National/Regional Support Plan (N/RSP)

LOEs and the N/RSP

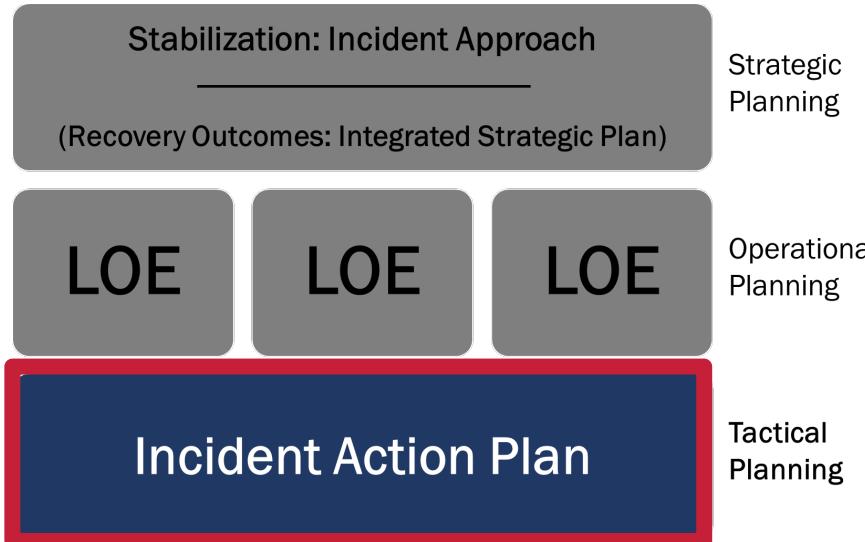


Incident Support Objectives

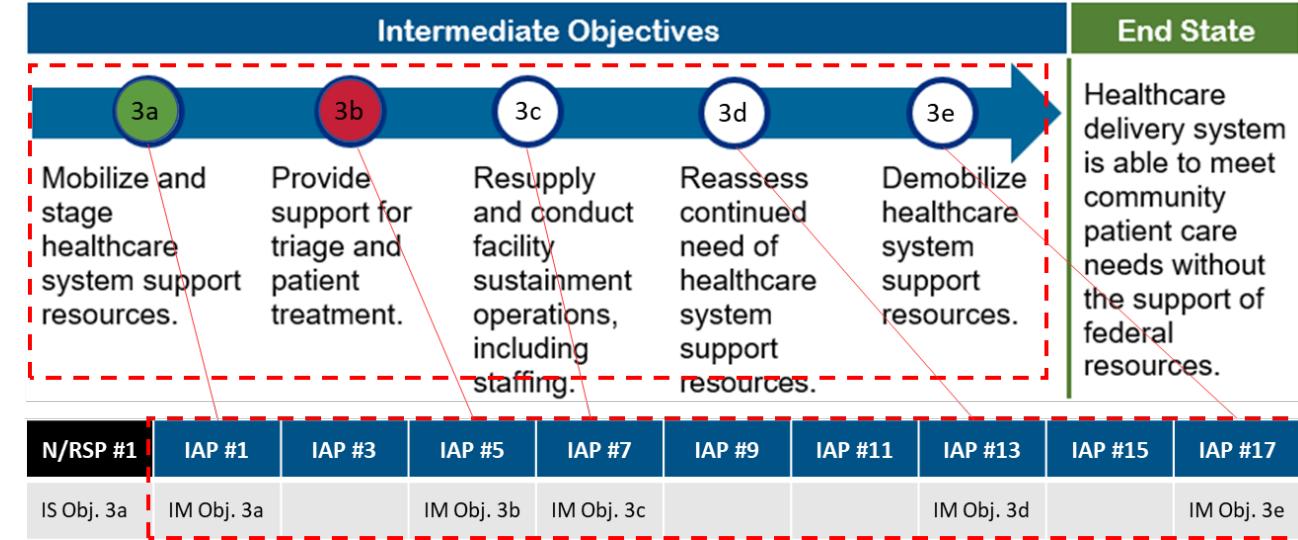
The N/RSP utilize objectives and associated tasks to drive federal support actions either prior to an event (notice) or immediate post event (no-notice). Objectives in an N/RSP generally involve the ordering, activating, staging, and outfitting of resources for further employment at the incident management (IM) level. Many, if not all, objectives in an N/RSP can serve as the starting point for LOEs as defined in deliberate planning. Due to the limited scope of RRCC and National Response Coordination Center (NRCC) tactical control during initial response, most, if not all, LOEs will be in an early stage of execution upon transfer to IM.

