Region of Waterloo International Airport
Implementation of the Airport Master Plan
Public Consultation Centre #1 Information Package

What: Runway Extensions Assessment and Federal Airport Zoning Regulations Update.

Where: Region of Waterloo International Airport.

Why: To ensure aircraft safety, improve usability of the airfield, and protect for future growth.

When: Late 2019 to obtain runway extensions assessment approval (2021 to start construction for Runway 14-32 extensions). Early 2020 to complete public consultation for the Airport Zoning Regulations update.

Who: Region of Waterloo Project Manager
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Public Consultation Centre #1
Thursday, June 20, 2019 from 4 to 8 p.m.
Breslau Mennonite Church
226 Woolwich Street, Breslau, Ontario

There is a comment sheet at the back of this package. Please fill it out and share your comments with us.
1. Why is the Region considering these projects?

Stage 1 of the 2017 Airport Master Plan identified the need to extend the existing runways and protect for the future configuration of the airfield. To plan for this growth, we are completing a Runway Extensions Assessment for both Runway 14-32 and 08-26, and updating the current Airport Zoning Regulations (AZR).

2. Who is directing these projects?

The Project Team and Steering Committee are directing these projects. The Project Team consists of staff from:

- The Region of Waterloo - Airport, Community Planning, Design and Construction, Transportation, Water Services, Facilities and Fleet Management Departments;
- Township of Woolwich; and,
- Grand River Conservation Authority.

The Steering Committee consists of staff from the Region of Waterloo along with:

- Region of Waterloo Chair Karen Redman;
- Region of Waterloo (Kitchener) Councillor Tom Galloway;
- Region of Waterloo (Kitchener) Councillor Michael Harris;
- Region of Waterloo (Cambridge) Councillor Helen Jowett;
- Region of Waterloo (Woolwich) Councillor Sandy Shantz; and,
- Region of Waterloo (Kitchener) Councillor Berry Vrbanovic.

Avia NG will lead the consulting team.

3. What is the purpose of this Public Consultation Centre?

The Region of Waterloo believes in open and transparent public consultation. This is the first Public Consultation Centre (PCC) for the Runway Extensions Assessment and AZR Update Projects. The purpose is to inform, answer questions and collect feedback about:

- The needs and opportunities for the runway extensions;
- The project environment (natural, social, cultural/heritage);
- Discuss potential mitigation measures to limit environmental impacts;
- The proposed changes to the Airport Zoning Regulations; and,
- Future public input opportunities planned.

Regional staff and consultants are here to answer your questions. Your comments are valuable. Please use one of the following options to provide feedback:

- Fill out the attached Comment Sheet and leave it in the box at the registration table.
- Email your feedback to AirportMasterPlan@regionofwaterloo.ca
- Visit www.waterlooairport.ca/masterplan

The Project Team will consider all feedback in conjunction with all relevant information.
This section is about the Runway Extensions Assessment Project.

4. What does the runway extensions design include?
The runway extensions design generally includes the following:

- Extend Runway 14 by 555 metres (1,820 feet) (northwest towards Breslau);
- Extend Runway 32 by 329 metres (1,080 feet) (southeast towards Cambridge);
- Extend Runway 26 by 529 metres (1,737 feet) (west towards Guelph);
- Construct taxiways parallel to the runway extensions;
- Construct access roads around the runway extensions;
- Move Runway 26 approach lighting;
- Install new approach lighting for Runway 14;
- Move or upgrade other visual aids;
- Move or tunnel Shantz Station Road; and,
- Upgrade how aircraft maneuver around airport.

Please refer to Appendix A, B, C and D for drawings of the proposed runway extensions.

5. Why extend the runways?
Currently, Runway 14-32 can accommodate light general aviation aircraft and flight training activity. Runway 08-26 can accommodate larger narrow-body aircraft (i.e. Boeing 737 aircraft with one aisle). Wide-body aircraft (i.e. Boeing 767 aircraft with two aisles) cannot use the airport at this time, and there is no secondary option for narrow-body aircraft. This restricts larger aircraft from operating in poor weather conditions, such as rain, ice or high winds.

