



National Water & Wastewater Conference 2022

Master Servicing ~~Plans~~ (Master Plans)

A complicated and fun real-life game of Catan” - maneuvering between competing needs, constraints, and conflicting policies

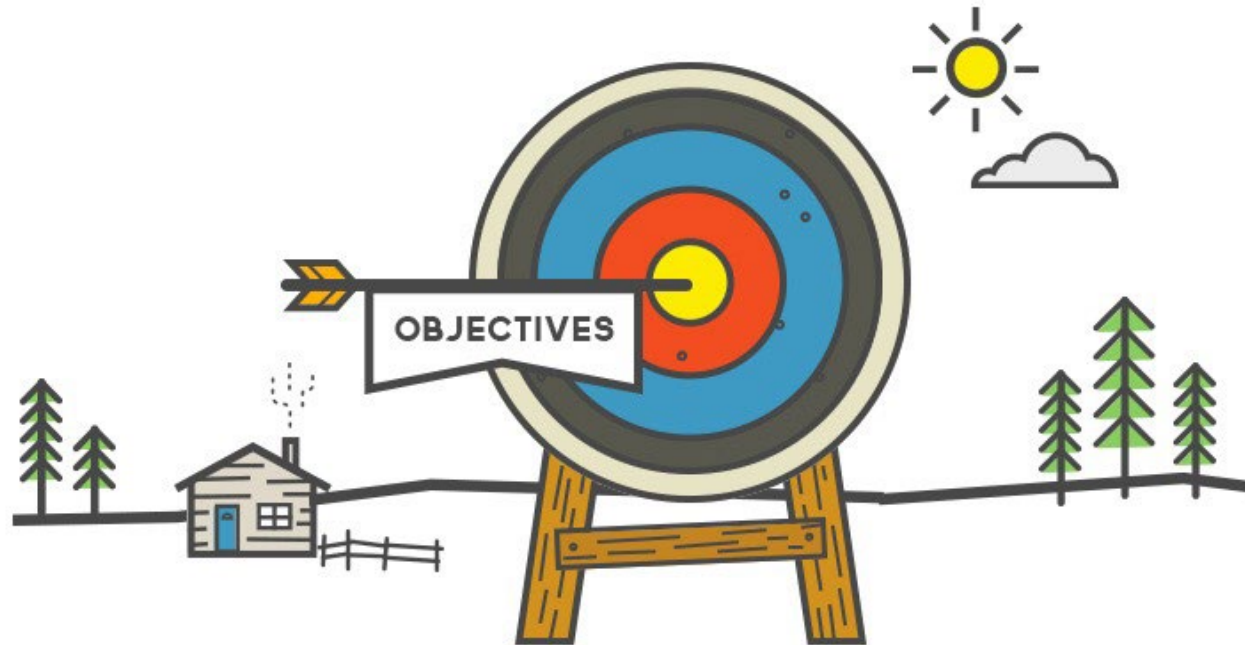
Presentation by Rika Law, P.Eng. PMP & Ben Collingwood P.Eng.

November 8, 2022

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PRESENTATION OUTLINE AND LEARNING OBJECTIVES

- › What is a Master Servicing Plan?
- › Considerations for a Master Servicing Plan
- › Competing or conflicting requirements
- › Case Study
- › Lessons Learned



WHAT IS A MASTER PLAN?

- › Created to ensure the municipalities can sustainably grow and provide services to current and future residents
- › A plan of long -term strategies, initiatives, programs, and infrastructure projects to meet community needs
- › Main purpose is system wide approach
- › Can be used to plan for growth, changes in the community or to optimize systems
- › Examples:
 - Municipal Plans
 - Water and wastewater (and even stormwater) master servicing plans
 - Transportation master servicing plans
 - Infrastructure master servicing plans



WHAT IS A MASTER PLAN?