Crisis Action Planning - Tactical

Tactical Level of Planning



Example Line of Effort

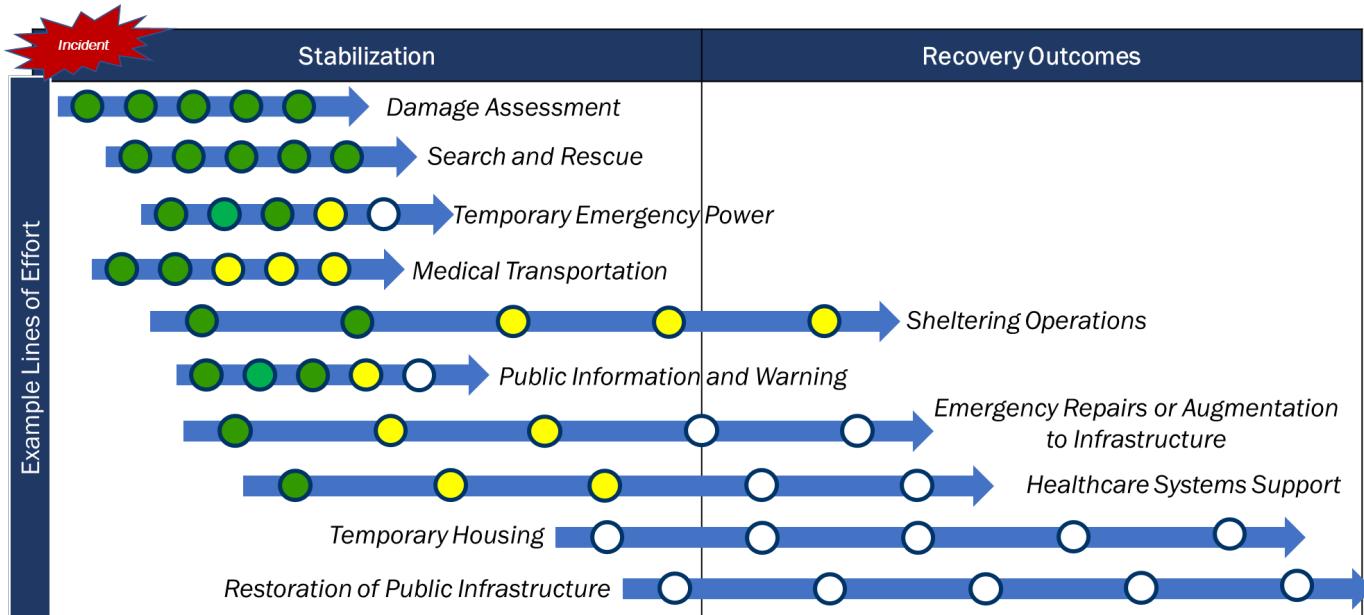


LOEs and the Incident Action Plan Objectives on the ICS Form 202

Incident objectives are developed and anticipated for each LOE as points across the continuum from the current state to the end-state for the federal assistance mission. Within a few operational periods, as planning is matured, incident leadership can anticipate the sequence of incident objectives across the LOE. Similarly, through evaluation of performance and effectiveness of the LOE, incident leadership can anticipate when incident objectives will be achieved, and transition to the next incident objective across the LOE.

