



# Continuity of Operations (COOP) Planning / Technology Recovery Planning (TRP)

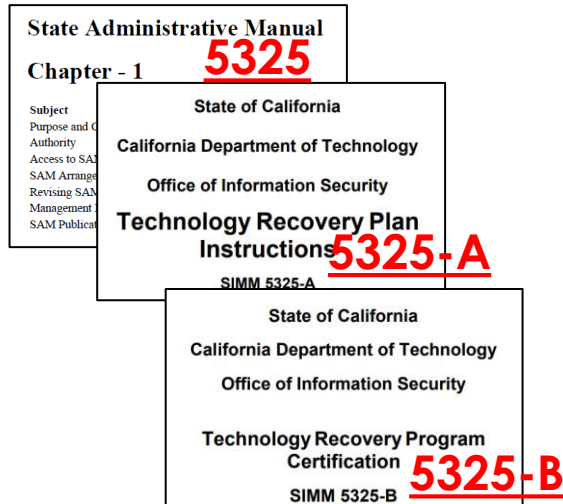
Presented by: Jeff Newman



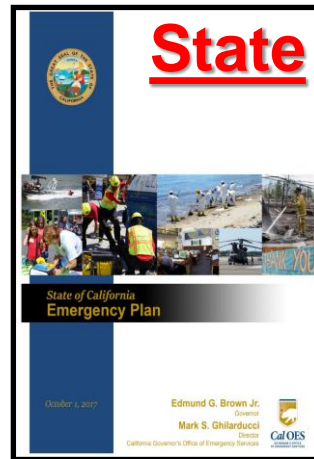
## California Emergency Services Association 2023 Annual Training & Conference

### References

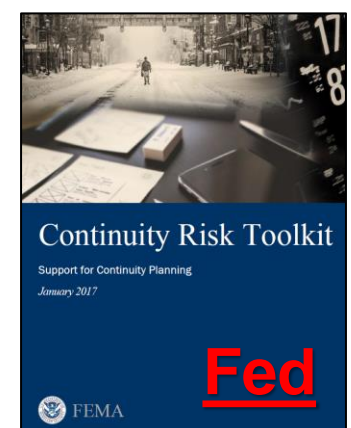
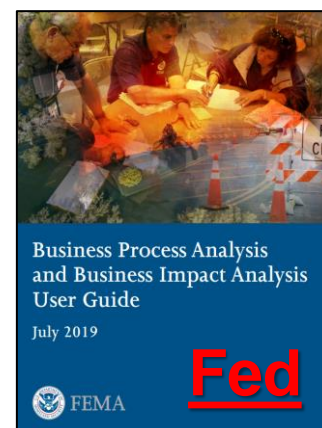
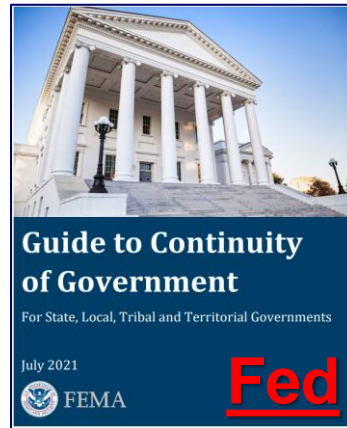
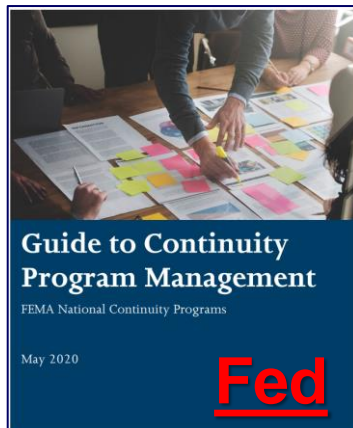
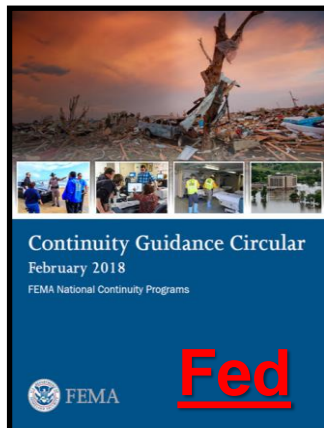
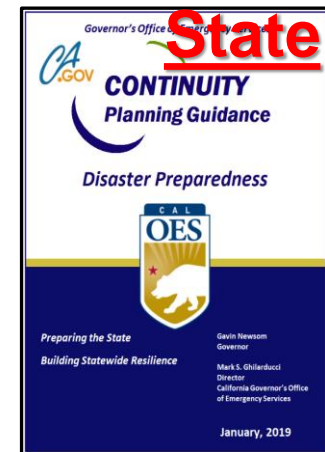
#### State Administrative Manual (S.A.M.)



#### “State Emergency Plan (SEP)”



#### “Cal OES Continuity Guidance”





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## Agenda

Time	Topic
8:30	<b>Continuity of Operations (COOP) / Technology Recovery Planning (TRP)</b>
	<b>COOP 101: 8-Steps to COOP Planning</b>
	Step 1: Initiate/Continue the Continuity Planning Process
	Step 2: Identify Essential Functions
	Step 3: Conduct Business Process Analysis (BPA) & Risk Analysis
	Step 4: Conduct Business Impact Analysis (BIA)
	Step 5: Identify Mitigation Strategies
	Step 6: Identify Key Planning Elements
	Step 7: Develop and Implement Plan and Annexes
	Step 8: Distribute, Maintain, and Update the Plan
9:15	<b>Introduction to Technology Recovery Planning</b>
	TRP: State Administrative Manual (SAM) 5325
	TRP: SIMM 5325-A
	TRP: SIMM 5325-B
9:30	<b>Q&amp;A / Conclusion</b>
9:45	<b>Adjourn</b>



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## COOP 101: Continuity of Operations (COOP) Planning



***“...see how far  
organizational continuity  
planning goes”***

***“...status quo, applying  
COOP-plan updates without  
stakeholder involvement”***



## COOP 101: Resiliency

### ❑ **Organizational Resiliency:**

- Recognizing key continuity **roles** and **responsibilities** within an organization and integrating **scalable**, **flexible**, and **adaptable** continuity programs to perform essential functions.
- Relationships with other departments, other plans.

