



WEST HANTS REGIONAL MUNICIPALITY
Planning & Heritage Advisory Committee (PAC/HAC) Minutes
October 10, 2024, 6:00pm
Sanford Council Chambers, Zoom / Facebook Live

PRESENT: Tim Carr, Chair, Hantsport Representative
Mayor Abraham Zebian
Councillor Laurie Murley, District 10
Councillor Jim Ivey, District 11
Jane Davis, Hantsport Representative
Paul Beazley, Windsor Representative
Mark Kehoe, WHRM Representative
Michel Bourgeois, WHRM Representative
Tasha Rogers, WHRM Representative

STAFF: Sara Poirier, Director of Planning and Development
Kari Fougere, Manager of Planning
Vanessa Lake, Planning Assistant
Todd Richard, Director of Public Works

PUBLIC: 12 members of the public were present.

REGRETS: John Bregante, Windsor Representative

1.0 Call to Order and Attendance

Chair Carr called the meeting to order at 6:00pm.

2.0 Announcements

West Hants Regional Municipality acknowledges that we are in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People and that this land is governed by the treaties of Peace and Friendship signed in 1726. West Hants Regional Municipality recognizes that we are all treaty people and have responsibilities to this land and each other. West Hants Regional Municipality also recognizes African Nova Scotians are a distinct people whose history, legacies, and contributions have enriched that part of Mi'kma'ki known as Nova Scotia for over 400 years.

Chair Carr reminded everyone that this was the last meeting of the current PAC/HAC and encouraged everyone to re-offer and/or tell a friend. He thanked resident members, elected officials, and WHRM staff for their time and effort. He added that it was both Fire Prevention Week and Breast Cancer Awareness Month. He reminded everyone to check the batteries in their smoke detectors and to be proactive about their own health.

Sara thanked all the Committee members as well and noted that their dedication is truly appreciated. She said that applications can be sent to the Municipal Clerk, Deanna Snair, by October 18.

Mayor Zebian presented an award to Laurie on behalf of the Nova Scotia Federation of Municipalities (NSFM) for her 20 years of municipal service. She received a round of applause and said that it was a true privilege to be able to serve her community.

Jane informed everyone that the Hantsport Memorial Community Centre will be hosting their annual haunted house and escape room for Halloween and encouraged people to visit.

Vanessa added that October 10 is World Mental Health day and reminded everyone to take care of themselves and each other.

3.0 Approval of Agenda and Additions

Jane requested the addition of item 6.3, a broad discussion on processes. Moved by Jim Ivey and seconded by Laurie Murley that the agenda be approved as amended. Motion carried unanimously.

4.0 Declaration of Conflict of Interest

Mayor Zebian declared conflict with items 8.7 and 8.11 and will not participate in the conversation if these items are discussed.

5.0 Approval of Minutes (September 12, 2024)

Moved by Jane Davis and seconded by Michel Bourgeois that the minutes be approved as circulated. Motion carried unanimously.

6.0 New Business

6.1 Public Works Presentation (Todd Richard)

Todd Richard, Director of Public Works, gave a presentation to the Committee to explain the water and wastewater system capacity. This presentation is attached to the minutes.

He explained the watershed yield, regulated withdrawal rates, and the average utilization of each. He noted that the Davidson Lake watershed which supports water service in Hantsport is 83% utilized which restricts future development capacity. Leak detection can enable more capacity and Public Works are also looking into longer-term solutions.

Todd reviewed how Public Works is planning for future growth with system upgrades, ongoing leak detection, exploring additional potable water sources, dam upgrades, and the interconnection of the Windsor-Falmouth water distribution systems.

Todd then described the wastewater treatment plants. He noted that there are two systems for Windsor, the Lagoons (30% of sewer flows) and the Headworks (70% of sewer flows). During peak wet weather events, the Headworks plant does exceed its design capacity. The separation of storm water from sanitary and the diversion of storm water are solutions being considered through the storm water study. The Hantsport treatment plant is operated by Kings County.

6.2 File #24-03 Development Agreement: Bear Lake Wind Farm (Sara Poirier)

This application is for a development agreement to permit an 11-turbine wind farm across multiple PIDs in Vaughan. Sara gave a presentation to review the application.

