
From: Jim Robb [mailto:jimrobb@frw.ca]

Sent: Wednesday, October 07, 2009 7:34 AM

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Cc: alan_wells@rougepark.com

Subject: Jim Robb York Region Planning for Tommorrow OPA input

Jim Robb

Rouge Duffins Greenspace Coalition Volunteer
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October 6, 2009

The Regional Municipality of York,
Planning and Development Services Department
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Re: York Official Plan Amendment: Planning for Tomorrow

Dear Chairman Fisch and York Region Council:

I am a former Vice Chair with the Ontario Environmental Assessment Board (1990 to 1996) and a former Niagara Escarpment hearings officer. I have been an active conservationist within the Rouge River watershed for 25 years. Below please find a few recommendations on York's proposed Official Plan Amendment. Attached please find input and recommendations regarding the Environmental Assessment for the YDSS SE Collector.

In March of 2002, I wrote to York Region, TRCA, MNR, DFO and other agencies to express concerns about the initial stages of the YDSS (Big Pipe) twinning under 9th Line and 16th Avenue in Markham. My input was largely ignored. Subsequently, there have been significant increases in the environmental impacts, costs and delays associated with the YDSS twinning.

I hope that York Region will accept the recommendations in this letter.

GTA residents are increasingly dissatisfied with the unsustainable rates of growth being approved by politicians at all levels of government. A taxpayer and voter revolt is likely in the next decade, if York's current OPA and urban expansion plan / growth plan are approved.

York Region plans to increase its population by 50% to 1.5 million people over the next 25 years. Even with better transit and urban intensification, this represents unsustainable growth which will increase traffic congestion and pollution, and pave irreplaceable farmland and greenspace. This rapid growth will cause environmental and social stress and damage to public health and quality of life in the GTA. **Ontario's Environmental Commissioner, Gordon Miller, has stated:**

"the landscapes of many parts of Southern Ontario have reached their capacity to accommodate additional infrastructure, housing and human populations. Current land development pressures are gobbling up valuable greenspace and agricultural lands. Infrastructure corridors for highways and utilities are bisecting wetlands and other natural heritage areas."

Despite this 2006/07 warning from Ontario's top environmental advisor, the 2009 York Region OPA proposes a several square kilometer increase in the footprint of development in the Rouge River watershed and a corresponding loss of several square kilometers of prime farmland. In this regard, the current York Region OPA is short-sighted, contrary to good planning and the public interest, and socially, environmentally and economically unsustainable.

In terms of water quality, erosion and watershed health issues, the background scientific reports for the Rouge Watershed Strategy (TRCA, 2007) conclude that:

"Overall, results indicate that meeting water quality targets will become an increasingly distant goal as the footprint of development expands" Scenario Modelling and Analysis Report,
Water Quality Section 4.2.9

*...middle tributaries would be subject to **major hydrological impacts** under Official Plan build-out and full build-out conditions ...*
P. 4.1-43

Under the *Planning Act*, York Region's Official Plan shall be consistent with the Provincial Policy Statements, including policy 2.2.1 which states:

"Planning authorities shall protect, improve or restore the quality and quantity of water"

Many Provincial Water Quality Objectives (PWQOs) are not being met in streams at the border between York Region and Toronto and the trends are towards more pollution. In addition to elevated levels of E.Coli and total coliform bacteria, phosphorus and other pollutants are elevated to levels which damage water quality and aquatic health.

The PWQOs are designed to *"ensure that the surface waters of the province are of a quality which is satisfactory for aquatic life and recreation"* (Water Management Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment). The PWQOs establish objectives for limiting the concentrations of contaminants which can damage aquatic health. Each objective is established on the basis of scientific studies on acute and chronic

toxicity. In areas where water does not meet the PWQOs (like the Rouge River and several of its tributaries in York Region), a Policy 2 situation exists and the following directive applies:

Within this context, York Region’s current Official Plan Amendment and its proposal to significantly expand the urban footprint, is not consistent with the Provincial Policy Statement for the protection of water quality and quantity.