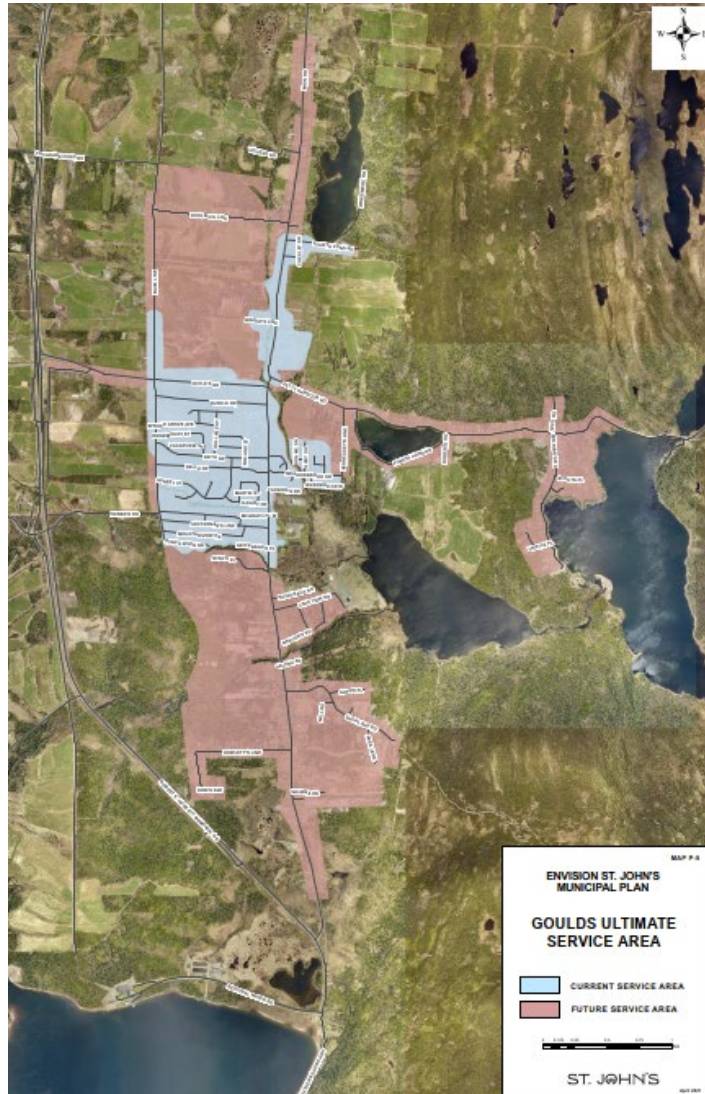


Photo by City of St. John's

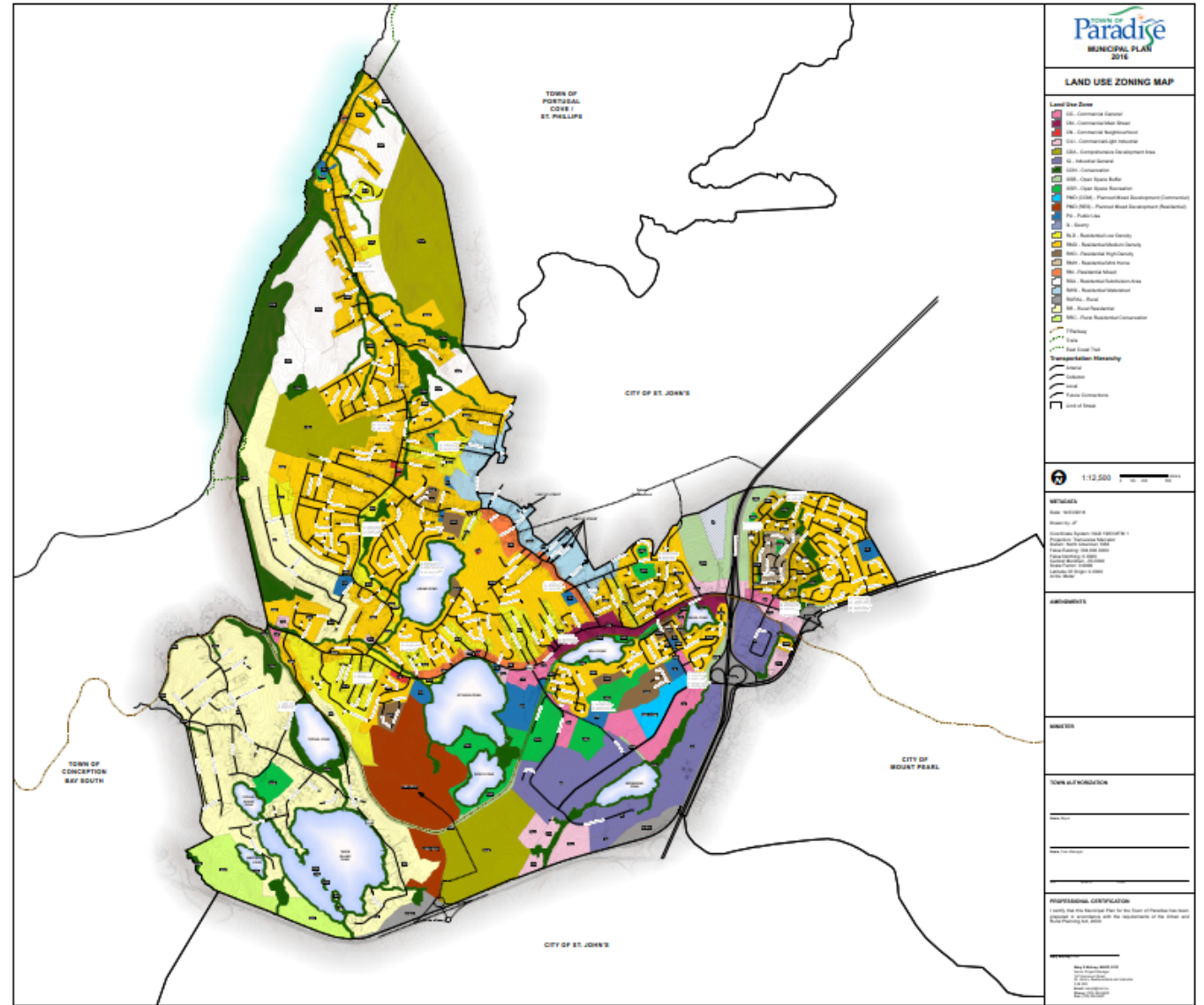


Photo by Town of Paradise

WHAT IS A MASTER PLAN?

- › Usually undertaken through the Municipal Class Environmental Assessment process
- › This allows specific recommended projects from the master plan to have gone through the Municipal Class Environmental Assessment process
- › Although the Master Servicing Plan itself does not require a Municipal Class Environmental Assessment process , the projects that come out from the master plans will

Why? What is the reason for the master plan?

- › Is it to accommodate growth?
- › Are there changing community needs?
- › Is it to optimize the systems?

What services are being considered?

- › Water supply, treatment, storage and distribution?
- › Wastewater collection and treatment?
- › Stormwater?
- › Transportation?
- › Infrastructure?

When - How long of a planning horizon?



Photo by Diva Plavalaguna: <https://www.pexels.com/photo/wood-man-people-woman-6147373/>

CONSIDERATIONS FOR A MASTER SERVICING PLAN



Where?

- › Is it a specific community or area?
- › Is it an entire city or municipality?
- › Does it involve several municipalities or within an entire region or county?

Who are the stakeholders?

- › Local and regional governing bodies
- › Public, businesses, developers, special interest groups
- › Indigenous communities
- › Agencies

All this needs to be considered to answer the “How”, which is the Master Plan



Photo by Diva Plavalaguna: <https://www.pexels.com/photo/wood-man-people-woman-6147373/>

HOW IS A MASTER SERVICING PLAN LIKE PLAYING CATAN" ?



This sets up the game board...now the fun begins...

Because the game isn't fun without constraints and issues...



HOW IS A MASTER SERVICING PLAN LIKE PLAYING CATAN" ?



