



TO: GENERAL COMMITTEE

SUBJECT: SPIRIT CATCHER LIGHTING UPGRADE

WARD: 2

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SUBMITTED BY: R. PEWS, DIRECTOR OF CORPORATE FACILITIES

GENERAL MANAGER APPROVAL: D. MCALPINE, GENERAL MANAGER OF COMMUNITY AND CORPORATE SERVICES

CHIEF ADMINISTRATIVE OFFICER APPROVAL: M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That the existing lighting surrounding the Spirit Catcher feature be replaced with high efficiency LED fixtures at a cost not to exceed \$4,000.
2. That the replacement of the existing fixtures with recommended white-coloured fixtures as further outlined in Staff Report FCT005-18 be funded from operational savings realized within the 2018 Corporate Facilities operational budget.

PURPOSE & BACKGROUND

Report Overview

3. The purpose of this Staff Report is to provide options available to General Committee to enhance the lighting surrounding the Spirit Catcher located at the Bayfield basin.
4. On February 24, 2014, City Council adopted motion 14-G-047 regarding an INVESTIGATION RELATED TO ENHANCED LIGHTING SURROUNDING THE SPIRIT CATCHER as follows:

"That staff investigate the feasibility of enhancing the lighting surrounding the Spirit Catcher in the evening utilizing environmentally friendly, low capital and operating cost options to expand its attractiveness for residents and tourists, and report back to the General Committee on the financial implications."

ANALYSIS

5. The Spirit Catcher, crafted by Ron Baird, was installed at the waterfront in 1987. At the time of its installation, four ground-based uplights were installed to illuminate the feature in the evenings.
6. The existing metal halide fixtures are nearing end of life, which has reduced the light output and quality. The fixtures will require refurbishment in the near future.
7. Improvements in LED technology provide a cost effective opportunity to enhance the quality and brightness of the Spirit Catcher lighting. LED lights require less power, provide better beam spread and last significantly longer than the lights currently installed.

8. More recent technological advancements make an alternative option to replace the existing white-light fixtures with programmable colour-changing fixtures viable. While significantly more expensive than a standard white-light fixture, these alternative colour-changing fixtures add the ability for staff to easily change light colours as may be appropriate for waterfront events, further enhancing the lighting of the Spirit Catcher.
9. Staff installed a temporary mock-up of both options. Appendix A captures the difference between the two LED conversion options.
10. The cost for white and colour changing LED options are as follows:

LED Conversion Options	Capital Cost
1) White Light (recommended)	\$4,000
2) Colour Changing	\$18,750

11. Option 1 meets Council's request to identify a solution to enhance the lighting of the Spirit Catcher in an environmentally friendly, low capital and operating cost manner.
12. The alternative Option 2 allows for various colour configurations that are pre-programmed during the installation process. Operationally, occasional changing of the Spirit Catcher colours will require a minimal increase in staff time and resourcing and can be handled within approved operational budgets.

ENVIRONMENTAL MATTERS

13. The following environmental matters have been considered in the development of the recommendation:
 - a) Existing wiring may be reused, reducing cost and waste.
 - b) LED lamps last approximately five times longer than the existing high intensity discharge lamps, therefore reducing waste through reduced lamp changes.
 - c) LED lamps require less energy than the existing lamps reducing electricity consumption.
 - d) Properly designed, LED technology reduces unwanted lighting spill / pollution.

ALTERNATIVES

14. The following alternatives are available for consideration by General Committee:

Alternative #1

General Committee could choose to receive this report and take no further action.

This alternative is not recommended as the current lighting is inadequate for the iconic waterfront art piece.

Alternative #2

General Committee could authorize staff to install colour changing LED lamps in lieu of the recommended monochromatic LED lights, to be funded from the Tax Capital Reserve.

Although this alternative is available, the cost of multi-colour fixtures, plus the required controller and additional wiring is significantly higher than the proposed monochromatic fixtures.

