

19.6 The Mitigation Hierarchy

Trent will take guidance from the mitigation hierarchy during land planning and development. The mitigation hierarchy is a sequential approach to avoid and minimize impacts to the natural environment, to the extent possible, and then address those impacts that could not be avoided through mechanisms such as restoration, compensation when appropriate.

19.6.1 Sequential Steps of the Mitigation Hierarchy

1. Avoid – Avoid creating the impact where feasible. Avoidance of impacts can be achieved through multiple project stages: site selection/planning, design, and operation. A broad range of potential impacts are considered through these stages to inform opportunities to avoid impacts to key functions (e.g., biodiversity, water quality, water quantity).

- » Examples: early assessment of natural heritage features through an environmental impact study to inform constraints.

2. Minimize and Mitigate – Where impacts cannot be reasonably avoided, measures are taken to reduce the intensity, duration, and/or extent of anticipated impacts. Minimization and mitigation may effectively eliminate some negative impacts.

- » Examples: bird friendly design guidelines, dark-sky lighting, buffers, permeable pavements, etc.

3. Restore / Rehabilitate – Used to offset anticipated or address existing impacts, and are used to improve upon an existing condition where an area has previously been exposed to impacts. This may include impacts associated with an active project, or older impacts the effects of which are still impacting form or function of an area. Restoration focuses on returning an area to a higher level of ecological form and function; rehabilitation is used to establish basic functions with a specific objective.

- » Examples: Restoration of an invasive-dense, low diversity successional habitat to a diverse open meadow or grassland habitat; or rehabilitation of shoreline areas to address erosion and sedimentation issues.

4. Replicate / Compensate – Compensation is used to address residual impacts after avoidance and minimization and, if applicable, restoration / rehabilitation are employed. It is recognized that some residual impacts may occur and, in some cases, impacts to features and functions cannot be reasonably or fully addressed through other means. Compensation provides a means to offset these residual effects. Compensation can include ‘like-for-like’ replication of a feature or compensation through providing an alternative feature type.

- » Examples: replication of a small meadow-marsh community, or creation of open country habitat as compensation for removal of a thicket.

The mitigation hierarchy places the greatest emphasis on avoidance, followed by minimizing / mitigating of impacts. This order places weight on early stages and decision-making (planning and design) as key mechanisms to address potential impacts associated with development. Section 19.1 provides direction on the land use planning process and how this early support for the mitigation hierarchy will be implemented.

Impacts cannot always be reasonably avoided, and the mitigation hierarchy provides direction for addressing these residual impacts through restoration / rehabilitation and replication / compensation opportunities. These mechanisms provide an opportunity to offset impacts through actions and where possible strive to achieve a net benefit or regenerative outcome. Where impacts warrant planning for restoration / rehabilitation and/or replication / compensation, a 'Compensation Plan' may be developed. Compensation planning is to consider the habitats present within and adjacent to the area of impact, and opportunities to improve existing degraded features or create a net benefit through habitat planning and management. Examples include habitat diversification through creation of habitat that is locally underrepresented, creating habitat enhancements to increase function (e.g. improving connectivity), or restoring areas of poor or degraded condition (e.g., large invasive species component) with habitat containing a diverse range of native species. These outcomes can address anticipated impacts and also provide a net benefit to the system by planning for and considering system level opportunities (e.g., using direction from the System-Level Plan). In achieving these outcomes, Compensation Plans may include elements from both restoration / rehabilitation and replication / compensation.

19.6.2 Mitigation Hierarchy in the Decision-Making Process

Decision-making for the Trent planning process, including application of the mitigation hierarchy, must be considered in light of the four guiding principles of:

- » Learning and Discovery
- » Environmental Resilience and Integrity
- » Economic Resilience, Leadership, and Innovation
- » Social Resilience, Community, and Inclusivity

Many decisions that benefit one pillar have the potential to impact or influence another. Good decision-making will consider the opportunities and consequences for each and strive to achieve a healthy (environment and human), vibrant, supportive, and economically viable Trent.

In making decisions with respect to design and mitigation, the following should be considered:

- » Is the proposed mitigation feasible / possible?
 - There may be constraints or limitations through other factors which preclude mitigation measures. For example, meeting road safety design requirements for minimum separation distances between intersections.
- » Is the proposed mitigation achievable?
 - The proposed mitigation must be implementable to support success.
 - Site conditions and/or the proposed development must be appropriate for the proposed mitigation.
 - Are the requirements for a proposed mitigation measure realistic? For example, long-term maintenance requirements must be factored into design and cost planning and decision-making.
- » Is the proposed mitigation reasonable?
 - This considers impacts to the form and function of a proposed development or design, financial costs (short and long-term), etc.