Different players with varying strategies

- › Stakeholders with different interests and needs

Limited resources

- › Financial, physical resources, time, space/location

Things outside of your control may impact outcome

- › i.e. climate change, politics, public opinion

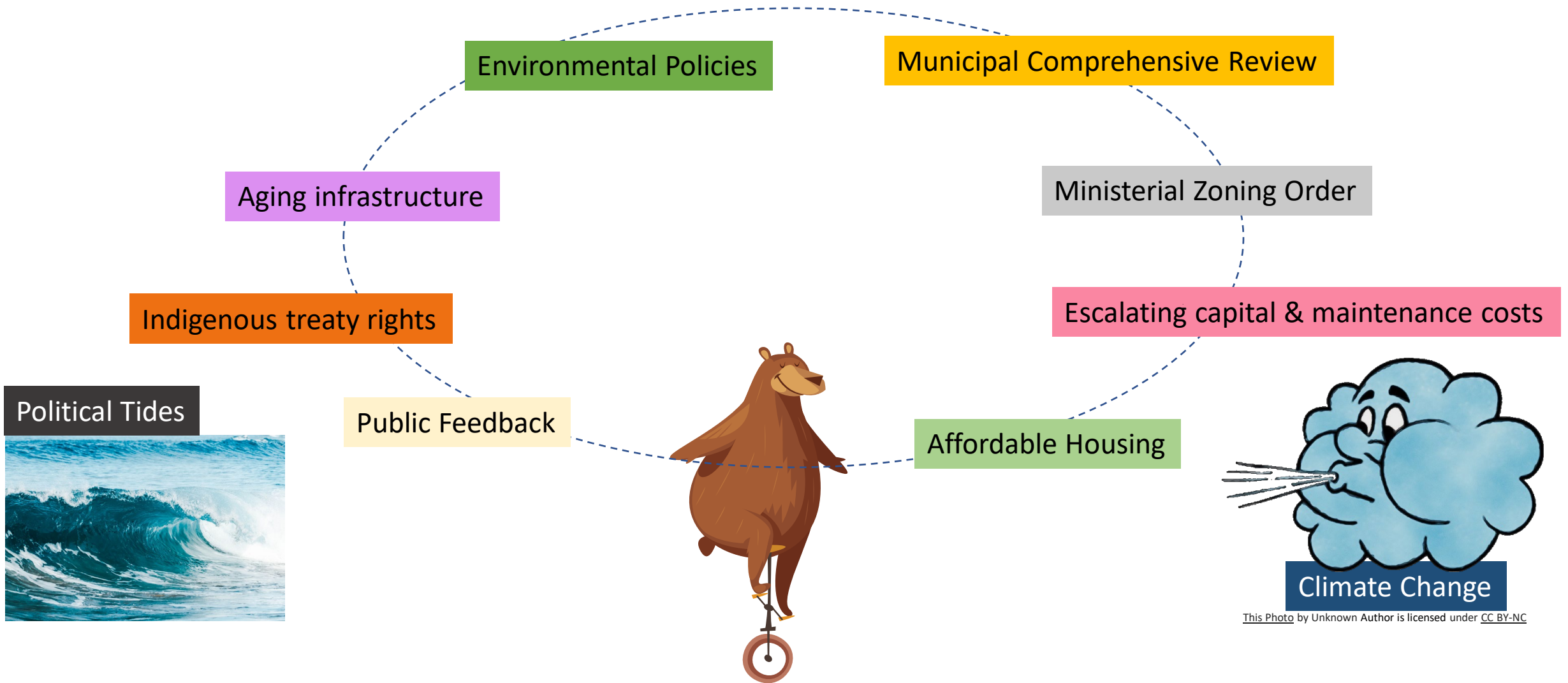
You can plan and strategize all you want, but sometimes you just don't get what you want

