

GLASI

Great Lakes Agricultural
Stewardship Initiative

Priority
Subwatershed
Project

Jeannettes Creek Subwatershed

Agricultural Phosphorus Reduction
and Monitoring Program







Jeannettes Creek Priority Subwatershed Project

“What is the cost to reduce phosphorus loss from the agricultural landscape (in \$/kg of reduction) using a targeted stewardship approach?”

The Lower Thames Valley Conservation Authority (LTVCA) is pleased to announce the launch of the Jeannettes Creek Agricultural Phosphorus Reduction and Monitoring Program. The program will be offered from 2015-2018.

The Jeannettes Creek Priority Subwatershed Project will evaluate the effectiveness of a focused stewardship approach on achieving measurable improvements to soil health and water quality. Reductions in edge-of-field losses of soil and nutrients, with a focus on phosphorus will be measured. This will be achieved by implementing

several highly targeted agricultural Best Management Practices (BMPs) in the Jeannettes Creek Subwatershed.

The goal is to observe cumulative reductions in soil and nutrient loss from the field’s edge as a direct result of the implemented BMPs.

Support for this project was provided by Ontario Soil and Crop Improvement Association (OSCIA) through the GLASI Priority Subwatershed Project. Funding is from the Ontario Ministry of Agriculture, Food, and Rural Affairs, and Agriculture and Agri-Food Canada through Growing Forward 2.



Funding Availability

Funding

Funding will be available to farmers to implement the following agricultural BMPs:

- **BMP 1 Cover Crops**
- **BMP 2 Alternative Phosphorus Application Practices**
- **BMP 3 Crop & Field Nutrient Management Plans**
- **BMP 4 Buffer Strips**
- **BMP 5 Drainage & Water Management**
- **BMP 6 Conservation Tillage**

Monitoring Implemented BMPs

Participating farmers must be willing to allow on-going monitoring of the BMPs on their farm landscape for a time period of at least 3 years and must also be open for discussions with LTVCA staff throughout implementation of the project. All monitoring initiatives and costs will be performed and paid for by the LTVCA.

The maximum funding for each eligible farm business is \$75,000 awarded over the duration of the Priority Subwatershed Project.

STEPS TO COST-SHARE FUNDING

Step 1

Satisfy the eligibility criteria listed on page 6.

Step 2

Review the Jeannettes Creek Priority Subwatershed Project eligible BMPs and levels of funding listed from pages 8 to 19. Determine what BMPs you would like to implement into your farm operation.

Step 3

Contact an LTVCA project staff member to set-up a site visit to learn more about the monitoring commitments and additional funding opportunities.

Step 4

Apply for cost-share funding by submitting a completed enrollment form and application form to the LTVCA or Ontario Soil and Crop Improvement Association (OSCIA).

Step 5

The LTVCA and OSCIA review submitted applications. You will be informed of project approval within 45 days. You will also receive confirmation of the level of funding that has been allocated to your project.