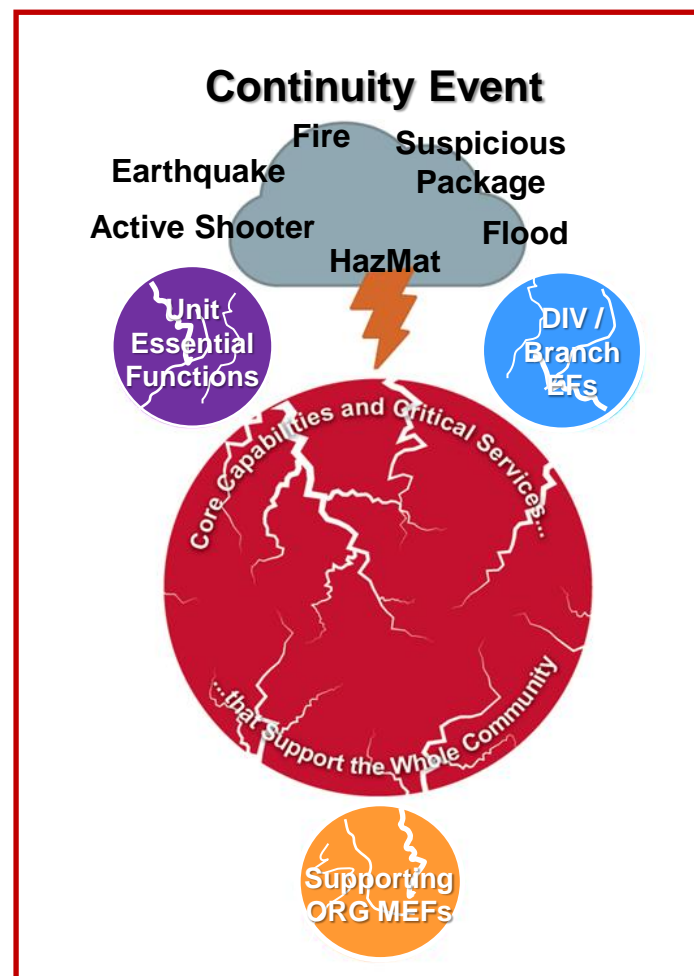
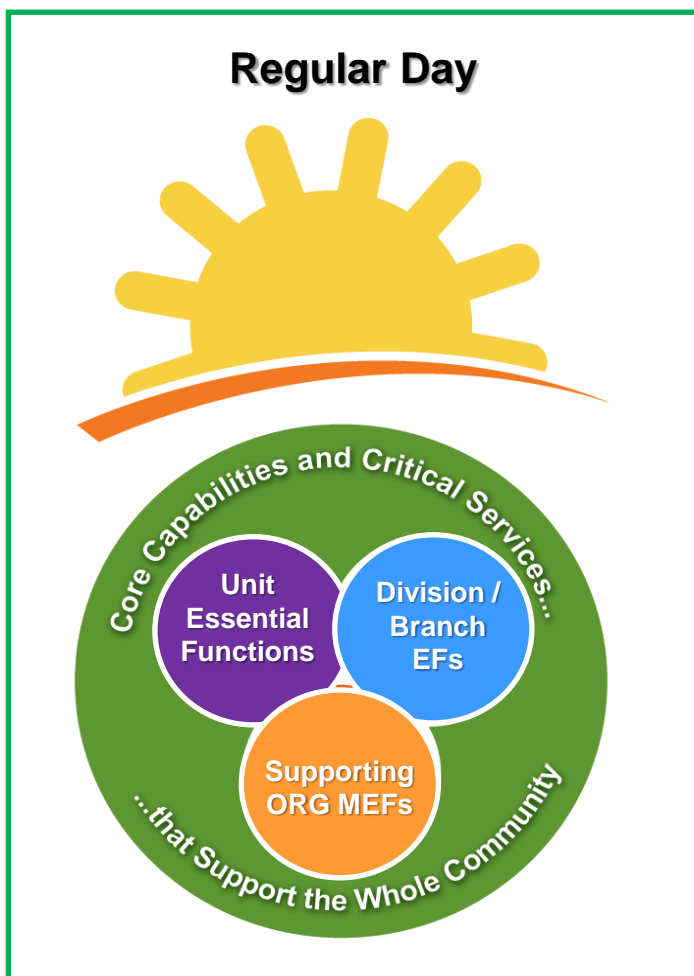
### ❑ **End-State**

- Performance of essential function (under any condition).





# COOP 101: Continuity of Operations (COOP) Defined





## **COOP 101: 11 Elements of Viable Continuity Capability**

- 1) Program Management
- 2) Essential Functions
- 3) Order of Succession
- 4) Delegation of Authority
- 5) Continuity Facilities
- 6) Continuity Communications
- 7) Essential Records Management
- 8) Human Resources
- 9) Devolution of Control and Direction
- 10) Reconstitution
- 11) Test, Training, and Exercises (TT&E)



## COOP 101: Continuity Phases

Phase 1  
Readiness & Preparedness



0-12 hours

Phase II  
Alert/Notification/Activation

Phase III  
Continuity Operations

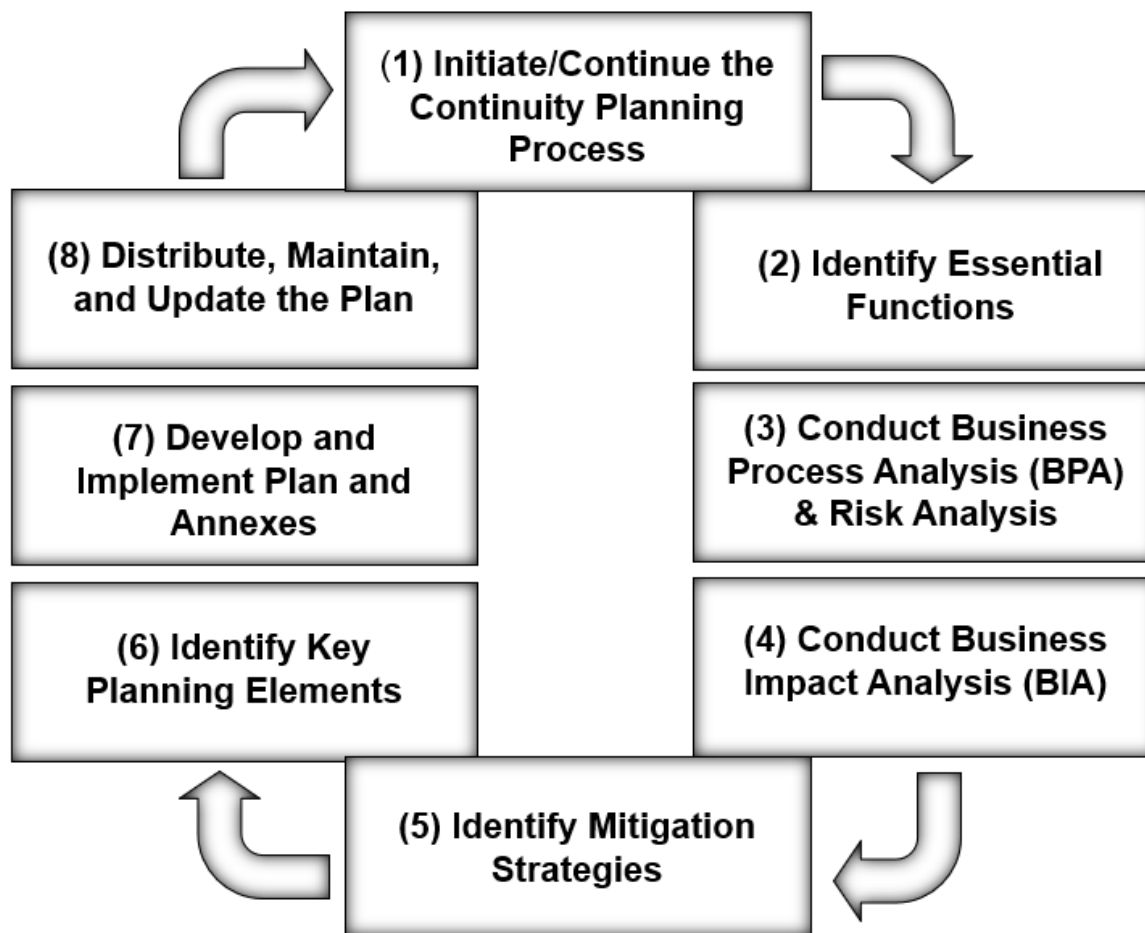
Phase IV  
Reconstitution

- ☐ Includes all organization **continuity readiness and preparedness activities** including development & revision of plans and Test, Training & Exercise (TT&E) Activities.
- ☐ **Leadership meets** to determine whether to activate the Agency's Continuity Plan...notifies **ERG** for possible activation.
- ☐ Includes those activities to **continue Organization Mission Essential Functions** (MEF).
- ☐ Leadership communicates instructions for **resumption to normal operations** to all staff.





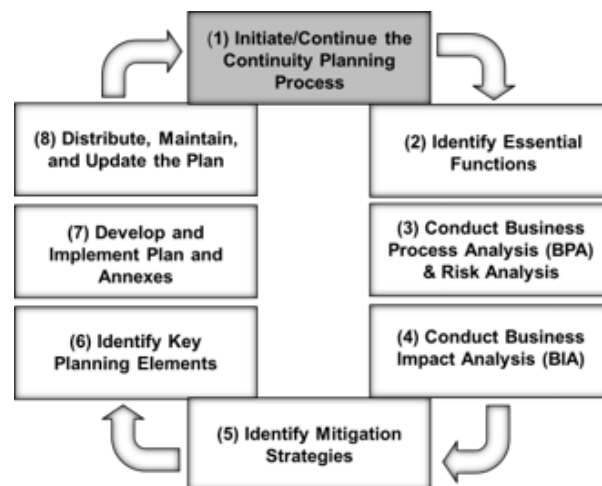
## COOP 101: Continuity Planning Process





## COOP 101: **Step 1**, Initiate / Continue Planning Process

- ☐ Become knowledgeable with the current program.
- ☐ Identify guidance, requirements, or mandates.
- ☐ Establish a continuity planning team.
- ☐ Identify continuity program planning roles and responsibilities.
- ☐ Develop a project plan, timelines, and milestones.
- ☐ Identify potential partnerships.
- ☐ Identify other inter- and intra-organizational continuity plans and programs





## COOP 101: **Step 1**, Initiate / Continue Planning Process

- ❑ Become knowledgeable with the current program.