- › Someone or something causes limitations and constraints

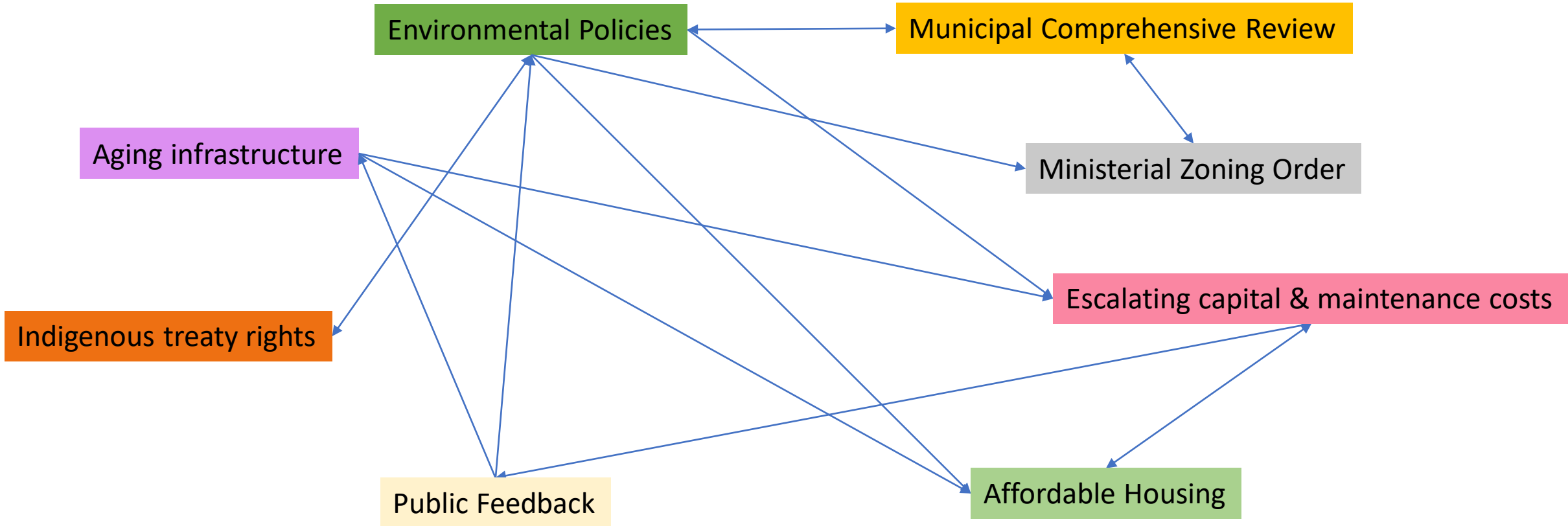
Sometimes you have to negotiate and bargain to succeed

- › A win-win bargain is always best (at least for a MSP), so try to think win-win

CONFLICTING AND COMPETING REQUIREMENTS/NEEDS



THESE REQUIREMENTS/NEEDS ARE ALL INTERCONNECT



CONFLICTING AND COMPETING REQUIREMENTS/NEEDS

Municipal Comprehensive Review (MCR)

- › Used in Ontario's Greater Golden Horseshoe to ensure that Master Plans conform with updated provincial plans and policies
- › States areas need to accommodate certain amount of growth by 2051
- › Master plans now need to consider:
 - Residential and employment growth
 - Growth requires servicing (water, wastewater, roads etc.)
 - Policies which may affect this growth



Ministerial Zoning Order (MZO)

- › Allows Ministry of Municipal Affairs and Housing to regulating the use of land, buildings and structures anywhere in Ontario
- › Bypasses typical land use assessment, environmental and public consultation processes
- › If there is a conflict between an MZO and a municipal zoning by-law, the MZO prevails
- › Still need to consider servicing, comply with Provincial Policy Statement (for those within Ontario's Greenbelt) and Master Plan



Photo by [Felipe López](#) on [Unsplash](#)

Environmental Policies

- › Balances environmental protection with growth and urbanization
- › Land use planning framework for where urbanization can occur and protects ecological, hydrological and agricultural resources



Photo by <https://www.audleytravel.com/canada/places-to-go/newfoundland-and-labrador/deer-lake>

Environmental Protection of Receiving Waters

- › Limits nutrient amounts that can be discharged into sensitive receiving water bodies
- › Primary nutrient of concern is total phosphorus

Source Water Protection

- › Protects drinking water supply (surface and groundwater)



<https://www.ontarioparks.com/parksblog/winter-lake-simcoe/>

Escalating capital and maintenance costs

- › Supply shortage (pandemic, world events)
- › Skilled labour shortage
- › Fluctuating energy prices