The Committee discussed what constitutes an “inappropriate” or “premature” development. In relation to that criterion, Sara responded that the staff recommendation is made based on comments from subject matter experts, the pattern of development in the area, and the type of

development being proposed. In response to a question, she highlighted that 11 turbines are permitted in the draft development agreement. Any additional turbines being proposed in West Hants would require an amendment to the development agreement and approval of Council. It was also confirmed that the Province has not yet signed the lease for the use of the Crown land. The Committee had an in-depth discussion about the Environmental Assessment approval. Sara highlighted that an application for a wind turbine project is not considered without the Environmental Assessment approval, which this project has, and is subject to conditions imposed by the Province. Sara added that the Environmental Assessment approval and conditions are regulated by the Province, not the Municipality. The Committee was concerned with the order and timelines of the studies required within the Environmental Assessment approval conditions. They also noted the comment about uranium in the Environmental Assessment approval. Sara highlighted that the applicant is required to immediately contact the Department of Environment and Climate Change and the Department of Natural Resources and Renewables if elevated levels of uranium mineralization are encountered on the project site, and at the request of the Department, develop and implement a plan to manage the uranium mineralization.

The Committee discussed response from the Nova Scotia Department of Public Works citing concerns with the adequacy and suitability of existing Provincial roads. Sara noted that with the larger turbines proposed in this project and others that have been approved, there are significant upgrades to the Provincial road networks required. A driveway permit from the Nova Scotia Department of Public Works is required at the permitting stage of the process. In response to questions Sara noted that the draft development agreement does not specify where the secondary access to/from Chalet Hamlet will connect to and Section 2.7 of the draft development agreement the local Fire Chief is to be consulted regarding fire suppression.

Chair Carr called for a break at 8:04pm. The meeting resumed at 8:17pm.

The Committee discussed the fire suppression system within the Martock Ridge wind turbines. The Committee felt a non-passive fire suppression system should be required for this project. The decommissioning fund was discussed at length by the Committee. Sara noted that Municipal legal representation reviewed the draft development agreement to ensure minimal risk to the Municipality in a decommissioning situation.

The destruction of the natural environment was discussed by the Committee including loss of wetlands and loss of tree canopy and undergrowth. The Committee was concerned this may exacerbate stormwater issues in the area. The Committee also discussed tax revenue and proximity payments as noted in the draft Community Benefits Agreement.

The Committee discussed increasing the setback distance required in the draft development agreement at length. The distance of 1.7km was suggested based on the percentage of the height increase of these turbines related to the existing distance of 1km. They also discussed measuring the distance from property lines instead of dwellings. Sara noted that this would have a significant impact on the viability of the proposal as presented.

Moved by Laurie Murley and seconded by Tasha Rogers that PAC/HAC recommends that Council give First Reading and hold a Public Hearing to consider entering into a development agreement to allow a Wind Farm on PIDs 45060068, 45399540, 45399573, 45399532, 45060076, 45060092, 45061694, 45062957, 45399557, 45399581, 45401833, 45401841, 45401858, 45042660, and 45042694 which is substantively the same as the draft set out in Attachment D of the report File #24-03, except for a change to the setbacks to 1.7 km to property line unless agreed to by property owners and the addition of a gate for the emergency access road, to the Planning and Heritage Advisory Committee dated October 10, 2024.

The Committee further discussed requiring non-passive fire suppression in the draft development agreement.

Moved by Jane Davis and seconded by Laurie Murley to amend the motion to require a non-passive fire suppression based on the current technology available. Motion carried. Nays: Mayor Zebian, Jim Ivey and Paul Beazley.