## FEMA Continuity **Program Assessment** Tool ([CAT](#)) – 66 Questions

Label	No Progress	Limited Progress			Moderate Progress			Substantial Progress			Objective Achieved
Explanation	Score of 0 indicates that, while this aspect of the continuity capability may be applicable to the organization, no progress has been made towards achieving the identified objective. This may be because there has been no activity in this area or because of insurmountable barriers.	<ul style="list-style-type: none"><li>• Preliminary efforts have been initiated.</li><li>• Needs related to this objective have been recognized and the organization is beginning to identify requirements in this area.</li><li>• Few, if any, steps have been implemented successfully so far.</li></ul>			<ul style="list-style-type: none"><li>• Significant efforts are under way but the objective has not yet been fulfilled.</li><li>• Important gaps remain.</li><li>• Challenges that could potentially undermine achievement exist and have not yet been resolved.</li></ul>			<ul style="list-style-type: none"><li>• Efforts to achieve this objective are established and stable.</li><li>• Some weaknesses or barriers that prevent success persist, but strategies to resolve them are documented and well under way.</li></ul>			Score of 10 indicates that the organization has fully achieved this objective with regard to its continuity capability. All barriers to success have been overcome. Strengths are robust and likely to be sustained. Evidence is readily available attesting to this level of achievement.
Scale Value	0	1	2	3	4	5	6	7	8	9	10

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Overview

Initiating

Building

Maintaining

Summary

+

POETE ELEMENTS	Initiating	Building	Maintaining	AVERAGE
Planning	7.8	5.9	4.6	6.1
Organization	6.5	6.0	3.3	5.3
Equipment	2.0	6.7	1.0	3.2
Training	4.0	6.7	3.5	4.7
Exercise	4.0	4.6	2.6	3.7

## Annual **Plan** **Evaluation** – 58 Questions



### ATTACHEMENT 3 – Continuity Plan Evaluation Checklist

Agency/Department Name: \_\_\_\_\_

**Instructions:** This evaluation checklist should be used to determine whether all the continuity program elements are addressed in the departmental Continuity Plan (or other related planning documents). Review the planning elements on the left and record in the right column the plan name (if content is addressed in another plan), date of plan, and page references for where the information can be found. The Secretary and/or Director and Continuity Planning Coordinator will then certify with their signatures at the end of the checklist that the organization has completed an evaluation of their Continuity Plan and documented its status as it relates to the requirements of the program.

Planning Element	Yes – Element is Addressed in Plan	No – Element Not Completely Addressed in Plan	Corrective Actions (If Answered No) – Strategy for Addressing Planning Gaps
<b>Program Plans and Procedures (Program Management)</b> [Capability Description: An effective continuity program is implemented through its related continuity plans and procedures and an operational capability to support those plans and procedures. Continuity planning is an effort to document the existence of and ensure the capability to continue essential functions during a wide range of potential emergencies.] Reference: EMAP Standards 4.4	[Reference page number and name of plan where the info can be found]		
1. Procedures for employee advisories, alerts and Continuity Plan activation are included. Comments: _____			
2. Provisions for personnel accountability throughout the duration of the emergency are included. Comments: _____			



