

WHMPS and WHLUB Amendments Large-scale Wind Turbine Setbacks

Planning and Heritage Advisory Committee

May 9, 2024

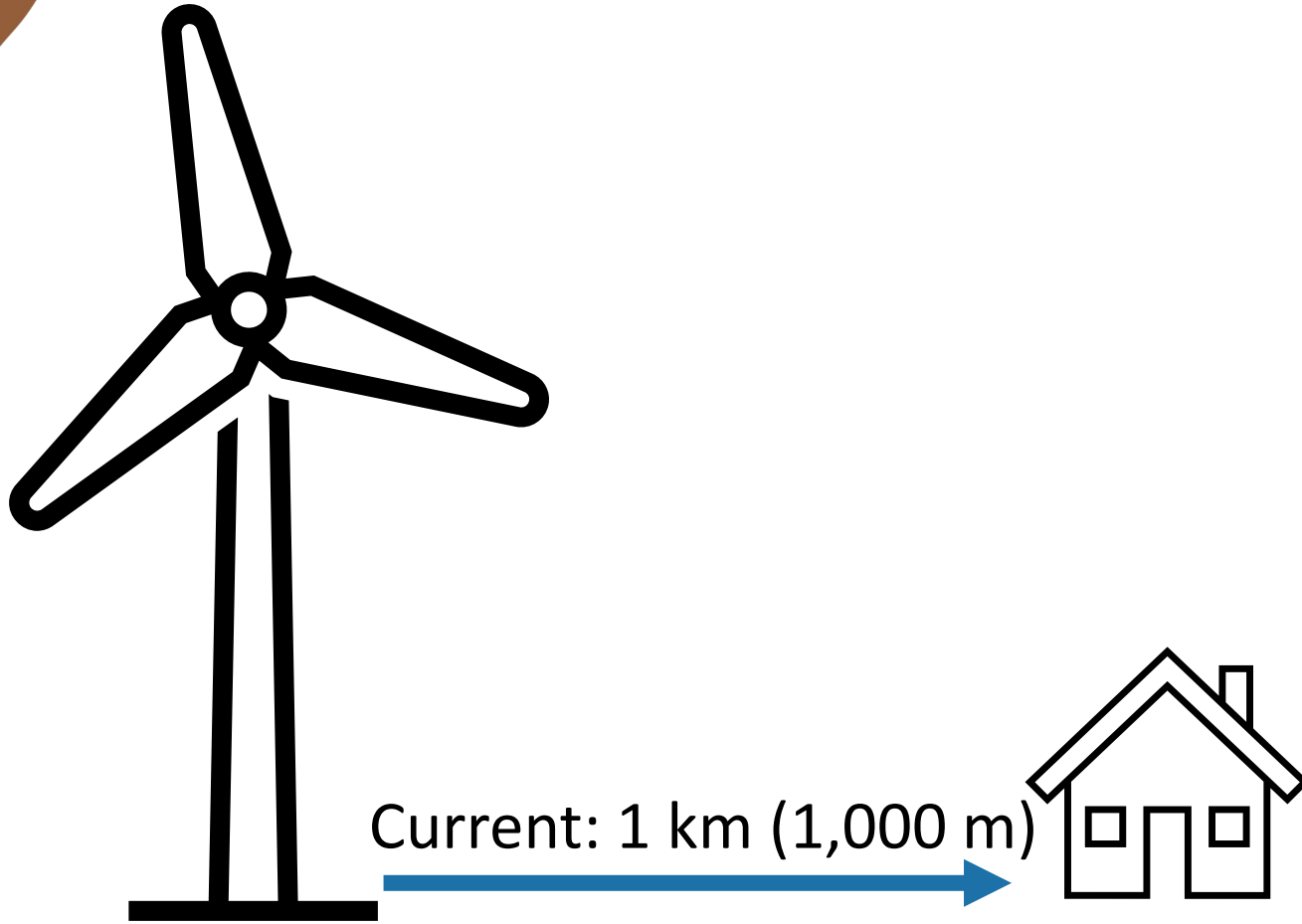
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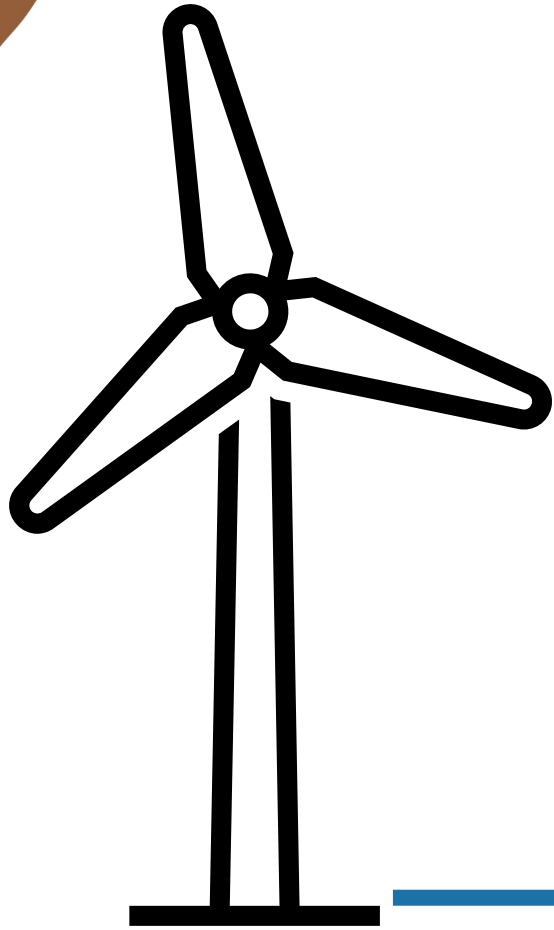
Background