Final motion as passed:

Moved by Laurie Murley and seconded by Tasha Rogers that PAC/HAC recommends that Council give First Reading and hold a Public Hearing to consider entering into a development agreement to allow a Wind Farm on PIDs 45060068, 45399540, 45399573, 45399532, 45060076, 45060092, 45061694, 45062957, 45399557, 45399581, 45401833, 45401841, 45401858, 45042660, and 45042694 which is substantively the same as the draft set out in Attachment D of the report File #24-03, except for a change to the setbacks to 1.7 km to property line unless agreed to by

property owners, the addition of a gate for the emergency access road, and non-passive fire suppression system based on current technology available, to the Planning and Heritage Advisory Committee dated October 10, 2024. Motion carried. Nays: Jim Ivey, Paul Beazley

Moved by Laurie Murley and seconded by Michel Bourgeois that PAC/HAC recommends that Council require that the development agreement with Bear Lake Wind Ltd., Wagner Forest NS Ltd., and Atlantic Star Forestry Ltd., for PIDs 45060068, 45399540, 45399573, 45399532, 45060076, 45060092, 45061694, 45062957, 45399557, 45399581, 45401833, 45401841, 45401858, 45042660, and 45042694 be signed within 120 days from the date of final approval by Council or the date that any appeals have been disposed of; otherwise this approval will be void and obligations arising hereunder shall be at an end. Motion carried unanimously.

6.3 Discussion on Process

Jane brought this topic forward as she recalled before the summer break that the Committee discussed bringing back the notification distance for Public Information Meetings and Public Hearings. She highlighted that during recent Public Hearings, residents stated that they live just down the road from the subject property but did not receive a notice.

Moved by Jane Davis and seconded by Michel Bourgeois that staff be directed to bring back to PAC/HAC the notification distance for Public Information Meetings. Motion carried unanimously. Mark had a question about the development agreement process. He listened to one of the recent Nova Scotia Utility and Review Board Hearings and noted that there were comments under the “conditions” section of the permit and wondered if there was a way to change this to “comments” instead. Sara clarified that the specific file being discussed was an appeal of an issued development permit and that it is standard for the permit software to call it “conditions” on the issued permit. Sara noted that staff are reviewing this with the software provider to determine if other terminology can be used. Mark also felt there was some confusion between the definitions of “club house” and “community centre”. Sara said that all definitions are currently being reviewed during the Plan Review process. Jim asked if the PAC/HAC would be receiving an update on the review. Sara replied that she anticipates the new Committee will be brought up to date on the project shortly after their appointment and that the consultants plan to host additional public engagement once they have draft documents available.

Jane asked whether developers could submit stormwater management plans prior to developments being considered by the Committee. Sara replied that it is currently not a requirement of the criteria and is an additional expense to the developer which requires detailed building designs that are typically not developed until after a project is approved by Council.

7.0 Business Arising from the Public Information Meetings (None)

There were no Public Information Meetings held since the last PAC/HAC meeting.

8.0 Business Arising from the Minutes (File Updates)

The file updates were circulated with the agenda package and are available on the Municipal website. Sara noted that an appeal was received for item 8.5 earlier that day. Chair Carr asked what the additional cost to the Municipality is for these appeals. Sara did not have exact numbers, but for legal to attend and prepare for the Hearings is in the tens of thousands of dollars depending on the complexity of the appeal. Mark asked if the appeal is unsuccessful would the applicant have to cover the costs incurred by the Municipality. Sara did not believe so but will have to investigate.

Tasha asked if the Minas Basin Flood Study information would be provided to PAC/HAC. Sara noted that staff recently had a workshop with the Province to discuss the results and the data files have been received and are in the process of being reviewed by staff. Potential amendments to the planning documents in relation to the information provided in the study will be brought back to the Committee at a later date.

9.0 Building and Development Activity Report (September 2024)

The reports were circulated with the agenda package and are available on the Municipal website. There were no questions or comments.

10.0 Notices from Adjacent Municipal Units

No notices had been received.

11.0 Public Participation

Facebook comments are not monitored. The public is encouraged to contact staff directly or attend the meeting if they have any questions or comments. There were 12 members of the public present and five people gave comments.

Karen Wallace listed three key points in relation to the Bear Lake wind turbine application. 1) Environmental and regulatory issues regarding wind turbine construction and operation. 2) “Greenwashing” in association with wind turbine projects, specifically from EverWind. 3) Lack of faith in their government to do the right thing. She recommended placing wind turbines on golf courses to reduce the number of worms. She said that Nova Scotians have come out in large numbers in opposition to this project and does not understand how the Province can lease Crown lands to private companies.