The Provincial Policy Statement under the *Planning Act* requires that York Region minimize potential negative impacts, including cross-jurisdictional and cross-watershed impacts. Streams originating in York Region flow through Toronto to Lake Ontario, the water source for several million people. Lake Ontario and the Toronto shoreline have been designated by Canadian and Ontario government agencies as a Great Lakes “Area of Concern” due to degraded water quality and impaired public uses. Water quality **protection and improvement** is a legal public mandate under provincial, national and international Great Lakes Water Quality Agreements and laws.

York Region must demonstrate due diligence and comply with the Provincial Policy Statement on water; the Great Lakes Water Quality Agreement; the *Fisheries Act*; the *Species at Risk Act*; the PWQOs and riparian rights. **To do so, York Region should conduct the following steps prior to any urban boundary expansion:**

1. Involve the public in the completion of detailed subwatershed plans, water quality and flow improvement plans, and water budgets (please see the attached YDSS SE Collector EA Input) for streams such as the Rouge, Berczy, Bruce, Robinson and Little Rouge;
2. Test, prove and fund (special development charge?) new methods of active and passive stormwater treatment and infiltration to achieve provincial water quality objectives, improve stream base flow and fish habitat, and reduce stream peak flow, flooding, erosion and downstream riparian risk and damage;
3. Include more than 50% of the whitebelt within Greenbelt Countryside and Natural Heritage System designations and fund the acquisition of lands identified by Rouge Park and Subwatershed Plans to “protect, improve or restore” *areas which are necessary for the ecological and hydrological integrity of the watershed*”;
4. Conduct additional public consultation on Regional Master Plans for Water, Waste and Sewage (see attached SE Collector EA Input), Transportation (see attached Input) and Transit Plans.

York Region is not compelled to immediately increase its urban boundaries. Provincial Policy Statement 1.1.2 under the *Planning Act* states that: - *Sufficient land shall be made available through: intensification and redevelopment and, if necessary, designated growth areas, to accommodate an appropriate range and mix of employment opportunities, housing and other land uses to meet projected needs for a time horizon of up to 20 years.*

The province has given Municipalities the right to refuse urban expansions and developers cannot appeal such a decision to the Ontario Municipal Board. York Region should use this power to defer any urban expansion until the above recommendations and other good public planning and infrastructure steps are completed.

If York Region expands the urban area now, you will prematurely give windfall profits to land speculators at the expense of taxpayers and the environment. Once the urban envelope is expanded, developers are in the planning “driver’s seat” through their deep-pocketed ability to beat municipalities at the OMB. Once the urban envelope is expanded, developers will have the clout to resist the development charges and environmental protection measures necessary to ensure that development pays for itself.

If you approve major urban expansions at this time, you will be creating huge legal, environmental and economic liabilities for your community and taxpayers for more than the next twenty years. York Region has already dug itself into a deep financial and environmental deficit by rushing to accommodate unsustainable growth over the last two decades. If York Region rushes to expand the urban envelope at this time, you will further bury yourself and the taxpayer in traffic, pollution, stress and debt.

York Region’s proposal to increase its population by more than 50% over the next 20 to 25 years is not environmentally or financially sustainable. Continued rapid growth is the motto of cancer cells that kill their host. York Region is a large municipality. Since York Region’s proposed growth depends on the exporting of its sewage and waste to Durham Region, York’s proposed growth is clearly unsustainable (please see attached input to SE Collector EA).

At all levels of government, we need to take steps to slow growth (i.e. demand management rather than supply management). We need to adopt an urban expansion moratorium and plan wisely for live-near-your-work and transit-friendly compact communities.

We cannot afford more Big Pipes, more Big Highways and more suburbs which pave prime foodland and greenspace.

When gas prices sky-rocket again, when global warming gathers dangerous momentum, and when people have to live within their means, the suburban growth proposed by York will be unsustainable. We must reduce growth and plan for populations and economies which are quasi-steady state. As the recent collapse of housing prices and the stock market has shown, when we ignore the principle of carrying capacity and when we make unrealistic assumptions and decisions, we are headed for a disastrous collapse.

I trust that York Region will accept the recommendations in this letter and defer any proposed Urban Boundary expansions until further studies have been completed and wisdom has prevailed.