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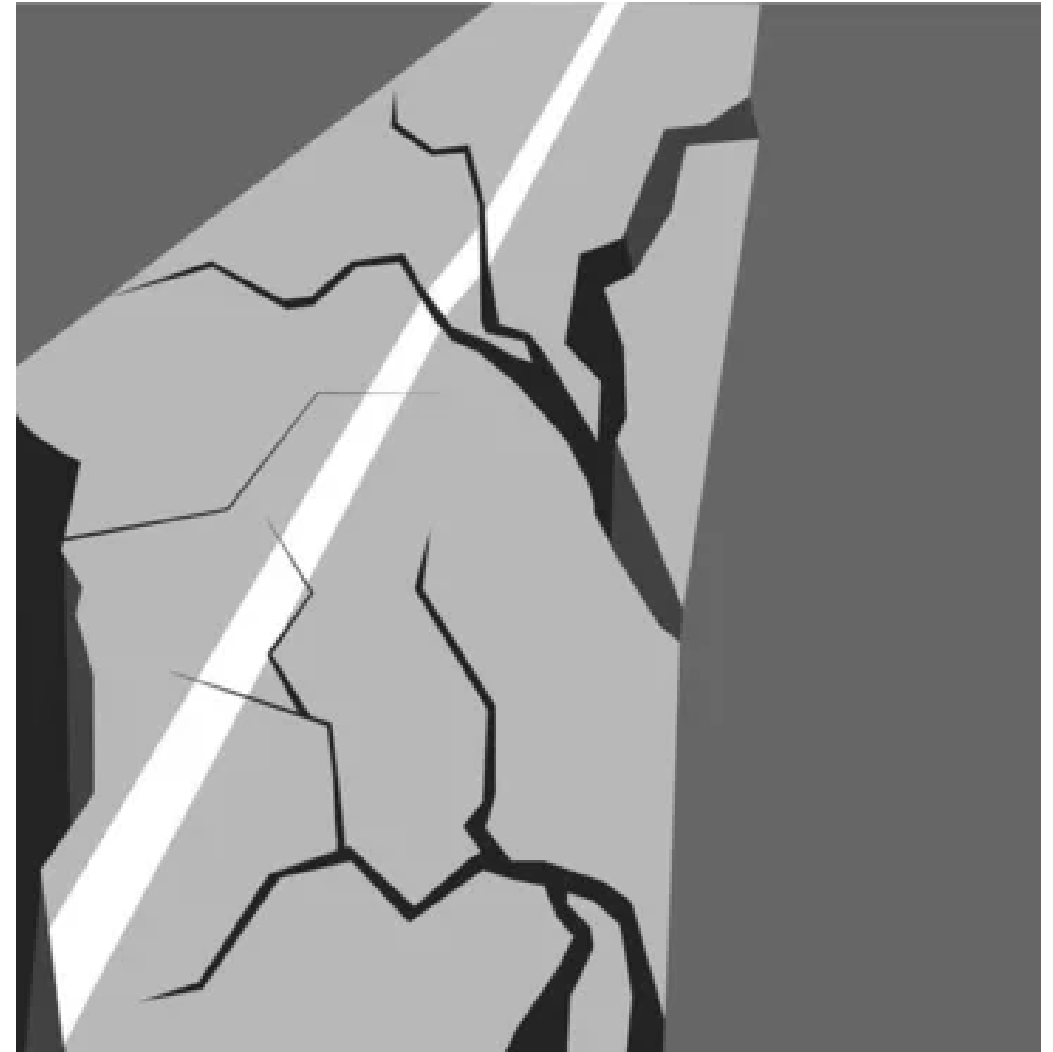
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Affordable Housing

- › Hot topic!
- › Many factors – local and global
- › Cost for infrastructure and servicing to accommodate the growth and additional housing increasing

Aging Infrastructure

- › Infrastructure have expected life span
 - Many of these infrastructures are getting to their end of life and need to be replaced
- › Cost to replace has increased
 - Inflation
 - Supply shortage
 - Labour shortage
 - Built up areas around aging infrastructure making replacement difficult/complicated
 - Limited redundancy in previous designs complications and further cost increase during replacement process



Indigenous Treaty Rights

- › Indigenous consultation necessary as part of Class EA and Master Plan process