Step 6

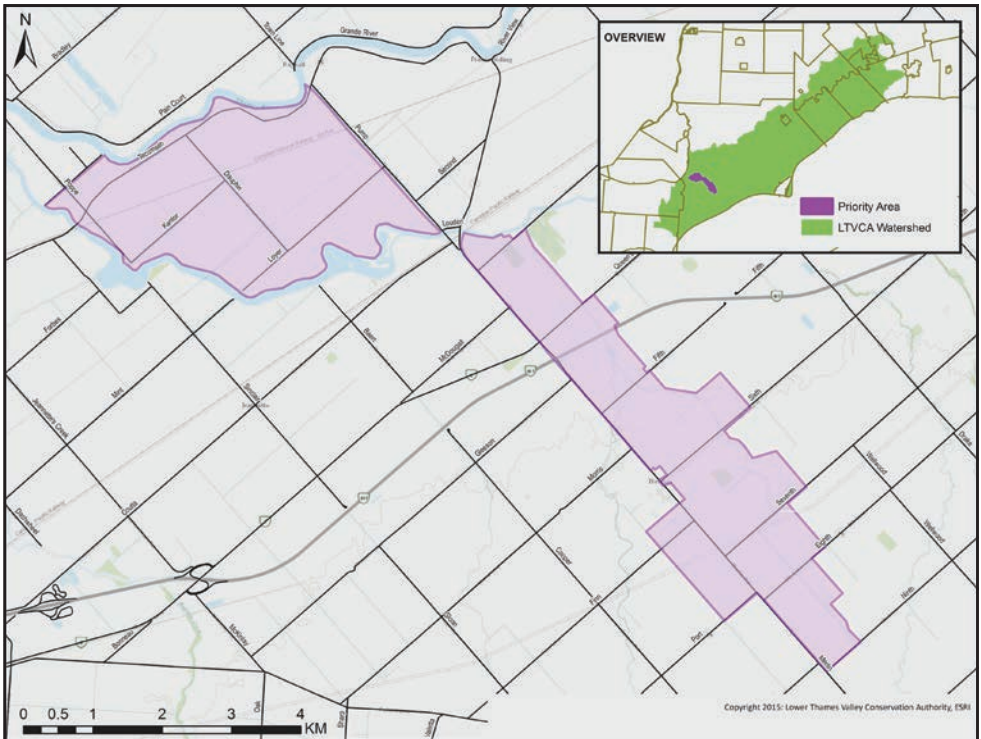
After receiving project approval, complete your project and submit your claim form to the LTVCA.

AM I ELIGIBLE FOR THE PROGRAM?

To be eligible to participate in the program, applicants and the farm property where the BMP will be implemented must:

- 1** Have a Farm Business Registration Number or can provide an appropriate religious, cultural, or grass farm income exemption.
- 2** Have a Premises Identification Number (PID).
- 3** Be located in the Jeannettes Creek Target Area.

Jeannettes Creek Target Area



BEST MANAGEMENT PRACTICES

Cover Crops

BMP 1

Alternative Phosphorus Application Practices

BMP 2

Crop & Field Nutrient Management Plans

BMP 3

Buffer Strips

BMP 4

Drainage & Water Management

BMP 5

Conservation Tillage

BMP 6

BMP 1 Cover Crops

Funding is available to encourage an increased use of non-harvested and non-grazed cover crops. This will provide undisturbed cover on fields when they normally would remain bare over the winter and early spring months, susceptible to runoff.

Cover crops can be utilized to:

Prevent soil erosion

Retain nutrients

Combat weeds

Improve soil health/structure



Funding Eligibility

Eligible Activities

- Seeding and establishment costs
- Single stands, intercropping, one variety or complex mixes

Ineligible Activities

- Costs associated with mechanical or chemical termination of the cover crop
- Equipment modification costs
- Fertilizer and crop protection costs
- Crops that will be harvested, grazed or fall terminated

| Jeannettes Creek Cover Crop Cost-Share Structure | | |
|---|----------------------------|-----------------------------|
| Targeted BMP | Eligible Activities | Eligible Cost Share* |
| Cover Crop Planting and Establishment | 1 - 2 Species Mix | 60% |
| | 3 - 7 Species Mix | 70% |
| | 8+ Species Mix | 80% |

*For each eligible farm business

BMP 2

Alternative Phosphorus Application Practices

Funding is available for farmers to adopt alternative phosphorus application practices that will optimize the placement and timing of fertilizer application on their field, making the nutrient less susceptible to runoff.

Alternative phosphorus application practices can be utilized to:

**Improve the efficiency of
crop nutrient uptake**

**Reduce susceptibility to
nutrient runoff & loss**

Increase crop yields



Funding Eligibility

Eligible Activities

- Set costs per acre per eligible farm business, to support behaviour change, with performance based incentives
- Each farmer is eligible for funding for ONE Alternative Phosphorus Application BMP practice per year per field

Ineligible Activities

- Transportation costs of exported or imported manure from or to the farm

Jeannettes Creek Alternative Phosphorus Application Practices Cost-Share Structure

| Targeted BMP | Eligible Activities | Eligible Per Acre Payment |
|--|--|---------------------------|
| Alternative Phosphorus Application Practices | Banding of Phosphorus at Planting | \$25 / acre |
| | Incorporation of Phosphorus at time of application | \$15 / acre |
| | Variable Rate Application of Phosphorus | \$20 / acre |
| | Below Canopy Application | \$20 / acre |

BMP 3

Crop & Field Nutrient Management Plans

Funding is available for farmers to have 5 year written plans prepared by a Certified Crop Advisor (CCA) or other designated specialist for each field.

