

ENVIRONMENTAL IMPACT STUDY (EIS) IN THE DEVELOPMENT PROCESS

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<https://www.kitchener.ca/en/water-and-environment/environmental-impact-study.aspx>

Preserving the integrity of our natural areas goes together with sustaining the health and vitality of our community and enhancing the quality of life for all of us.

Whenever development is proposed within or adjacent to a significant natural area or feature within our city, and expected to adversely affect the natural space, we require one of the following processes to be conducted:

- An Environmental Impact Study (EIS) - is required to be conducted when a development is proposed within or adjacent to a significant natural area or feature and is reasonably expected to have adverse effects on the area or feature because of proposed changes in landuse(s).
- An Environmental Implementation Report (EIR) - is essentially the same as an EIS but is applicable only to areas in Kitchener that have an approved Subwatershed Study or Watershed Study (e.g., Strasburg Creek)

To help those individuals, agencies and environmental consultants who will be involved with preparing Environmental Impact Studies in the City of Kitchener, we've created an Example EIS Table of Contents and an Outline of the EIS Process.

Please note, The Table of Contents and Outline of the EIS Process are general. On a case-by-case basis, Planning and/or Agency staff may reduce the scope of an EIS and/or give more precise technical guidance regarding the type of information or level of research effort to be included.

Example EIS Table of Contents

1. Introduction
 - 1.1. Study Area
2. Project Methodology
 - 2.1. Guiding documents and relevant studies
 - 2.2. Data Sources
 - 2.3. Geology and Hydrogeology
 - 2.4. Ecology
 - 2.5. Planning
 - 2.6. Engineering
3. Policy Framework
 - 3.1. Provincial Policy Statement
 - 3.1.1. Natural Heritage Reference Manual
 - 3.1.2. Significant Wildlife Habitat Technical Guide
 - 3.2. Region of Waterloo Official Plan
 - 3.3. City of Kitchener Official Plan
 - 3.4. City of Kitchener Natural Heritage System Technical Background Report (KNHS)
 - 3.5. Ontario Endangered Species Act
 - 3.6. Grand River Conservation Authority Ontario Regulation 150/06
 - 3.7. Federal Fisheries Act
4. Field Inventories
 - 4.1. Terrestrial Field Surveys
 - 4.1.1. Vegetation Surveys
 - 4.1.2. Breeding Bird Surveys
 - 4.1.3. Amphibian Surveys (see also (B) below)
 - 4.1.4. Other Wildlife
 - 4.2. Aquatic Field Surveys
 - 4.2.1. Benthic Surveys
 - 4.2.2. Fish Community Surveys
 - 4.2.3. Fish Habitat Assessment
 - 4.2.4. Amphibian Surveys (see also (A) above)
 - 4.3. Significant Wildlife Habitat Assessment (See KNHS Section 3.5)
 - 4.3.1. Seasonal Concentration Areas
 - 4.3.2. Rare Vegetation Communities
 - 4.3.3. Specialized Wildlife Habitat
 - 4.3.4. Habitats of Species of Conservation Concern
 - 4.3.5. Animal Movement Corridors
 - 4.4. Species at Risk Screening (See KNHS Section 3.1)
5. Existing Conditions
 - 5.1. Physical Characteristics
 - 5.1.1. General Topography & Geology (including Significant Landforms, see KNHS Section 3.6)
 - 5.1.2. Surficial Soils
 - 5.1.3. Groundwater System (See KNHS Section 3.10)
 - 5.1.4. Surface Drainage

- 5.2. Vegetation (See KNHS Sections 3.2, 3.3 and 3.4)
 - 5.2.1. Vascular Flora
 - 5.2.2. Vegetation Communities
 - 5.2.3. Tree Inventory (per methods in City's *Tree Management Policy*)
- 5.3. Wildlife
 - 5.3.1. Birds
 - 5.3.2. Herpetofauna
 - 5.3.3. Mammals
 - 5.3.4. Butterflies
 - 5.3.5. Other Wildlife
- 5.4. Aquatic Ecosystem (See KNHS Section 3.7)
 - 5.4.1. Benthic Community
 - 5.4.2. Fish Community
 - 5.4.3. Fish Habitat Assessment
- 5.5. Linkages (See KNHS Section 3.8)
- 5.6. Buffers
- 6. Significance and Sensitivity of Natural Features
- 7. Impact Analysis
 - 7.1. Description of the Proposed Undertaking
 - 7.2. Approach to Impact Analysis
 - 7.3. Opportunities for Restoration and Enhancement (See KNHS Section 3.9)
 - 7.4. Direct Impacts
 - 7.5. Indirect Impacts, including e.g.
 - 7.5.1. Encroachment into Buffers
 - 7.5.2. Surface Water Changes
 - 7.5.3. Groundwater
 - 7.5.4. Stormwater Management
 - 7.5.5. Sediment and Erosion
 - 7.5.6. Indirect Impacts to Wildlife
 - 7.6. Residual Impacts
 - 7.7. Induced Impacts (Increased Human Use)
 - 7.8. Cumulative Impacts
- 8. Summary and Recommendations
 - 8.1. Limit of Development
 - 8.2. Mitigation
 - 8.2.1. Construction and Design Related
 - 8.2.2. Post-Development
 - 8.3. Monitoring
 - 8.3.1. Prior to Construction
 - 8.3.2. During Construction
 - 8.3.3. After Construction