Mark Stewart, on behalf of the Bear Lake wind farm developers, provided some comments on the Bear Lake wind farm proposal. He clarified nameplate capacity stating that whatever number is on a turbine will be paid out, regardless of generating capacity. He noted that it is on the developer to ensure that the turbines are maintained and functional. He discussed the proposed 1.7km setback increase stating that it would require permission from hundreds of landowners, which would be very difficult. He felt Nova Scotia should invest in green energy both for the grid and for export.

Jason Hart spoke about his experience with another wind farm and Environmental Assessment in Chester. The Environmental Assessment cited a sound rating below 40dB, and it was written into the development agreement that Municipal staff would perform ongoing testing however he cited that no testing has been performed over the 9 years of operation. He also recalled the Fire Chief at the time demanded non-passive fire suppression for the Martock wind turbines.

In relation to the Bear Lake wind farm application, Seamus Marriott said that Vaughan residents had received an email from EverWind saying they would put in an automatic detection system (ADS) on the turbines however that this appears to be different than what is required in the draft development agreement. He was surprised that the concerns from residents regarding visual intrusiveness was not captured in the list of comments included in the staff presentation. He commented on the renderings provided by the developer and noted that residents had a private company to provide them renderings which were vastly different. He agreed with the comments

made by the Committee regarding the sequence of studies required in the Environmental Assessment approval conditions. He also stated that the policies in the Municipal Planning Strategy do not address windmills of this height and that he agrees with the setback distance proposed by the Committee. He feels property owners should be able to give permission and would feel better about the project if the energy proposed to be produced went back to the Nova Scotia grid.

Beth Brown-Carver thanked the Committee for the discussion regarding the Bear Lake wind farm application and for including a non-passive fire suppression system requirement in the motion. She also felt that more studies need to be done before construction of the project.

12.0 Next Meeting Date / Adjournment

The next scheduled meeting of the PAC/HAC is November 14, 2024, and will be with the newly formed Committee. A notice will be sent out if there are any changes. Chair Carr thanked everyone again for their time and service. He wished everyone a Happy Thanksgiving.

Moved by Jane Davis and seconded by Laurie Murley that the meeting be adjourned at 10:17pm. Motion carried unanimously.

Water & Wastewater System Capacity

Presentation to PAC October 10, 2024

something inspiring awaits



Source Water & Water Treatment Plants

- **Source Water:** watershed yield and regulated withdrawal rates along with Ecological Maintenance Flow (EMF) downstream requirements.
- **Treatment Capacity:** the ability of the facility to produce adequate treated water quality given both inlet flow and water quality.



Falmouth Water Treatment French Mill Brook Watershed

- ▶ Average Withdrawal of 1.0 million litres per day (MLD), annually.
- ▶ Maximum Withdrawal of 1.4 MLD averaged over 30 days.

The 2023 raw water inflow was analyzed to arrive at the following demands:

▶ ADD:	0.86 MLD
▶ MDD:	1.5 MLD
▶ Maximum 30-day Average:	1.0 MLD
▶ MDF (MDD/ADD):	1.9

Based on these demands:

- ▶ The Falmouth source water withdrawal is 86% capacity utilized on an average withdrawal basis 71% utilized on the 30-day average basis.
- ▶ The WTP is 68% utilized and could permit an increase in ADD of 0.37 MLD.

Falmouth is constrained by source water and could permit an increase in withdrawal flow rates of 0.14 MLD on an ADD basis which corresponds to a population of 340 persons based on a consumption of 410 L/cap/day.



Windsor WTP Mill Lakes Watershed

- ▶ Average Water Withdrawal Rate not to exceed 5.4 MLD averaged of 30 days.
- ▶ Maximum Withdrawal Rate shall not exceed 6.8 MLD over 24 hours.

The WTP has a nominal capacity of 6.8 MLD. A third DAF train is currently being designed for implementation. This third train will not increase the overall plant capacity but will add redundancy and nominal flow capacity. This will allow the plant to meet the maximum day demand when one train is offline.

The 2023 raw water inflow was analyzed to arrive at the following demands:

▶ ADD:	3.6 MLD
▶ MDD:	4.7 MLD
▶ MDF (MDD/ADD):	1.3

Based on these demands:

- ▶ The Mill Lake withdrawal approval is 67% utilized on average and 69% utilized on the maximum day basis.
- ▶ The Windsor WTP is 67% utilized.