# COOP 101: **Step 1**, Establishing a Continuity Planning Team

## VISION



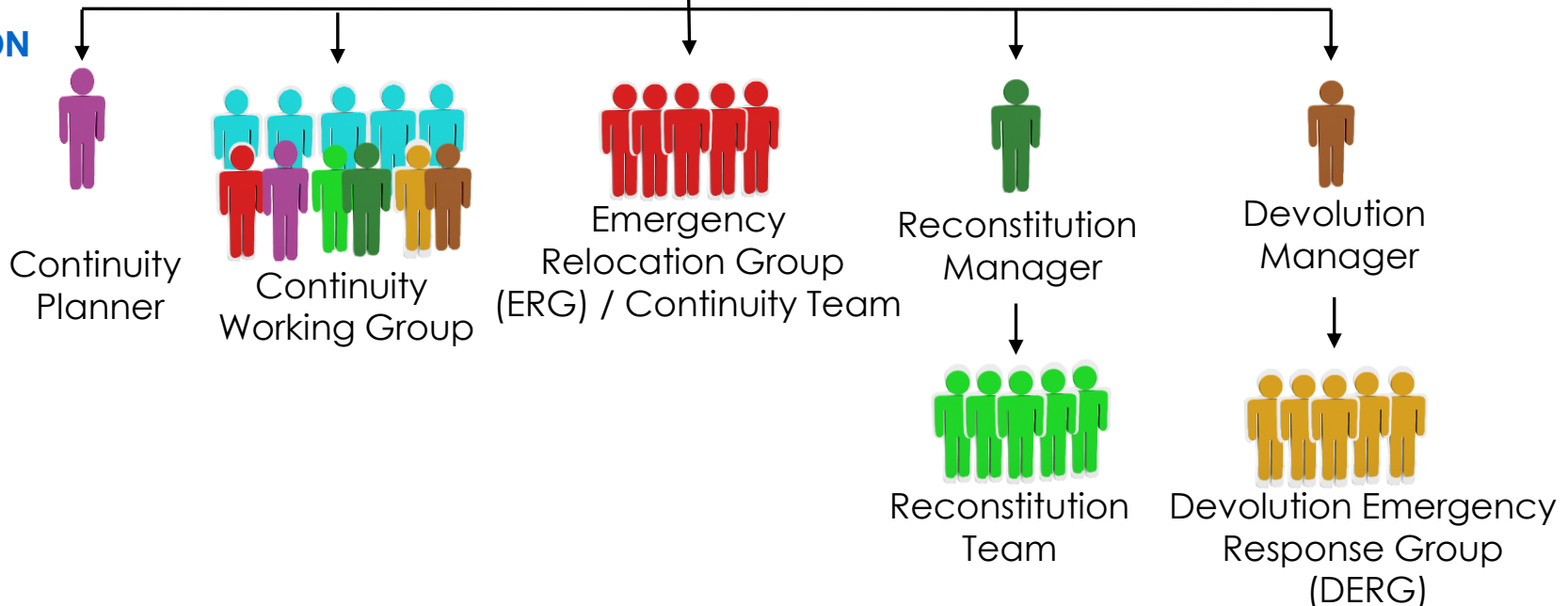
Continuity Coordinator

## GOALS AND OBJECTIVES



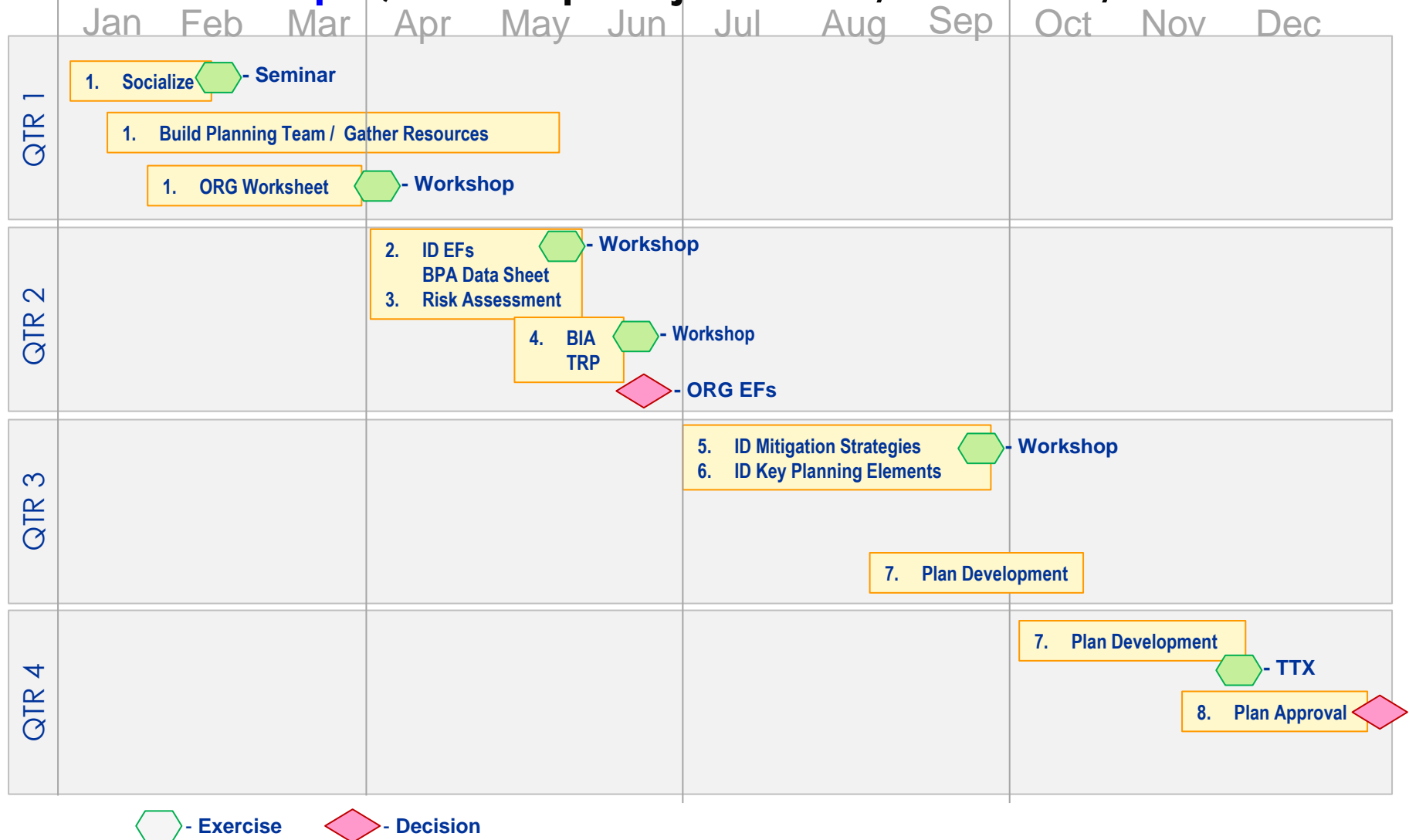
Continuity Program Manager

## EXECUTION





# COOP 101: **Step 1**, Develop Project Plan / Timeline / Milestones

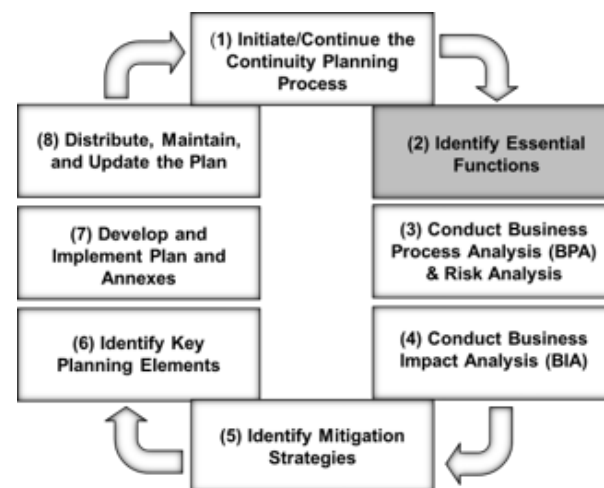






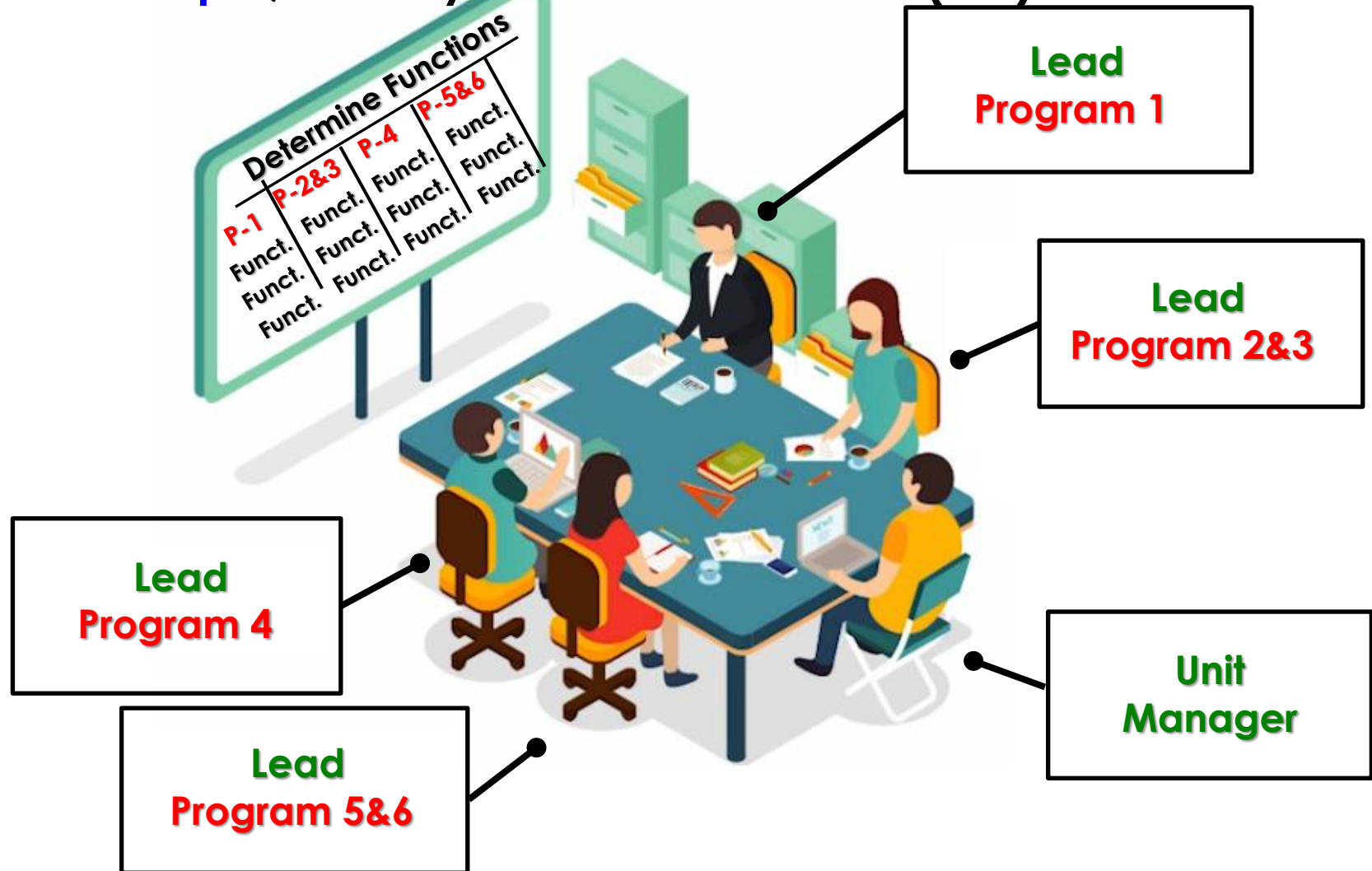
## COOP 101: **Step 2**, Identify Essential Functions (EFs)

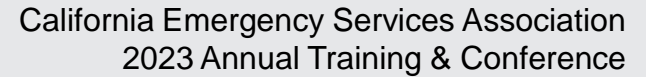
- ❑ Functions that support the mission of the organization are Mission Essential Functions (**MEFs**)
- ❑ Essential Functions (**EFs**) are:
  - Critical Activities
  - Urgent / Important / Cannot be delayed
  - Something no one else does
- ❑ Essential Supporting Activities (**ESAs**), facilitating activities enable performance of MEFs or EFs
  - 1) Protecting and Preserving Resources
  - 2) Reconstituting an organization's normal operations





## COOP 101: **Step 2**, Identify Essential Functions (EFs)



[illegible]

