

# Critical Infrastructure Assessment Tool for Local Governments in Canada

Darren Blackburn, Ron Bowles (JIBC) & Stakeholders from EMBC and DRDC-CSS

## INTRODUCTION/BACKGROUND

In 2014-2015, representatives from the JIBC Emergency Management Division and the Centre for Applied Research engaged with Emergency Management British Columbia and Defence Research and Development Canada – Centre for Security Science on the development and completion of a critical infrastructure assessment tool for use by local governments. The aim of the tool is to enhance a municipality's awareness and understanding of CI, and assist them with identifying and analyzing their assets, outputs goods and services, relevant hazards that may impact their assets, and the dependencies among assets, output goods & services, external CI service providers, and the community.

The project involved creating progressive iterations of the tool, educational materials, and supporting facilitation materials for use by community members. Following each iteration, a pilot workshop was delivered in order to gather evidence regarding the capability and effectiveness of the tool and supporting materials. Gathered data was analyzed to identify changes to the project deliverables.

The output of the project will be a tool and materials set that will allow a community to examine the critical dependencies between locally-owned assets and the goods and services provided to the public. A community that engages with the tool will be able to create a report that identifies important and critical dependencies, possible disruptions via hazards, and community components that can be impacted. The report will also identify a number of assets that are determined to be “top priority” – meaning, assets that are critical for the functioning of other assets. These assets are then analyzed in relation to the four pillars of emergency management as follows:

- Mitigation: What financial & resource planning is required to support this asset?
- Preparation: What resources can be allocated to back-up or serve as a contingency in the event the asset fails/is damaged/is unavailable?
- Response: What activities need to be performed to protect the asset during an emergency? To assess damage to the asset? To determine the length and extent of outages should the asset be unavailable?
- Recovery: If damaged or destroyed, should the asset be fixed? Replaced? Replaced with another option?

The tool and materials have been used in workshops delivered in the Fraser Valley Regional District and in Port Coquitlam. A final test of the tool and materials is scheduled for March 2015.