Windsor source water and WTP and could permit an increase in withdrawal flow rates of 1.6 MLD on an ADD basis which corresponds to a population of 3,940 persons based on a consumption of 410 L/cap/day.

Hantsport WTP

Davidson Lake Watershed

- ▶ Average Rate of Withdrawal of 0.85 MLD, averaged over each calendar month.
- ▶ Maximum Rate of Withdrawal of 0.85 MLD determined by averaging water withdrawn over any three days in a row.

The 2023 raw water inflow was analyzed to arrive at the following demands:

▶ ADD:	0.7 MLD
▶ MDD:	1.0 MLD
▶ Maximum 30-day Average:	0.95 MLD
▶ MDF (MDD/ADD):	1.4

Based on these demands:

- ▶ The withdrawal approval has no significant capacity remaining and as of 2023, has exceeded the permitted 3-day withdrawal rate.
- ▶ The WTP is 83% utilized.

Therefore, no additional increase in demands can be permitted without an increase in the approved withdrawal rates.



Planning for the future growth

- Additional Storage Tank in Windsor
- Dam upgrades and meeting DFO regulations
- Interconnect Windsor and Falmouth Distribution systems
- 3rd Process Train at the Windsor Treatment Facility
- Water Conservation efforts and leak detection
- Pressure Management
- 25–30 year Integrated Resource Plan (IRP) – Water, WW and Storm
- Exploring additional potable water source of supplies
- Exploring potential to increase existing yield in current watersheds