- Application received in November 2023 from a Vaughan resident requesting amendments to Section 4.24 of the WHMPS to further evaluate wind farm development proposals within the Municipality
- Began a staff investigation and Council discussions on appropriate setbacks for large-scale wind turbines
- Following those discussions, Council approved a motion on February 27, 2024 to direct staff to *“follow the planning process to amend the planning documents to include a 4 km setback”*

Current Large-scale Wind Turbine Setback



Proposed Large-scale Wind Turbine Setback



Proposed: 4 km (4,000 m)



Current WHMPS

- Section 4.24 establishes policies for wind turbines
- Preamble: *“Council wishes to encourage the use of technologies that reduce dependence on non-renewable resources and do not contribute to greenhouse gas emissions.”*
- Permanent or long-term installations of wind turbines/farms outside the Growth Centre, Village and Hamlet designations are considered by development agreement
- Preamble: *“utility-scale turbines may have towers ranging from 165 to 400 feet (50 to 120 meters) in height”*

Current WHLUB

- Section 5.52 outlines the regulations for wind turbines:
 - zones where wind turbines are permitted and required setbacks
- For large-scale wind turbines/farms: regulations in the WHLUB, the Provincial EA approval, previous DAs and public feedback are used to negotiate the parameters of a proposed DA
 - All approved DAs for wind farms require a min. setback of 1,000 m. from the base of the tower to any dwelling, hotel, motel, or apartment hotel existing as of the date of the DA, and a min. setback of 550 m. from the base of the tower to any woods camps existing as of the date of the DA

WHMPS Enabling Policy

- Policy 16.1.1 states that *“It shall be the policy of Council to review and make amendments to this Strategy:*

...

(c) when Council deems it necessary because of a change in policy intentions or the development environment.”

- Allows Council to consider amendments to the setback requirements for wind turbines as the amendments reflect a change in the development environment in relation to large-scale wind turbines.



