

Public Meeting

Wastewater Treatment Plant Upgrades

Thursday, January 21, 2010 - 4:00 pm to 8:00 pm
Lower Boardroom at 1225 Ontario Street

The City of Cornwall invites you to attend a public information session to discuss the proposed upgrade and the expansion of its primary Wastewater Treatment Plant.

The City is seeking your input and comments which will be used to finalize the Environmental Study Report.

For more detailed information on this project, visit the City's website, or contact:

Dan Lalande, P. Eng
Senior Project Engineer
J.L. Richards & Associates Ltd
dlalande@jlrichards.ca
613.544.1424 Ext 224

Morris McCormick, P. Eng.,
Division Manager
City of Cornwall
Environmental Services
mmccormick@cornwall.ca
613.930.2787 ext.2582



www.cornwall.ca

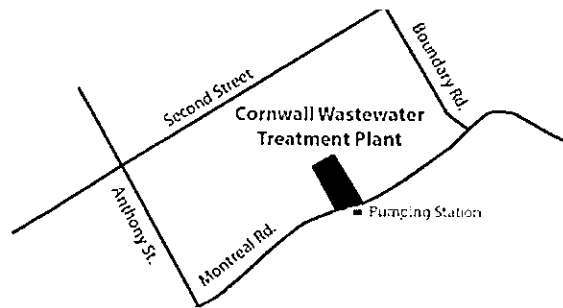
NOTICE POSTED ON CITY WEBSITE

Public Meeting - Cornwall Wastewater Treatment Plant Upgrades

The City of Cornwall is proposing to upgrade and expand its primary wastewater treatment plant, located at 2800 Montreal Road and is inviting the public to an information session to discuss this project.

Time and Date: 4pm to 8 pm on Thursday, January 21, 2010.

Location: Lower boardroom of the City's Municipal Works Complex at 1225 Ontario Street



Following a plant-wide evaluation in 2003, the city completed an Environmental Study Report (ESR) in 2005 to increase the capacity and upgrade the treatment process. The implementation of a new Biological Aerated Filter Facility and Ultraviolet disinfection were recommended. The City recently prepared an Addendum to update the 2005 ESR. The Addendum reconfirms the preferred technologies identified in 2005. A number of important issues were however clarified or revised as noted below.

Changes to the 2005 ESR as a result of this Addendum are specifically:

The Peak Day and Peak Instantaneous flow capacity for the pumping station and upgraded treatment plant may be increased from 130,000 up to a maximum of 160,000 m³/d. This will be reviewed further during design based on value engineering and a comprehensive cost-benefit analysis.

Effluent Objectives and Limits were clarified and approved by the Ministry of the Environment.

Subject to comments received from the Public Information Centre, the City intends to finalize the Environmental Study Report Addendum and proceed to the implementation phase. If you have any questions regarding this project, please contact one of the individuals listed below.

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or

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Réunion publique - Modernisation de la station de traitement des eaux usées de Cornwall

La Ville de Cornwall propose de moderniser et d'agrandir sa principale station de traitement des eaux usées, située au 2800, chemin de Montréal et invite le public à assister à une séance d'information afin de discuter de ce projet.

Heure et date : 16 h à 20 h le jeudi 21 janvier 2010.

Lieu : Salle de conférence inférieure au complexe des travaux municipaux de la ville situé au 1225, rue Ontario.

À la suite d'un examen complet de la station en 2003, la ville a effectué un rapport d'étude sur l'environnement en 2005 en vue d'augmenter la capacité et d'améliorer le processus de traitement. La mise en place d'une installation de filtration biologique aérée ainsi que la désinfection à l'ultraviolet avaient alors été recommandées. La Ville a récemment préparé un addenda afin de mettre le rapport d'étude sur l'environnement de 2005 à jour. Cet addenda a reconfirmé le choix des technologies privilégiées déterminées en 2005. Toutefois, comme il est indiqué ci-après, un nombre important de questions a été clarifié ou révisé.

