

12.0 IMPLEMENTATION STRATEGY

12.1 GENERAL

This Subwatershed Study has established the recommended approach for the management of the natural heritage system and guidance for future development of the lands in accordance with the Regional Official Plan, the City of Cambridge Official Plan and the Township of Woolwich Official Plan.

The data collected and analyzed through this study represent existing conditions and were used to develop management plans and recommendations. A monitoring program is recommended for future management of the subwatershed.

12.2 PLANNING AND DEVELOPMENT APPROVALS

Subsequent planning and design initiatives associated with individual development applications within the Stage 2 Lands will require further detailed study at a site-specific level. An Environmental Impact Study (EIS) will need to be prepared and submitted as part of complete development application for individual lands. The data collected during this subwatershed study must be considered in the preparation of an EIS. Any EIS will be in accordance with the recommendations of this study, as well as Provincial, Regional, City, Township and GRCA policies and guidelines.

Planning approvals may also be integrated with the Class Environmental Assessment Act to address the necessary infrastructure improvements or requirements. Consideration of conditions of approval for plans of subdivision or other planning applications will provide further opportunity for implementation of the recommendations of this study.

There are no phasing requirements resulting from the implementation of this Subwatershed Study. Phasing will be established through the Region, City and Township per their respective requirements for development staging and will consider timing associated with required infrastructure.

12.3 FUTURE STUDY REQUIREMENTS

Requirements for future study and recommendations for study components as part of future development applications will follow standard application processes as set out in applicable law and policy. This section summarizes future study requirements for the Stage 2 Lands for convenience. However, this is not an exhaustive list. Other information and materials may be required to process a development application in accordance with Provincial, Regional, City, Township and GRCA requirements:

- **Secondary Planning** should include development of a trails plan to be consistent with recommendations contained within this study (Section 6 and Section 10.4.4), and other relevant studies, policies and guidelines.

- **Site grading** (Section 10.1) plans should consider:
 - Implementation of approved SWM strategies (Section 10.2) and development of SWM design guidelines.
 - Additional hydrogeological, slope stability and geotechnical analyses to evaluate potential impacts of changes to surface elevations and moisture / drainage patterns and related impacts to wetlands and watercourses.
 - Any potential impacts associated with grading to features that form the Natural Heritage System, setbacks, linkages / corridors and supporting features.
 - Any fill material that might be required to be brought to the site must have appropriate permeability to ensure the existing infiltration rates can be maintained.
- **Infrastructure** (refer to relevant sections in Section 10) planning should consider:
 - Evaluation of road / trail / infrastructure alignments, with the objectives of: avoiding all features identified as part of the Greenlands System where possible; reducing the disturbance footprint; and considering alternate construction techniques (e.g., directional boring) and design measures (e.g., cut-off collars to maintain groundwater flow), as appropriate.
- **Stormwater Management** (Section 7 and 10.2): Implementation of an agency-approved stormwater management strategy (based on Section 10.2) that considers all the elements discussed therein, in addition to any refinements through future study at the site plan / subdivision plan stage. Key natural heritage mitigation / protection measures to be demonstrated through future site-specific studies / development applications include:
 - Maintenance of existing infiltration rates, and ultimate expression / discharge in receiving natural areas (i.e., wetlands, ponds, slope seepage).
 - Maintenance of the existing surface water inputs / regime.
 - Mitigation of potential chloride impacts in groundwater. Mitigation of potential chloride impacts in wetlands, watercourses or other receiving areas to be achieved through operational measures such as reduced chloride application or other strategies.
 - Mitigation of potential impacts to Breslau and Randall Drain systems (and any proposed discharge to other tributaries) via the implementation of erosion control, water quality control, water quantity control and temperature mitigation measures - as appropriate.
 - Preparation of a Salt Management Plan to reduce salt application and associated impacts.
- **Trails** (Section 10.4.4): A trails plan should be developed as part of the Secondary Plan and implemented through future plans of subdivision. Trails planning / design will be

consistent with the recommendations of this study and other relevant guidance documents, policies and guidelines.

- **Environmental Impact Study** to address, among other matters:
 - **Setbacks and Buffer Management:**
 - Confirm development setbacks or recommend wider set-backs where required based on detailed site specific information (i.e. land use / development type and anticipated impacts). Buffers and setbacks discussed in this subwatershed study are minimum setbacks.
 - Consider other development related infrastructure requirements within or contiguous to the CEFs.
 - Verify / finalize the buffer management approach, considering: fencing or other barriers / boundary treatments; signage locations and details; planting plans / vegetation management (e.g., invasive species control); and target habitat creation.
 - Assess the future study area(s) with each application.
 - Targeted or supplementary field work.
 - **Ecological Linkages:**
 - Future road improvement studies should consider wildlife passage using a similar approach to evaluation / mitigation measures as recommended for the Wildlife Crossings in the Stage 2 Lands (Section 6.1.4). One additional area outside the study area should also be considered based on field survey results for the current study: Middle Block Road, between Fountain Street and Speedville Road, bisects the Maple Grove PSW Complex. A large number of road kill Herpetofauna were observed at this location during amphibian calling surveys (AC13).
 - **Ecological Enhancements:** Consider specific habitat creation (e.g. habitat elements) as part of site specific applications.
 - **Species-at-risk:** Future studies in support of site-specific development applications will need to address potential SAR habitat, as relevant (e.g., Barn Swallow nesting) to the satisfaction of the MNRF. Additional field surveys may be required to supplement existing information based on information and species records current at the time of the EIS (e.g. new species listed, new records requiring further review).
 - Further habitat assessments and / or acoustic monitoring are anticipated to be required for areas within the Stage 2 Lands for **SAR bats**. Field work undertaken as part of this subwatershed study identified suitable habitat (cavity trees) within hedgerows and forest edges, indicating additional work will be required to assess the presence of SAR bats and their habitats. Confirmation of survey requirements should be identified in consultation with the MNRF.

- **Existing Conditions:** Future studies in support of site-specific development applications will need to confirm the assumption that Randall and Breslau Drains are warmwater fish habitat and do not require thermal mitigation for any stormwater drainage directed to these features. Headwater Drainage Feature (HDF) assessments will need to confirm classification and management recommendations for identified HDF features within the study area (e.g. Grand_3) prior to development.
- **Wetland Water Balance:** Future studies in support of site-specific development applications will need to include wetland water balance for PSW and other GRCA-regulated wetlands may be required, pending consultation with GRCA, to supplement data collected as part of the current study. This may include shallow piezometers to assess shallow groundwater inputs and flow direction to / from wetlands to inform stormwater, confirming buffers and other management requirements identified through the EIS process.
- **Trails:** Trail locations and design will be considered as part of future studies to ensure consistency with recommendations identified in this study (Section 10.4.4).
- **Monitoring for Development:** Future site-specific developments should include an agency-approved 'pre', 'during' and 'post' construction monitoring program, based on direction provided in Section 11.

The above recommendations apply to lands within the Stage 2 Lands where comprehensive field surveys were completed. In areas where detailed assessments could not be completed, a comprehensive EIS may be required. Detailed field inventories were not complete outside the Stage 2 Lands in the PSA; comprehensive field inventory and assessment work would be required should development be proposed within the PSA (outside the Stage 2 Lands).