

# **TOWN OF AJAX REPORT**



**REPORT TO:** General Government Committee

**SUBMITTED BY:** Paul Allore, MCIP, RPP  
Director of Planning and Development Services

**PREPARED BY:** Barbara Hodgins, MCIP, RPP  
Senior Policy Planner

**SUBJECT:** **Duffin Creek Water Pollution Control Plant Outfall Environmental Assessment-Status Update**

**WARD(S):** All

**DATE OF MEETING:** May 23, 2013

**REFERENCE:** **Staff Reports on Duffin Creek WPCP Outfall EA:**  
General Government Committee - May 5 & November 24, 2011, June 18 & November 8, 2012 and April 4, 2013; Council – October 22, 2012 & April 8, 2013  
**Staff Reports on Duffin Creek WPCP Stage 3 Expansion:**  
General Government Committee – November 24, 2005; April 20, July 6 & September 21, 2006; April 17, 2007; Council – September 25, 2006  
**Community Action Plan:** Leader in Environmental Sustainability

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## **RECOMMENDATIONS:**

1. That the report to General Government Committee, entitled “Duffin Creek Water Pollution Control Plant Outfall Environmental Assessment-Status Update”, dated May 23, 2013, be endorsed; and,
  2. That this report be sent to the Ontario Minister of the Environment, the Federal Minister of the Environment, the Region of Durham, the Region of York, the Stakeholder Advisory Committee, City of Pickering Council, the Toronto and Region Conservation Authority, the Environmental Commissioner of Ontario, the Ajax Environmental Advisory Committee, the Great Lakes and St. Lawrence Cities Initiative, and other interested groups and citizens.
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## **BACKGROUND:**

This report provides an update on the Duffin Creek Water Pollution Control Plant Outfall Environmental Assessment (Outfall EA), including the refusal of Durham Region and York Region (the project’s proponents) to undertake the independent Assimilative Capacity and Cumulative Effects Study (ACCES) requested by Ajax Council, and the Town’s retention of outside legal counsel and consulting expertise to protect the Town’s interests.

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## **DISCUSSION:**

### **Status of the Duffin Creek Water Pollution Control Plant Outfall EA**

There is no Terms of Reference available for the Outfall EA, but the Regions' timeline indicates that the Regions plan to complete this proponent-driven Outfall EA by sending an Environmental Study Report (ESR), documenting their Class EA process and technical justification for a Preferred Alternative, to the Ministry of the Environment (MOE) in the Fall of 2013. When the ESR and Notice of Completion have been posted on the Regions' Project website, the Regions intend to provide a 30 calendar-day period for the public to review their documentation and submit written comments.

Should the Regions' ESR and selected Preferred Alternative not resolve the Town's (or other interested parties') issues, written submissions called Part II Orders (formerly Bump-Up Requests), setting out issues and potential solutions, may be submitted directly to the Minister of the Environment.

The Town will continue to try to work with the Regions to resolve outstanding issues with effluent emissions from the Duffin Creek WPCP's existing outfall on Lake Ontario water quality and shoreline conditions along the Ajax waterfront. Further attempts to negotiate mutually-agreeable solutions to the Town's outstanding issues with the Regions and the MOE are anticipated.

Notwithstanding this, the Town needs to be diligent in protecting Ajax residents by preparing for the possibility of a Part II Order, as well as investigating and preparing for potential legal actions should negotiations with the Regions fail.

### **Previous Part II Order for Recent Stage 3 Expansion to Duffin Creek WPCP**

In the Fall of 2005, when the Regions planned to conclude the Duffin Creek WPCP Stage 3 Expansion EA (to double the volume of effluent discharged into Lake Ontario via the existing outfall-diffuser pipe from 420 million litres per day (420 MLD) to 630 million litres per day (630 MLD)), staff's review revealed the Regions had not produced technical documents that addressed the project's potential negative impacts on water quality and shoreline conditions. Even though in 2004 the Minister of the Environment had imposed a condition specifically requiring the Regions to prepare a Receiving Water Impacts Assessment to determine and avoid or mitigate negative impacts on Lake Ontario water, beaches, swimming, aquatic life, etc., the Regions had not done so. Other crucial information was missing, resulting in delayed release of the Regions' ESR.