FINANCIAL

15. The costs associated with enhancing the lighting surrounding the Spirit Catcher have not been included in the 2018 Business Plan. Due to the minor nature of the proposed replacements with white-colour LED fixtures, Corporate Facilities personnel are able to purchase and install new fixtures in-house, utilizing funding realized through 2018 Operating Budget efficiencies.
16. Should Alternative 2 be chosen, it is recommended that the fixture purchase cost associated with the capital improvement be funded from the Tax Capital Reserve.
17. With either option, the LED lighting retrofit will decrease operating costs by \$500 annually through a reduction in electrical consumption. SaveOnEnergy incentives of \$300 are available to support the capital cost of replacement.

LINKAGE TO 2014-2018 STRATEGIC PLAN

18. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:

- Responsible Spending

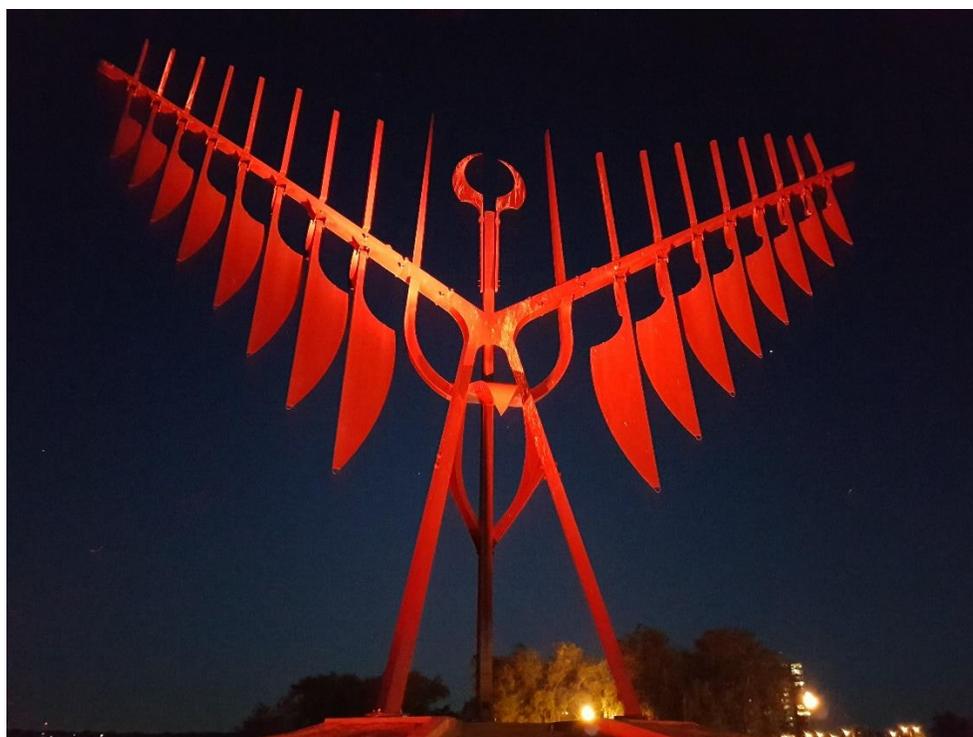
The Spirit Catcher has been a focal point of the Barrie Waterfront since 1987, and this minor capital investment will greatly enhance its visibility to residents and tourists from both land as well as from Kempenfelt Bay.

APPENDIX "A"