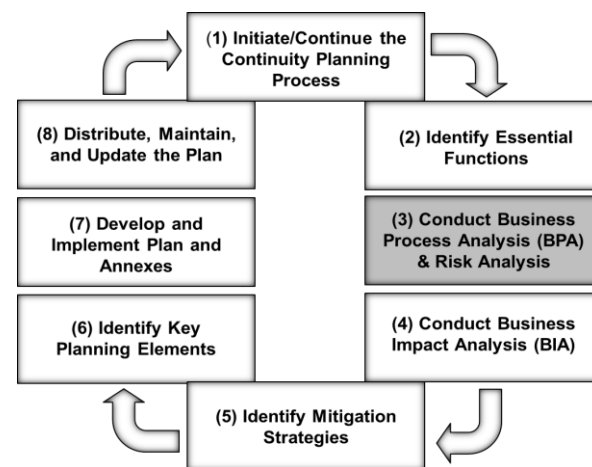


## COOP 101: **Step 2**, Identify Essential Functions (EFs)

Program:		Response Operations\Fire and Rescue (F&R) \Special Operations				
Unit Function(s)	Requirement to Perform Function	Products or Services of Function	A: <12h B: <72h C: <30d	Essential Function (MEF # or X)	Essential Supporting Activity (x)	Non-Essential (x)
<ul style="list-style-type: none"> <li>Maintain Order of Succession / Delegation of Authority</li> </ul>	<ul style="list-style-type: none"> <li>Organization Policy</li> </ul>	<ul style="list-style-type: none"> <li>Ensures ready access to organizational leadership to continue mission essential functions</li> </ul>	<b>A</b>	<b>4,5,6,7,9</b>		
<ul style="list-style-type: none"> <li>Monitor and track statewide emergency fire and rescue response activities</li> </ul>	<ul style="list-style-type: none"> <li>Cal OES Policy Letter 4.2</li> </ul>	<ul style="list-style-type: none"> <li>Collect, assess, and analyze fire weather data, atmospheric conditions, and other threat indicators that could lead to catastrophic wildfire</li> </ul>	<b>A</b>	<b>6</b>		
<ul style="list-style-type: none"> <li>Ability to access, statewide emergency fire and rescue equipment tracking</li> </ul>	<ul style="list-style-type: none"> <li>Cal OES COOP plan Section 2</li> </ul>	<ul style="list-style-type: none"> <li>Supports the unit function "monitor and track" statewide emergency fire and response activities</li> </ul>	<b>A</b>	<b>6</b>	<b>X</b>	
<ul style="list-style-type: none"> <li>Direct disaster response allocations and recovery operations</li> </ul>	<ul style="list-style-type: none"> <li>Cal Emergency Services Act Article 5, §8585(e)</li> </ul>	<ul style="list-style-type: none"> <li>Communicate response and allocation priorities of critical fire and rescue resources</li> </ul>	<b>A</b>	<b>6</b>		

## COOP 101: **Step 3**, Conduct a Business Process Analysis (BPA)

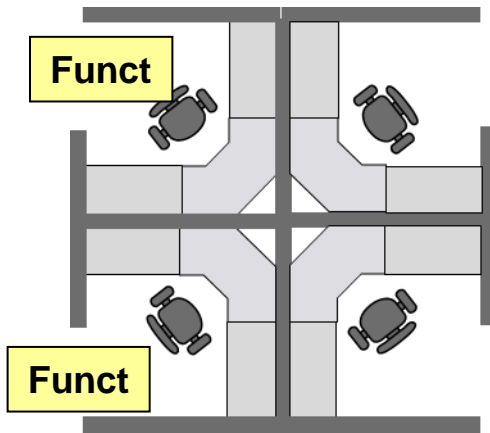
- ❑ Foundation of the continuity planning
- ❑ BPA is a systematic process that identifies and documents organizational activities.
- ❑ Identifies and maps:
  - ✓ functional processes
  - ✓ workflows
  - ✓ activities
  - ✓ personnel experience
  - ✓ Systems
  - ✓ data
  - ✓ facilities





# COOP 101: **Step 3**, Conduct a Business Process Analysis (BPA)

## Unit Tasks



Identified Function	Recovery Time Objective (RTO)
Unit <u>Funct.</u>	$\leq 12$ hrs
Unit <u>Funct.</u>	$\geq 12$ hrs to $72 < \text{hrs}$
Unit <u>Funct.</u>	$\geq 12$ hrs to $72 < \text{hrs}$
Unit <u>Funct.</u>	$> 72$ hrs
Unit <u>Funct.</u>	$> 72$ hrs
Unit <u>Funct.</u>	$\leq 12$ hrs

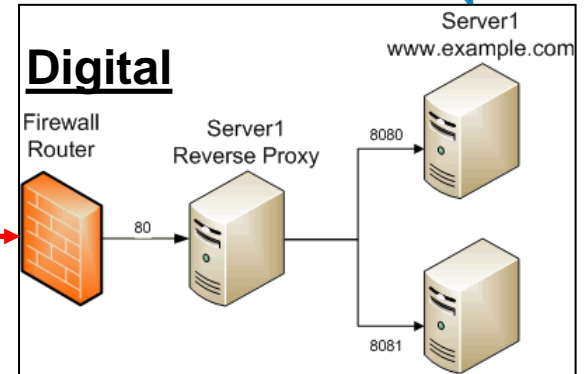
Mail



File



Digital



Route



## BPA "Output"

- ✓ How many staff (ERG) for EF
- ✓ Equipment Needed for EF
- ✓ Facility Footprint for EF
- ✓ Alternate Facilities / Telework / Devolution



# COOP 101: **Step 3**, Conduct a Business Process Analysis (BPA)

<u>Business Process Analysis (BPA) Data Sheet</u>
(Organization) _____ MEF # _____ BPA Data Sheet
MEF Title: <b>MEF Title</b>
Date: _____
MEF Statement: <b>Statement / Narrative</b>
MEF Narrative:
MEF Output(s) (Include performance metrics and conditions): <b>MEF Output</b>
MEF Inputs (For each input, include who provides the input and timing): <b>MEF Input</b>
Partners and Interdependencies: <b>Partners &amp; Dependencies</b>
Leadership (Is senior leadership required to perform this MEF? If so, identify the required leadership position): <b>Leadership</b>

<u>Staff</u> (Identify staff requirements, including numbers and skills or authorities): <b>Staff</b>
<u>Communications</u> (Identify general and unique IT and communications requirements): <b>Communications / Records</b>
<u>Facilities</u> (Includes offices space; industrial capacity and equipment; critical supporting infrastructure. etc.): <b>Facilities</b>
<u>Resources and Budgeting</u> (Includes critical supplies, services, and capabilities, and other essential resources not listed elsewhere): <b>Resources &amp; Budgeting</b>
<u>Procedures and Business Process Flow</u> (Describe the process applied to accomplish the mission in sufficient detail to enable the back up team to be successful): <b>Business Process Flow</b>
<u>Telework Flexibilities</u> (if appropriate): <b>Telework Functions</b>
<u>Other Comments:</u>



## COOP 101: **Step 3**, Conduct a BPA and Risk Analysis

### Potential Hazards and Threats

Natural	Technological	Human-Caused	Process Oriented
<input type="checkbox"/> Avalanche <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Epidemic <input type="checkbox"/> Flood <input type="checkbox"/> Hurricane / Typhoon <input type="checkbox"/> Space Weather <input type="checkbox"/> Tornado <input type="checkbox"/> Tsunami <input type="checkbox"/> Volcanic Eruption <input type="checkbox"/> Winter Storm	<input type="checkbox"/> IT System Crash <input type="checkbox"/> Dam Failure <input type="checkbox"/> Hazardous Materials Release <input type="checkbox"/> Levee Failure <input type="checkbox"/> Mine Accident <input type="checkbox"/> Pipeline Explosion <input type="checkbox"/> Train Derailment <input type="checkbox"/> Transportation Accident <input type="checkbox"/> Utility Disruption <input type="checkbox"/> Electromagnetic Pulse (EMP)	<input type="checkbox"/> Active Shooter <input type="checkbox"/> Armed Assault <input type="checkbox"/> Biological / Chemical Release <input type="checkbox"/> Cyber Attack <input type="checkbox"/> Explosives <input type="checkbox"/> Radiological Attack / Release <input type="checkbox"/> Sabotage <input type="checkbox"/> Civil Unrest <input type="checkbox"/> Terrorism	<input type="checkbox"/> Inadequate Critical Supply <input type="checkbox"/> Supply Chain Failure <input type="checkbox"/> Single Points of Failure