Sincerely,

Jim Robb
Rouge Duffins Greenspace Coalition Volunteer

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Re: YDSS Southeast (SE) Collector Environmental Assessment (EA)

**Dear Ontario Minister of the Environment:
Canadian Environmental Assessment Agency:**

The following comments on the Southeast (SE) Collector Trunk Sewer Environmental Assessment (EA) are based on my review of the EA documents; experience as a former Vice Chair (1990 to 1996) with the Ontario Environmental Assessment Board; participation in the EA public consultation process; review of hundreds of documents within Ministry of Environment (MOE), Department of Fisheries and Oceans (DFO), Toronto and Region Conservation Authority (TRCA) and municipal files over the last several years; and careful ground-truthing of previous YDSS projects .

Based on this knowledge and experience, I believe the purpose and provisions of the *Environmental Assessment Act* have not been adequately addressed by the SE Collector EA. The proposed undertaking should not be approved. For reasons outlined below, I request a thorough *Canadian Environmental Assessment Act* evaluation of the SE Collector to assess the potential cumulative effects to Rouge, Petticoat and Duffins River aquifers and fish habitat and Lake Ontario water quality.

1) Need for Fisheries Act Authorizations and CEAA Review

The proposed route of the SE Collector intersects aquifers near the Rouge River and Duffins Creek. In addition, buried eskers and aquifers with high groundwater flows are likely to be accidentally intersected within the complex glacial deposits found along the proposed route. Given the history of the YDSS twinning and serious mid-project regulatory violations, problems and delays, *Fisheries Act* authorizations are warranted and needed at the start. Harm to fish habitat and interference with groundwater levels and navigable streams (Rouge, Duffins) are almost inevitable for a project of this magnitude within a very complex glacial, groundwater and surface water environment.

A Master Thesis conducted under the supervision of Dr. Dudley Williams of the University of Toronto found harm to fish habitat in Robinson Creek despite the adaptive mitigation plan

approved by TRCA, DFO and MNR for Phase II of the 16th Avenue YDSS sewer. During the 9th Line, 16th Avenue and other YDSS sewer projects, York Region repeatedly and grossly under-estimated the environmental, social and economic impacts. A TRCA letter to the Region (May 26, 2003), states:

“lateral dewatering impacts are greater than predicted by about a factor of 10”.

In fact, groundwater impacts had spread over a 10 km radius into ORM aquifers and onto federal lands in East Markham and Pickering. Groundwater levels were significantly lowered, wells dried up and sensitive streams with trout and red side dace (Species at Risk) were harmed. After a thorough audit of the 9th Line/16th Avenue YDSS sewer projects, Gary Hunter, a respected groundwater expert, concludes:

“The Region’s Master Planning and Environmental Assessment and Route Investigation studies, as clearly demonstrated by the adverse environmental outcome of the project, did not include appropriate and responsible investigations and **grossly under-predicted the adverse groundwater conditions encountered.**”

“The Region sent out a **misleading Notice** to Residents on February 3, 2003 that (groundwater) interference would be limited to 2 to 3 km when the Region knew full well that complaints had already been received from 19th Ave and Dickson Hill (6 km to the north) to Steeles Ave (6 km to the south) and the Region was mobilizing to replace a drawdown shallow well at Elgin Mills (4 km away) for the Town of Markham.”

TRCA is “no longer independent or objective and is simply trying to protect the approval process which it played a major role in establishing and supervising.”

There are serious problems associated with TRCA’s role in *Fisheries Act* reviews for the YDSS undertakings. York Region is a significant contributor to TRCA funding and many York Region representatives sit on the TRCA Board. York Region has already signed a letter of agreement to provide the TRCA with funding for “environmental enhancements” under the SE Collector YDSS project. This TRCA and York Region funding agreement, prior to the completion of the regulatory and approvals process, places TRCA in a real or perceived conflict of interest. In addition, York Region provided significant additional funding to TRCA for stream enhancement work during the negotiation and the implementation of the 16th Avenue Phase II YDSS Sewer. This funding has the appearance of “compensation” outside of the legal framework established under the *Fisheries Act*.

