Watersheds CANADA

A Regulatory Guide to Achieving Environmental Net Gain at the Waterfront

Definition: Environmental Net Gain is an approach to ensure that (re)development leaves the natural environment in a measurably improved state compared to prior conditions.

Currently, very few municipalities mention Environmental Net Gain in their existing policies around waterfront development proposals. A more common requirement is to demonstrate that "no adverse effects" or "no negative impacts" will result from the proposed development, often demonstrated through an Environmental Impact Study. However, analyzing the net loss resulting from a single development proposal is difficult to determine because it does not consider the cumulative effects of development surrounding a waterbody and therefore is not a reliable gauge for sustainable development.

Instead, environmental net gain emphasizes actions that can be made on any property to improve the natural environment (namely the shoreline and lake) as a result of the development plan. This includes properties where the existing development no longer meets the legal standards of the municipality (e.g., legally non-complying buildings and structures).

Environmental Net Gain Policies

Environmental net gain should be consistently highlighted throughout all policy documents, including the Official Plan, Zoning By-law, Site Alteration By-law and Site Plan Control By-law, to address situations where development cannot avoid occurring within the regulated setback and to protect the ecological function of the land and adjacent water.

Examples of Environmental Net Gain Provisions

Innisfil Community Planning Permit By-law: "If a proposal does not achieve the requirements of Section 5.5.2(a), an overall net gain of shoreline vegetation shall be required." (s 5. 5. 2. 2.)

Lake of Bays Development Permit By-law: "If a proposal does not achieve the requirements of Sections 4.73 to 4.75, a Category 2 Council Variation Development Permit is required, and an overall net gain of shoreline vegetation shall be required." (s 4.77)

Rideau Lakes Site Plan Control Enforcement and Vegetated Shoreline Buffer Policy: "Natural shoreline buffers are often required as a result of a development application. When development occurs in and around sensitive natural areas a negative impact on the lake or river is anticipated. One of the easiest ways to offset this impact is to establish a natural shoreline buffer along your waterfront. This environmental "net gain" allows landowners to complete their development project while ensuring environmental integrity is maintained." (pg. 5)

Muskoka Lakes Official Plan: "The role of natural vegetated shorelines in buffering waterbodies from erosion, siltation and nutrient migration adjacent to the sensitive littoral zone is critical to the protection of water quality. Preservation and restoration, where appropriate, of shoreline buffers is therefore required. The frontage of a lot will be maintained in a natural state to a target depth of 15 metres (50 feet) from the shoreline where new lots are being created and where vacant lots are being developed. Where lots are already developed and further development or redevelopment is proposed, these targets should be achieved to the extent feasible. Where these targets cannot be met, a net improvement over the existing situation is required." (s 6.5)

Using Environmental Net Gain

Implementing Environmental Net Gain

1. **Ensure that Environmental Net Gain is clearly outlined in the Official Plan (OP), Zoning By-law (ZBL), and other relevant policies (see examples above).**
2. **Upon receiving a development proposal, ensure the OP & ZBL standards can be met.**
3. **If standards cannot be met due to existing constraints, require an environmental net gain on the property as a condition for development to occur.**
4. **Follow up with the property to ensure environmental net gains are implemented and maintained.**

If a site assessment determines that a development proposal cannot meet the Official Plan and Zoning standards due to site constraints, environmental net gain may be a condition to allow development to proceed. Some examples of how to achieve an environmental net gain include:

- ☐ Restoring and maintaining 75% of shoreline frontage with native vegetation. Emphasize planting the shoreline but may also be planted along the side lot lines, in front of the main dwelling, septic system, and other hardened areas.
- ☐ Maximized building setback.
- ☐ Improve stormwater management methods (e.g., diverting water away from the waterbody and into a rain garden).
- ☐ Allow one access point to the water through a winding, narrow pathway made of porous materials (e.g., coarse gravel).
- ☐ Encourage floating, pipe, or cantilevered docks to mitigate risk of erosion and destruction of fish spawning areas.
- ☐ Limit dock size.
- ☐ Upgrade sewage disposal systems and move back at least 30 metres from the shoreline.
- ☐ Establish No Mow Zones.

No Mow Zones

Some site conditions may be unsuitable for planting due to their existing conditions such as shallow soil levels or rocky areas. In these cases, a “no mow zone” may be a suitable alternative to plantings. The area that is designated a "no mow zone" is to be left in its current condition, without any mowing, landscaping, or disturbances to allow the area to return to its natural state.

Note: Invasive species, which can appear in no mow zones and other vegetated areas, can prevent native plants from colonizing the area. It is recommended that invasive species are addressed prior to designating a no mow zone and to frequently monitor the conditions to ensure native species thrive.