Extending Runway 14-32 to a length of 2,134 metres (7,000 feet) will improve the safety and reliability of the airport. When Runway 08-26 has strong cross-winds combined with wet or icy conditions, larger narrow-body aircraft would be able to land on Runway 14-32. Additionally, scheduled air service could use Runway 14-32 when Runway 08-26 is closed for repairs.

Extending Runway 08-26 to a length of 2,663 metres (8,737 feet) will reduce the restrictions on larger aircraft operating in poor weather. It will also allow wide-body aircraft to use the airport, which need the extended length.

In general, extending the runways will:

- Enhance safety and reliability for aircraft;
- Improve the customer experience;
- Attract newer, larger aircraft and more airlines; and,
- Improve overall use and flexibility for airlines.

6. What is the process for the Runway Extensions Assessment project?
Runway extensions less than 1,500 metres (4,921 feet) are not subject to the Canadian Environmental Assessment Act (CEAA). However, the Region has chosen to complete a screening level environmental assessment process, which will generally follow the CEAA process. This process allows the Region to:

- Share information;
- Consult with the public;
• Exercise due diligence; and,
• Ensure compliance with environmental legislation.

The Runway Extensions Assessment Project is in an early stage of development. The goal of this PCC is to inform the public about the project and to collect input early in the process. This allows time for the refinement of the design and any environmental impact mitigation strategies.

7. What are the potential impacts of implementing these runway extensions?

Extending the runways may have the following potential impacts:

- Update Airport Zoning Regulations;
- Removal of trees and other potential obstacles;
- Buy property for runway extensions;
- Natural environment;
- Archaeological resources;
- Heritage resources;
- Contaminated soil/groundwater; and,
- Noise.

The Region has begun the process of updating the current Airport Zoning Regulations. This process will include an assessment of obstacles that interfere with the AZR. See page 7 for an explanation on AZR.

8. Is any private property required for this project?

One goal of the planning process is to limit the impact to adjacent properties and the need to buy land. The Region owns the land required for all runway extensions and parallel taxiways. However, additional adjacent land may help limit the impact to airport operations.

9. Natural environment considerations

The Runway 14-32 extensions will impact the east branch of the Randall Drain, some wetlands, and potential wildlife, fish and species at risk habitat. The Runway 26 extension will impact the east branch of the Randall Drain and some species at risk habitat. Please see Appendix E for a drawing of the significant wildlife and fish habitat areas.

To determine the best mitigation measures, more investigation and consultation with approval agencies is required. Mitigation measures and compensation will be considered, including:

- Scheduling construction work to avoid critical breeding or migration periods;
- Erosion and sediment control;
- Re-vegetation/compensation; and,
- Fencing.

10. Archaeological resource considerations

Consultants have completed a Stage 1 archaeological investigation. This is a desktop study of known and potential areas of archaeological interest. Several additional areas are recommended for a Stage 2 field investigation. This will consist of a walking survey and/or hand test pits to determine if any buried archaeological resources exist.
11. Heritage resource considerations
Consultants have completed a Built Heritage and Cultural Heritage Landscape Assessment. Please see Appendix F for a drawing of their findings. No heritage resources are directly impacted. The airport may fence or screen the runways from potential heritage resources.

12. Contaminated soil or groundwater considerations
Consultants have completed a desktop investigation of past land use. Due to old fuel tanks, possible spills, etc. contaminated soil may exist. Please see Appendix G for a drawing of their findings. A geotechnical investigation will be completed to assess the soil and groundwater conditions. This will determine if excess soil requires proper disposal offsite, or if groundwater requires pumping and treatment.

13. Will the runway extensions increase noise?
The 2017 Airport Master Plan developed Noise Exposure Forecasts (NEF) for the year 2035. This forecast included the future Runway 14, 26 and 32 extensions. Please see Appendix H for a comparison between the current 2000 NEF and the future 2035 NEF.

The NEF contour comparison shows that noise will be similar, with increases in some areas and decreases in others. In general, noise in Kitchener and Breslau is not expected to increase beyond the current 2000 NEF.

