

The ESEP would like to highlight to the City Council:

Wetlands provide numerous environmental benefits, such as redistributing rain and snowmelt, recharging groundwater, filtering sediment, sequestering harmful carbon and methane, stabilizing land and infrastructure, and serving as home to important food chains and biodiversity. With the 20-40% projected increase in extreme rainfall amounts for the St. John's area attributed to the climate emergency (declared by Council Nov. 4, 2019), wetlands can no longer be viewed as obstacles to development. Rather, they are necessary natural assets playing a critical role in the continued functioning of our city. They should be recognized as integral parts of the city's broader natural systems—such as our streams, rivers, and ponds—as well as the built infrastructure designed to support homes, businesses, and public spaces for our community

The ratcheting pressure climate change is placing on these natural systems and our built infrastructure means maintaining healthy, functioning wetlands is critical. Wetlands are an incredibly cost-effective tool in mitigating and adapting to climate change. In most Canadian jurisdictions that have developed policies for wetland protection, including no-net-loss principle on a municipal level, the critical role of wetlands is reflected in policies that avoid the development and infilling of wetlands. The rationale for this can be attributed to the high cost of either built (grey) infrastructure alternatives fulfilling the services wetlands provide, or the high cost of re-constructing lost wetlands.

St. John's can prevent future restoration costs and safeguard wetland functions by minimizing impacts, mitigating unavoidable effects, and requiring proportional compensation from projects when mitigation isn't feasible.

While we appreciate the City's need for a transparent, predictable, and science-based tool to determine whether wetlands will be protected from infilling and development, the Environment and Sustainability Experts Panel (ESEP) is very concerned that the current recommendation to move forward with a defined threshold (above vs below policy) is too binary and too broadly applied.

The ESEP's feedback is organized into sections: about the WESP Protocol application, the City's score weighting process, and recommendations for how to use the WESP tool going forward.

About The WESP Protocol Application:

- The WESP protocol was designed to identify wetlands that warrant particular attention or additional protections; it is not suitable for determining when to ease or remove protections.
- The WESP tool can provide a science-based, qualitative assessment of the functions of a particular wetland, but only relative to other wetlands within the same classification (i.e., comparing bogs to other bogs, fens to other fens, etc).
- The WESP protocol is a helpful tool for the rapid assessment of various functions of a wetland, but can only be done correctly by trained WESP assessors.
- WESP scores that the City has used in phase 2A are heavily skewed by the weight of the hydrologic function; however, the City already protects (or would protect) many of these wetlands through floodplain development control policies.
- The WESP protocol is valuable only for assessing functionality within a specific timeframe. It is not designed to predict the future or capture a cause-effect type relationship in the area from development approvals.
- A WESP score can not account for increasingly unpredictable climate changes.

- Wetlands are dynamic ecosystems affected by changing inputs, therefore their WESP scores are not static numbers and can be expected to change - particularly as upstream development occurs within the watershed to which a subject wetland belongs.
- Other provinces generally revisit WESP scores every 5 years. This may become more frequent in the current climate emergency, especially in areas of high development pressure.

The City's Score Weighting Process:

The ESEP is very concerned that there is no comprehensive analysis, consultation, or scientific basis for the current weighting of WESP's function category scores. These contribute to the 'overall score' for each wetland component and, according to the current recommendation, determine whether a wetland is protected.

- The ESEP was informed that the weights were not selected by WESP assessors (or defined by the Protocol) but were instead based on a municipality with a completely different terrain, ecology, and hydrology.
- The ESEP agrees that hydrologic function is critical. However, assessing geographically connected and disconnected wetlands with the same hydrologic function weight results in a skewed picture that does not capture the value that geographically disconnected wetlands provide to the community.
 1. It was further noted by the ESEP that hydrologic function could be assessed on a sub-watershed basis using response units. This work would inform council on the cumulative impacts of changes to the hydrologic function of the wetlands when considering multiple developments or multiple wetland units.
- The ESEP notes that there were several wetland clusters that all have the same scores, despite being separate geographic regions.
- The concerns raised by the ESEP can be well exemplified by two examples that illustrate: (1) the disconnect between the study and the policy decision impact seen for the SL-9 wetland in the Southlands study area, and (2) the potential for discrepancies between the City's existing floodplain development control policies at the current wetland policy recommendation before Council.
 1. The SL-9 wetland scored a 4.44 overall score, putting it well below the overall score thresholds discussed by Council (≥ 5 or ≥ 6) which would earn a wetland protective status in the current recommendation. However, the consultant recommended it as unique and of high functional value. The contractor noted in its report, "there are few wetlands of this size remaining adjacent to the developed areas of St. John's that have not yet been extensively altered. It is also associated with several watercourses and it is recommended to establish a 20m buffer around this entire wetland including where it extends past the limits of the study areas".
 2. The intention behind weighting hydrologic function with 40% of the overall score may have been to value flood protection factors that wetlands provide to our community. However, wetland YM6A received an Overall Score of 3.69, meeting neither the original or amended cutoff thresholds earning it protection. The delineation of this wetland closely matches the existing 100 yr floodplain delineation for the same area. WESP definitions for hydrologic function do not account for the same factors that are used to define a floodplain. The floodplain policy would still provide some protection, however, this highlights the discrepancies that exist when using WESP to define overall scores and policy as proposed.