As many of the above listed items should be included in waterfront development applications as possible to maximize the environmental net gain on the property and ensure incremental improvements to protect the waterbody, hold the shoreline together, mitigate flood risks, provide wildlife habitat and improve the overall natural aesthetic.

Below are two resources to help a municipal planner with the review of waterfront development applications to identify suitable conditions to approval that would help achieve an environmental net gain.

LAKEFRONT
ENVIRONMENTAL NET GAIN

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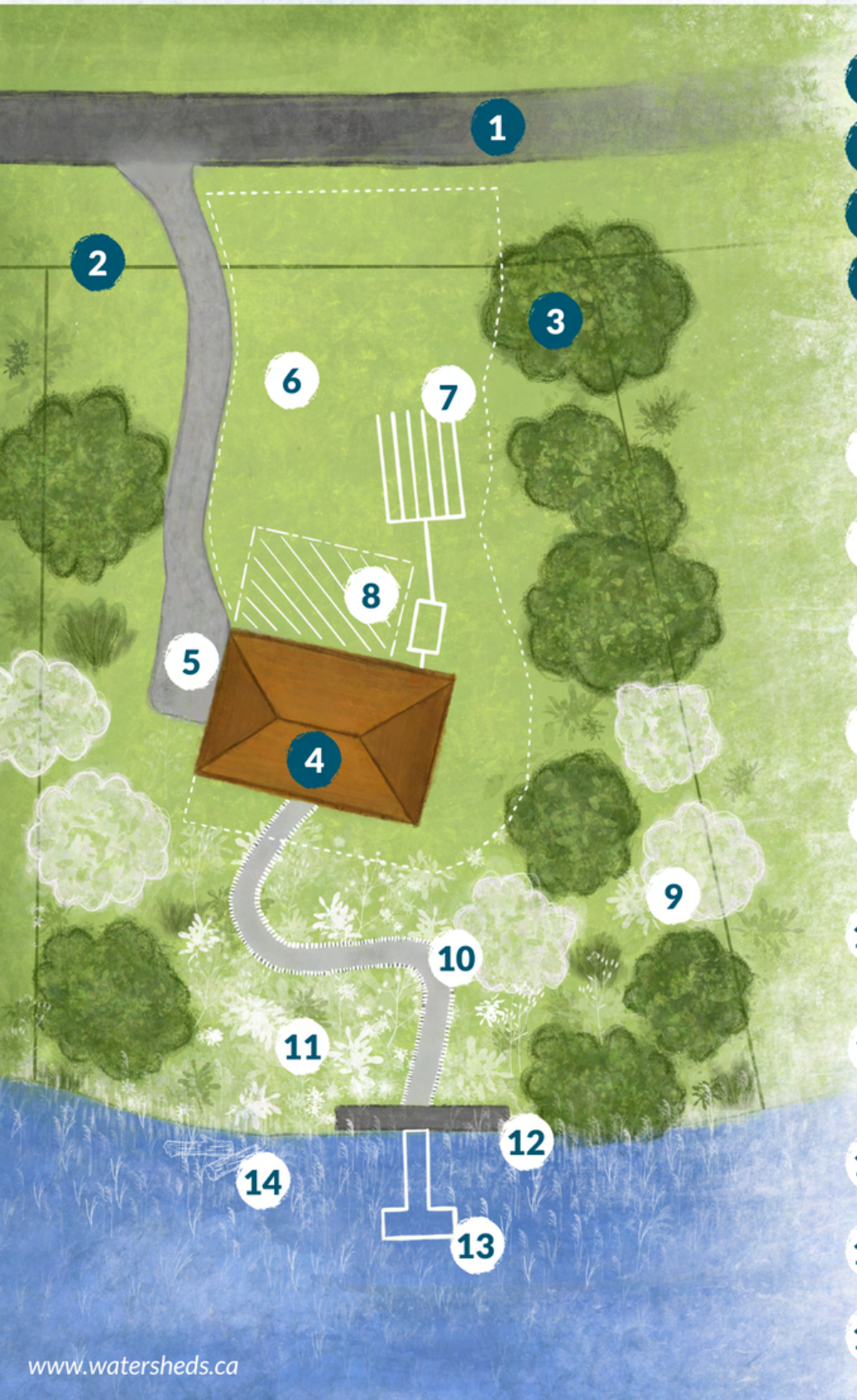
There are many things to consider when evaluating a waterfront redevelopment application. Below are recommended best practices for allowing development to proceed while taking steps to protect the natural environment and resilience of waterfront properties.