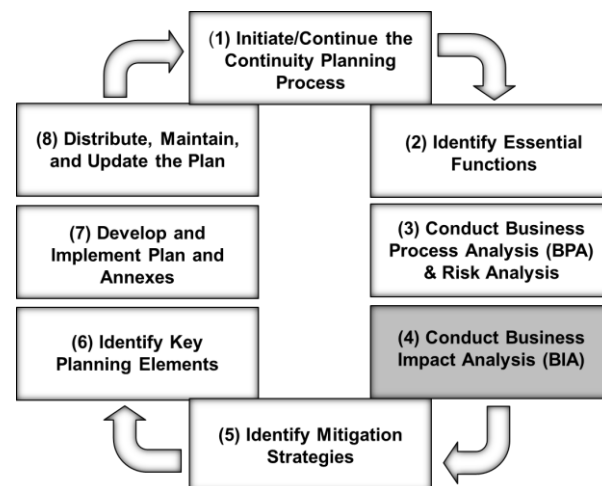
**Hazards:** a source of potential danger

**Threat:** manmade hazards

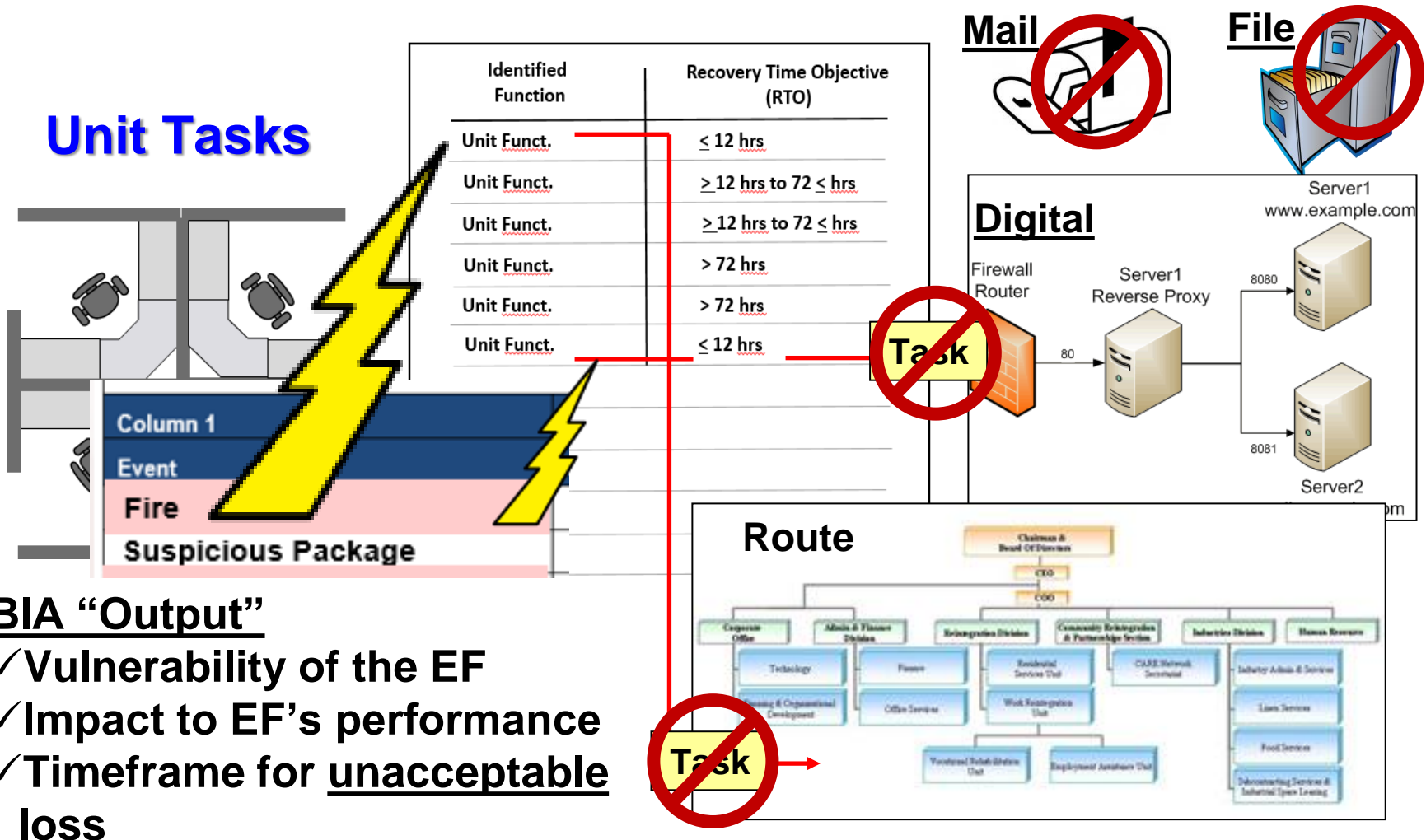


## COOP 101: **Step 4**, Conduct a Business Impact Analysis (BIA)

- ❑ A method of identifying and evaluating the effects that various hazards and threats have on EFs
- ❑ Identifies problem areas, enabling leadership to make risk management decisions:
  - ✓ Accepting
  - ✓ Avoiding
  - ✓ Transferring
  - ✓ Reducing / Controlling
- ❑ Conducted on each EF
- ❑ Identifies the consequences of failing to perform a function



# COOP 101: **Step 4**, Conduct a Business Impact Analysis (BIA)

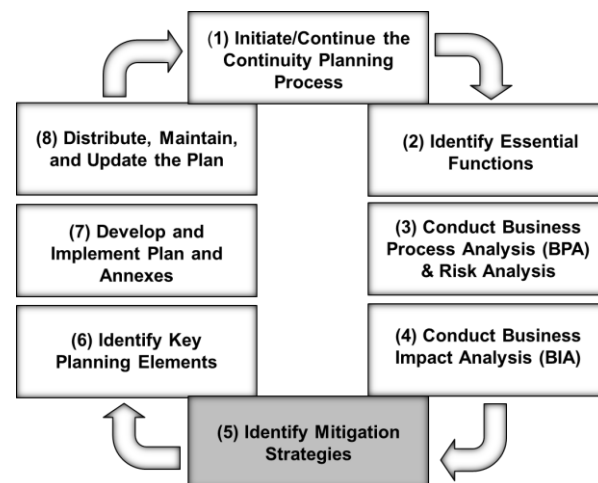






## COOP 101: **Step 5**, Identify Mitigation Strategies

- ❑ Mitigation strategies help an organization address its risks by accepting, avoiding, transferring, or controlling risk
- ❑ Examples include:
  - Alternate locations
  - Telework policies
  - Devolution
  - Mutual aid agreements

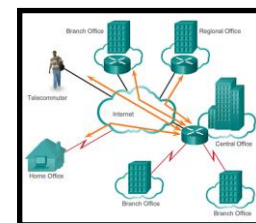




## COOP 101: **Step 5**, Identify Mitigation Strategies

- ❑ **Alternate Site(s)** – Location(s) where an organization's "emergency relocation team" (ERG) can re-locate too. ERG is comprised of personnel that are designated to perform essential functions
- ❑ **Devolution** – Ability to transfer statutory authority and responsibility from an organization's primary facility to other designated staff and alternate facility
- ❑ **Telework** – Allows performance of Essential Functions at an alternate site
- ❑ **Mutual Aid** – Agreements that authorize mutual aid between continuity stakeholders

✓ **Hot**  
✓ **Warm**  
✓ **Cold**



( **MOUs / MOAs** )



## COOP 101: **Step 6**, Identify Key Planning Elements

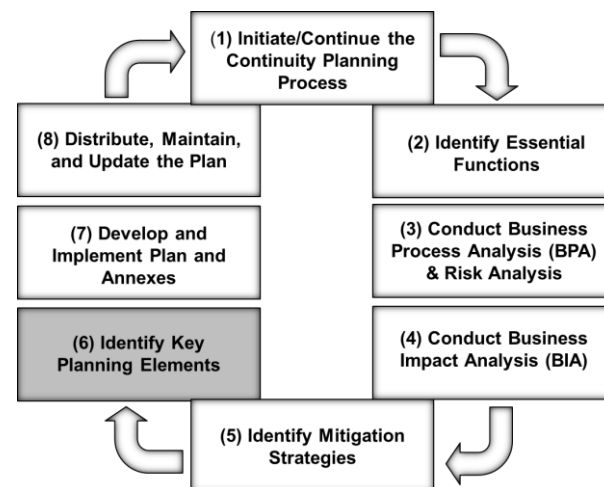
❑ Critical components that are required to execute the mitigation strategies identified in the BIA.