The plan will make recommendations for each applicable field and crop based on the themes of 4R nutrient management, considering factors such as:

Nutrient source

Application rate

Application timing

Nutrient placement



Funding Eligibility

Eligible Activities

- Soil testing and mapping exercises that are necessary for the plan
- Expert services provided by an eligible professional/ consultant
- Planning and design support tools (e.g. computer software related to development of plan)

Ineligible Activities

- Computer hardware
- Claims for time invested by the producer in plan preparation
- Routine crop scouting and pest monitoring

| Jeannettes Creek Crop & Field Nutrient Management Plans | | |
|--|--|-----------------------------|
| Targeted BMP | Eligible Activities | Eligible Cost Share* |
| Crop Nutrient Plans or Field Nutrient Management Plans | Grid or Zone Soil Sampling | 80% |
| | Crop Nutrient Management Plan | 80% |
| | Variable Rate Prescriptions for Phosphorus Application | 80% |

*For each eligible farm business

BMP 4

Drainage & Water Management

Funding is available for the installation of tile headers or tile mains at the fields edge, to reduce the number of existing tile lateral outlets entering the drain system.

Additional funding will be available for projects that incorporate the use of tile outlet rock spillways and riparian buffer strips. Benefits include:

Reduced number of field tile drain outlets

Reduced movement of sediment

Drain bank stabilization

Reduced municipal drain maintenance



Funding Eligibility

Eligible Activities

- Infrastructure and development costs to install tile headers or mains
- Infrastructure and development costs to install rock chute or rip rap spillways with filter cloth at tile main drain outlets or outfalls
- Upgrade/modify existing tile header or main outlets

Ineligible Activities

- Installation of field lateral tiles

| Jeannettes Creek Drainage and Water Management Cost-Share Structure | | | |
|--|--|----------------------|---------------------|
| Targeted BMP | Eligible Activities | Eligible Cost Share* | Maximum Funding Cap |
| Tile Header (or Main) Installation at Edge of Field/ Ditch Bank | Installation of tile header or main at edge of field/drain | 50% | \$7,500 |
| | Installation of tile header or main that includes rock chutes or rip rap at tile main outlet or tile outfall | 60% | \$12,500 |

*For each eligible farm business

BMP 5 Buffer Strips

Funding is available for farmers to establish permanently vegetated buffer strips within riparian zones alongside drains, ponds, and wetlands.

Buffer Strips shall be a minimum of three metres in width from top of bank. Benefits include:

Reduced movement of sediment, nutrients, and pesticides

Drain bank stabilization

Reduced municipal drain maintenance

Pollinator and wildlife habitat creation



Funding Eligibility

Eligible Activities

- Seeding field margins within riparian areas that were annually-cropped within the past two years to permanent vegetative cover
- Purchase and planting of permanent native or non-invasive introduced species of shrubs, grasses, legumes, or wildflowers, to stabilize riparian zones and provide pollen and nectar for pollinator species

Ineligible Activities

- Annual payments for land taken out of annual crop production
- Planting invasive plant species
- Ongoing maintenance costs

| Jeannettes Creek Buffer Strip Cost-Share Structure | | |
|---|---|-----------------------------|
| Targeted BMP | Eligible Activities | Eligible Cost Share* |
| Buffer Strips | Planting and establishment of buffer strips adjacent to drain or watercourse. | 80% |

*For each eligible farm business

BMP 6 Conservation Tillage

Funding is available for farmers to modify new or existing equipment that supports improvements in conservation cropping systems to benefit soil health and to reduce the risk of phosphorus loss.