Changements apportés au rapport d'étude sur l'environnement de 2005 découlant de l'addenda :

Il est possible de faire passer le pouvoir d'écoulement au jour de pointe et de la capacité maximale instantanée des stations de pompage et de traitement modernisées de 130 000 à 160 000 m³/d. Cette donnée sera examinée en profondeur lors de l'analyse détaillée de la conception fondée sur l'ingénierie de la valeur et de rentabilité.

Le ministère de l'Environnement a précisé et approuvé les objectifs et les limites en matière d'effluent.

En fonction des commentaires formulés par le Centre d'information, la Ville prévoit finaliser l'addenda du rapport d'étude sur l'environnement et entreprendre à la phase de mise en œuvre. Si vous avez des questions au sujet de ce projet, veuillez communiquer avec une des personnes mentionnées ci-dessous.

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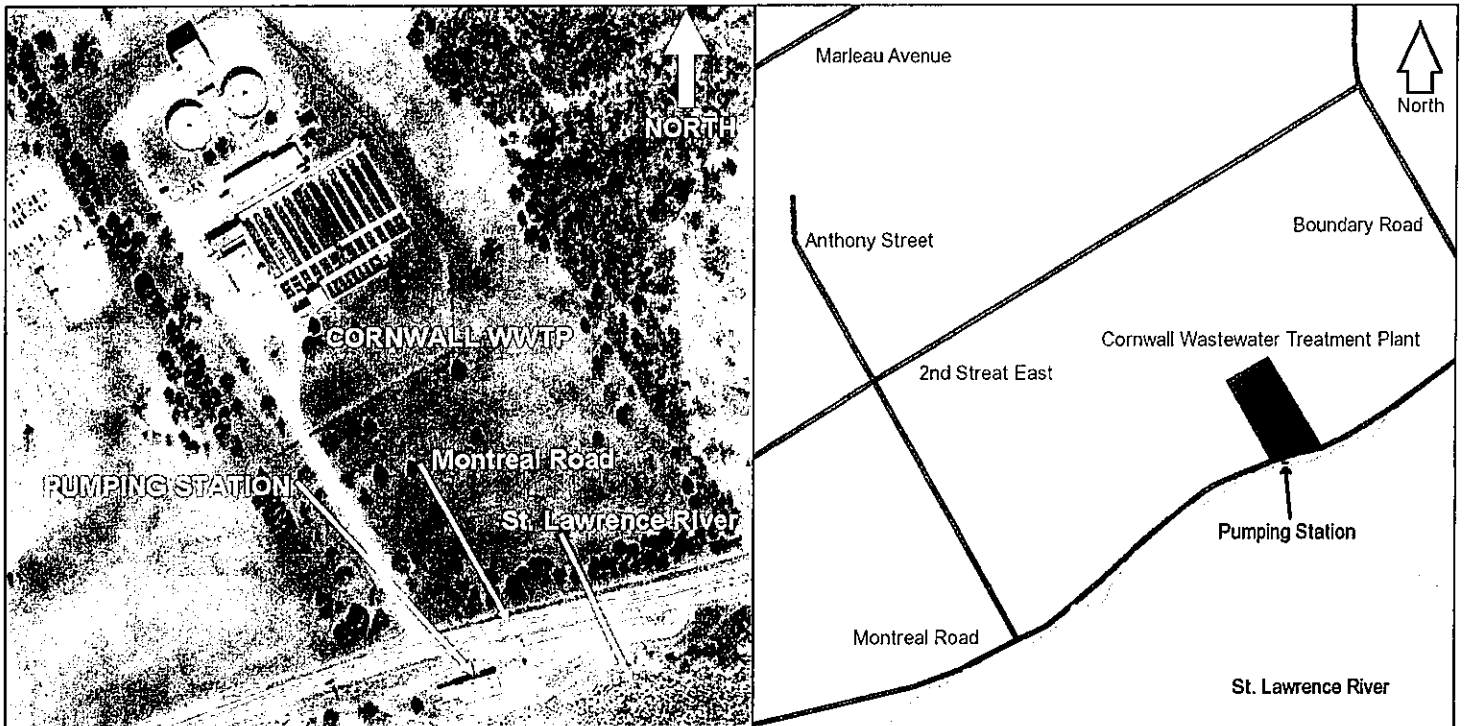
Morris McCormick, ingénieur
Directeur de division
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Cornwall Wastewater Treatment Plant

