

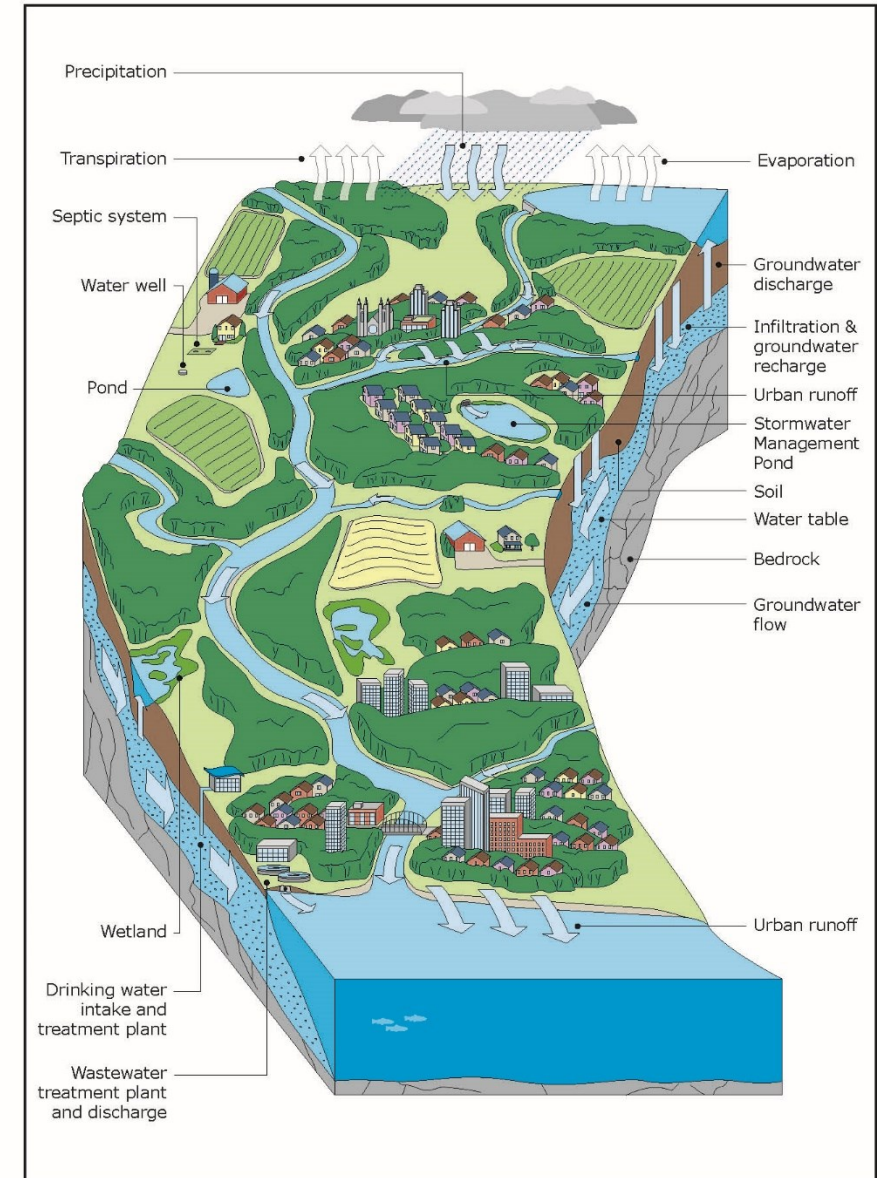
Clythe Creek Subwatershed Study Update

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What is a watershed?

- A watershed is an area that is drained by a river and its tributaries
- A subwatershed is an area that is drained by a tributary or some defined portion of a stream