In early 2006, the Town retained outside legal counsel (Gowling Lafleur Henderson LLP) and specialized technical consultants, including EcoMetrix Incorporated, to review the Stage 3 Expansion EA process and available technical reports and peer reviews. Significant flaws in the EA process and "gaps" and omissions in the technical documents were identified and presented to the Regions and senior MOE staff.

In mid-2006, Ontario Power Generation (OPG) identified issues with costly algae impacts on the Pickering Nuclear Generating Plant's operations. OPG noted the Regions' Receiving Water Impacts Assessment, prepared by CH2MHill, did not address impacts of current and future WPCP operations. Electrical generation losses due to algae accumulation on cooling water intake screens totaled \$30 million from 1995-2005, with a loss of \$6 million alone in 1995.

By September 2006, the Town's issues had not been resolved. Nonetheless, in late September 2006, the Regions published a Notice of Completion for the Stage 3 Expansion EA and released

their ESR for public review and comments for a 30 calendar day review period. Consequently, the Town submitted a Part II Order to the MOE.

The filing of a Part II Order by the Town (and by other interested parties) stopped the Stage 3 Expansion project to enable the Minister and her staff to review the Regions' EA process and deficiencies in the ESR, meet with Ajax to discuss potential adverse impacts on air quality, such as off-site odours, and on water quality, including nutrient emissions triggering *Cladophora* algae growth in Lake Ontario that fouls nearshore water and the Ajax shoreline. The MOE recommended additional technical documents be produced by the Regions.

On March 21, 2007, the Minister issued a decision letter to the Regions responding to the Town's Part II Order which, in part, states:

*“The Regions are responsible for ensuring that environmental impacts of projects of this type are prevented or mitigated ... Despite my not requiring an individual EA be prepared, there remain outstanding concerns with respect to odour impacts and the proposed extension of the outfall ... ”*

The Minister also imposed numerous conditions on the Duffin Creek WPCP Stage 3 Expansion project and the WPCP's existing outfall-diffuser, as discussed below.

### **The MOE Required the Regions to Conduct this Outfall EA**

The Minister's conditions required the Regions to initiate a separate Outfall EA to address the limitations of the existing WPCP outfall (within 6 weeks of receiving MOE's approvals for the Stage 3 Expansion). More specifically, the Duffin Creek WPCP's operations were "limited" to not more than 520 million litres per day (520 MLD) - subject to meeting MOE Water Policy.

A Preferred Alternative for overcoming the existing outfall-diffuser limitations was to be selected through an Outfall EA process to be commenced within 1 year of obtaining the necessary MOE approvals for the Stage 3 Expansion project. In December 2010, the Regions issued a Notice of Commencement for the subject Outfall EA.

Initially, overcoming the 520 MLD limit appeared to be the "limitation" the Regions were trying to overcome through the Outfall EA process. However, the Regions' representatives have since indicated they are seeking a Preferred Alternative to accommodate effluent discharge of 630 MLD, on average - primarily to support growing communities in York Region.

Presently, approximately 340 MLD of effluent is discharged by the existing outfall just 1 km from Ajax's shoreline.

### **The MOE Required the Regions to Prepare an Odour Impacts Program**

MOE staff included a clause in the updated Certificate of Approval (Air) for the Odour Impacts Program required for the expanding Duffin Creek WPCP requiring that the Town be invited to semi-annual MOE-Regional meetings on Program implementation and odour complaints.

Since then, the Town has retained an air quality expert (AMEC) to review and comment on proposed odour evaluation methods, models and technical reports produced by the Regions' consultants (CH2MHill/AECOM) to address the Minister's conditions.

The Town's input led to the Regions being required to mitigate odours from sources in the north portion of new Stage 3, which is operating and located closest to west Ajax neighbourhoods and

Rotary Park, as well as older Stages 1 and 2 of the Duffin Creek WPCP. The Town is continuing to monitor and comment to the MOE and the Regions odour monitoring program.

