

**Infrastructure Resiliency:** “resilience” is defined as *the capacity of infrastructure, communities and their related systems to mitigate, adapt, or positively respond to chronic and acute stresses, transforming in ways that restore, maintain and even improve their essential functions.*

<b>Subtopic</b>	<b>Learning Outcome/Key Elements</b>	<b>Guiding/Essential Questions  (“What questions can I ask to ensure I arrive at the intended learning outcome?”)</b>
<b>Climate change</b>	<ul style="list-style-type: none"> <li>• Understanding climate change implications for infrastructure resilience</li> <li>• Best practices in infrastructure resilience (enhancing capacity)</li> <li>• Critical consideration of the role of planning in resilience</li> </ul>	<ul style="list-style-type: none"> <li>• How will climate change impact infrastructure in Ontario cities?</li> <li>• What are the interactions between climate change and other chronic and acute stressors?</li> <li>• Are there creative approaches to designing resilience to climate change?</li> </ul>
<b>Emergency planning</b>	<ul style="list-style-type: none"> <li>• Understanding acute events and their implications for infrastructure resilience</li> <li>• Understanding emergency planning’s role in infrastructure resilience</li> <li>• Best practices in emergency planning</li> </ul>	<ul style="list-style-type: none"> <li>• How do acute events impact infrastructure?</li> <li>• What key lessons have we learned from major emergency events – for resilience, for planning?</li> <li>• How does emergency planning fit in to resilience strategies?</li> <li>• How do we assess the options for enhancing resilience?</li> </ul>
<b>Hard infrastructure</b>	<ul style="list-style-type: none"> <li>• Understanding the fundamentals of infrastructure resilience</li> <li>• Best practices in infrastructure resilience (enhancing capacity)</li> <li>• Critical consideration of the role of planning in resilience</li> <li>• Natural areas and cities</li> </ul>	<ul style="list-style-type: none"> <li>• What does the practicing planner need to understand about infrastructure resilience?</li> <li>• How are communities specifically implementing resilience strategies?</li> <li>• What are the opportunities/barriers for enhancing infrastructure resilience?</li> <li>• How does resilience differ from our traditional approaches to infrastructure planning and systems operations?</li> <li>• Planners play a key role in enhancing infrastructure resiliency; what are those roles and examples of them in action?</li> <li>• How does resilience thinking apply to core planning activities and tools?</li> </ul>
<b>Soft infrastructure</b>	<ul style="list-style-type: none"> <li>• Understanding the fundamentals of infrastructure resilience</li> </ul>	<ul style="list-style-type: none"> <li>• What does the practicing planner need to understand about infrastructure resilience?</li> </ul>

	<ul style="list-style-type: none"><li>• Best practices in infrastructure resilience (enhancing capacity)</li><li>• Critical consideration of the role of planning in resilience</li></ul>	<ul style="list-style-type: none"><li>• How are communities specifically implementing resilience strategies?</li><li>• What are the opportunities/barriers for enhancing infrastructure resilience?</li><li>• How does resilience differ from our traditional approaches to infrastructure planning and systems operations?</li><li>• Planners play a key role in enhancing infrastructure resiliency; what are those roles and examples of them in action?</li><li>• How does resilience thinking apply to core planning activities and tools?</li></ul>
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