The minutes of July 2003 meetings and associated TRCA, DFO and MOE documents indicate that senior MOE, DFO and MNR staff agreed to not prosecute glaring and long-lasting violations of the federal *Fisheries Act* and *Ontario Water Resources Act* during the 9th Line and 16th Avenue YDSS projects.

Despite obvious harm to fish habitat, DFO, MOE, MNR and TRCA allowed York Region to circumvent the requirements of the *Fisheries Act*, *Ontario Water Resources Act* and *Canadian Environmental Assessment Act* for Phase II of the 16th Avenue Sewer.

2) Critical Failure to Provide Adequate Notice to Toronto, Pickering and Ajax Residents

In 1997, York Region completed a Master Plan Class EA which selected twinning of the York Sewer System (including the YDSS SE Collector) and discharge to the Duffins STP and Lake Ontario as the preferred way to manage the increased sewage flows associated with York Region's explosive growth. This Class EA was self-described as "cursory".

Contrary to the requirements of the *Environmental Assessment Act* and established law, Pickering, Ajax and Toronto residents were not given legal notice of this Master Plan Class EA before the preferred alternative (Big Pipe twinning) was chosen. The communities around the proposed sewer twinning routes and Duffins STP would be affected by the Big Pipe and the increase in sewage conveyance, treatment and discharge to Lake Ontario. Therefore, Toronto, Pickering and Ajax residents had a legal right to Notice before the twinning of the YDSS was chosen.

Ontario's Environment Minister tried to remedy this fatal law by granting a bump-up of the SE Collector from a Class EA to a full individual EA, however, the process had already been further prejudiced. York Region had already used another cursory and inappropriate Class EA to twin a key section of the "Big Pipe" just northeast of Pickering and Toronto. The lower 9th Line section of the Big Pipe was built between 2000 and 2002 to connect to the future twinning of the SE Collector sewer near Toronto and through Pickering.

Ontario's Environmental Commissioner, environmental lawyers and engineers, and a former EA Board Vice Chair, have publicly stated that York Region repeatedly violated the *EA Act* by:

- failing to notify and consult with residents in the potentially impacted communities;
- piece-mealing the YDSS expansion and inappropriately using cursory Class EAs;
- failing to conduct a thorough individual EA to assess overall costs and benefits.

3) Environmental Commissioner Review of YDSS Twinning

Groundwater expert, Gary Hunter, and Markham historian, Lorne Smith, have submitted a request for a Review of the YDSS twinning by the Environmental Commissioner of Ontario.

3) Recommendation:

The Ministry of Environment should fully cooperate with the ECO to complete and publicly release a thorough review of previous YDSS twinning projects before any further YDSS twinning approvals are granted.

4) Improve Water-Use Efficiency

York Region's per capita water use (280 L/day) is much higher than the average (176 L/day) for developed countries. York Region withdraws many billions of litres of groundwater each year to provide water to Stouffville, Aurora, Newmarket and other York towns. When this groundwater is subsequently flushed into the YDSS, it is lost (wasted and exported) from local aquifers and watersheds, through piping to the Duffins Sewage Treatment Plant in Pickering. This inter-regional and inter-basin water export depletes the groundwater necessary to support rural wells, farms, streams and wetlands within Lake Simcoe and Lake Ontario basins.

4) Recommendation:

To conserve water and sewer capacity, York Region should be required to reduce its water use by 36%, to the average for developed countries, within ten years.

5a) Groundwater & Surface Water Wasting and Export

According to the EA, more than fifty percent of York's existing sewer capacity is wasted by groundwater infiltration and surface water inflow (I and I) into local and regional sanitary sewers. Each day, the YDSS wastes and exports (inter-region, inter-basin) more than a hundred million litres of precious groundwater and much more surface water during wet weather. This water depletion is equivalent to the loss of the entire summer base flows of the Rouge River and Don River.