### **No Study of Relationship between Phosphorus and *Cladophora* Algae Growth in the Outfall EA**

From staff's participation in the Outfall EA, a critical deficiency in how the Regions were conducting this Municipal Class EA process was identified by the spring of 2012 - the Regions were not planning to have a Receiving Water Impacts Assessment study prepared to evaluate the present, accumulating and future environmental impacts of substances carried by treated sewage (called "effluent") from the expanding onshore Duffin Creek WPCP facility through the existing 1.1-km outfall pipe into Lake Ontario water (i.e., the receiving waters), such as nutrients (e.g., Soluble Reactive Phosphorus or SRP) and pharmaceuticals.

As a result, in July 2012, with Council's authorization, staff retained EcoMetrix Incorporated and other consultants, who reviewed the Outfall EA process and technical documents and confirmed the need for a Receiving Water Impacts Study for the Duffin Creek WPCP (i.e., the second largest sewage treatment plant in Ontario and one of the largest in Canada). The Town's consultants compiled a list of issues with the Outfall EA process being conducted by the Regions, including information gaps and omissions in the Regions' consultants' reports and models.

It became evident that the Regions had not planned to prepare a Receiving Water Impacts Assessment as part of the Outfall EA, although two recent studies encompassing the Ajax-Pickering shoreline had identified phosphorus in effluent discharged from the Duffin Creek WPCP through the existing outfall-diffuser into Lake Ontario as contributing, to differing degrees, to escalating *Cladophora* algae growth, build-up and decay in nearshore water and onshore.

More specifically, the studies confirmed the Duffin Creek WPCP to be the largest local source – much greater than any other source (Duffins Creek, stormwater runoff) - of SRP that promotes and sustains *Cladophora* algae growth, build-up and decay throughout summer months. Brief descriptions of each study, both of which were known to the Regions, are provided below:

- i) The University of Waterloo study<sup>1</sup>, commissioned by Ontario Power Generation (OPG), commenced in mid-2008 and used a 3-D model to identify causes of nuisance *Cladophora* algae that has repeatedly clogged the Pickering Nuclear Generating Station (PNGS) water intake. The study examined nutrient loads from local sources, based on local water quality monitoring conducted in 2006 and 2007 with support from OPG, the Regions, the Toronto and Region Conservation Authority (TRCA) and the Town. Its study area extended from the Rouge River to Carruthers Creek.

In October 2009, prior to the Outfall EA commencing, the University of Waterloo study stated that restriction of nutrient discharge into the study area holds little promise of eliminating the algal growth problem because in-lake sources are sufficient to produce problematic growth. The Regions have been relying on that conclusion from the study to justify not taking actions to curtail nutrient discharge from the Duffin Creek WPCP. However, further, the University of Waterloo study did find that eliminating phosphorus emissions from the Duffin Creek WPCP's existing outfall-diffuser decreased predicted seasonal algal biomass by 10%. The study also concluded that it may not take a dramatic reduction in local phosphorus inputs and in-lake concentrations to have a beneficial effect in reducing algae biomass.

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<sup>1</sup> Link to University of Waterloo Study on Town of Ajax website:  
<http://www.ajax.ca/en/doingbusinessinajax/resources/2009-Oct-UofWAlgaeReportforOPG-final.pdf>

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The 2009 University of Waterloo study's primary recommendation was as follows:

“Proposed or inadvertent changes of P (Phosphorus) inputs into the study area from external sources (tributaries, drains, wastewater outfalls) should receive careful study to ensure they do not exacerbate the *Cladophora* problem in this Phosphorus-limited system.”

- ii) An Independent Peer Review Study<sup>2</sup> was undertaken by Dr. Martin Auer of Michigan Technological University in 2010 with funding from the Regions, the TRCA and the Town. The peer review examined the results of water quality monitoring conducted from 2007-2009 along the Ajax-Pickering waterfront.

