

Critical Infrastructure Assessments for Local Governments

CI Assessment Project Team

INTRODUCTION/BACKGROUND

There is a growing interest amongst communities to formally examine the resilience of locally-owned critical infrastructures. However, community members are often overwhelmed by the rigorous processes and technical outputs of these assessments. This can result in stakeholders feeling detached from the process and confused by how to translate assessment outputs into tangible planning activities. To address this challenge, Defence Research and Development Canada engaged with Emergency Management British Columbia and the Justice Institute of BC on the development of a user-friendly critical infrastructure assessment process for local governments. The development process was structured in the form of two research projects - the first spanning in 2014/2015 and the second in 2015/2016.

METHODS

Three field tests were performed with communities in British Columbia. These communities were selected based on their current level of emergency planning as well as to ensure a broad cross section of local governments structures were being represented. Port Moody was selected to represents a typical medium-sized government; Capital Regional District was selected to represent a large district; and Village of Lions Bay was selected to represent a smaller, rural community.

The first field test consisted of a facilitated workshop with a focus on identifying potential video content and tools to aid facilitation. The second and third field tests then allowed for the testing of draft materials, soliciting further feedback from communities, and determining changes to materials.

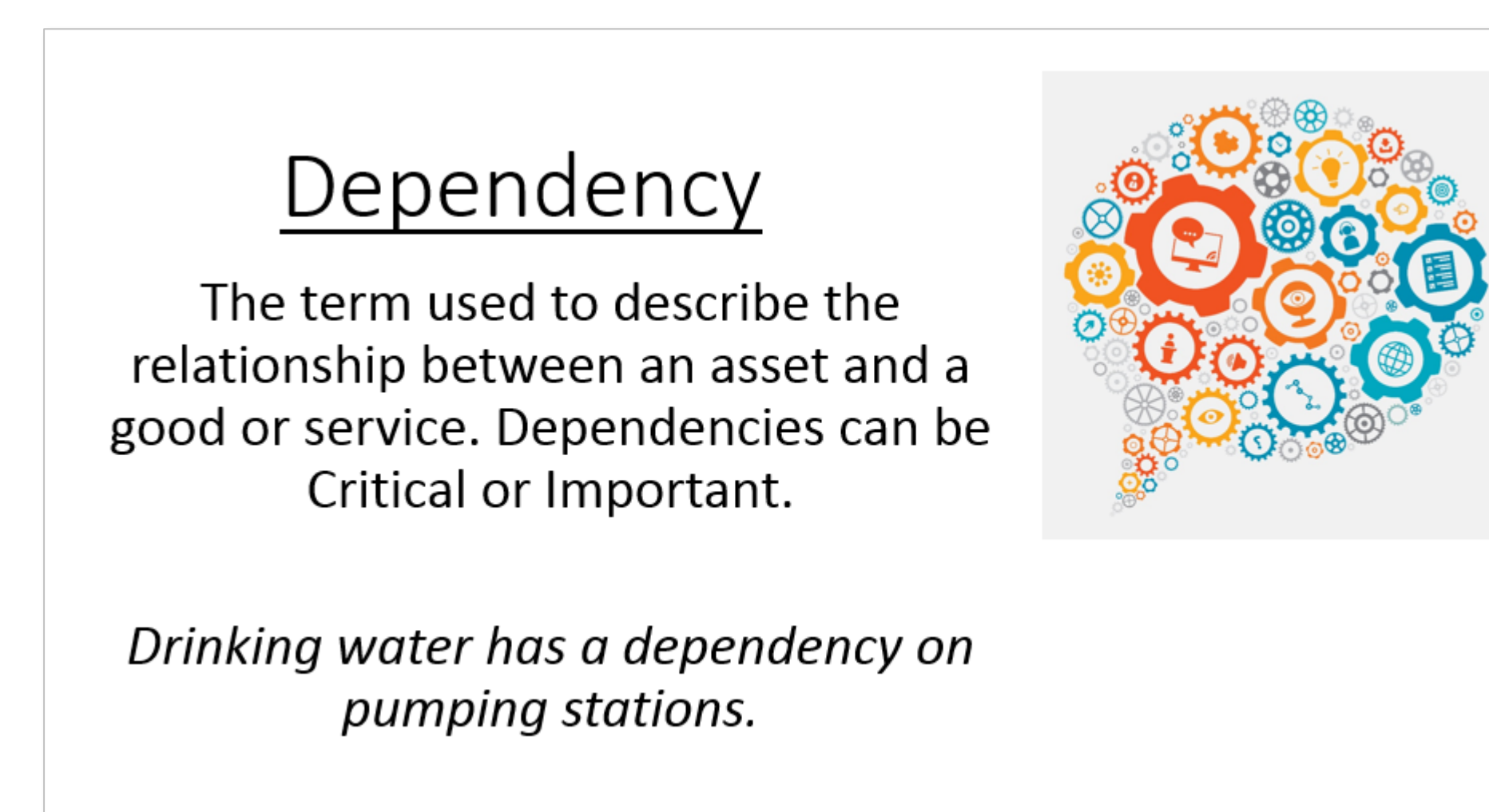
RESULTS

The field tests resulted in three findings that guided the subsequent development of materials. These were:

1. Communities desired videos that describe a step-by-step assessment process
2. Communities desired template meeting materials, addressing the key details needed for each meeting
3. Communities desired completed example templates for each activity, illustrating the ideal structure for presenting assessment findings.



Screenshot from Basic Concepts Video



Poster for use during workshops

Asset Type	Local Authority Assets	Critical Infrastructure Assets															Number of Critical Dependencies	Number of Important Dependencies
		Internal Goods & Services (provided by local authority)																
Shelter		Emergency Social Services - Reception Centre	Emergency Social Services - Group Housing	Transportation	Government	Police	Fire	Health Services	Emergency Services	Regulatory Services	Emergency and Public Works	Communications	Emergency Response	Information & Communication Technology	Water			
