

COUNCIL WORKSHOP

LID / Climate Change



January 14, 2019, 9:00 a.m. to 12:00 p.m.

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1. THE RISK

- **FLOODING** = Newmarket's highest climate change risk!!
- Extreme weather is now the norm; "Once Per Century" storms now occurring much more frequently
- Risk is heightened by increase in hard surfaces with development (parking lots, rooftops, roads, etc.) and loss of natural green spaces
- Municipalities that do not address the effects of climate change on stormwater management are being held liable (class-action lawsuits)
- Municipal Councils must start considering the strategic importance of climate change adaptation as a priority to reduce flooding, improve the environment and manage the risk of liability

2. WHAT IS NEWMARKET DOING?



- Partnering to address risk (LSRCA, MECP, FCM, YR, NRCan, ECan...)
- Created dedicated position, “Sr. Climate Change Specialist”, funded partly by LSRCA in 2014-16 and now sustainable through storm charge
- Implemented Low Impact Development (LID) – e.g.: bioswales, raingardens, rooftop storage, greenroofs, underground tanks, porous pavement, porous concrete, permeable pavers, etc.
- Changed a culture internally (paradigm shift)
- Applying for many grants (received upwards of \$2 Million in 2017-18)
- Implemented a municipal stormwater charge in 2017 (led by Finance)
- Newmarket now considered a leader in the Lake Simcoe Watershed for new ways to look at Stormwater Management for flood control



3. LID INSTALLATIONS

Pre-2015: (1998 Municipal Offices, 2007 Rodeo Homes, 2012 Mosaik)

2015:

- Woodland Court: Bioswale
- Tom Taylor Trail in Fairy Lake Park: Bioswale & permeable concrete

2016:

- Arnold Crescent: Four bioswales
- Tom Taylor Trail Davis Drive Underpass: Grassed infiltration area
- Forest Glen Road Demonstration Project: Bioswales & raingardens

2017:

- Ray Twinney Rec. Complex: Bioretention and permeable pavers
- Fairy Lake East parking lot: Rain garden
- Queen Street Traffic Calming Pinch Point: Bioswale
- Lundy's Lane: Bioswale

2018:

- Magna Centre: Five enhanced swales before pond (done by LSRCA)
- Lions Park: Naturalized wetland



<https://www.youtube.com/watch?v=iYZy5ytxao0>

4. WHERE DO WE GO FROM HERE?



- Continue our efforts and not lose risk management momentum
- Consider LID and climate change adaptation as a priority
- Ensure that funding continues (we expect grants to become more scarce due to new Provincial policies and upcoming federal election)
- Engage the private sector (Residential, ICI) through education, the creation of incentives and the enforcement of by-laws and policies
- Reduce reliance on SWM ponds to help improve water quality
- Monitor pilot projects for continuous improvement
- Look at a macro-economic approach across municipal borders



5. TODAY'S SPEAKERS

LAURA ZIZZO*

Founder & CEO of Zizzo Strategy, Bay St., Toronto

JAY MICHELS*

Principal, Emmons & Olivier Resources (EOR), Minnesota, USA

MIKE WALTERS*

CAO, Lake Simcoe Region Conservation Authority, Newmarket

**NOTE: Question period after each speaker's presentation*