In his draft report of late 2010 and his final report in mid-2011, Dr. Auer concluded that nutrient (i.e., SRP) discharge from the Duffin Creek WPCP's existing outfall-diffuser is overwhelmingly the dominant source of SRP (i.e., 97%) along the Ajax-Pickering shoreline – prior to the Regions establishing their initial list of alternatives for the existing outfall.

### **The Narrowed Scope of MOE's 2012 Local Water Quality Study and Longer Timeline for the Study's Results**

In the Fall of 2011, after discussions with Town staff, MOE researcher Dr. Todd Howell initiated further study of nearshore water quality in Lake Ontario that included the Ajax–Pickering nearshore area as one of several study areas. Dr. Howell's study was to commence in early 2012 and focus on determining the extent to which nutrient discharges in the study areas, and a broader regional study area, contribute to *Cladophora* growth in nearshore water.

The MOE's 2012 study was to examine local sources (i.e., discharge from the WPCP's outfall-diffuser, several creeks and stormwater outflows), as well as baseline levels in Lake Ontario and the influence of mussels on the lakebed. Study results were to be produced by the end of 2013.

However, during 2012, it became apparent that the scope and timing of the 2012 MOE study had been changed, such that it would no longer examine the Duffin Creek WPCP outfall-diffuser's nutrient emissions or produce results in 2013 (i.e., not before the Regions plan to conclude the Outfall EA and file the ESR with the MOE).

Taking this into account, in the Fall of 2012, the Town issues and recommendations were communicated to the Regions and MOE staff. In detailed staff reports, meetings, presentations and correspondence, the Town specifically requested the Regions to “pause” the Outfall EA process in order for the Regions to undertake and complete an Assimilative Capacity and Cumulative Effects Study (ACCES) - to determine whether there is a definitive link between nutrients in effluent discharged from the expanding WPCP through the existing outfall and the *Cladophora* growth in nearshore Lake Ontario that is fouling the Ajax-Pickering shoreline.

### **The Town's Proposed Assimilative Capacity and Cumulative Effects Study (ACCES)**

On November 6, 2012, Ajax staff, EcoMetrix and Pickering staff met with Durham and York Region staff to discuss the Town's issues, including the need for an ACCES. Regional staff reiterated that they are not required by the Municipal Class EA process to achieve consensus with stakeholders and the public, and noted the Outfall EA was scheduled to be completed in the Fall of 2013. Town staff offered to provide a draft Terms of Reference (TOR) for an ACCES to

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<sup>2</sup> Link to Dr. Martin Auer's Peer Review Report on Town of Ajax website:  
[http://www.ajax.ca/en/doingbusinessinajax/resources/PDENG\\_D\\_FinalReportDrMartyAuer.pdf](http://www.ajax.ca/en/doingbusinessinajax/resources/PDENG_D_FinalReportDrMartyAuer.pdf)

the Regions for review and discussion to try to develop a cooperative resolution to the Town's issue.

EcoMetrix has conducted many of these studies and prepared a draft ACCES TOR that could be completed in 2013, at an estimated cost of \$100,000-\$300,000. The TOR were prepared to try to fill the "gap" in the Outfall EA where the Regions should have prepared a comprehensive Receiving Water Impacts Assessment Report to define the present and future environmental impacts of increasing effluent discharge (i.e., from approximately 340 MLD to 630 MLD).

Mayor Parish and Town staff met with Minister Jim Bradley and senior MOE staff on December 17, 2012 to request that the MOE advise the Regions to "pause" the Outfall EA to allow for the Town-recommended ACCES to be undertaken and completed. MOE staff replied, by letter, that the Outfall EA is a proponent-driven process (i.e., led by the Regions) and the Town's comments will be considered by the MOE after the Regions submit the ESR to the MOE.

From the Town's perspective, without additional open, transparent research to determine whether or not there is a link between the WPCP's nutrient discharge and *Cladophora* growth as a core component of the Outfall EA, the Regions' consultants cannot substantiate the claim in their Outfall EA reports that there is no definitive link.

