



TO: Board of Directors

FROM: Christa Sharp
Restoration Program Coordinator, Watershed Restoration Services

DATE: November 1, 2019

SUBJECT: Goodyear Farms Best Management Practices Construction Project to address Agricultural Surface Runoff

RECOMMENDATION: THAT Staff Report No. 49-19-BOD regarding a restoration project to address agricultural surface runoff from Goodyear Farms in the Township of Brock be received; and

FURTHER THAT funding through LSRCA's granting program for Phase 1 at a cost of 50% to an upset limit of \$250,000 excluding taxes be approved; and

FURTHER THAT staff be directed to bring a funding request to the Board of Directors in early 2020 for Phase 2 of the project.

Purpose of this Staff Report:

The purpose of this Staff Report No. 49-19-BOD is to seek approval for funding of a restoration project to address agricultural surface runoff from Goodyear Farms in the Township of Brock at a cost of 50% to an upset limit of \$250,000 excluding taxes.

Background:

The Goodyear Farms property is located in Beaverton, Township of Brock, adjacent to Lake Simcoe. This farm property has received significant attention over the last number of years because it has been generating agricultural surface runoff and discharging sediment directly into Lake Simcoe.

The landowner has been making efforts to reduce the runoff over the past few years and has used cover crops to reduce erosion, taken land out of production, planted windbreaks around the property, and most recently installed rock check dams to reduce soil erosion. All of these attempts, while beneficial, have unfortunately not fully addressed the sediment plumes that enter Lake Simcoe during the larger rain events.

In December 2018, Staff Report No. 50-18-BOD was approved, for LSRCA and the landowner to retain Emmons & Olivier Resources Canada, Inc. to design a best management practices (BMPs) plan to control runoff and sediment release which included wetlands along the edge of the fields to slow any overland flow and filter any sediment, water and sediment control basins (WASCOB'S) with Hicken bottom drains at areas with higher volumes of flow and sedimentation, grassed waterways, reinforcement of laneways, land retirement, riparian buffers, and additional tree planting plans to create a windbreak.

These features will assist with filtering surface runoff and water re-use from approximately 275 hectares (667 acres) of farmland. Additional details may be found in Appendix #1, BMP Implementation Plan Map.

Issues:

Goodyear Farms has implemented most of the BMPs identified in the Preliminary Recommendations for Goodyear Farm Rural BMP Implementation, including:

- Grassed waterways
- Trapezoidal ditches
- Rock berms
- Upgraded culverts
- Stabilized access roads
- Cover crops
- Vegetated buffers
- Maintenance of silt fences

The Implementation Plan consists of:

- 2 wet ponds (Water control and irrigation)
- 3 WASCOB's
- Grassed waterways
- Cover crops
- Stabilized and graded access roads including at grade crossings
- Trapezoidal and two-stage ditches
- Culverts with rock aprons
- Riparian buffers
- Operation and maintenance recommendations

Executing the Implementation Plan as recommended will achieved the following:

- Up to 80% reduction in Total Suspended Solids on an average annual basis, which will in turn improve water balance, phosphorus reduction and attenuation of runoff; and

- The BMP's will also reduce crop erosion, trap suspended sediment, mitigate flood risk and in-stream erosion.

Impact on Authority Finances:

The estimated total cost to undertake the project is \$1.5 million excluding taxes. This includes design, materials and supplies, construction and contractor fees, farm labour and the estimated cost of land lost to production. Of this total, it has been determined that \$805,000 of the cost would be eligible for funding under LSRCA's granting program.

Due to the size of the project and unique nature of the work, as well as the potential to use the site to demonstrate BMPs, staff is recommending that the project be divided into two phases with construction beginning in 2019 and concluding 2020. Phase 1 to be completed in 2019 would involve the creation of five structures (two sediment control ponds and three sediment control basins). The remaining work (Phase 2) to be completed in 2020 involves the creation of grass waterways and other drainage work. The 2019 funding requirement is estimated at \$250,000, and the remaining balance of \$152,500 would be funded from the 2020 budget. Staff is recommending that LSRCA's Restoration Program funds 50% to an upset limit of \$402,500 excluding taxes (over the two years). This funding would be allocated from Restoration and Regeneration special capital.

Summary and Recommendations

It is therefore RECOMMENDED THAT Staff Report No. 49-19-BOD regarding a restoration project to address agricultural surface runoff from Goodyear Farms in the Township of Brock be received; and FURTHER THAT funding through LSRCA's granting program for Phase 1 at a cost of 50% to an upset limit of \$250,000 excluding taxes be approved; and FURTHER THAT staff be directed to bring to the Board of Directors in early 2020 a funding request for Phase 2 of the project.

Pre-Submission Review:

This Staff Report has been reviewed by the General Manager, Planning and Development and the Chief Administrative Officer.

Prepared by: Christa Sharp, Restoration Program Coordinator

Signed by:

Rob Baldwin
General Manager,
Planning and Development

Signed by:

Michael Walters
Chief Administrative Officer

Attachment: Appendix #1: Goodyear Farms – BMP Implementation Plan Map