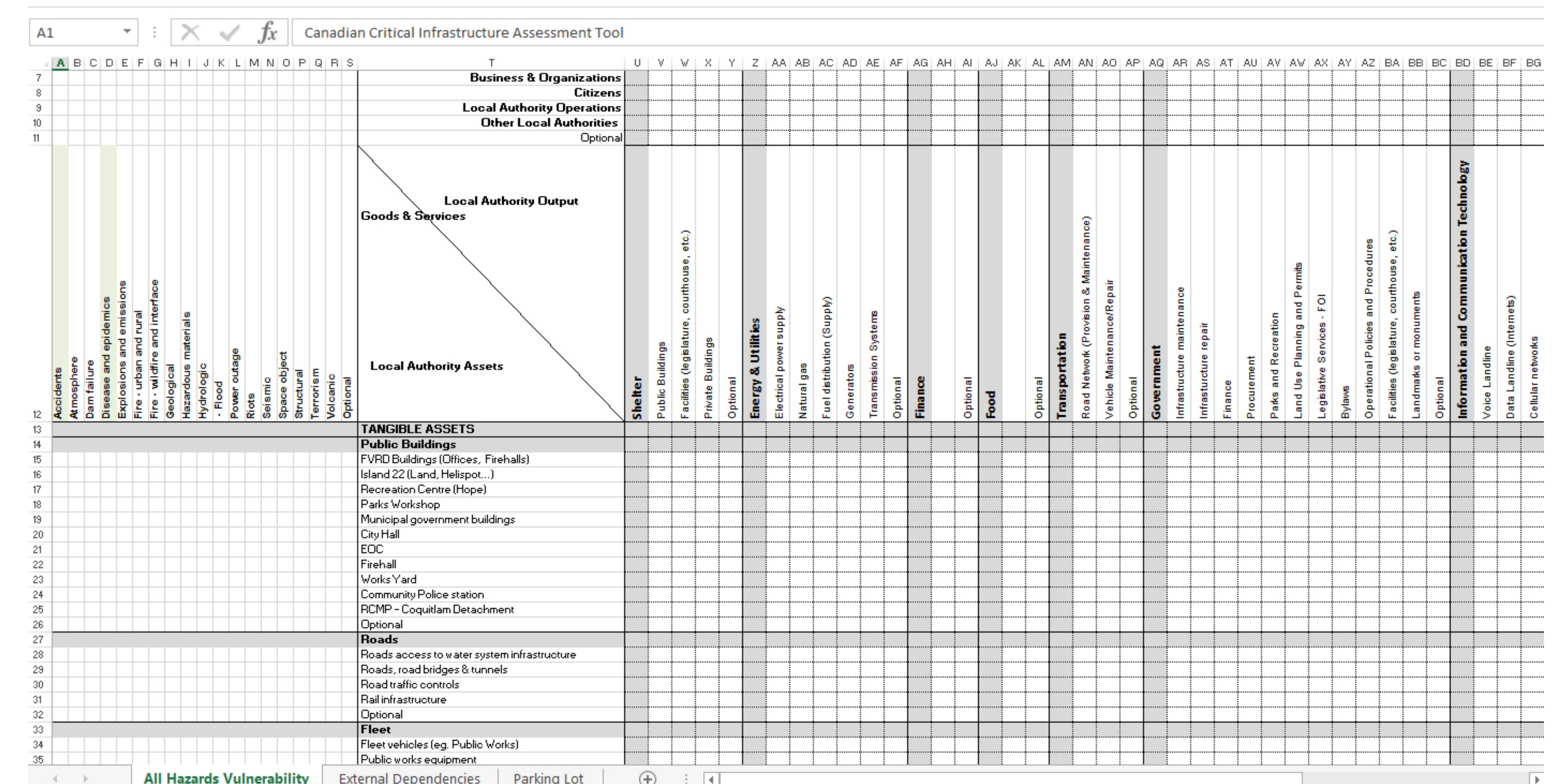


Fig 1. CI Assessment Tool –Goods & Services & Asset Dependencies

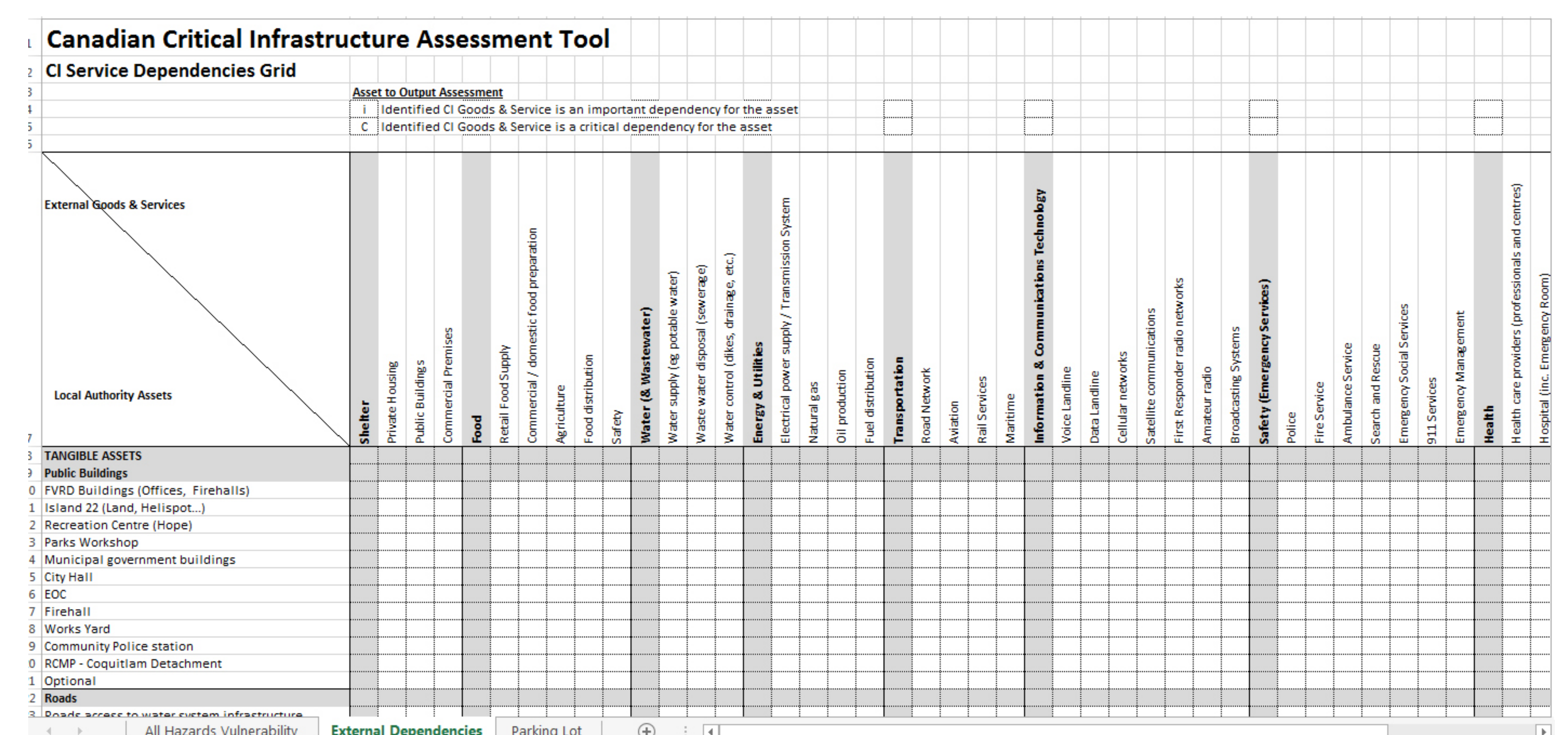


Fig 2. CI Assessment Tool – Asset Dependencies on External Service Providers