

Halton Hills LED Lighting Trial Pathway Lighting - 8th Line and 10 SR

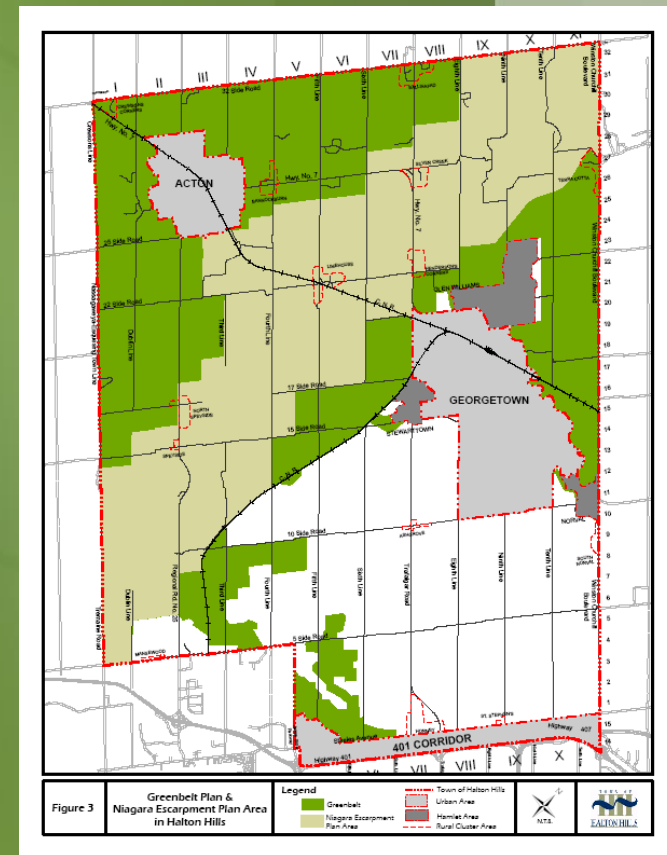
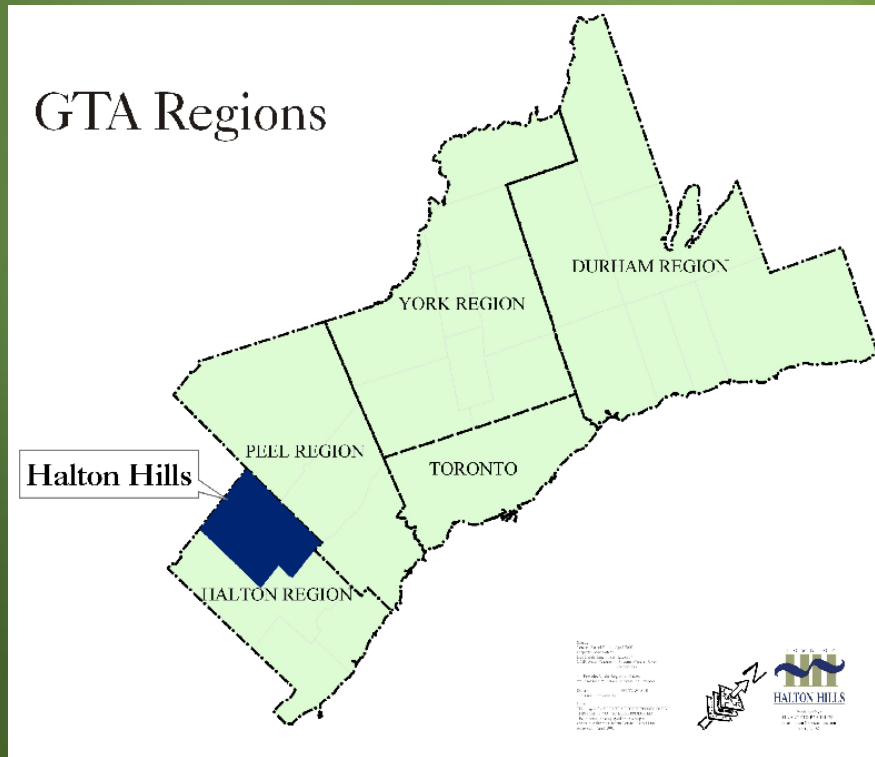
Presentation to LightSavers
Symposium

October 7, 2008

LED Lighting Trial Project

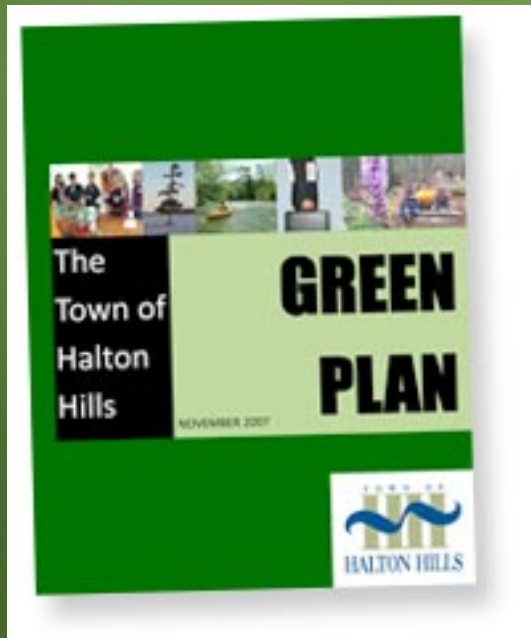
- Background – Halton Hills
- Halton Hills Green Plan
- Trial Project Details
- Next Steps