Existing Wind Farms in WHRM

- Martock and Ellershouse wind farms (2013) have tower heights of 100 m. (328 ft.) and total turbine heights of 150 m. (492 ft.)
- Benjamins Mill wind farm (2023) propose tower heights of 131 m. (430 ft.) and total turbine heights of 216 m. (709 ft.)
- Bear Lake and Ellershouse 3 wind farms propose tower heights of 125 m. (410 ft.) and total turbine heights of 206.5 m. (677.5 ft.)



PIM Comments

- Support for the existing 1,000 m. setback between wind turbines and dwellings;
- Support for an increased setback between wind turbines and property lines, instead of the setback being measured to individual dwellings. Proposed setback distances suggested varied:
 - based on turbine height (i.e., 1 km for a turbine 100 m or less in height, 2 km for a turbine between 100 – 200 m in height, etc.)
 - 1.69 km, 2 km, or 2.5 km setback from property lines
 - Consider the same setback for dwellings and woods camps
 - Concerns with the increased size of turbines being proposed, the impact on the use of their private property, perceived property value impacts, and concerns with noise and visual impacts of wind turbines.

Staff Discussion

- Council needs to have a clear intent as to why they are increasing the setbacks for wind turbines
- If Council's intent is to increase the setbacks to address perceived health and environmental effects, staff recommend the setback remain the same at 1,000 m. from dwelling units and 550 m. from woods camps
 - Projects have to meet all Provincial requirements in relation to health and the environment to receive Provincial Environmental Assessment approval
 - Environmental Assessment submissions are evaluated by experts with the Department of Environment and Climate Change and a final decision is made by the Minister
 - Numerous terms and conditions are included in an Environment Assessment approval

Staff Discussion Cont.

- If Council's intent is to increase the setbacks to reduce the visual impact due to the increased height of turbines, staff recommend increasing the setback proportionally to the increased height of the turbines
 - Preamble of Section 4.24 in the current WHMPS acknowledges that *"utility-scale turbines may have towers ranging from 165 to 400 feet (50 to 120 meters) in height"*
 - As the turbines currently being requested are almost double that height (i.e., up to 216 m (709 ft.) in one application), staff would recommend increasing the setback to a minimum 2,000 m. (6,562 ft.) from large-scale wind turbines to dwelling units
 - Note that visual impact can vary, where those closest to the turbines may not see the turbines due to topography or vegetative cover.

Staff Discussion Cont.

- If Council's intent is to increase the setbacks in relation to safety (i.e., potential ice throw, blade failure, tower collapse), staff recommends requiring a setback of at least 1.1 times the height of the turbine from the abutting property lines not included in the project site

Conclusion

- Council has directed staff to draft amendments to the planning documents to increase the setback for large-scale wind turbines from dwellings to 4 km
- Amendments drafted create a Wind Turbine Overlay where wind turbines would be permitted as-of-right instead of through a development agreement process
- Staff do not recommend Council increase the setback to 4 km and instead recommend:
 - a 2 km setback for large-scale turbines to dwelling units if Councils intent is to address visual impact, and
 - a setback of at least 1.1 times the height of the turbine from abutting property lines not included in the project site

Proposed WHMPS Amendments Cont.

4.24 Wind Turbines

~~Council wishes to encourage the use of technologies that reduce dependence on non-renewable resources and do not contribute to greenhouse gas emissions.~~ Wind energy systems are a clean, renewable source of electric power. Residential-scale wind turbines will be permitted in most zones, subject to lot size, setback and height requirements.

Utility-scale wind turbines have a rated production capacity greater than 100 kW. Much larger than those used for residential energy generation, utility-scale turbines may have towers ranging from 165 to 430 feet (50 to 131 meters) in height, for a total turbine height of up to 709 feet (216 meters).

Proposed WHMPS Amendments Cont.