This groundwater wasting occurs in aquifers which sustain critical base flows (fish habitat) to Lake Ontario and Lake Simcoe streams during hot summer droughts and long winter freezes. Protecting these aquifers is necessary to protect the groundwater sources for rural wells, farms, streams, fish habitat, lakes and wetlands. These groundwater aquifers are needed to buffer the adverse effects of the droughts and high temperatures predicted with global warming.

York Region's EA (Document 3 – Table 4-4, p. 57) shows that infiltration of groundwater and inflow of surface water ("I and I") into sanitary sewers in York Region was approximately 0.29 to 0.50 litres/hectare/second. This rate of groundwater and surface water leakage is approximately 4X to 12X the MOE guideline (0.07 L/ha/s) for new sewers. Some jurisdictions require much less sewer leakage than the aforementioned MOE Guideline.

The graph on page 59 of EA Document 3 shows that infiltration of groundwater into the YDSS accounts for approximately 30% of sewer capacity (150 L/s groundwater, 450 L/s sewer capacity). On wet days, stormwater inflow is 200 to 300 L/s, 45% to 65% of the capacity of subject sewer.

More than 50% of the capacity of the existing YDSS would be restored, if the infiltrating groundwater and inflowing surface water were removed from the sanitary sewer system. Since ground and surface water are flowing into York Region sanitary sewers in many locations, it is likely that raw sewage and E.Coli are leaking out in some locations. This represents a potential public health risk for rural groundwater users and downstream communities like Toronto.

Unfortunately, the SE Collector EA fails to provide adequate and up-to-date information on the actual volumes of groundwater infiltration and surface water inflow (“I and I”) per month and per year. The data in the current EA appears outdated (1998 to 2002), incomplete and unsuitable as a baseline for future reference. York Region needs to monitor and provide updated peak flows and actual daily, monthly and annual volumes of groundwater infiltration and surface water inflow. This information is needed to:

- properly quantify and assess inter-regional and inter-basin water exports;
- detail capacity problems and the rationale for twinning; and
- provide an accurate baseline to measure the effectiveness water conservation programs.

5b) Importance of Substantial Reductions in Infiltration & Inflow (“I and I”)

With global warming, increasing human water demands and droughts, and the growing importance of local food production, and downstream riparian rights, we cannot afford to waste (pipe and export) massive amounts of precious fresh water from our aquifers and watersheds. Substantial reductions in groundwater infiltration and stormwater inflow (“I and I”) are possible and necessary to protect the source waters for wells, streams, fish habitat, wetlands and lakes.

According to page 66 of EA Document, the City of Lansing, Michigan, has used a public education/information program to help remove 89% of identified sources of “I and I”.

According to page 67 of EA Document 3, Olympia, Washington, USA, reduced annual “I and I” volumes (primarily groundwater) by 80% by rehabilitating sewers within public right of ways.

According to page 67 of EA Document 3, Johnston County, Kansas, implemented a successful private lateral disconnection program and collection system rehabilitation program. These programs reduced “I and I” by as much as 1.06 Billion Litres per day during the 10-year storm. This led to significant reductions in sanitary sewer overflows. The volume of this “I and I” reduction is comparable to the entire rated capacity of the YDSS, after the proposed SE Collector twinning.

The Sustainable Water and Sewage System Act (Bill 175) requires municipalities to prepare and approve full cost recovery plans for their water and sewage infrastructure. This legislation will impact how municipalities operate their systems by reducing ‘non-recoverable costs’ such as water loss in the water system and extraneous flows in the sewage system.

5) Recommendation: Value Water, Encourage Conservation & Regeneration

The Minister of Environment should require, before granting the YDSS SE Collector approval, that York Region:

- 1) - provide a website with monthly updates and accurate and independent monitoring of the monthly and annual volumes of groundwater and surface water leakage (I and I) into the YDSS for each watershed and lower tier municipality in York Region and the overall YDSS;
- 2) - provide local and regional municipal strategies and workplans with committed funding of \$1 for each \$1 spent twinning the YDSS, to reduce groundwater and surface water leakage (“I and I”) into local sanitary sewers and the YDSS by at least 75% over the next ten years and to reduce per capita water use to less than 200 litres/capita/day within ten years;
- 3) – pay, immediately, if the SE Collector EA is approved, an environmental enhancement fund of 10% of the YDSS SE Collector cost (e.g. \$ 600 million X 10% = \$60 million) to establish a Rouge, Petticoat, Duffins Watershed Regeneration Trust Fund.
- 4) - annually pay 40 cents (\$0.40) per 1000 litres of groundwater infiltration into the YDSS, to fund a Rouge, Petticoat, Duffins Watershed Regeneration Trust Fund which supports the acquisition, restoration and management of lands for the protection of aquifers, source waters, streams, wetlands and watershed health;
- 5) - annually pay 10 cents (\$0.10) per 1000 litres of surface water inflow to the YDSS to fund a Rouge, Petticoat, Duffins Watershed Regeneration Trust Fund which supports the acquisition, restoration and management of lands for the protection of aquifers, source waters, streams, wetlands and watershed health.

Note: Toronto water rates are \$1.50 to \$1.90 per 1000 litres (cubic metre). Groundwater is often used by rural landowners for drinking and domestic water uses with minimal treatment.

6) Protecting Lake Ontario Water Quality and Public Health

If approved, the SE Collector will allow distant York Region communities such as Newmarket, Aurora, King City, Richmond Hill and Stouffville to pipe more raw sewage through Oak Ridges Moraine drinking water aquifers, Bob Hunter Memorial Park, Rouge Park and the Golden Horseshoe Greenbelt (DRAP) to Lake Ontario, just east of Toronto, in Pickering.

Pickering, Ajax and East Toronto Beaches are already closed much of the summer due to bacterial contamination. Phosphorous enrichment, from partially treated sewage and runoff, is causing nuisance algal growth along the Lake Ontario shoreline, reducing beneficial uses. Nuisance algal growth has even contributed to the clogging of cooling water intakes at the Pickering Nuclear Reactor, triggering a reactor shut-down. Near Toronto, Lake Ontario is a designated an “Area of Concern” under the Great Lakes Water Quality Agreement and Annex. Beneficial water uses such as swimming, fishing, recreation and consumption are impaired.

Under the Great Lakes Water Quality Agreement, Ontario and Canadian governments have a responsibility to protect and improve water quality and beneficial uses.

In his Annual Reports, Ontario's Environmental Commission has noted the potential health risks associated with the biologically active compounds, hormones and pharmaceuticals which appear to pass through current sewage treatment plants and enter Lake Ontario, our drinking water source. In his 2005 Report, the ECO questioned whether our population, pollution discharge and ecological footprint could continue to grow without harm to our health, environment and quality of life.

York Region's proposal to increase its population by more than 50% over the next 25 years is neither environmentally or financially sustainable. Continued rapid growth is the motto of cancer cells that kill their host. If York Region cannot manage its additional sewage within-region, then its proposed growth is unsustainable and should not proceed. We need to slow growth (limit growth alternative) and plan wisely for live-near-your-work and transit-friendly compact communities. We cannot sustain (afford) more Big Pipes, Big Highways and big sprawling suburbs. When gas prices sky-rocket again, when global warming gathers momentum, and when people have to live within their means, the suburban growth planned by York will be unsustainable. We must reduce growth and plan for populations and economies which are quasi-steady state. As the recent collapse of housing prices and the stock market has shown, when we ignore the principle of carrying capacity and when we make unrealistic assumptions and decisions, we are headed for a disastrous collapse.

6) Recommendations:

To protect Lake Ontario Water Quality and public health, the SE Collector EA should not be approved before a thorough *CEAA* assessment of the cumulative effects of the overall Big Pipe conveyance of additional sewage to the Duffins STP and Lake Ontario.

To respect the environmental carrying capacity of Lake Ontario, Lake Simcoe and GTA, York Region, Provincial and Federal officials should take steps to reduce the Region's growth rate to an average of less than 1% per year.

7) Need for Advanced Sewage Treatment and Water Recycling Within Region

The SE Collector EA proposes to export 94% of York Region's sewage to Durham Region for treatment and discharge to Lake Ontario, the drinking water source for millions.