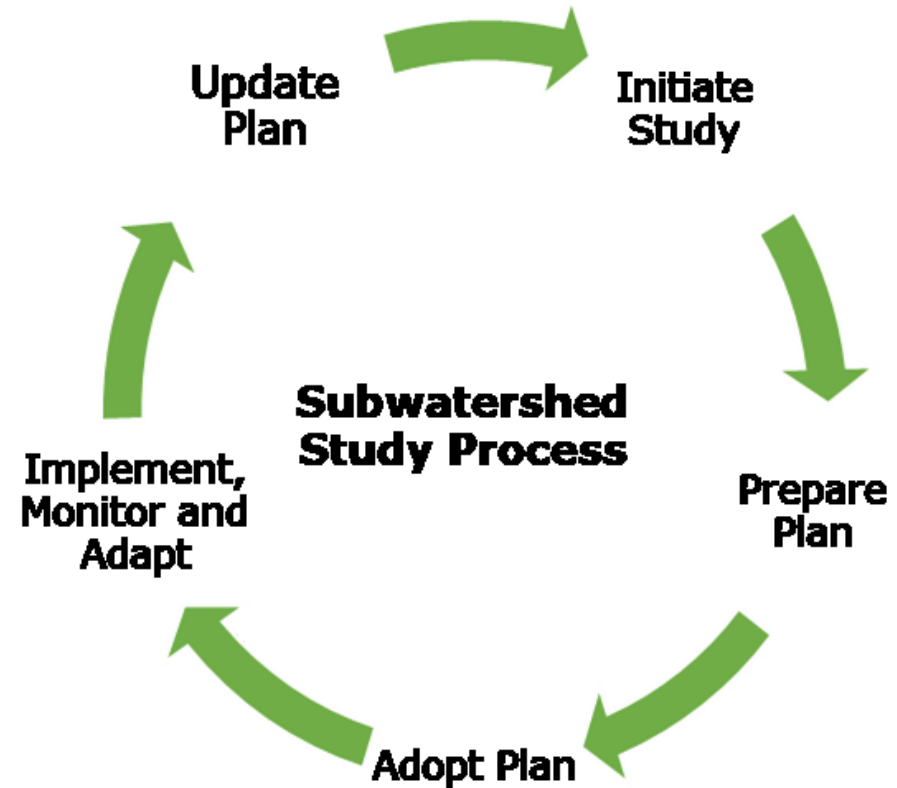


What is watershed planning?

- Watershed planning is a process used to:
 - Identify and manage water resource systems
 - Protect the quality and quantity of water
 - Assess and mitigate impacts
- Watershed or subwatershed plans generally include:
 - Watershed characterization (baseline conditions)
 - Goals and objectives
 - Issues, impacts and management recommendations
 - Implementation tools
- Watershed planning is a requirement under the Planning Act, Provincial Policy Statement and A Place to Grow (Provincial Growth Plan)
- Guelph's Official Plan directs the use of watershed planning as a basis for environmental, land use and infrastructure planning

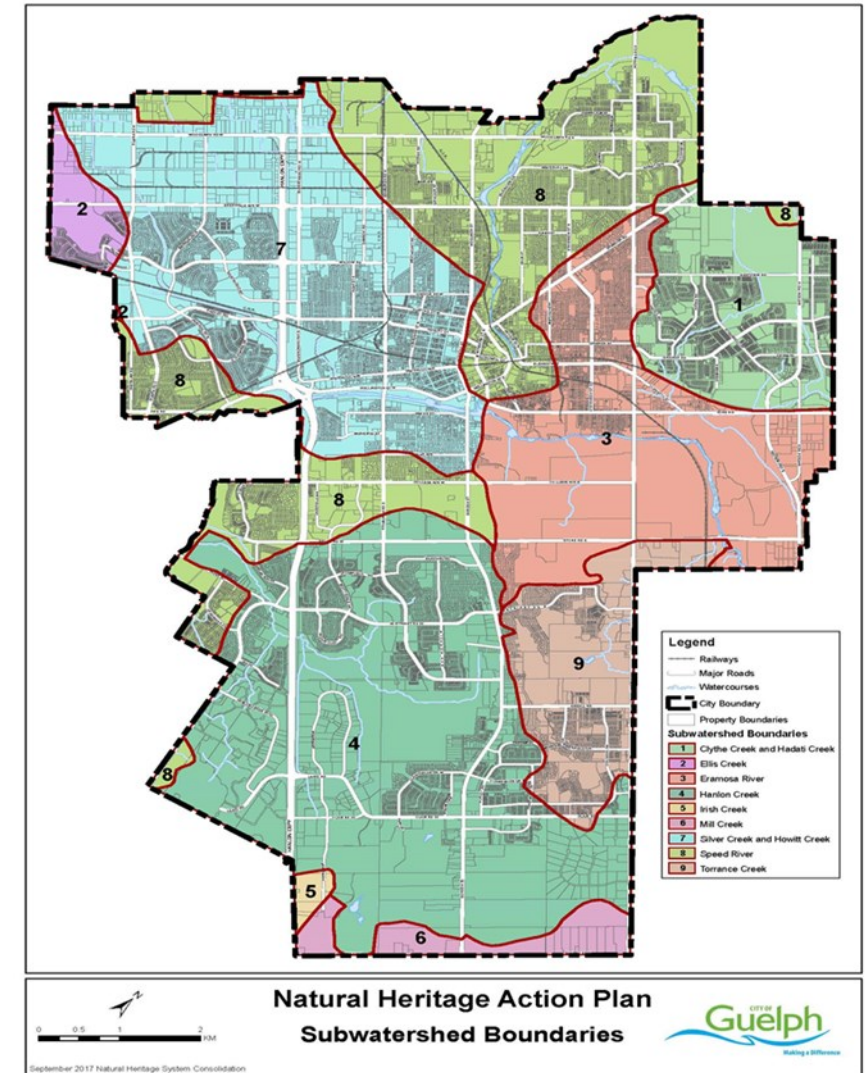
Subwatershed study process

- The subwatershed study process is cyclical and involves the development, implementation and regular updating of watershed plan