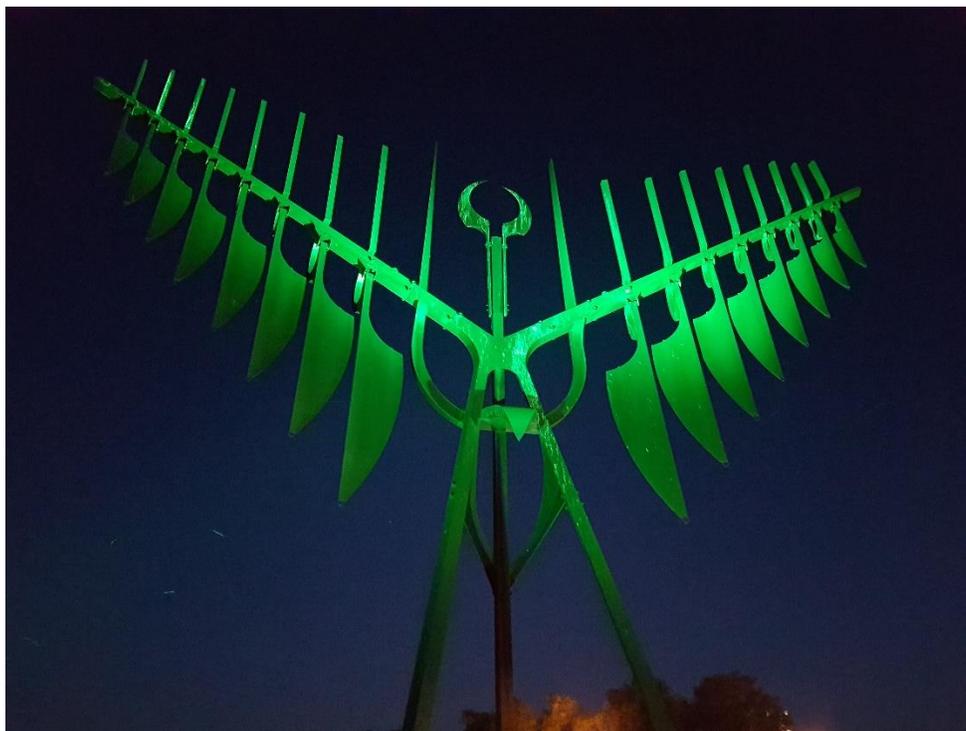
Picture 1 – Option 1 (White Light LED Conversion)



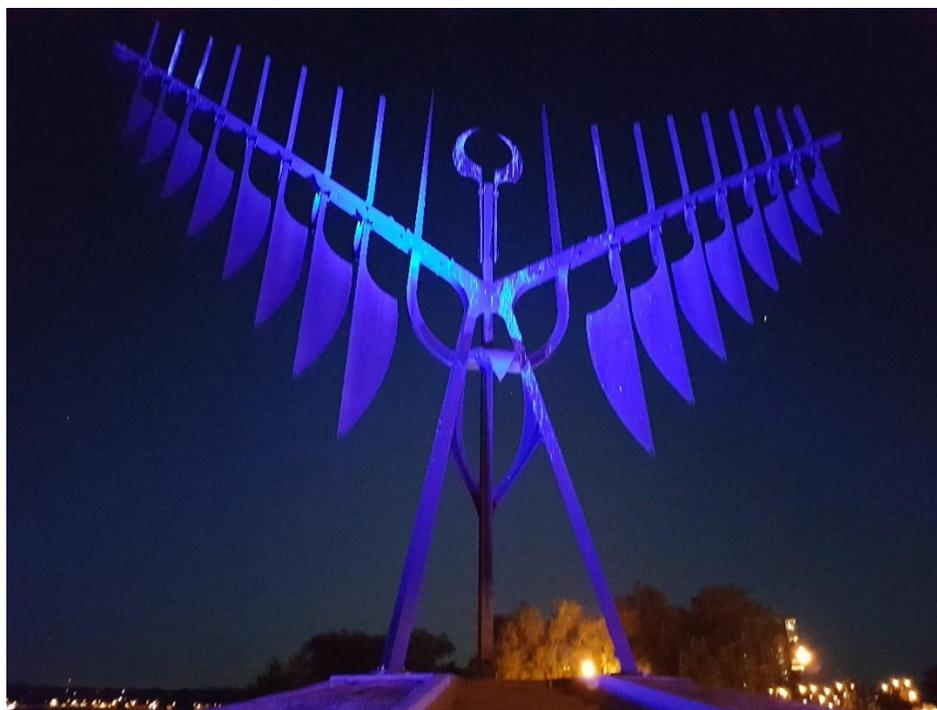
Picture 2 – Option 2 (Colour Changing LED Conversion)



Picture 3 – Option 2 (Colour Changing LED Conversion)



Picture 4 – Option 2 (Colour Changing LED Conversion)



Picture 4 – Option 2 (Colour Changing LED Conversion)
The full spectrum of colours is available with this option, including white