- Beyond serving as examples of how WESP scoring alone is not an appropriate mode of determining whether wetlands should be developed, these instances demonstrate that the policy under review has the potential to generate confusion due to conflicting guidance for developers; specifically in areas where the City's policy for floodplain development may indicate an area is off-limits, while the WESP scoring system suggests development is acceptable.

Recommendations on how to use WESP going forward:

- The City of St. John's could advocate for the development of a provincial-level wetland conservation policy that provides a more consistent and comprehensive framework.
 - Without such a policy, the city should consider adopting a no-net-loss principle on a municipal level, similar to other Atlantic provinces. This would help guide development while ensuring that critical wetland functions are preserved and could serve as a model for other municipalities in Newfoundland and Labrador.
- St. John's should consider integrating additional ecosystem service metrics and hydrological functional units, as referred to above, into its wetland assessment decision process and not only an overall score. This could include biodiversity, carbon sequestration, and social benefits. The WESP tool can be useful as it includes functional scores for some of these. The overall score does not reflect the full range of services provided by local wetlands. For example, wetlands that may not receive a high score for hydrology but support critical biodiversity (e.g. bird habitats or rare plant species) should still receive protection.
- A multi-tiered approach that incorporates avoidance/protection, mitigation, and compensation for the loss of wetland function in any category could offer a path to compromise. This approach has become common practice elsewhere in Canada, and presents an opportunity for financing comprehensive studies, restoration work, and replacement of wetlands where loss may be unavoidable. Various municipalities and provinces, including the province of Alberta, have adopted this approach.
 - The City should establish a wetland mitigation and compensation policy following the examples of New Brunswick and Alberta. This approach incentivizes avoidance of development within wetlands. In many instances, this is possible through modest redesign of proposed developments.
 - Developers who do not pursue avoidance would be required to compensate for wetland loss, either through restoration projects or financial contributions that support wetland conservation efforts. WESP scores could be a factor when determining the value of these compensations, with higher payments for more ecologically valuable wetlands. This would provide the city with the resources needed to fund wetland restoration and preservation projects.
 - The [City's Landscape Development Policy](#) could be used as a reference for legislation where mitigation or compensation is required when damage occurs to the existing landscape.
 - Wetlands above 100 square meters (the threshold used in New Brunswick and Nova Scotia's wetland conservation policies), should be eligible for compensation to the City.
- St. John's should adopt an adaptive management system where wetland assessments are revisited regularly (e.g., every 3-5 years). This would ensure that wetland health is continuously monitored and that policies can be adjusted to reflect shifting wetland benefits/risks arising from changes such as increased rainfall, temperature shifts, or urban sprawl. Additionally, hydrological models should be used alongside WESP to predict the long-term impacts of climate change and development on wetlands.

- The ESEP recommends that if functional scores are to be weighted and used in a prescriptive manner, council should direct staff to explore a more science-based approach for assessing impacts (e.g. watershed-scale analyses) when reviewing development proposals. This should include considerations for wetlands that may have a low “overall score”, but a high score for individual function(s) (e.g., aquatic habitat), as these are critical to the City beyond hydrological function. This could be defined by watershed or regions as the City’s geography, ecology, and hydrology is not uniform.
- St. John’s should explore urban development reforms that prioritize infill and higher-density zoning to accommodate population growth without compromising wetlands. Such strategies have proven effective in other Atlantic provinces. By incorporating WESP assessments into a more holistic urban planning approach, the City can ensure that critical ecosystems are preserved while still meeting housing demands.

Closing statement:

WESP is a screening tool to identify wetland functions to protect, not a screening tool to determine when protections should be lifted. The ESEP understands that the City of St. John’s is looking to new development as a part of their response to the housing crisis, and making decisions on wetlands has impacts. However, we encourage Council to look at existing development regulations for reform. Infill and higher-density zoning may address the city’s current and near-future housing needs while still protecting our critical and irreplaceable wetland ecosystems. Wetland development avoidance should be a priority for Council. Only after all possibilities of avoidance have been explored (using a multi-tier approach), then mitigation for wetland function loss for development should be explored, and finally compensation in extreme cases.

Once wetlands are gone, they are gone forever.

Recommended Motions for Council:

The ESEP advises:

- Council should consider directing staff to review a comprehensive multi-tier approach to wetland management, including the appropriate use of WESP and collaboration with the ESEP, while ensuring continued wetland protection in the interim.
- Council should consider directing staff to explore opportunities within existing development regulations (outside of wetlands) to address housing needs, while ensuring that sustainability goals for greenhouse gas mitigation and climate adaptation are met.