Water & Wastewater		Safety	Energy	Food	Transportation	Government	Police	Fire	Health Services	Emergency Services	Regulatory Services	Emergency and Public Works	Communications	Emergency Response	Information & Communication Technology	Water		
TANGIBLE ASSETS																		
Public Buildings & Locations																		
	City Hall																5	
	Recreation Complex																2	
	Public Works Yard																3	
	Police Station																1	
	Fire Hall #1																1	
	Public Library																1	
Roads																		
	Roads																1	
	Bridges																1	
	Road Traffic Controls																1	
	Road Access To Infrastructure																1	
	Culverts - Supporting Roads																1	
Vehicles & Equipment																		
	Public works equipment																1	
	Municipal Fleet Cars																1	
	Police Vehicles																1	
	Fire Service Vehicles																1	
	Public Works Vehicles																1	

Portion of completed assessment tool

The outputs of these research projects was the creation of a community-driven critical infrastructure assessment process. This process makes use of plain-language terminology and step-by-step instructions to guide lay-users in identifying the critical dependencies between locally-owned assets and the services provided by the local government. Materials developed as part of this project include:

- Getting Started Guide
- Kick-Off Meeting Invitation & PowerPoint
- Hazard Scenario Development Instructions
- Posters
- A revised version of the Tool with a completed example
- An example of output recommendations
- Video and transcript identifying basic concepts
- Video and transcript identifying an overview of the process
- Video and transcript identifying next steps
- A post-meeting email template
- Instructions for Completing the Critical Infrastructure Assessment Tool
- Follow-Up Meeting Invitation & PowerPoint

DISCUSSION

This project resulted in the creation of materials that are demonstrably useful for local governments attempting to determine locally owned critical infrastructure. However, it also illuminates the challenge in subjectively identifying and prioritizing critical assets. For this process to be successfully implemented, a community will require buy-in and participation from a cross-section of local government employees. Conversely, more was not always better in terms of employee participation. Rather, the best results were obtained when a community engaged with key personnel (such as Managers and Directors) from a variety of departments while minimizing the number of extra employees.

ACKNOWLEDGEMENT

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