Guelph's subwatersheds

- Most studies are more than 20 years old
- Several studies were not fully implemented
- Monitoring has not been completed
- Each study established its own approach, resulting in:
 - different levels of detail
 - different thresholds, recommendations and implementation tools



Guelph's subwatershed studies

- Existing subwatershed studies or subwatershed study equivalents
 - Hanlon Creek Subwatershed Plan (1993)
 - Clythe Creek Subwatershed Study (1997)
 - Mill Creek Subwatershed Plan (1997)
 - Torrance Creek Subwatershed Study (1998)
 - Eramosa River Blue Springs Creek Watershed Study (1999)
 - East Side Subwatersheds Study 2005-2010 (2014)
 - Clair-Maltby Comprehensive Environmental Impact Study (2021)
- Planned subwatershed study equivalents
 - Block Plans for Guelph Innovation District
- No subwatershed study or subwatershed study equivalents
 - Speed River
 - Silver Creek and Howitt Creek
 - Irish Creek

Natural Heritage Action Plan

The Natural Heritage Action Plan identified overall gaps in the state of the City's watershed planning programs, and recommended two actions:

1. Undertake a background review of existing subwatershed studies
2. Develop a framework for completing and prioritizing subwatershed studies

Subwatershed study framework

- The framework includes four different categories:
 - New study
 - Study update
 - Monitor and adapt
 - Other
- Establish detailed study scopes at the beginning of each study
- The framework will help with budgeting and prioritizing subwatershed studies

Prioritization of subwatershed studies

1. Clythe Creek – Study update
2. Speed River – New study
3. Hanlon Creek – Monitor and adapt
4. Torrance Creek – Monitor and adapt
5. Eramosa River – Study update
6. Silver Creek and Howitt Creek – New study
7. Mill creek – Monitor and adapt

Ellis Creek and Chillico Creek – Other

Irish Creek - Other

Prioritization of Clythe Creek subwatershed

Clythe Creek Subwatershed Study Update is prioritized to:

- support implementation of the York Elizabeth Land Use Study
- support bringing the Clythe Well back online under an existing Permit To Take Water
- identify a water resource system
- evaluate hydrologic change within the wetlands associated with Watson Creek
- recommend stormwater management controls
- prioritize restoration and enhancement opportunities in wetlands, Hadati Creek, Clythe Creek and Watson Creek

Clythe Creek subwatershed

- The Clythe Creek subwatershed is:
 - located in east Guelph and neighbouring Guelph Eramosa Township
 - in the Eramosa River watershed, and includes Hadati Creek and Watson Creek
 - is managed as a cold to cool water system with cold water restoration potential
- The subwatershed contains the Clythe Well, a municipal water supply well with an existing water taking permit



Subwatershed study initiation and phases

- Study Initiation
 - Establish vision, objectives, goals and targets
 - Define study area
 - Develop engagement plan
 - Partner with Indigenous Communities
 - Establish Steering Committee and Technical Advisory Committee
 - Prepare Terms of Reference for Request for Proposals
- Phase 1 Existing Conditions
- Phase 2 Impacts, scenarios and directions
- Phase 3 Watershed plan implementation

Items to include in Terms of Reference

- delineate subwatershed boundary
- identify and map the water resource system
- update floodplain mapping
- identify restoration priorities
- prioritize stormwater management improvements
- establish monitoring recommendations
- provide climate change and watershed management recommendations

Technical experts and stakeholders

- Watershed Working Group comprised of internal City of Guelph staff
 - Planning/Environmental Planning
 - Development Engineering
 - Infrastructure Engineering
 - Water Services: Water Supply and Source Water Protection
- Grand River Conservation Authority
- County of Wellington
- Township of Guelph Eramosa
- Ministry of Environment, Conservation and Parks
- Ministry of Northern Development, Mines, Natural Resources and Forestry

Question 1

What do you know about the Clythe Creek Subwatershed?

Question 2

What themes should be captured in the vision, objectives, goals and targets?

Question 3

Who should we engage?

How should we engage?

How frequently should we engage?

Question 4

What are your thoughts on a Subwatershed Steering Committee?

What are your thoughts on a Technical Advisory Committee?

Question 5

What are your thoughts on standardizing an approach for subwatershed studies in Guelph?