### ❑ People

- Human Resources
- Orders of Succession
- Delegations of Authority

### ❑ Technology

- Essential Records
- Communications

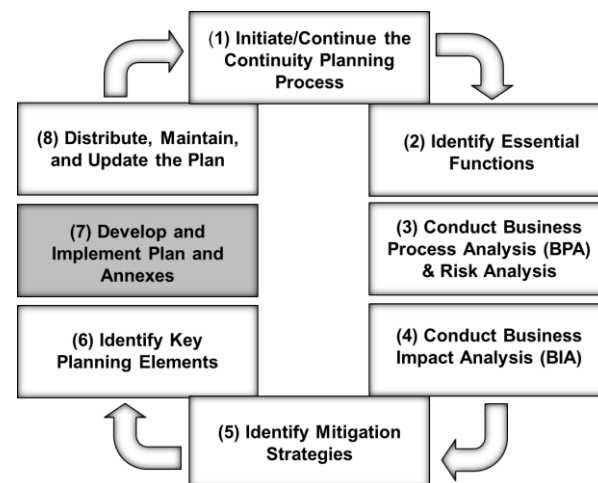




## COOP 101: **Step 7**, Develop and Implement **Plan** and Annexes

### Plan Sections

- I. Promulgation Statement
- II. Essential Functions
- III. Essential Records and IT Functions
- IV. Human Resources
- V. Communications
- VI. Alternate Locations and Telework
- VII. Reconstitution
- VIII. Devolution
- IX. Budgeting and Acquisition
- X. Multiyear Strategic Planning
- XI. Test, Training, & Exercise (TT&E) Program

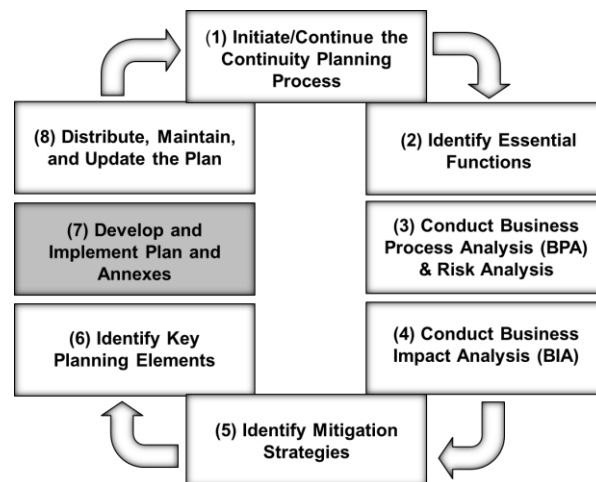




# COOP 101: **Step 7**, Develop and Implement Plan and **Annexes**

## Functional Annexes

- A. Continuity Personnel
- B. Essential Records Management
- C. Alternate Locations
- D. Continuity Communications and Information Systems
- E. Orders of Succession and Delegation of Authority
- F. Human Resources
- G. Test, Training, & Exercises (TT&E)



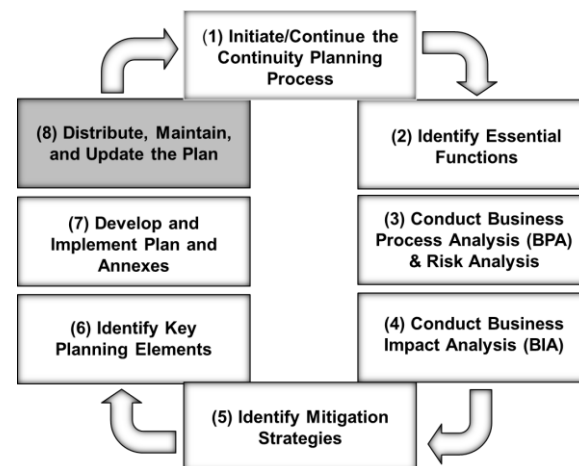




## COOP 101: **Step 8**, Distribute, Maintain, and Update the Plan

Factors that may affect plan maintenance and plan revision cycle:

- ☐ Change in leadership or personnel
- ☐ Re-alignment or Re-organization
- ☐ Results of TT&E or real-world activations
- ☐ Change in process or system that supports an essential function
- ☐ Results of assessments or evaluations
- ☐ Change in continuity resources, requirements or guidance





## TRP: State Administrative Manual ([S.A.M. 5325](#)) – Business Continuity with Technology Recovery

1. Identify and document all business functions and critical infrastructure;
2. Conduct a business impact assessment
3. Develop recovery strategies to ensure systems, functions and infrastructure can be brought online quickly;
4. Develop the Business Continuity Plan to include procedures for how the state entity will stay functional and how critical infrastructures will continue providing necessary services in a disastrous state;
5. Conduct regular training to prepare individuals on their expected tasks;
6. Conduct regular tests and exercises to identify any deficiencies and further refine the plan;
7. Develop steps to ensure the Business Continuity Plan is maintained and updated regularly.

**Note:** The Business Continuity Plan must also address the Office of Emergency Services' continuity planning requirements. These requirements are at: [Continuity Planning | Cal OES](#)



## TRP: [SIMM 5325 – A](#), Technology Recovery Plan Instructions

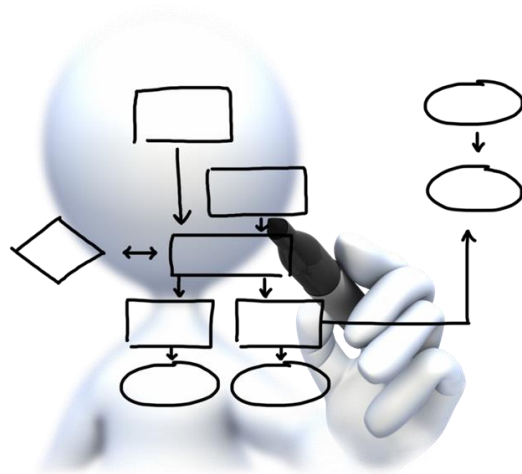
### Section 1: “Minimum Requirements”

- ✓ State Entity Administration Information
- ✓ Critical Business Functions / Applications
- ✓ Recovery Strategy
- ✓ Backup and Offsite Storage Procedures
- ✓ Technology Recovery Procedures
- ✓ Data Center Services
- ✓ Resource Requirements
- ✓ Assignment of Responsibility
- ✓ Contact Information
- ✓ Testing

### Section 2: “Supplemental TRP Requirements

- ✓ Damage Recognition and Assessment
- ✓ Mobilization of Personnel
- ✓ Primary Site Restoration and Relocation

### Section 3: “Appendices”





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# TRP: SIMM 5325 – B, Technology Recovery Program Certification

Required elements to be included in an State Entity Technology Recovery Plan	Page Number	Issues/Comments
<b>1 Minimum TRP Requirements</b>		
1.0 State Entity Administrative Information		
1.1 Executive summary for structure of plan		
1.2 State entity mission, include organization charts, managerial and technical environment		
1.3 List state entities that are included in the recovery plan		
1.4 Communication Strategy		
1.5 List state entities that provide services required in the recovery plan (i.e., SCO, DGS, CDT)		
<b>2.0 Critical Business Functions/Applications</b>		
2.1 List and include description of Critical Business Functions, description of functions, maximum accepted outage and system supporting each function identified as critical.		
2.3 Approach used to determine recovery priorities		
<b>3.0 Critical Infrastructure, systems, information and controls</b>		
3.1 List and include description of critical infrastructure,		
3.2 Approach used to determine recovery priorities		
<b>4.0 Recovery Strategy</b>		
4.1 Description of plan to be implemented based on severity		
4.2 Description of recovery strategies		
4.3 Alternate recovery site		
<b>5.0 Backup and Offsite Storage</b>		
5.1 Backup and retention schedules and procedures		