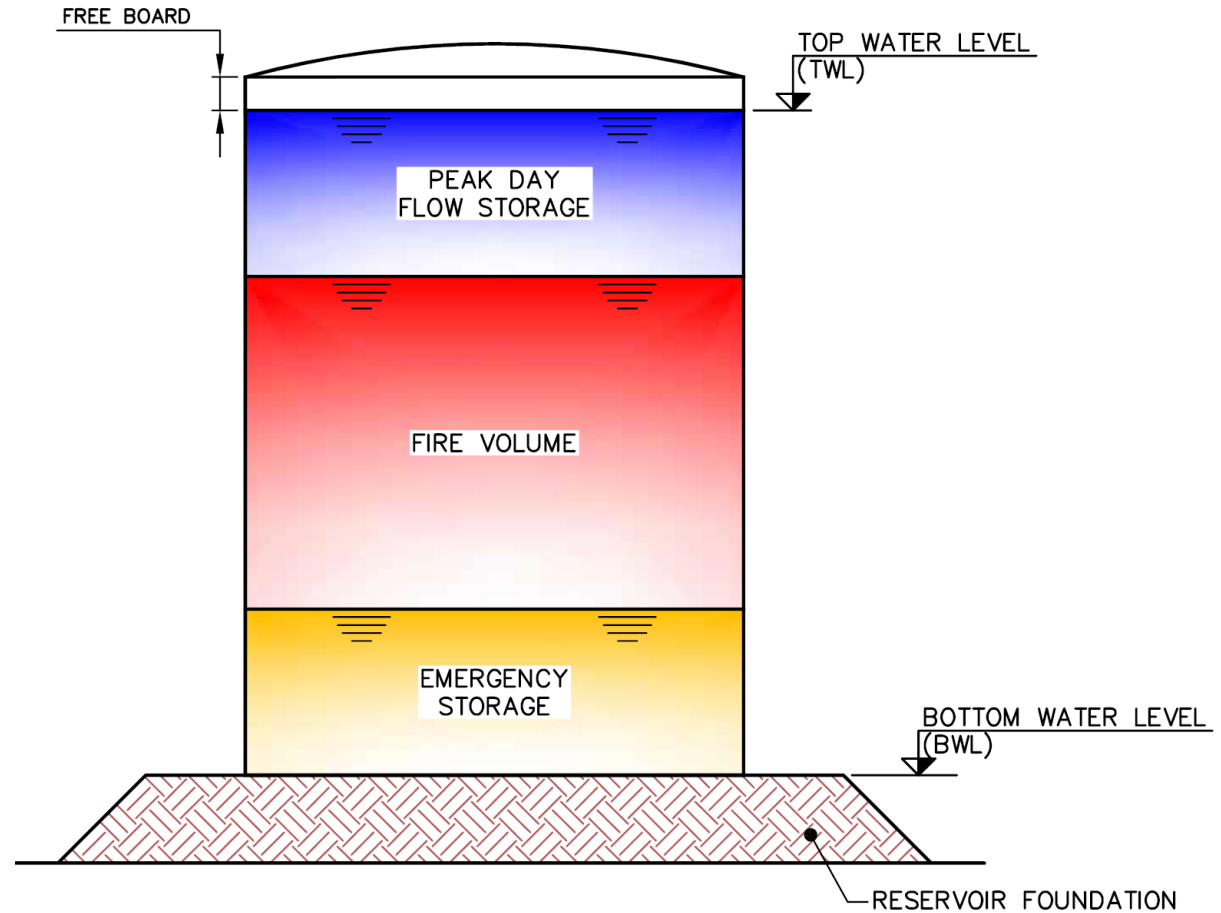
Windsor-Falmouth Interconnection

The Windsor and Falmouth water distribution systems will be interconnected which will permit sharing of resources between the two systems. The combined system could permit an increase in population of 4,280 and is equal to the combined growth allowance for Falmouth (340 persons) and for Windsor (3,940 person), constrained by the current withdrawal approvals. When interconnected, growth in Falmouth will no longer be limited by its source water approval as the deficit can be supplied by Windsor.



Storage Requirement

5,472 m³ or 5,472,000 liters



RESERVOIR STORAGE SCHEMATIC

Leak Detection Efforts

- Windsor system – finding and repairing leaks this past year we able to reduce our leakage potential from 67.7 m³/hour to 51.2 m³/hour a 25% reduction.
- Leak detection must be a continuous effort to capitalize on the potential to reduce lost water. More concentrated effort is required in this area, requiring full time maintenance and repair / replacement activities and human resources.
- Benefits and cost savings are drastically less compared to capital costs of additional source water supply, adding increased treatment capacity and large sections of distribution and service replacements.



Wastewater Treatment Plants

Peak flow events in wastewater collections systems typically occur during heavy rainfall and/or periods of snowmelt. Rainfall related peak flow events can result in flows at the WWTP in excess of its nominal capacity. When there is a strong correlation between peak flow and precipitation events, this suggests a high level of Inflow and Infiltration (I&I) within the system.

The following terminology regarding water usage is used in assessing source water.

- ▶ **Average Daily Flow (ADF):** The average daily flow into a wastewater treatment plant over a given year and includes does not distinguish dry weather flows from wet weather flows.
- ▶ **Peak Daily Flow (PDF):** The greatest daily inflow observed within a given year.
- ▶ **Peaking Factor (PF):** The relationship between ADF and PDF, calculated by dividing PDF by ADF.

The PDF should not be compared against the maximum operating capacity of the plant under normal weather conditions; the PDF treatment capacity is based only on wet weather flows when nutrient concentrations are diluted, and organic loading is relatively low.





Falmouth WWTP

- The Falmouth facility is designed for and ADF of 0.7 MLD and PDF of 3.3 MLD.
- Current flow data shows and ADF of 0.7 MLD and PDF of 1.4 MLD.
- Currently 14% capacity remaining
- 3rd Process Upgrade in planning stages for additional oxidation ditch and clarifier to increase capacity.



Windsor Lagoons WWTP

Windsor has two separate WWTP

- The lagoons receive approximately 30% of the sewer-shed flow
- Designed for an ADF of 2.5 MLD and PDF of 9.4 MLD
- Currently operating at design capacity.
- Future Plans are to connect this system to the new Headworks facility
- Reduce inflow and infiltration
- System is meeting regulatory effluent requirements
- New disinfectant (PAA) being proposed to eliminate chlorine use



Headworks WWTP

- The remaining 70% sewer flows are sent to the Headwork facility.
- Design ADF of 7.5 MLD and PDF of 18.5 MLD.
- Based on design loading rates there is significant capacity of future dry weather flows (70% capacity)
- During peak wet weather events plant exceeds design capacity.
- Separation of storm water from sanitary and diversion of storm water are solutions being developed through our storm water study.