Existing Features

1. Road
2. Property line
3. Existing trees and vegetation
4. Dwelling

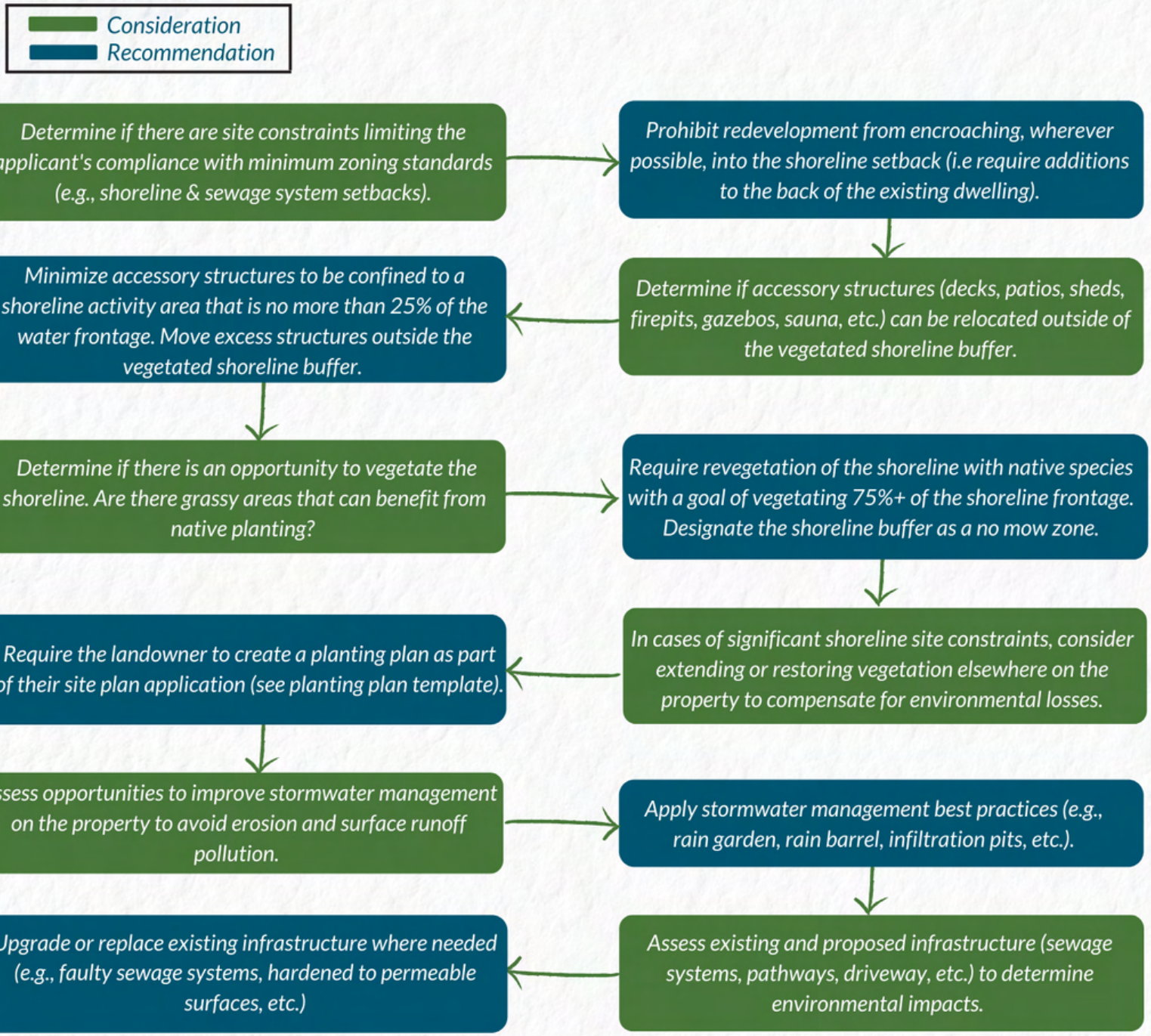
Environmental Net Gain Opportunities

5. Permeable driveway and stormwater detention measures
6. Minimized lawn area away from the shore
7. Updated waste water treatment system away from the lake
8. Proposed addition located away from the lake
9. Additional native trees and shrubs planted
10. Hard surface path is replaced with curved <1.5m wide permeable path
11. Native plants added to increase the vegetated shoreline buffer covering >75% of frontage
12. As existing concrete wall deteriorates, additional native vegetation is planted
13. Proposed floating dock
14. Maintain aquatic vegetation and fallen trees for wildlife habitat

Recommended Actions for Waterfront Redevelopment Applications

This evaluation guide is to help municipal decision-makers assess redevelopment proposals through the lens of environmental sustainability. This document identifies opportunities for Environmental Net Gains over existing conditions in site plan control applications.

Note: Redevelopment is defined as an expansion to an existing structure or a rebuild of over 50% of the existing structure.



Created by the Planning For Our Shorelands Program • shorelandproject@watersheds.ca

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