Public Feedback

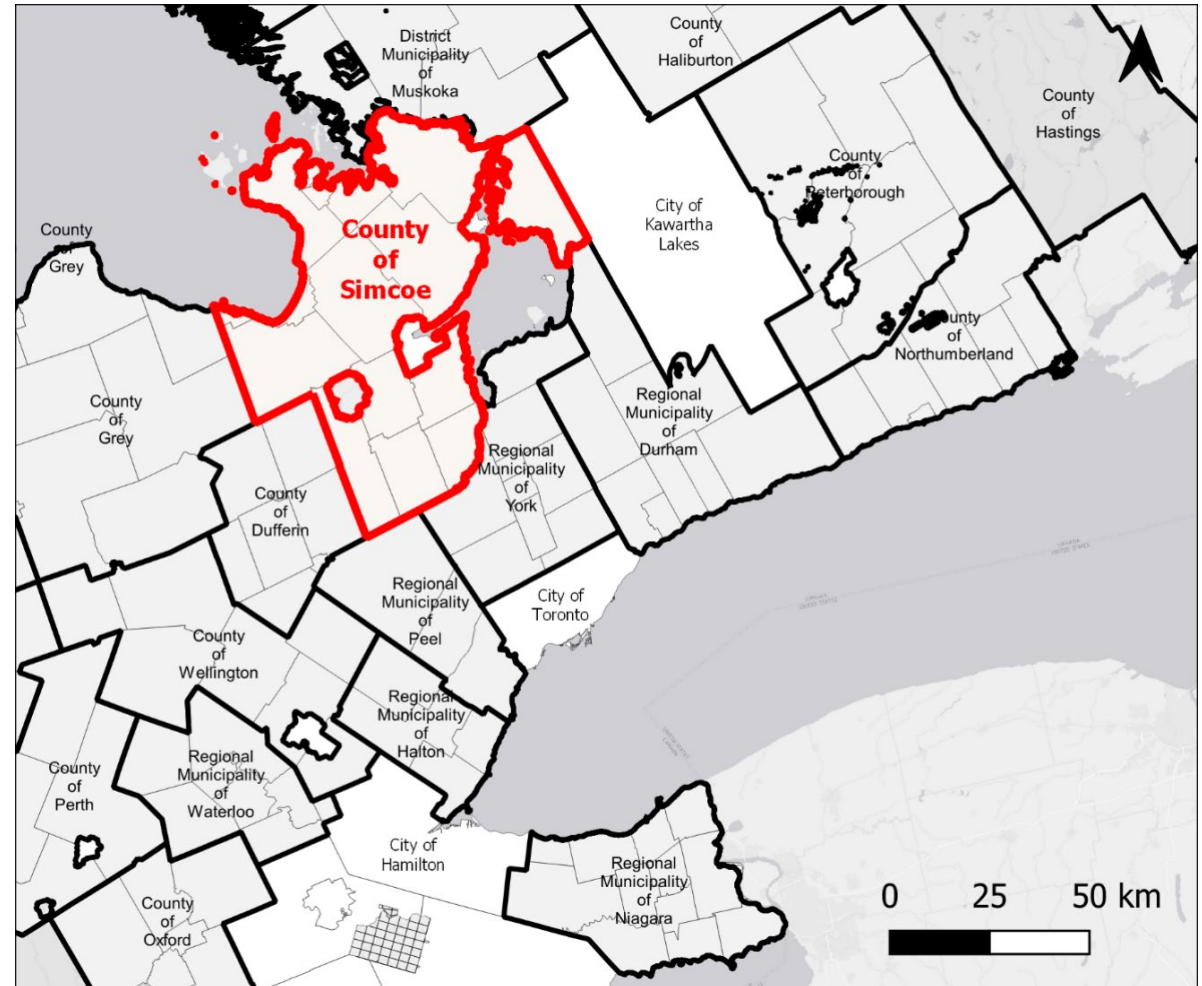
- › “Not In My Backyard” (NIMBY) Syndrome