Halton Hills



Halton Hills Green Plan

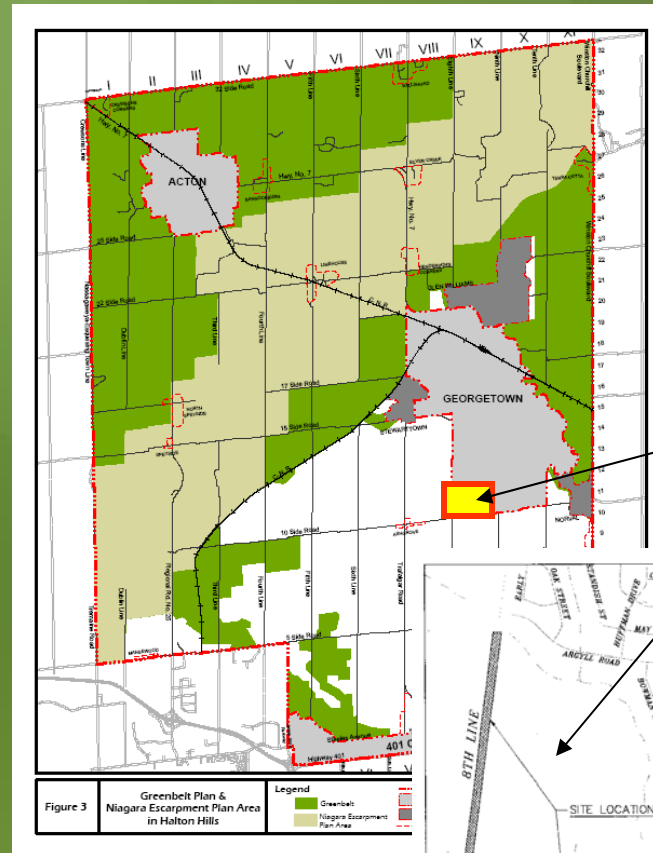
www.haltonhills.ca/townhall/greenplan.php.



- 2006 Halton Hills Official Plan incorporates an “environment first” philosophy
- Green Plan Issued November 2007
- Continuing work on Plan through Sustainability Coordinator
- Sets Goals for schools, businesses and local groups
- Sets goals for Town and other levels of gov’t
- “ *Create policies to encourage energy efficient appliances, light fixtures , bulbs, and water saving devices...*”

Pathway Project Details

- Location
 - Georgetown, 8th Line and 10 Sideroad
- Details
 - Multi Use Path and illumination
 - Ties to Green Plan
 - active transportation
 - energy reduction
 - 2200 meters of path



Project Location



LED Trial Project Details

- 3 Trial Sections
- 88 light poles (66 Conventional, 22 LED)
 - separately metered
 - LED lighting
 - Conventional lighting
 - Mixed
 - Measure
 - Electricity use conventional vs. LED
 - Longevity under identical field conditions
 - Compatibility of systems (possible retrofit)
 - Maintenance effort conventional vs. LED

Details Continued

- Trial Section Cost Estimate
- 66 HPS lights
 - \$3030 for pole, base and light installed
- 22 LED lights
 - \$3116 for pole, base and light installed
- Halton Hills Hydro partners funding to the trial project, \$5000

Selected lighting

- UMA/AECOM - Design Consultant for electrical portion of contract
- Conduct review of available products
- Selection criteria
 - Quality product
 - Warranty
 - Independently tested (photometric)
 - Availability
 - Company background
- Selected Relume LED lights manufactured by Lumicon as supplied by Inforesight Products of Mississauga
- Several other suppliers now available

Comparison

- LED Lights
 - 22 lights
 - \$68500 installed
 - \$7900 premium
 - 3500 kWh/year
 - Maintenance (?)
 - 8 Year payback
- Conventional
 - 20 lights
 - \$60600 installed
 - 5550 kWh/year
 - \$190/year
 - \$40/pole/year
 - \$800/year

Learning to Date

- Wide range of LED quality available
- Maintenance Cost will prove lifecycle
- Difficulty in “specing” a product to use
- Expect more “tests” till lifecycle proven and specs readily available
- Test → New → Retrofit steps
- “Lighting 101” for non-lighting professionals would be useful

Next Steps

- Expected completion on October 17
- Monitoring for electrical consumption in field
- Monitoring maintenance effort
- Decision for next pathway project
- Extension of learning to street lighting
- Possible test of LEDs in a streetlight situation
- Watch for a “true” replacement

Report Back to Council

- Is this a Green Technology that actually saves money?
- Do they Work? – Yes
- Do they Save Electricity? – Very Likely
- Are upfront costs recovered by electricity and maintenance savings
- Kicker

Questions?