These large wind turbines may be used in wind farms, where a number of turbines feed electricity directly into the utility grid, or as stand-alone installations. ~~As Council wishes to facilitate the development of wind energy systems, the installation of exploration or test turbines will be treated as a temporary use and permitted as-of-right outside of the Growth Centres, Village and Hamlets subject to setbacks, minimum lot size standards, and requirements for removal within specified time limits. More~~

Proposed WHMPS Amendments Cont.

Due to controversy in the Municipality regarding siting of wind turbines, permanent installations of large-scale wind turbines, including the establishment of wind farms, will be considered only ~~by development agreement~~ in the area identified as the Wind Turbine Overlay. The Wind Turbine Overlay was created in 2024 and represents a setback of 4 km from any civic addressing point identified as a dwelling existing on May 1, 2024. Where these facilities have a production rating of two megawatts or more, they are also subject to the Nova Scotia Environmental Assessment Regulations as a Class I Undertaking. Most wind farms also require a federal Environmental Assessment under the Canadian Environmental Assessment Act (CEAA).

Proposed WHMPS Amendments Cont.

- Remove:
 - Policy 4.24.3 regarding the temporary establishment of large wind turbines for exploration or test purposes; and
 - Policy 4.24.4 regarding a development agreement requirement for permanent large-scale wind turbines or wind farms

Proposed WHMPS Amendments Cont.

Policy 4.24.3

establish a Wind Turbine Overlay which will apply to land located a minimum of 4 km from any civic addressing point identified as a dwelling existing on May 1, 2024.

Policy 4.24.4

permit large-scale or utility-scale wind turbines in the Wind Turbine Overlay.



Proposed WHLUB Amendments

- Remove:
 - Section 5.54 regarding the temporary establishment of large wind turbines for exploration or test purposes; and
 - (aa) from Section 6.0, Development Agreements, which requires large-scale wind turbines to be considered by development agreement

Proposed WHLUB Amendments Cont.

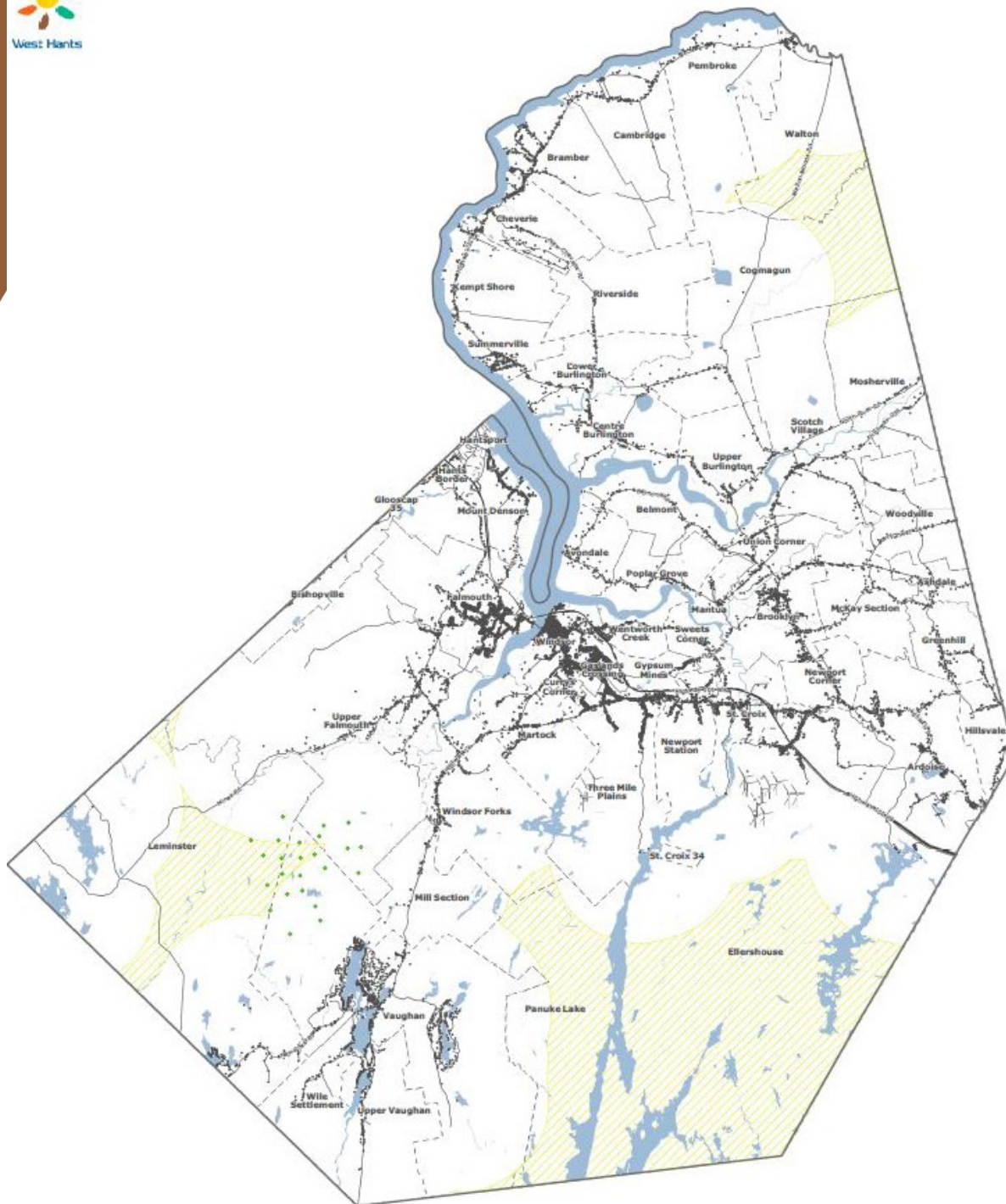
- Add Section 35.0, Wind Turbine Overlay, which allows large-scale or utility scale wind turbines as-of right
- Establish general requirements in the Wind Turbine Overlay as follows:

In the Wind Turbine Overlay, no development permit shall be issued except in conformity with the following:

- (a) large-scale wind turbines shall be sited:
 - (i) a minimum of 4 km from any civic addressing point identified as a dwelling existing on May 1, 2024; and
 - (ii) a minimum of at least 1.1 times the height of the turbine from an abutting property line not included in the project site.

Proposed WHLUB Amendments Cont.

- (b) Development permit applications for large-scale wind turbines or utility-scale wind turbines shall, in addition to the standard required information, be accompanied by the items noted below:
 - (i) Environmental Assessment approval from the Province;
 - (ii) Site plan(s) showing all proposed and existing wind turbines, buildings, roads, boundaries, and natural features;
 - (iii) An emergency response and fire safety plan approved by the local Fire Chief and Municipal Emergency Management Coordinator; and
 - (iv) Any other information required by the Development Officer to determine whether the development conforms to this By-law.



Proposed Wind Turbine Overlay

- Minimum 4 km setback from dwelling units

Public Information Meeting – April 2, 2024

Staff Review

**PAC/HAC Review and Recommendation –
May 9, 2024**

Regional Council First Reading –
May 28, 2024*

Public Hearing & Second Reading –
June 25, 2024*

Ministerial Review/Approval

Notice Placed in Paper

Process

*anticipated dates; final dates set
by Council



Recommendation

Should the PAC/HAC wish to follow the original direction of Council to increase the setback for large-scale wind turbines from dwelling units to 4 km, the following motion would be in order:

...that the Planning and Heritage Advisory Committee recommends that Council give First Reading and hold a Public Hearing to consider amending the text of the West Hants Municipal Planning Strategy and West Hants Land Use By-law to increase the required minimum setback for large-scale wind turbines to dwelling units to 4 km in a manner substantively the same as Attachment A of the report #24-10 to the Planning and Heritage Advisory Committee dated May 9, 2024.





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