Benefits include:

Improve soil health/structure

Improve crop nutrient use efficiency

Increase yields



Funding Eligibility

Eligible Activities

- Purchasing of new equipment
- Planter modifications
- Toolbar modifications
- Parts and labour

Ineligible Activities

- Any equipment that does support an improvement in soil health or decrease the risk of phosphorus loss
- Tires
- Maintenance costs
- Separate pass cultivation unit or incorporation equipment
- Warranties for equipment or components
- GPS units

| Jeannettes Creek Conservation Tillage Cost-Share Structure | | | |
|---|---|----------------------|---------------------|
| Targeted BMP | Eligible Activities* | Eligible Cost Share* | Maximum Funding Cap |
| Conservation Tillage | <ul style="list-style-type: none"> • Purchasing of new equipment • Planter modifications • Toolbar modifications • Parts and labour | 60% | \$10,000 |

***Each applying landowner will be required to explain how the tillage or equipment modification will benefit their soil health and reduce the risk of phosphorus loss.**

LANDOWNER SURVEY & INTERVIEW

Applicant farmers who receive funding to implement BMPs through the program will be asked to perform a land use survey with a representative from the LTVCA.

The survey will ask questions regarding previous and current land use practices, such as:

Crop Rotation

Fertilizer Application

Manure Application

Tillage Practices

Surface Residue Cover



LTVCA CONTACT INFORMATION

If you are interested in implementing a Best Management Practice on your farm through the Jeannettes Creek Priority Subwatershed Program please contact

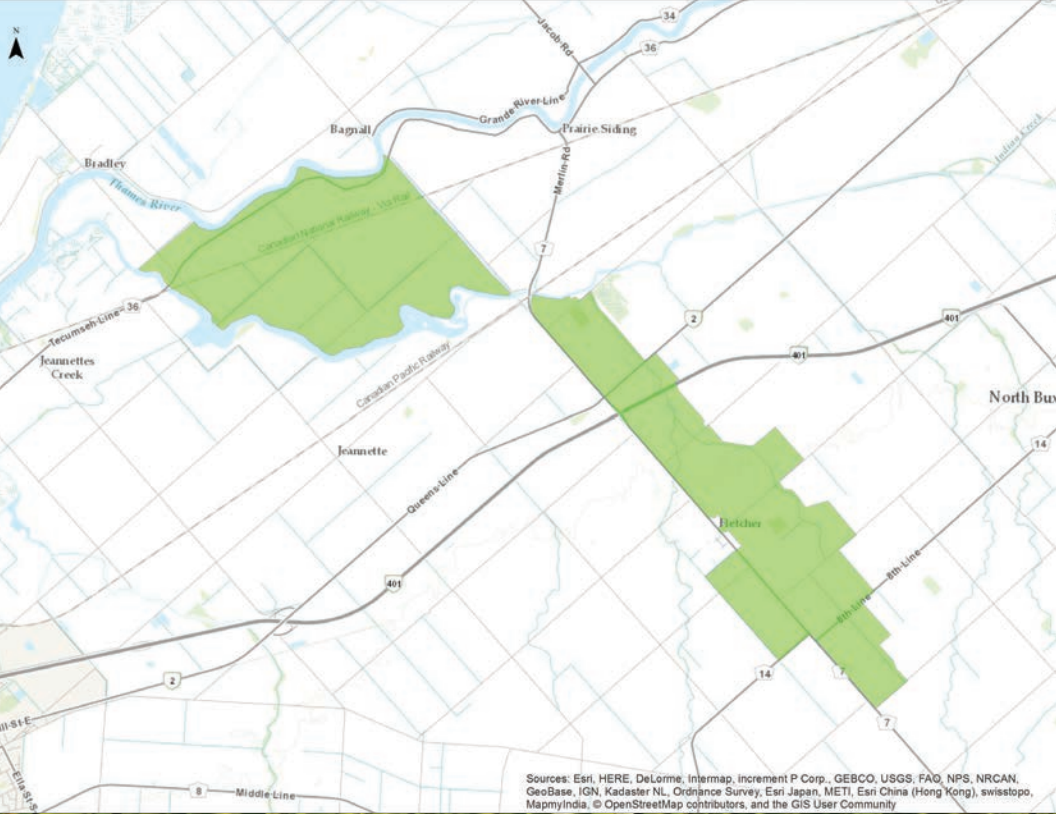
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The views expressed herein are those of the Lower Thames Valley Conservation Authority and do not necessarily reflect those of Ontario.