Long-distance piping and exporting of raw sewage at great depths through drinking water aquifers is neither wise nor sustainable. Large deep sewer pipes are very difficult to monitor, maintain and repair. If the Big Pipe leaks or fails, as all pipes do over time, sewage and *E. coli* will escape into drinking water aquifers. Groundwater pollution is very difficult and costly to remove and it is a threat to drinking water wells, lakes, streams and public health

Within this context, York Region has not adequately assessed the technologies available for advanced within-Region sewage treatment and water recycling. EA Section 8, Document 3, states: "it was generally recognized that the streams (flowing towards Lake Simcoe and Lake

Ontario) could not accommodate additional loads from treated sewage discharge. Given this knowledge, the assessment of traditional treatment and stream discharge technologies was a waste of time and money. The assessment of within-region treatment options is outdated (2005) and unreasonably confined to traditional and stale technologies.

California is building a \$250 Million Advanced Water Purification Facility (AWPF) to yield 280 million litres per day of drinking quality water from sewage using micro-filtration, reverse osmosis, ultraviolet light and an advanced oxidation process. For comparison purposes, the SE Collector would pipe (not purify) up to 500 million litres of sewage per day for a cost of more than \$600 million. York Region could build two advanced sewage water purification and water recycling facilities for less than the cost of the SE Collector.

The advanced sewage purification facility would yield drinking quality water. This water could be stored in man-made wetlands and clay-lined gravel pits for irrigation of golf courses, farms and regional forests and/or recharge of selected aquifers and wetlands during winter. The use of recycled water for irrigation would reduce the withdrawal of precious groundwater for cosmetic turf watering. Charging a fee for irrigation water would help to recover the cost of treatment and distribution. In other jurisdictions, advanced sewage treatment and recycling systems have helped to reduce water shortages and inter-regional disputes and buffer the effects of global warming.

7) Recommendations:

The Minister of Environment should require that York Region thoroughly assess and integrate advanced within region sewage water purification and recycling within its EA and proposal, prior to any approval of the SE Collector EA and other YDSS EAs.

The Minister of Environment should require that York Region decommission the old YDSS pipe within twenty years and replace its capacity with advanced within region sewage water purification and recycling capacity.

8) Need for Higher Upstream Standards to Prevent Downstream Harm

An indirect environmental effect of the YDSS SE Collector twinning is the potential impacts from servicing urban expansion in the mid-reach and headwater areas of streams which flow into Toronto, such as the Rouge and Don Rivers. The Rouge Watershed Strategy (TRCA, 2007) concluded that current “best management practices” are degrading water quality and increasing downstream flooding and erosion, contrary to provincial policies and laws. The Rouge River Watershed Scenario Modelling and Analysis Report Section 4 states:

“Overall, results indicate that meeting water quality targets will become an increasingly distant goal as the footprint of development expands”

“Future urbanization will increase the magnitude and duration of erosive flows in receiving watercourses despite the use of current extended detention criteria”

8) Recommendation:

The proposed SE collector EA should not be approved without a firm commitment from the Province and York Region that no further urban area expansion will occur in mid-reach and headwater areas of GTA watersheds without the public negotiation, implementation, monitoring and enforcement of higher standards and remedial works to improve water quality and flow stability within Lake Ontario and Lake Simcoe watersheds, aquifers, streams and wetlands.

9) Alternative to Sewer Route through Bob Hunter Memorial Park

I strongly oppose the proposed SE Collector route (13) through the middle of Bob Hunter Park. Groundwater expert, Gary Hunter, indicates that Route 8, along 9th Line and Steeles Avenue, is comparable to Route 13 in terms of costs and environmental risks. Route 8 has the distinct advantage of not going through Bob Hunter Memorial Park. Route 8 also utilizes the existing inter-regional infrastructure corridor along Steeles Avenue rather than further fragmenting the Greenbelt through Bob Hunter Park by utilizing the much smaller and more rural 14th Avenue right of way.

9) Recommendation:

The Ministry should not approve the SE Collector route through Bob Hunter Memorial Park.