Municipal Class Environmental Assessment Update

Public Information Center

Information Handout



January 21, 2010

Lower Boardroom
City's Municipal Works Complex
1225 Ontario Street
Cornwall, ON

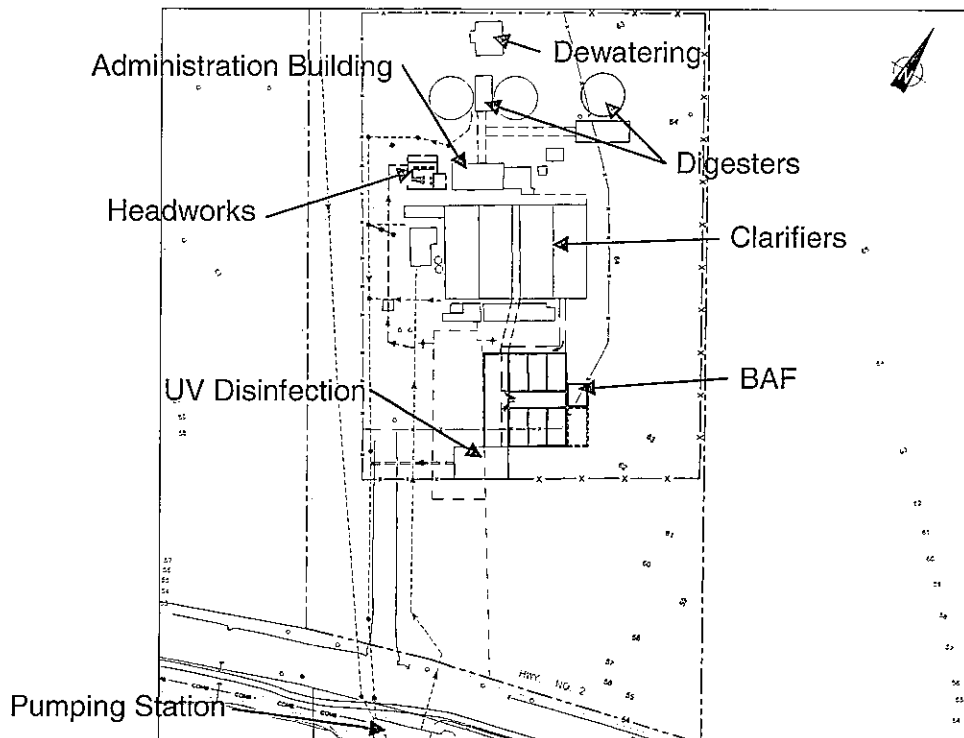
2005 Environmental Assessment (EA) Summary

- The City of Cornwall completed a Schedule C Municipal Class EA in 2005 to upgrade to the Cornwall Wastewater Treatment Plant
- The 2005 EA made several recommendations for an upgraded facility, including:
 - Addition of Secondary Treatment (the study recommended using Biological Aerated Filter technology)
 - Use of Ultraviolet Irradiation instead of chlorine for the disinfection process
 - Provision of standby power
 - Increase the digester and centrifuge dewatering capacity
 - Provision of additional stabilization and sludge volume reduction

Methodology of the EA Update

- In 2009, the City retained JL Richards in association with XCG Consultants and CH2M HILL to update the 2005 EA
- The following activities were undertaken as part of this EA update:
 - Key issues were reviewed through six technical memoranda (TM)
 - A preliminary geotechnical study was undertaken
 - A Value Engineering session was held to review the findings of the TMs to optimize the overall program