### **The Regions' Response to the Town's Unresolved Issues and Recommendations**

On October 18, 2012, Durham Region's Joint Committee considered a motion put forward by the Town Council and City of Pickering Council regarding the Outfall EA. Divided into two parts, the following portion of the motion was passed by the Joint Committee:

*THAT Regional staff continue to meet with representatives of the Town of Ajax and City of Pickering to try to reach an agreeable approach to resolving the Town's issues with the Duffin Creek WPCP Outfall Environmental Assessment and report back to Joint Committee before the end of January 2013.*

The second part of the motion was deferred by Joint Committee, pending a follow-up report from Durham Region staff:

*"THAT the Outfall EA timeline be extended to ensure that the Ministry of the Environment's current water quality study and the preparation of a comprehensive "Assimilative Capacity and Cumulative Effects Study" be completed and that these findings be used to determine the best scientifically possible Preferred Alternative for the Duffin Creek WPCP's Outfall-Diffuser".*

On February 21, 2012, Durham Region released a staff report (2013-J-6) for its Joint Committee's consideration for the stated purpose of reporting on progress from the November 6<sup>th</sup> 2012 meeting with Town and City staff "aimed at trying to resolve the Town of Ajax's issues discussed in the October 18, 2012 Joint Committee meeting", and progress made in the Outfall EA. Predominantly, the report critiqued components of the proposed draft ACCES TOR, but avoided the merits of studying the potential impacts of present and future effluent discharge from the expanded WPCP facility, through the existing outfall-diffuser into Lake Ontario, on nearshore *Cladophora* algae growth. Durham staff recommended their report be received for information.

Town staff and EcoMetrix reviewed Durham Region staff report (2013-J-6) and commented generally as follows:

- i) The staff report did not reference the aforementioned deferred Joint Committee motion;

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- ii) The Town's draft ACCES TOR, provided to Durham Region Works staff on December 20, 2012, was not appended and comments were only made on portions of the draft ACCES TOR, yet crucial aspects were avoided. For example, with the Regions' concurrence, CH2MHill's model predicting the size of mixing zones could have been re-run, by inputting SRP data to determine the Lake's assimilative capacity and whether the resulting mixing zones would comply with MOE Water Policy, by the end of 2013;
- iii) The staff report and Outfall EA to date have not determined the extent to which loadings of nutrients and chemicals of concern (e.g., pharmaceuticals<sup>3</sup> and personal care products) in effluent discharge from the existing outfall-diffuser cause and/or contribute to declining shoreline conditions in Ajax, including beach postings, excessive *Cladophora* algae growth in nearshore water, and strong, offensive odours. In fact, at the February 27, 2013 public meeting conducted by the Regions in Ajax, the Regions' consultant admitted that the theoretical model used to predict existing and future conditions in Lake Ontario is not capable of assessing the cause and effect relationship between effluent discharge and *Cladophora* growth. As well, the model is not designed to reflect the strong influence that wind action (speed and direction) has on pushing effluent to the shore;
- iv) The staff report stated that water quality testing by the MOE and a TRCA representative in 2013 is being supported by funds from Durham Region, and the testing is examining the existing WPCP and its outfall-diffuser, but it is in progress and not complete;
- v) The staff report (and Interim Reports on Phases 1 and 2 of the Outfall EA) overstated Stakeholder Advisory Committee (SAC) influence on evaluation and selection of alternatives. SAC meetings are closed to the public. Extracts from the Regions' SAC TOR<sup>4</sup> listed below reflect a few of the limitations on SAC input:
- The SAC is not a decision-making body;
  - The Regions are not seeking consensus on discussion topics;
  - When the Regions choose a different course of action on a discussed issue, the SAC is to be provided with a detailed explanation;
  - Once an issue or problem has been dealt with, the matter is closed; and,
  - Dissatisfaction with the Regions' conclusions on issues is not reason enough to revisit them;
- vi) The fact that mats of *Cladophora* algal promote the growth of *E. coli*, by hosting food like freshwater shrimp that attracts waterfowl and birds year-round and harbouring other potentially more harmful pathogens close to shore, in wading-depth water and beach sand, also previously identified as an issue by the Town, was disregarded; and,
- vii) There is no acknowledgement that murky waters are also produced by the growth and decay of *Cladophora* algae. The *E. coli* Counts displayed in the staff report were averaged, which failed to reflect the wide-ranging fluctuation of *E. coli* levels above and