CASE STUDY & LESSONS LEARNED

Simcoe County

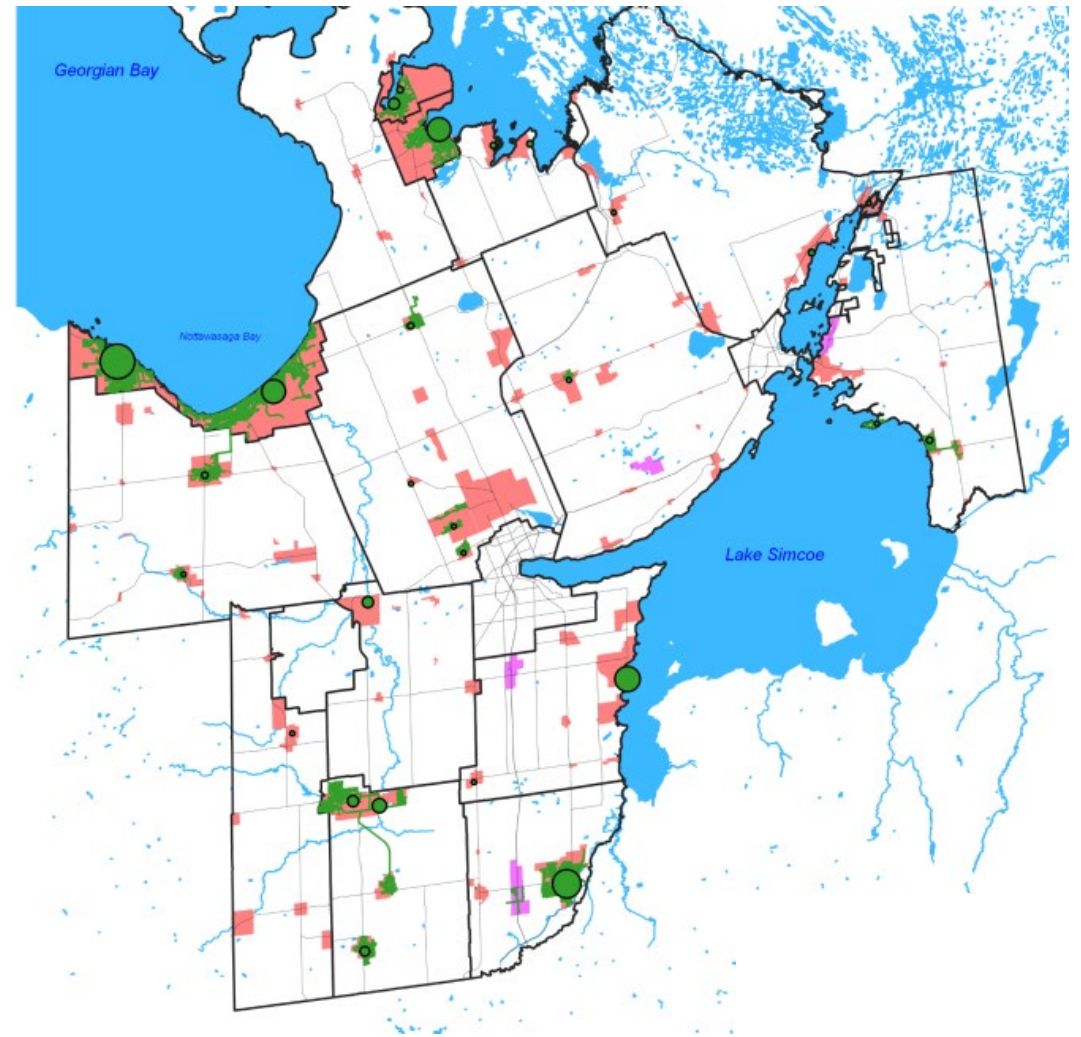
- › Many different stakeholders (16 member municipalities in Simcoe County)
- › Several municipalities in Simcoe County heavily impacted by MCR and environmental policies
- › MCR requires growth
- › Lake Simcoe Protection Plan, the lake is at or near its contaminant load capacity
- › Conflicting policies squeezes the municipality between rock and hard place
- › “You can live here, but you can’t poop here”
- › Servicing would be costly due to environmental requirements



CASE STUDY & LESSONS LEARNED

Simcoe County: Lessons Learned

- › Difficult to accommodate growth in a certain areas where servicing will be very difficult and costly to achieve
- › Serviceability needs to be considered along with the MCR population and employment allocations
- › Promote discussion on different levels of government and with involved ministries and environmental agencies
- › Consider partnering with nearby municipalities for shared resources/servicing/costs





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THANK YOU FOR LISTENING!
QUESTIONS?

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