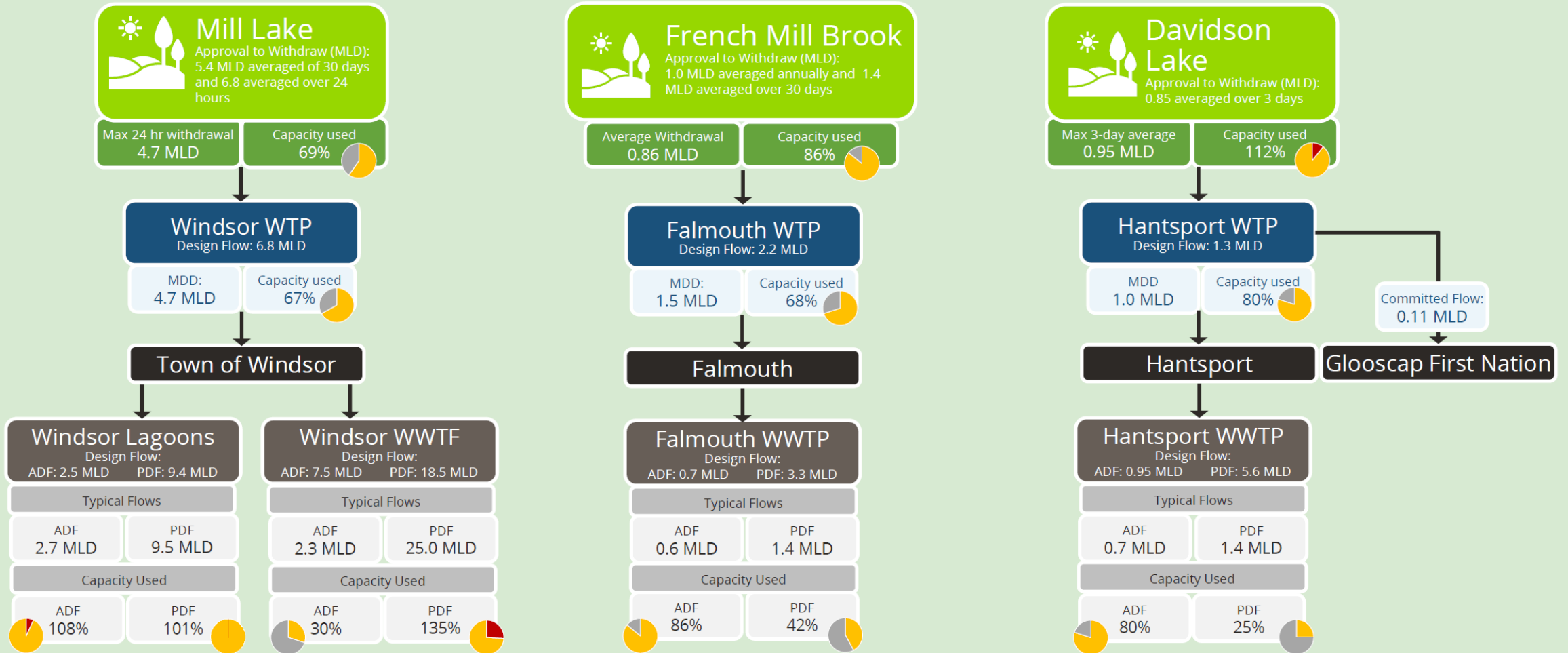
Hantsport WWTP

Operated by Kings Co.

- System designed for ADF of 0.95 MLD and PDF of 5.6 MLD
- Currently flows are – ADF 0.74 MLD and PDF of 1.4 MLD
- 20% capacity for future dry weather flows and ample capacity for wet weather / peak events.