IAP Incident Objectives

Transitioning Line of Effort Intermediate Objectives into Incident Objectives



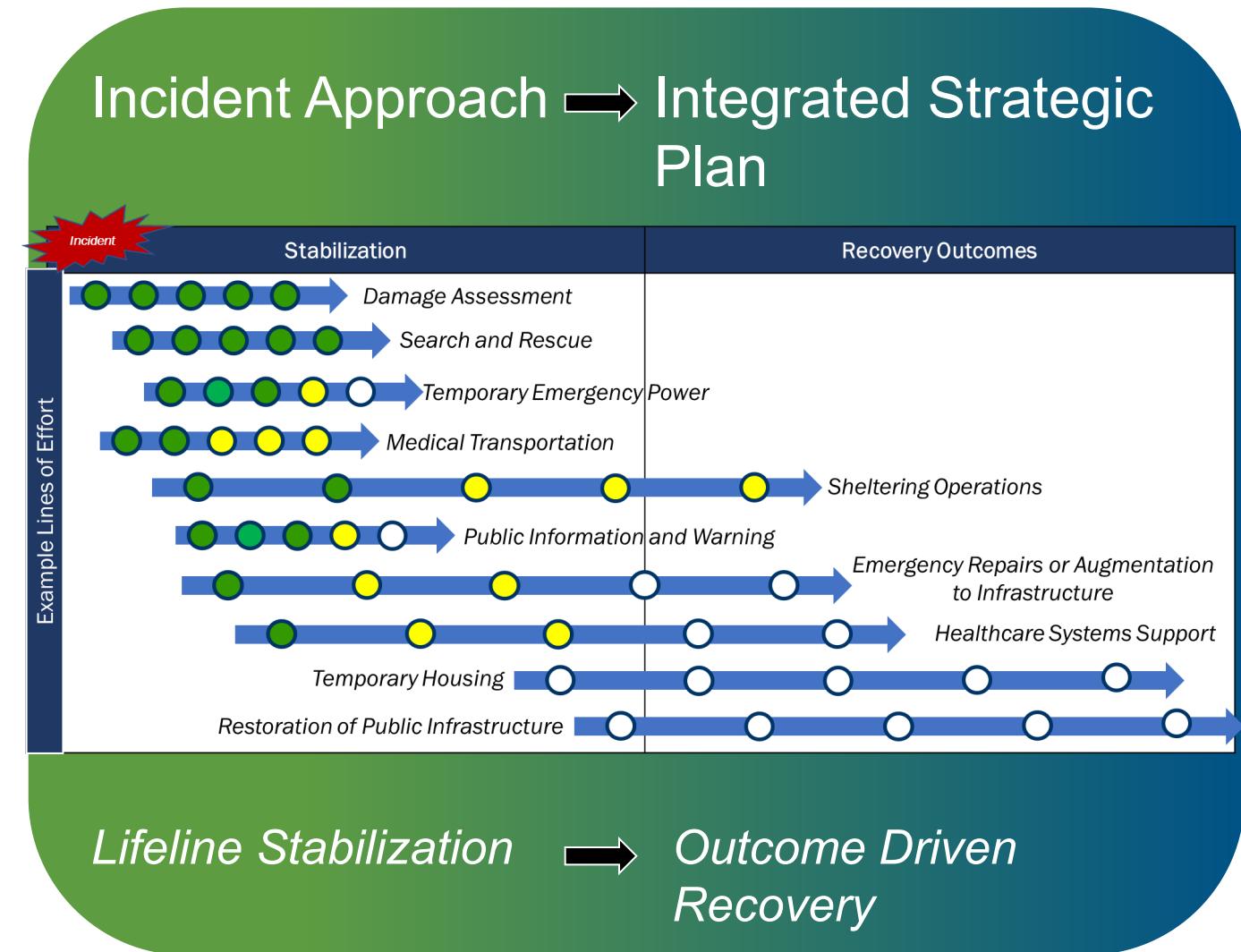
Incident Objectives

- 1e: Damage Assessment LOE Complete
- 2e: S&R LOE Complete
- 3d: De-install Generators
- 4c: Deliver State Commodity Requests
- 5c: Shelter Consolidation & Transition
- 6d: Sustain Fuel Distribution
- 7b: Conduct Emergency Repairs to Infrastructure
- 8b: Conduct Prioritized Temporary Critical Public Facilities Build-Out
- 9a: Approve Direct Housing Program
- 10a: Process Requests for Public Assistance

IAP objectives can be developed based on the current intermediate objective for each active LOE.

Transition to Integrated Strategic Planning

- Once lifelines begin to stabilize, and incident personnel can anticipate operations beyond stabilization, the IM Planning Section initiates the development of the Integrated Strategic Plan (ISP).
- The Incident Approach informs the ISP, and once the first ISP is published, the Incident Approach is sunset.
- While many LOEs developed in the Incident Approach will culminate relatively early in the lifecycle of the incident, several LOEs developed in the Incident Approach will transition to longer-term operations and be included in the ISP.



Recovery Outcomes

Recovery Outcomes by Recovery Support Function

Recovery Support Function	Recovery Outcome
Community Planning and Capacity Building	Resilient recovery of SLTT communities
Economic	Sustainable, diversified and resilient economy
Health and Social Services	Sustainable and resilient health, education, and social services systems
Housing	Adequate, resilient, and affordable housing
Infrastructure Systems	Restored, modernized, hardened, and resilient systems
Natural and Cultural Resources	Restored, preserved, risk-resistant, and resilient systems

These are the *National-level outcomes* as approved by Recovery Support Function Leadership Group (RSFLG) Undersecretaries, which SLTTs can use as a reference point for tailoring their own *recovery outcomes*.

When stabilization of community lifelines are achieved, the **focus of the mission shifts** to achieving **Recovery Outcomes**. The **Outcome Driven Recovery** model drives an approach that emphasizes **long-term resilient solutions** across all lifelines and other aspects of a community. To the greatest extent possible, recovery operations will utilize similar reporting templates contained in this toolkit but modified to reflect recovery outcomes by RSF rather than stabilization targets by lifelines.