Outline of the EIS Process

1. Early Consultation
 - 1.1. Pre-submission Consultation Meeting
 - 1.1.1. This meeting is to identify those studies/reports required to start processing development applications, as well as to obtain and provide information required to better process the application.
 - 1.1.2. Determination that an Environmental Impact Study is required (Is a Site Visit Required?)
 - 1.1.3. Early Agency Consultation (i.e., City of Kitchener, MNR, Grand River Conservation Authority, Region of Waterloo)
 - 1.1.4. Coordination with other assessment processes Planning Act, Ontario Water Resources Act, Conservation Authorities Act, Federal Fisheries Act, Endangered Species Act, Species at Risk Act, Migratory Birds Convention Act, Provincial Policy Statement etc.
 - 1.2. Proponent Prepares and Submits a Draft Terms of Reference (ToR)
 - 1.2.1. ToR is reviewed and comments provided
 - 1.2.1.1. Determining Appropriate Level of Assessment and Information Needs
 - 1.2.1.2. Identify what information the approval authorities require
 - 1.2.1.3. Identify any previous relevant studies, environmental policy framework, and guiding documents
 - 1.2.1.4. Identify gaps in the available information
 - 1.2.1.5. Determine methods for dealing with information gaps
 - 1.2.1.6. Deliberation on the need for (further) field investigations
 - 1.2.1.7. Indication of the appropriate time of year and methodology for field investigations as needed
 - 1.3. Submission of Final EIS ToR
2. Undertake Required Work in Accordance with Approved Terms of Reference
 - 2.1. Background Review Policy Framework
 - 2.1.1. Site Context & Overview of Proposed Development
 - 2.1.2. Review of other studies/reports for the area (e.g., hydrogeology, plants, animals)
 - 2.1.3. What environmental or planning policies apply to the subject property?
 - 2.1.4. Review of legislative or planning framework and relevant law and policy
 - 2.1.5. Overview of scope of work and reporting
 - 2.2. Field Investigations
 - 2.2.1. Review of biophysical features
 - 2.2.2. Past & present landuse, physiography & drainage, soils & hydrogeology, and biota in the context of environmental designations)
 - 2.2.3. Description of methodology
 - 2.2.4. Identifying, describing & analyzing natural heritage features and functions (e.g., forest type, animal species, fish habitat)
 - 2.2.5. Identifying and evaluating the diversity and connectivity that supports the natural heritage system within the immediate vicinity and broader landscape context
 - 2.3. Impact Analysis
 - 2.3.1. Description of proposed development
 - 2.3.2. Proposed landuse and type of development
 - 2.3.3. Proposed setbacks (including buffer to features)
 - 2.3.4. Servicing strategy
 - 2.3.5. Overview of environmental constraints and potential impacts (both positive and

- negative) to specific natural heritage features or functions
- 2.3.6. Includes General Vegetation Overview (GVO) as part of Tree Management Policy (rev. November 2001)
- 2.3.7. Extent, magnitude, frequency & duration of impacts to adjacent natural heritage system features and functions
- 2.3.8. Determination of cumulative impacts
- 2.3.9. Discussion of potential alternatives
- 2.3.10. Proposed mitigation measures (e.g., setbacks, buffers, erosion/sediment control, surface & groundwater management)
- 2.4. Conclusions and Recommendations
 - 2.4.1. Summary of key findings (e.g., limit of development, recommended zoning)
 - 2.4.2. Recommendation of mitigation measures &/or future work (including monitoring)
 - 2.4.3. Conclusions regarding potential residual impacts (both positive and negative) to natural heritage features or functions
- 3. Agency Review
 - 3.1. EIS Submitted for Review WITH Development Application (Draft Plan, Site Plan, Zone Change)
 - 3.1.1. Is a Site Visit Required?
 - 3.1.2. City Environmental Planning Staff and Agencies may provide comments on the EIS as well as the development application it supports. Comments provided are to be considered and/or addressed in the EIS and/or proposed development. This may result in a modified development proposal.
- 4. Final EIS Submitted
 - 4.1. Final EIS AND Development Application Determined to be Satisfactory by City Environmental Planning staff and all Relevant Environmental Agencies
 - 4.1.1. Final EIS supports final development plan (Draft Plan, Site Plan and Zone Change)
 - 4.1.2. Final EIS/comments provide basis for Draft Plan conditions and/or Development Agreement (e.g., Detailed Vegetation Plan (DVP), monitoring, Conservation Easement)
 - 4.1.3. Final EIS/comments provide direction for pre-registration engineering design process—incl. DVP as required by City's Tree Management Policy
- 5. Final Approval of Development Application (Draft Plan, Site Plan and Zone Change, occasionally Committee of Adjustment)