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<sup>3</sup> Link to 2011 MOE Study of Pharmaceuticals in Nearshore Lake Ontario Water at Ajax and Other Study Areas: <http://www.ajax.ca/en/doingbusinessinajax/resources/2012-Dr.PaulHelmetalJGLRInPress-Influenceofnearshoredynamicsonthedistributionoforganic.PDF>

<sup>4</sup> Link to the Duffin Creek WPCP Outfall EA Stakeholder Advisory Committee Terms of Reference: [http://www.durham.ca/departments/works/duffincreek/phase1/SAC1/SAC1\\_Terms%20of%20Reference.pdf](http://www.durham.ca/departments/works/duffincreek/phase1/SAC1/SAC1_Terms%20of%20Reference.pdf)

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below the Provincial standard along the Ajax waterfront. Nutrients combined with *E. coli* and other substances contribute to local water quality issues, such as frequent beach postings by Durham Region's Health Department.

On February 21, 2013, Durham Region's Joint Committee defeated the following previously deferred motion initiated by the Town:

*“THAT the Outfall EA timeline be extended to ensure that the Ministry of the Environment's current water quality study and the preparation of a comprehensive “Assimilative Capacity and Cumulative Effects Study” be completed and that these findings be used to determine the best scientifically possible Preferred Alternative for the Duffin Creek WPCP's Outfall-Diffuser”.*

Also, the Joint Committee passed a resolution from Durham staff report 2013-J-6 recommending to Durham Region Council that Joint Report #2013-J-6 from the Commissioner of Works, be received for information, and that the Joint Report be forwarded to the Ministry of the Environment, the Toronto and Region Conservation Authority, Pickering, Ajax and York Region. On March 6, 2013, however, Durham Regional Council defeated the Joint Committee's resolution.

In April of 2013, the Regions had further confirmed their rejection of the Town-recommended ACCES:

- i) The Regions' consultants recommended to Regional staff in a letter dated April 10, 2013 that the ACCES be rejected, claiming the ACCES would not find a definitive link between nutrient discharge from the existing outfall and *Cladophora* growth; and,
- ii) A Q&A sheet on the Outfall EA distributed by Regional staff to Durham Region Council on April 23, 2013 stated that the ACCES will not determine a definitive link between effluent discharge from the existing outfall and nuisance *Cladophora* growth.

Therefore, due to the Regions' unwillingness to conduct the Town's recommended ACCES, and the Regions' predetermination of the ACCES's results before it has been undertaken, staff recommend the ACCES no longer be pursued.

At this point in the Outfall EA process, Alternative 2 (Add Duck-Billed Valves to Portals on the Existing Outfall-Diffuser) has been identified as the Preferred Alternative<sup>5</sup>.

### **The Timing of Regions' Funding for a Potential New 3-Km Outfall**

The Regions' consultants estimate the capital cost of constructing a new outfall for the Duffin Creek Water Pollution Control Plant extending 3-km offshore at \$185-\$240 million.

On April 24, 2013, Durham Region Council approved its 2013 Development Charge Background Study, in which \$41.5 million is identified in the 2018-2022 period as Durham's share to address the “Outfall Limitations at the Duffin Creek WPCP”. This is equivalent to Durham Region's 20% share of the estimated cost of a new 3 km outfall.

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<sup>5</sup> Link to Phase 2 Interim Report, dated February 2013, prepared by CH2MHill:  
<http://www.durham.ca/works.asp?nr=/departments/works/duffincreek/phase2report.htm&setFooter=/includes/duffinFooter.inc>

York Region has included \$145.5 million for an “Outfall” in the 2012-2019 period in its approved 2012 Development Charge Background Study, which would cover York Region’s 80% share of a new 3-km outfall.