10) Odours, Incineration of Sludge, Air Pollution

York Region recently appealed a Pickering Council decision to allow the operation of a gymnastics club in a building adjacent to the Duffins Sewage Treatment Plant (STP) in Pickering. York Region's letter of appeal to the Ontario Municipal Board states:

:

"Odour emission impacts from the [Duffins STP] Water Pollution Control Plant cannot be adequately mitigated on the subject lands."

In March 2007, the Minister of Environment refused requests for an individual Environmental Assessment for the proposed Duffins STP expansion but imposed conditions requiring an Odour Control Plan within 6 months (by October 2007). Twenty two months later, the Odour Control Plan has not been shared with local municipalities and the Minister's condition has not been met.

York Region promises that the twinning of SE Collector sewer and associated odour control facilities will not cause serious odours or pollution. Similar promises were given when York Region built the original YDSS SE Collector and Duffins STP many years ago. These promises were not kept.

As a former Environmental Assessment Board Vice Chair, I know that decision-makers sometimes deal with difficult decisions by giving an approval based on conditions. However, I have learned that many conditions are not met or enforced. Some conditions cannot be met but will be promised to get the approval. Some projects are better refused to motivate progress towards more creative and less environmentally harmful solutions.

Property values and tax assessments can be harmed by facilities such as the YDSS SE Collector and Duffins STP through odours, air pollution and water pollution. York Region already sends 94% of its raw sewage to Pickering and it wants to twin the SE Collector to significantly increase sewage flows into Pickering. York Region is also planning to send its solid waste to Durham Region for incineration.

10) Recommendations:

The Minister of Environment should require that York Region thoroughly address the Conditions of the Duffins STP Expansion approval before granting any approvals for the SE Collector EA.

York Region should be required to conduct a thorough social and financial (e.g. property value, tax assessment) impact assessment before any approvals are granted for the SE Collector EA.

11) Tunnel Collapse, Soil Settling or Big Pipe Break

YDSS sewer construction has already triggered a tunnel collapse beneath Langstaff Road, soil settling along 16th Avenue and associated infra-structure damage. For the SE Collector, York Region proposes to tunnel beneath high-tension, high-voltage, hydro lines beside Pickering residential communities. If tunnelling triggers soil settling under the hydro tower footings, high voltage wires could fall on adjacent homes and properties, creating a risk of fire or electrocution.

The proposed SE Collector route in Pickering is also near an active bedrock fault. If an earthquake triggers movement, the “Big Pipe” could break and cause massive sewage spill.

12) Advanced Water Purification at the Duffins Sewage Treatment Plant

In his Annual Reports, Ontario’s Environmental Commission has noted the potential health risks associated with the biologically active compounds, hormones and pharmaceuticals which appear to pass through current sewage treatment plants and enter Lake Ontario, our drinking water source.

Toronto's eastern beaches are only a few kilometres from the Duffins STP which would discharge additional effluent to Lake Ontario from the SE Collector. Toronto's waterfront is a designated "Area of Concern" under the International Great Lakes Water Quality Agreement and Annex. Imagine the air and water pollution (Mercury, dioxins, furans, odours) from incinerating all the sludge from York Region's sewage right beside Lake Ontario, our drinking water source. Contemplate how the Duffins STP could be safely operated without discharging raw sewage into Lake Ontario, if a nuclear emergency occurs at the adjacent Pickering Nuclear Reactors.

12) Recommendations:

Before granting any approvals for the SE Collector EA, the Minister of Environment should require:

- a) - no further increase the discharge of the Duffins Sewage Treatment Plant without a thorough Ontario and Canadian Environmental Assessment Act review of the Duffins STP discharge to Lake Ontario and cumulative effects to water quality, air quality and public health;
- b) - the upgrading of the Duffins STP within 5 years with advanced water purification and recycling technologies to remove pharmaceuticals, hormones, bacteria, phosphorous and other pollutants, to significantly reduce the loadings of these pollutants in the STP effluent, to improve Lake Ontario water quality, and to protect public health.

Conclusion:

I look forward to a thorough and positive response to these concerns and recommendations within the Ontario Government Review of the SE Collector environmental assessment and the Minister of the Environment's ultimate decision.

Sincerely,

Jim Robb

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