Required elements to be included in an State Entity Technology Recovery Plan	Page Number	Issues/Comments
5.2 Detailed procedures (hardware, software, backup and retention schedules, off-site storage, contacts, authorized personnel for retrieval)		
<b>6.0 Technology Recovery Procedures</b>		
6.1 Documented procedures for an orderly restoration		
6.2 Documented procedures for timely restoration (e.g. to meet maximum outage period)		
6.3 Step-by-step instructions for recovery teams		
<b>7.0 Data Center Services</b>		
7.1 Data center used (and services)		
7.2 Interagency agreements, MOUs, contracts		
7.3 Procedures for special coordination		
<b>8.0 Resource Requirements</b>		
8.1 Comprehensive list (equipment, space, telecommunications, data software); hard-copy references (forms/procedures); personnel required for recovery		
8.2 Identification of resources to be available for alternate site		
<b>9.0 Assignment of Responsibility</b>		
9.1 Management and personnel assignments		
<b>10.0 Contact Information</b>		
10.1 Personnel contact lists		
10.2 Vendor, other entities, and outside resources list		
<b>11.0 Testing</b>		
11.1 Description of annual test		
<b>2 Supplemental TRP Requirements</b>		
Required for state entities that do not have a <a href="#">Continuity Plan</a> as required by <a href="#">Executive Order S-04-06</a> .		
<b>1.0 Damage Recognition and Assessment</b>		
1.1 Emergency response		
1.2 Damage assessment		

Required elements to be included in an State Entity Technology Recovery Plan	Page Number	Issues/Comments
<b>2.0 Mobilization of Personnel</b>		
2.1 Detailed responsibilities of personnel and management		
<b>3.0 Primary Site Restoration and Relocation</b>		
3.1 Detailed procedures after recovery process is complete		
<b>3 Appendices</b>		

I, hereby further certify my entity's critical systems inventory is as follows:

Technology System(s) Inventory Category	Enter Number(s)
Mission Critical Information Technology (IT) Systems	
State Critical IT Systems	
Other IT Systems	
Public Facing Web Applications	
Critical Infrastructure Systems	
Total Number of IT Systems For Your State Entity	

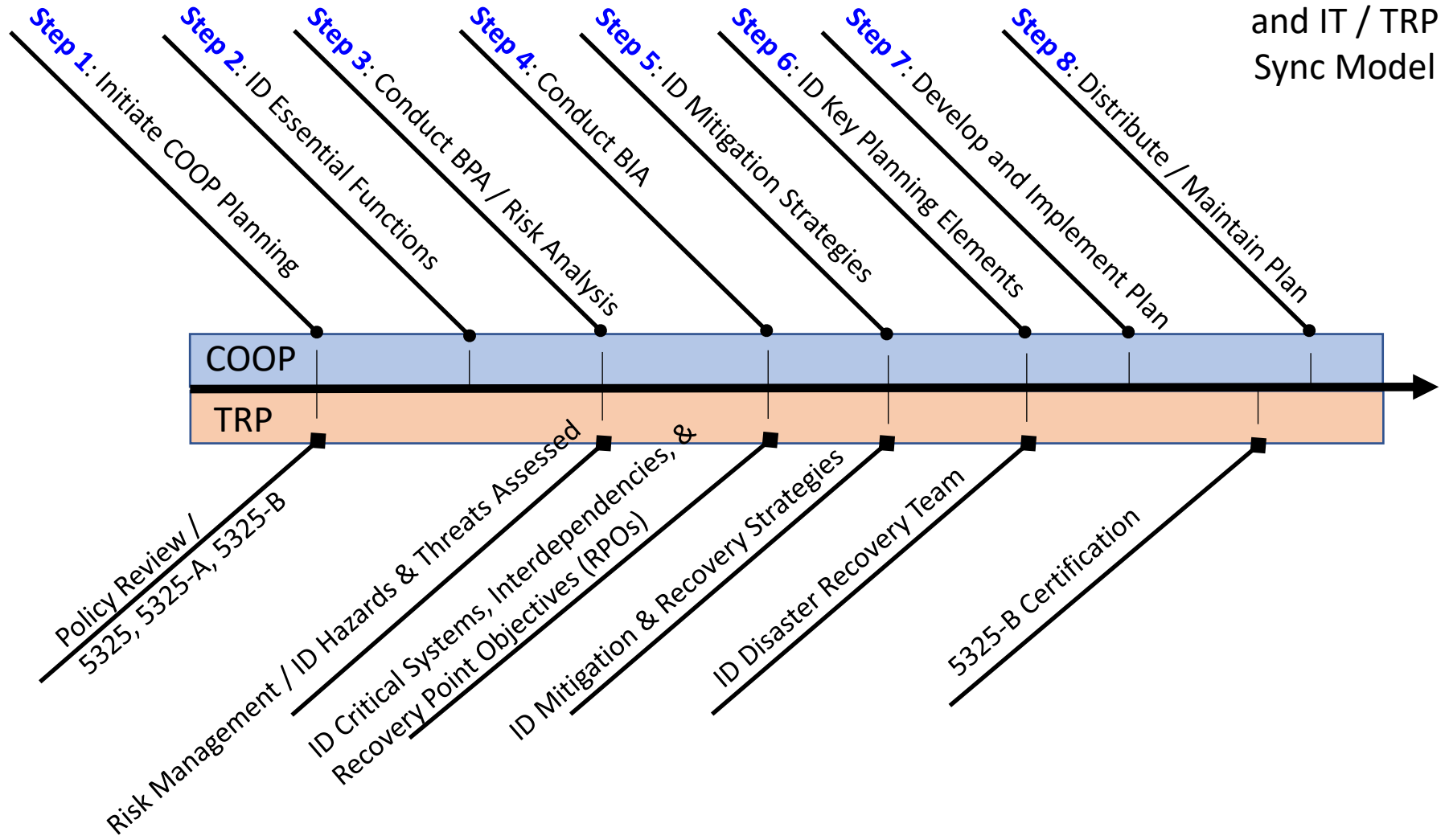
Attached is additional explanation or comments as needed. For additional information about this submission please contact:

Name Telephone Number E-mail

Printed Name of Entity Head or Designee Signature of Entity Head or Designee Date



## COOP Planning and IT / TRP Sync Model





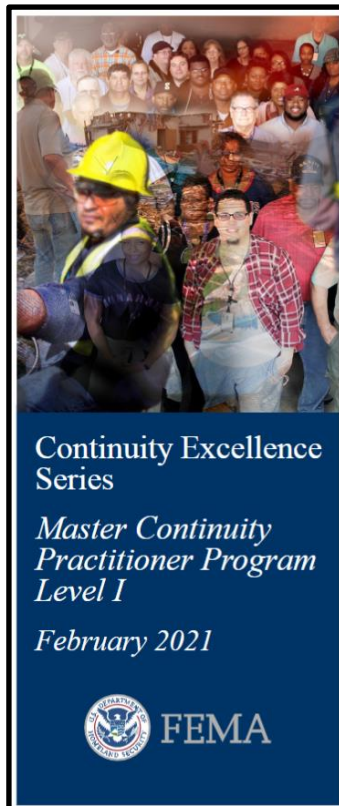


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## Conclusion: Continuity Excellence Series (CES)

### Level I

Professional Continuity Practitioner



### Level II

Master Continuity Practitioner





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## Continuity Planning: Mitigating Hazards and Threats – You’re the “ONE!”





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***For more information...***

**On the Web:** [Continuity Planning | California Governor's Office of Emergency Management](#)



**Tony Vasquez**  
Program Manager I, Disaster Planning Unit  
[continuity@caloes.ca.gov](mailto:continuity@caloes.ca.gov)  
Office: 916.845.8792  
Cell: 916.205.2447

**Jeff Newman**  
SESC, Disaster Planning Unit  
[continuity@caloes.ca.gov](mailto:continuity@caloes.ca.gov)  
Office: 916.845.8829  
Cell: 916.201.3575