

Transcript: Video 1 – Basic Concepts

Welcome to the Critical Infrastructure Assessment Tools – Basic Concepts video. This video will explain some of the concepts and ideas you'll need to know when using the Critical Infrastructure Assessment Tool. This video will be useful for any staff that will be using the Tool.

WHAT IS CRITICAL INFRASTRUCTURE?

Critical infrastructure describes the resources, services and equipment that keep Canadians safe and keep communities running. This commonly includes things like drinking water, government buildings, roads and bridges - to name a few. Critical infrastructure can also refer to services and systems such as snow clearing, medical services, cell phone networks, and fire-fighting services.

Some infrastructure will always be important to the well-being of a community. Clean drinking water and a functioning government are good examples of these. However, not all infrastructure is critical all the time. For example, a community preparing for a flood may find sandbags to be critical. The sandbags became critical during the flood because they are used to protect the public and property and to keeping the community functioning. When the flood threat passes, the sandbags are no longer considered critical to the community. A thorough critical infrastructure program should be able to identify what is important and when.

WHAT IS THE TOOL?

Many communities are creating programs to protect their critical infrastructure, though it can be hard to figure out where to begin. To help this process, Defense Research and Development Canada in partnership with Emergency Management British Columbia, has created the Critical Infrastructure Assessment Tool. The Tool helps the community think about critical infrastructure in the context of the services residents will need during an emergency.

When using this Tool, a community needs to be familiar with three terms:

- **Asset:** an item or resource that is under the control of the local government. This includes tangible things like equipment, vehicles and trained staff. It can also include intangible things like radio networks and software.
- **Goods & Services:** these are goods or resources and services provided to the community by the local government. This includes goods like drinking water and services like policing.
- **Dependency:** this is the term used when goods and services cannot be delivered without a specific asset. For example, providing fire and rescue service as a service is dependent on fire engines and equipment, which are assets.

HOW DOES THE TOOL WORK?

The Critical Infrastructure Assessment Tool is an Excel spreadsheet that is organized into different sections. When using the Tool, the community is asked to fill in these sections. The first section lists the

services a community offers residents; the second lists the equipment that a community uses to provide those services; and the third section lists the external goods-and-services that support the equipment. The Tool then highlights the relationship between each section.

For example, imagine a rural community has decided to use the Tool. The first thing they would consider is a hazard or emergency during which they would offer services to the public. In this case, the community is threatened by wildfires every summer. Because this is a high ranking hazard, the community decides to use this hazard to give some context to their conversations –when using the tool, they will talk about the services residents will expect during a wildfire.

Now the community will begin to look at each specific service residents may expect. The first service they examine is fire and rescue. To offer this service, the community uses locally-owned assets such as fire engines, trained firefighters, roadblocks, and specialized equipment. The community will try to identify which locally-owned assets are needed to offer the service during a wildfire. Each time the community identifies a specific asset needed to provide a service, they will make a note of it in the tool. This relationship between the service and the asset is called a dependency. Dependencies can be either Critical or Important. For example, the community may feel it is Critical to have a fire engine to offer fire service because there are no other alternatives –without the fire engine, the community cannot provide firefighting services. On the other hand, the community may find it is important but not critical to have roadblocks because fire crews can still fight the fire without them.

Once the community has looked at all the equipment needed to offer fire and rescue services, it then examines the externally-offered services that support each asset. For example, the community-owned fire engine has a Critical dependency on fuel and on roads – the fire engine will not be useable if fuel and roads are not available. The community-owned fire engine also has an important dependency on a regional radio network; the network helps coordinate with other first responders but the engine can still be used if the radios aren't available. Keep in mind, these are goods and services that are provided by outside companies or agencies.

Once the community has finished looking at the firefighting service and the equipment it uses, the community would then look at other services it needs to provide during a wildfire. This process repeats until all relevant services have been examined.

WHAT ARE THE OUTPUTS OF THE TOOL?

During this process, the community will be noting the Critical and Important dependencies between services and equipment. Once the Tool has been completed, the community will see different patterns in the dependencies. For example, communities often find that lots of their services rely on the same piece of equipment. This means that if the equipment is lost or damaged, a number of services can no longer be offered.

Communities may also find that some services have a large number of Critical dependencies. This means there is a greater risk the service could be unavailable if even one piece of equipment is lost.

Finally, communities may find that they rely more heavily on an external contractor than they realize. This means there is a greater risk some assets could be unavailable if the service provider or external contractor is also impacted by the hazard.

While the results may seem straightforward, the community will need to interpret the results and decide what action they want to take. This is usually done by creating a brief report that highlights 4-5 of the services/assets with the most critical dependencies. The community will then generate some recommendations. These may include steps for mitigating the impact of a hazard on an asset; actively preparing an asset to withstand a hazard or to have backups ready; prioritizing the asset for monitoring and response during an emergency; and/or determining if/how an asset might be replaced if destroyed.

The community may then use these recommendations to update asset management plans, emergency and/or business continuity plans, and long-term community plans. They may share these recommendations with contractors and service providers, requesting specific services be prioritized during an emergency. The community may also share the report with their Provincial Emergency Program so that provincial staff can have a better understanding of what support a community may need during an emergency.

WHAT WON'T THE TOOL DO?

The tool only looks at the goods, services and assets of the local government. It won't examine assets that are owned or controlled by outside agencies. For example, the Tool will look at municipal roads but it will not examine provincial or federal highways.

Also, the Tool will not tell a community which assets are more important than others, or which services should be prioritized. Instead, the Tool shows which assets are most depended on during an emergency as well as which services are likely to be required by the public.

WHAT HAPPENS NEXT?

Most communities that use the tool will organize a workshop as a way of kicking off the assessment process. These workshops are usually attended by directors and managers from various local government departments. You may find yourself invited to one of these workshops. During the workshop, you'll work with a facilitator and practice completing some sections of the Tool. You will then be assigned a portion of the Tool to complete with your department. The facilitator will provide you with a deadline, after which they will gather and consolidate the spreadsheets. There is usually a follow-up meeting to look at the results and to develop a report with recommendations.

The next video will provide detailed instructions on how a community can update the Tool and prepare to start the assessment process.