Therefore, sufficient funding for a new Duffin Creek WPCP outfall has been allocated by both Regions in their approved Development Charge Background Studies, such that a new 3-km outfall can be designed, constructed and operating in 2020.

### **The Ministry of the Environment’s Water Policy**

Current Ministerial conditions on the Duffin Creek WPCP and its outfall require that the MOE’s Water Policy be met.

The MOE’s Water Policy states that “*mixing zones are not to be used as an alternative to reasonable and practical wastewater treatment*”.

More specifically, MOE’s Guideline B-1-5, in effect since 1994, clearly states the following with regard to the design of mixing zones for WPCP outfall-diffusers: **mixing zones are to be as small as possible and not interfere with beneficial uses of receiving water bodies and should not contain:**

- **materials which form objectionable deposits;**
- **substances producing objectionable colour, odour, taste or turbidity;**
- ***substances which produce or contribute to the production of objectionable growths of nuisance plants*** (e.g., nutrients that promote *Cladophora* growth) **and animals; and,**
- **substances that render the mixing zone aesthetically unacceptable.**

Based on the Town’s review of the short-listed alternatives, Alternative 5 (New 3-km Outfall) is the only alternative in the Outfall EA technical reports that would virtually eliminate the mixing zone caused by effluent discharge from the expanding Duffin Creek WPCP outfall.

### **Water Quality Studies of Ajax Stormwater and Paradise Beach in 2013**

In 2013, the TRCA launched a project in conjunction with the Regions of Durham and York, with MOE technical support, to analyze and report on water quality data gathered during studies conducted from 2006 to present in the Ajax-Pickering area.

No Terms of Reference were made available for this project to the Town or the public; however, the TRCA’s project leader indicated the following to Town staff:

- The study cost is \$40-50,000, with the Regions and the TRCA each paying one-third of the study’s cost; and,
- Dr. Todd Howell, an MOE researcher, has made the MOE’s water quality data, computers and software available to support the study.

The Town was not given an opportunity to participate or provide input to the project, although the study area encompasses Ajax. Due to the absence of a detailed Terms of Reference, Town staff are uncertain as to the purpose and framework of the study, but TRCA’s representative indicated

that the study was proceeding based on the following extract from the study researcher's contract:

“The Great Lakes scientist will analyze extensive dataset of water quality that were collected during surveys of the shoreside and nearshore from 2006 to present. These data will be combined with information regarding the physical conditions prior to and during these surveys in an effort to ascertain the important drivers of water quality. Analyses of water quality surveys will lend insight into the local sources that contribute to nearshore water quality and how flushing, mixing and recirculation affect these sources.”

The research scientist will also compare findings of these surveys to more intensive surveys conducted by the Ontario Ministry of the Environment. Consideration will be given to the effectiveness of the sampling strategies. As required, the research scientist will participate in 2013 field surveys to augment as necessary the current datasets. Additionally, the research scientist will supervise an assistant who will aid in data retrieval, quality assurance and preliminary data analyses.

**A major component of this work will be finding effective ways to disseminate the study results to the general public.** Public dissemination will be accomplished by posting non-technical summaries of the project findings to the TRCA website, with an extensive use of visual aids. For the public audiences, reporting efforts will be designed to explain the results in plain language.”

Staff have discussed the proposed study with TRCA's project leader to try to obtain sufficient details about this publicly-funded project. Recently, it was confirmed that no Terms of Reference have been prepared, which would typically provide a detailed description of the project's purpose, the actual work to be done (e.g., when samples will be taken, what type of laboratory tests will be conducted (e.g., general chemistry, SRP or other substances not examined in prior local studies), which analytical approach will be applied to the test results and, importantly, what deliverables (e.g. reports, etc.) will be produced by the study.

Based on a partial timetable provided by the project leader, the study seems to be on a “fast-track” to produce a “draft creation” in early July 2013 and, in September 2013, make it available to “stakeholders”, possibly hold a public workshop and produce a “final submission”. The project's timing would coincide with the Regions' timing for finalizing their ESR for the Outfall EA.