The impact of NEF contours can generally be summarized as follows:

- 25 NEF – impacts to areas sensitive to noise, some annoyance to residential areas;
- 30 NEF – impacts to residential areas, some speech interference; and,
- 35 NEF – impacts to most land uses.

Residential development is not permitted within the 30 NEF contour of the current 2000 NEF.

14. Shantz Station Road considerations
Construction of the Runway 26 extension will affect Shantz Station Road. The road will impede the extension, as it would be within the Runway End Safety Area and would not meet Transport Canada standards.

The Region is investigating workable options for Shantz Station Road through a Regional road network study. Two potential solutions for Shantz Station Road are:

- Tunnel Shantz Station Road; or,
- Realign Shantz Station Road.

Both of these create significant impacts to adjacent landowners and the surrounding environment. This project will need a dedicated environmental assessment with extensive public consultation.

Implementation of the Runway 26 extension is not expected in the near future, estimated to start 2025 or later. Construction will not start until the Airport reaches 500,000 annual passengers in accordance with the Stage 3 trigger of the Airport Master Plan.
15. What is the estimated cost of this project?
The Region has budgeted:

- $23,000,000 to construct the Runway 14-32 extension; and,
- $11,500,000 to construct the Runway 08-26 extension, excluding Shantz Station Road.

16. What are the next steps?
The Region will hold a second PCC this fall. The Project Team will review the comments received and use them as input to complete the Runway Extensions Assessment Project. The Project Team will present a recommendation to Regional Council by the end of 2019.

Pending approval by Regional Council:

- Detailed design of the Runway 14-32 extensions would take place spring 2020.
- Construction of the Runway 14-32 extensions would begin when Stage 2 is triggered (250,000 annual passengers, anticipated 2021).
- Detailed design of the Runway 26 extension would begin when Stage 2 is triggered (250,000 annual passengers, anticipated 2021).
- Construction of the Runway 26 extension would begin Stage 3 is triggered (500,000 annual passengers, anticipated 2025).

This section is about the Federal Airport Zoning Regulations (AZR) Update.

17. What are Airport Zoning Regulations?
Airport Zoning Regulations ensure that development near an airport is compatible with the safe operation of aircraft. These regulations:

- Limit the height of objects (i.e. buildings, trees etc.);
- Encourage land uses that do not attract birds; and,
- Encourage land uses that do not interfere with communication or navigational aids used by aircraft.

Please see Appendix I for a drawing of the proposed Airport Zoning Regulations.

18. Is the airport currently protected by AZR?
Yes – the current AZR have been in effect since March 19, 2009. To view the current AZR visit: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2006-78/FullText.html.

19. Why is the Region updating the AZR?
The current AZR protects the airport now, but it does not address the future airport configuration the 2017 Master Plan identified.

Updating the AZR will protect for:

- New runway extensions;
- Future instrument approach procedures (airspace protection); and,
- Long-term plan for a third runway.

The AZR update is a responsible way to protect the airport and meet the needs of future generations.
20. Who updates AZR?
Transport Canada (TC) has the authority to make or update Airport Zoning Regulations. Section 5.4 of the Aeronautics Act outlines the AZR legislation. The Region has made a formal request to TC to update the AZR. TC will start and control the update process.

21. AZR considerations
The proposed AZR considers:

- Extending Runway 14-32 length from 1,250 metres to 2,134 metres;
- Extending Runway 08-26 length from 2,134 metres to 3,048 metres;
- Extending Runway 14-32 approach surface lengths from 5,000 metres to 15,000 metres;
- Reducing Runway 08-26 and 14-32 approach slopes from 2.0% to 1.6%;
- Third runway length of 3,048 metres; and,
- Outer surface extension along approach surfaces.

The AZR update will protect for future expansion and instrument approaches.

22. Why protect for a third runway?
The proposed AZR protects for a potential future third runway as recommended in the 2017 Airport Master Plan. The third runway is planned to be located 1,525 metres (5,003 feet) east and parallel to Runway 14-32. It would allow for more capacity and increased safety at the airport, by reducing the mixed operation of commercial and general aviation traffic.

Note that including a third runway in the proposed AZR only protects the airspace. This does not constitute approval to build a new runway. The proposed AZR allow a third runway to remain a viable option in the long-term future. Construction approval would require extensive public consultation and environmental studies through a separate process.