Section IV: Icons and Templates

Templates

- Templates can assist in lifeline implementation during incident response.
- Each emergency management office may adapt these templates to fit their specific requirements.
- Current templates within toolkit 2.1 include the following:
 - Lifeline Card Template
 - Tier I, Tier II, and Tier III Reporting Templates
 - Incident Approach Template

All files can be found in the companion folder “Lifeline Templates” included with this toolkit.

Guidance for Using Lifeline Icons

- Lifeline icons should be used consistently and appropriately when added to any incident response products
- Icons should be colored blue when representing the state pre-incident and/or when no incident status is indicated
- All other colors are defined in **Section I** with exact color values shown below

Name	RGB Value*	Shading
Grey	RGB 145-147-149	
Red	RGB 197-32-56	
Yellow	RGB 251-186-22	
Green	RGB 94-156-66	
Blue	RGB 1-82-135	

*RGB – Red, Green, Blue

Editing Lifeline Icons

- The community lifelines graphic tool provides an easy method for quickly adjusting the colors for all lifeline icons.
- Follow the instructions included in the tool to assign colors and then copy over the icons to other products as necessary.

Community Lifelines Graphic Tool

- Use the drop down menus to select the appropriate color for each lifeline
- Use the Snipping Tool to capture an image of the lifeline graphic - The black tick marks will ensure your graphic is the correct size
- Copy and Paste your lifeline graphic into your product
- Share the lifeline graphic by saving the image as a .png

FEMA
RESPONSE DIRECTORATE

Incident Area 1	Select	Safety and Security	Food, Hydration, Shelter	Health and Medical	Water Systems	Energy (Power & Fuel)	Communications	Transportation	Hazardous Materials
1 Safety & Security	Green								
2 Food Hydration & Shelter	Green								
3 Health & Medical	Green								
4 Water Systems	Green								
5 Energy (Power & Fuel)	Green								
6 Communications	Green								
7 Transportation	Green								
8 Hazardous Material	Green								
Incident Area 2	Select								
1 Safety & Security	Green								
2 Food Hydration & Shelter	Green								
3 Health & Medical	Green								
4 Water Systems	Green								
5 Energy (Power & Fuel)	Green								
6 Communications	Green								
7 Transportation	Green								
8 Hazardous Material	Green								
Incident Area 3	Select								
1 Safety & Security	Green								
2 Food Hydration & Shelter	Green								
3 Health & Medical	Green								
4 Water Systems	Green								
5 Energy (Power & Fuel)	Green								
6 Communications	Green								
7 Transportation	Green								
8 Hazardous Material	Green								
Incident Area 4	Select								
1 Safety & Security	Green								
2 Food Hydration & Shelter	Green								
3 Health & Medical	Green								
4 Water Systems	Green								
5 Energy (Power & Fuel)	Green								
6 Communications	Green								
7 Transportation	Green								
8 Hazardous Material	Green								
Incident Area 5	Select								
1 Safety & Security	Green								
2 Food Hydration & Shelter	Green								
3 Health & Medical	Green								
4 Water Systems	Green								
5 Energy (Power & Fuel)	Green								
6 Communications	Green								
7 Transportation	Green								
8 Hazardous Material	Green								
Incident Area 6	Select								
1 Safety & Security	Green								
2 Food Hydration & Shelter	Green								
3 Health & Medical	Green								
4 Water Systems	Green								
5 Energy (Power & Fuel)	Green								
6 Communications	Green								
7 Transportation	Green								
8 Hazardous Material	Green								

Icon Library (1 of 2)



Safety and Security



Food, Hydration, Shelter



Health and Medical



Water Systems



Energy (Power & Fuel)



Communications



Transportation



Hazardous Materials



Safety and Security



Food, Hydration, Shelter



Health and Medical



Water Systems



Energy (Power & Fuel)



Communications



Transportation



Hazardous Materials



Safety and Security



Food, Hydration, Shelter



Health and Medical



Water Systems



Energy (Power & Fuel)



Communications



Transportation



Hazardous Materials

Icon Library (2 of 2)



Safety and Security



Food, Hydration,
Shelter



Health and
Medical



Water
Systems



Energy
(Power & Fuel)



Communications



Transportation



Hazardous
Materials



Safety and
Security



Food, Hydration,
Shelter



Health and
Medical



Water
Systems



Energy
(Power & Fuel)



Communications



Transportation



Hazardous
Materials

Your Feedback Matters!

Please send questions, comments, or feedback to
Lifelines@fema.dhs.gov

Thank you!



FEMA