In addition, the TRCA is seeking funding and “in-kind” staff support from the Town in 2013 for water quality monitoring and analyses at two stormwater outlets into Lake Ontario.

Given the Regions' vested interest in the Outfall EA, and the stated positions of the project participants, staff do not recommend participation in the stormwater testing and analysis program for 2013. However, the monitoring of *E. coli* levels in Lake Ontario at Paradise Beach in 2013 should continue.

### **The Town's Actions to Improve Water Quality**

Ajax has taken many actions to improve local water quality and will continue to do so:

- Completing the Stormwater Retrofit EA for southwest Ajax and seeking funds for retrofits;
- Supporting *E. coli* testing at Paradise Park beach in summer months;

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- Developing and undertaking the “Bring a Beach Back” project, with the goal of making Paradise Beach an internationally recognized “Blue Flag” beach; and,
  - Advocating improved protection of Lake Ontario through implementation of updated water policies in the Ajax Official Plan, participation in the Great Lakes and St. Lawrence Cities Initiative, and execution of the Canada-U.S. Great Lakes Water Quality Agreement and a new Canada-Ontario Agreement Respecting Great Lakes Basin Ecosystem.

### **The Town’s Strategy for the Remainder of the Outfall EA**

Based on experience from the preceding Duffin Creek WPCP Stage 3 Expansion EA, Council has endorsed a strategy for the Town’s participation in the remainder of the Outfall EA.

Outside legal counsel and consulting experts have been retained. The Outfall EA process and technical documents are under review, in preparation for the possibility of a Part II Order and potential legal actions should the Regions not address the Town’s issues.

### **FINANCIAL IMPLICATIONS:**

To date, the Town has spent approximately \$65,000 to retain several consultants who have reviewed certain aspects of the Regions’ Outfall EA process and available technical reports, including EcoMetrix Incorporated to review the Regions’ available lake water modeling.

Based on Council’s endorsed strategy of April 4, 2013, the experts to be retained by the Town are to include outside legal counsel and consultants specializing in lake water modeling, wastewater treatment and fish biology.

The Town has retained outside counsel from Gowling Lafleur Henderson LLP who specialize in environmental law issues, and authorized Gowlings to retain expert consultants in a number of areas, including lake water modelling, wastewater treatment and fish biology.

In the first phase of their investigations, Gowlings and the consultants will be:

- reviewing the Regions’ Outfall EA process and technical documents, with Town staff and EcoMetrix Incorporated providing Gowlings with briefings on the Town’s issues, the available technical reports and crucial information “gaps” from the Outfall EA and the Regions’ apparent position;
- preparing for the possibility of filing a Part II Order with the MOE; and,
- examining potential legal actions should the Regions not address the Town’s issues.

The total cost for the first phase of investigations is estimated at approximately \$252,000, and may increase should the cost of retaining a wastewater treatment expert and a fisheries biologist be greater than anticipated. The funds are unbudgeted and will be charged to the Planning & Development Services operating budget.

Potential second and third phases of action to protect the Town’s interests could include the filing and defense of a Part II Order with the MOE and seeking legal actions in the courts.

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Council's endorsed strategy is under review by Gowlings to ensure the consulting framework has been designed to achieve the desired results.

**COMMUNICATION ISSUES:**

Communications staff will continue to conduct the "Save the Ajax Waterfront" campaign.

**CONCLUSIONS:**

For several years, the Town's serious issues with the Duffin Creek Water Pollution Control Plant Outfall EA process and technical reports have been clearly documented and presented to the Regions of Durham and York. However, without addressing the Town's issues, the Regions are planning to conclude the Outfall EA process in the Fall of 2013.

Subject to recommendations being received in the interim from Gowlings stemming from their current review of Council's endorsed strategy for the remainder of the Outfall EA, a staff report on the findings of legal and consulting investigations conducted this summer will be brought forward in the early Fall of 2013.

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Barbara Hodgins, MCIP, RPP - Senior Policy Planner

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Gary Muller, MCIP, RPP – Manager of Planning

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Paul Allore, MCIP, RPP – Director of Planning & Development Services