23. What are the impacts to existing objects?
There are some existing objects that would violate the proposed AZR now. The Region will identify and assess these objects as part of the AZR process. In some cases the Region may consider grandfathering an object into the regulations. For this to happen, the object must not impact aircraft safety or the instrument approaches. If the object will have an impact, the Region will work with the landowner to remove it.

24. What are the impacts to future development?
The AZR will impact future development in the Region. These impacts are not expected to be widespread, but concentrated closer to the airport. Consultation with local planners and individual landowners on these potential impacts has begun. This consultation will continue throughout the AZR process.

Visit the "Property Locator" station to determine the allowable development height on your property. This tool will be available online at www.waterlooairport.ca/masterplan.
25. What is a bird hazard zone?
Birds can create a significant hazard to aircraft and aviation safety. The current AZR includes a bird hazard zone across the outer surface, which is about 4 kilometres around the airport. This ensures that land uses close to the airport do not attract birds. The area of the proposed bird hazard zone will also remain within the outer surface in the new AZR.

26. What is the process to update the AZR?
Transport Canada (TC) dictates the process to update AZR. Below is a summary of the process and current status:

- Region notifies TC of intent to update AZR – COMPLETE;
- Region submits proposed AZR plan to TC – IN PROGRESS;
- TC reviews and provides preliminary feedback on the proposed AZR;
- Public consultation to inform public about proposed AZR plan;
- Region reviews and compiles feedback from public consultation; and,
- Revised AZR submitted to TC, incorporating public feedback.
- Deposit of AZR in local Land Title office.

This PCC is for information only. It is not considered part of TC's official public consultation process.

The Region plans to complete the official AZR process by early 2020. It may take up to three years before the proposed AZR are enacted. This includes drafting the regulation, translations, consultations, legal drafting and other internal processes.

27. Will there be more opportunities to take part in this process?
Yes, this is the first of multiple Public Consultation Centres (PCC) for the AZR Update Project. The goal is to introduce the proposed AZR and provide general overview. Transport Canada will manage future consultations. These will include briefings with land use authorities and general public consultations.

28. How will I receive more information about these projects?
Register at this Public Consultation Centre and select "Yes" to receive updates. Once registered, you will receive updates and invitations to future meetings.

29. How can I provide my comments?
Please complete the attached Comment Sheet and leave it in the box at the registration table. Or email your comments to airportmasterplan@regionofwaterloo.ca.

30. How can I view project information after the PCC?
Visit www.waterlooairport.ca/masterplan to view all project information, PCC materials.
Runway Extensions Assessment Project Comment Sheet

Region of Waterloo International Airport
Implementation of the Airport Master Plan
Public Consultation Centre #1 – Thursday, June 20, 2019

Please complete and hand in this sheet so that your comments can be considered for this project. If you cannot complete your comments today, please take this home and email your comments to airportmasterplan@regionofwaterloo.ca

Comments regarding the Runway Extensions Assessment project:
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Name: __________________________________________________________ Address: _____________________________________________
Postal Code: ____________________________________________________ Phone: __________________________ Email: __________________________

COLLECTION NOTICE: All comments and information received from individuals, stakeholder groups and agencies regarding this project are being collected to assist the Region of Waterloo in making a decision. Under the Municipal Act, personal information such as name, address, telephone number, and property location that may be included in a submission becomes part of the public record. Questions regarding the collection of this information should be directed to the General Manager, Chris Wood at the Region of Waterloo International Airport at 519-648-2256 ext. 8502.
Airport Zoning Regulations Update Comment Sheet

Region of Waterloo International Airport
Implementation of the Airport Master Plan
Public Consultation Centre #1 – Thursday, June 20, 2019

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Appendix A – Runway Extensions Site Plan
Appendix B – Runway 14 Extension
Appendix C – Runway 26 Extension
Appendix D – Runway 32 Extension
Appendix E – Significant Wildlife and Fish Habitat Areas
Appendix G – Existing Airport Site Layout and Features
Appendix H – Composite Noise Contour Plan