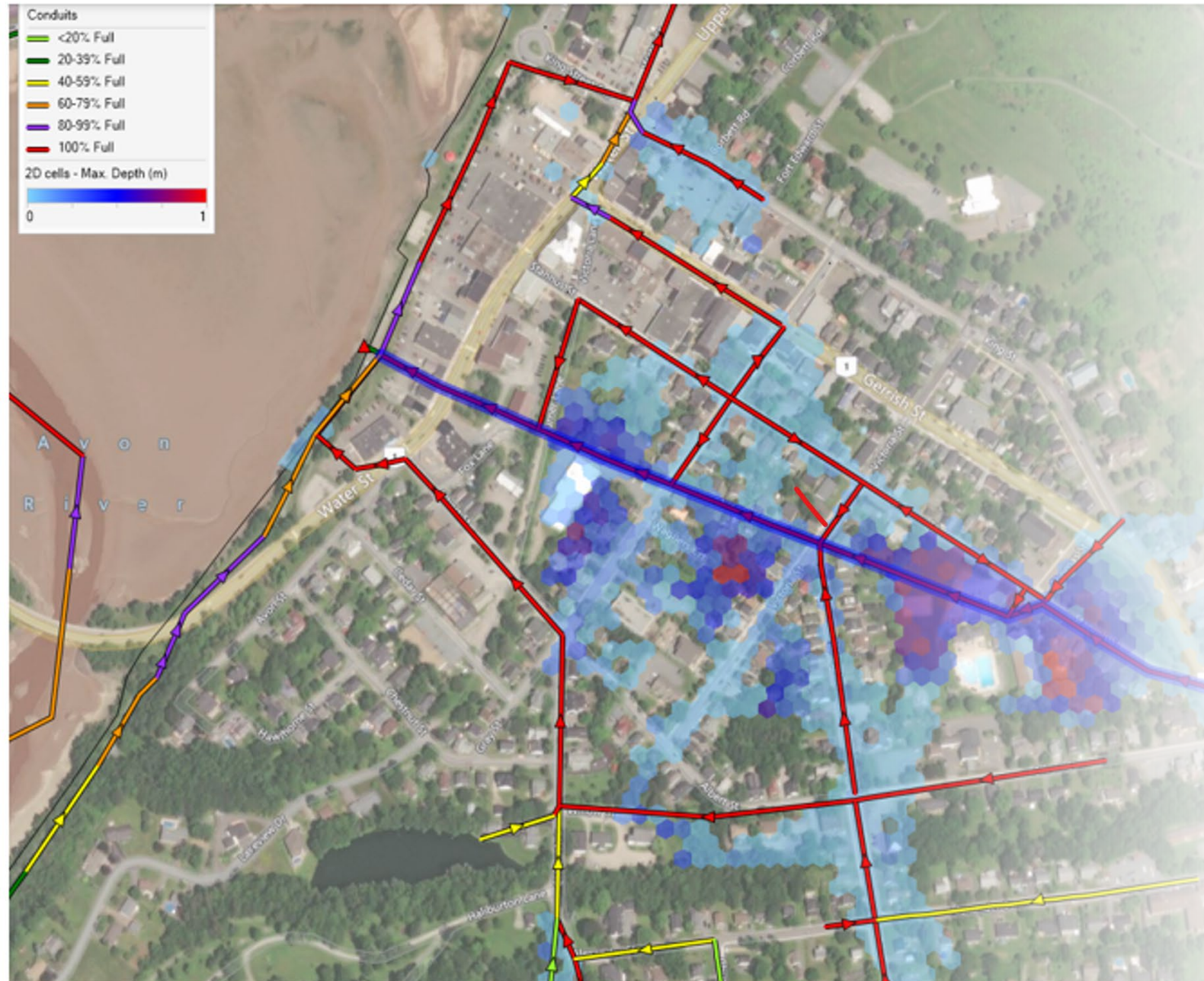
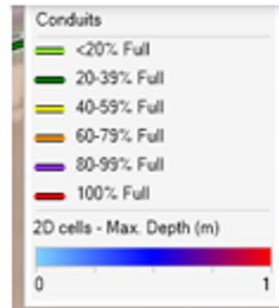
West Hants Current Flows



Existing System 1:100 Year CC

Storm Water and Collection System

- Ongoing work to separate and reconstruct aging infrastructure
- Design with Climate Change considerations
- Current storm water study P2
- Inflow and Infiltration reduction
- Sump pumps, foundation leaks
- System Maintenance
- Storm Water Management
- Pre / Post Development
- Major Infrastructure Investments





Questions?