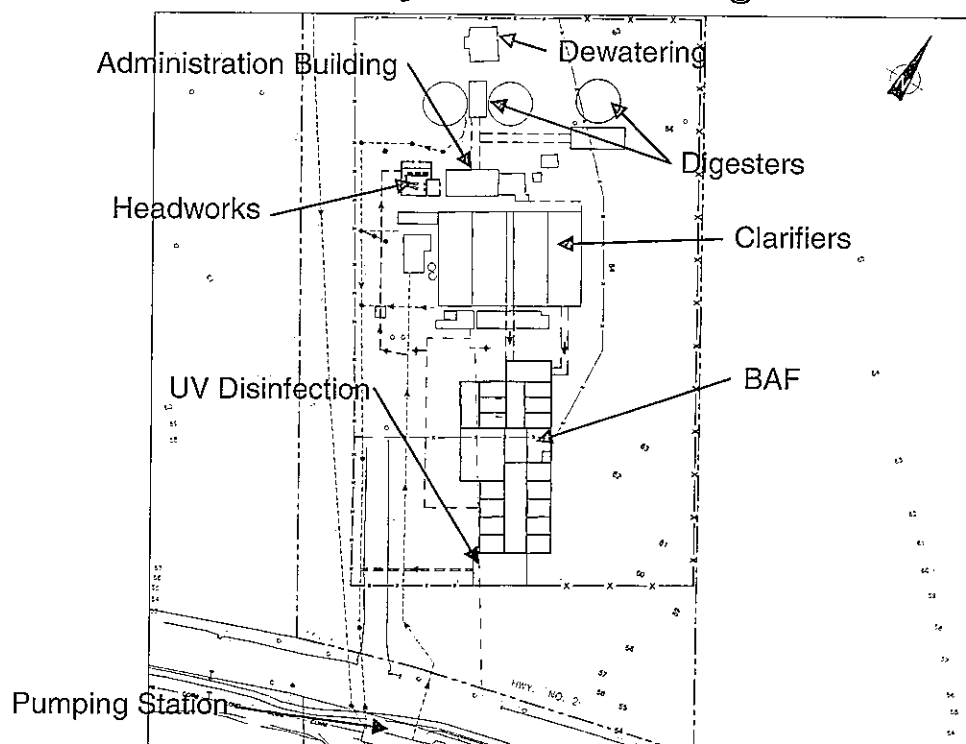
Preliminary Site Plan – John Meunier Inc.



Key Issues Reviewed

- Major issues reviewed through Technical Memoranda (TM)
 - TM1 – Constraints and Project Scope
 - Established the direction and scope of the EA update study and summarized required and known information
 - TM1B – Assimilative Capacity
 - Study undertaken to review the St. Lawrence River's assimilative capacity, and to establish effluent limits for an upgraded facility
 - TM2 – Raw Wastewater Characterization
 - Confirmed flow and characteristics of incoming sewage to the facility
 - TM3 – Sewage Pumping Station and Forcemain Review
 - Study undertaken to establish the condition of the pumping station and forcemain and to identify upgrades that would be necessary
 - TM4 – Facility Condition Assessment
 - Study undertaken to review the condition of the entire facility to understand what would be required to update, add, or replace in an upgraded facility
 - TM5 – Liquid Train
 - Reviews the existing treatment systems (liquid process) and considers appropriate technology for the addition of secondary treatment and for an upgraded disinfection system. The use of Biological Aerated Filtration (BAF) and Ultraviolet Irradiation (UV) were reconfirmed as the preferred technologies for secondary treatment and disinfection, respectively.
 - TM6 – Solids Train
 - Review of the facility's existing solids treatment systems to confirm anaerobic digestion and centrifuge capacity and make recommendations for the requirements of the upgraded facility

Preliminary Site Plan - Degremont



Updates to the 2005 EA

- The following are the key findings from the recent study:
- Increase of Average Day flows by 20% (from 54 432 m³/d to 65 318 m³/d) reconfirmed
- Peak Day and Peak Instantaneous flow capacity may be increased from 130 000 m³/d to 160 000 m³/d. This will be reviewed further during design.
- Effluent Objectives and Limits were clarified and approved by the Ministry of the Environment, as summarized below:

Rated Capacity	Existing (54,432 m ³ /d)		Proposed (65,318 m ³ /d)		
	Objective (mg/L)	Compliance (mg/L)	Objective (mg/L)	Compliance (mg/L)	Loading Limit (Kg/day)
CBOD ₅ (Note 1)	40.0	50.0	15.0	25.0	1,633
Total Suspended Solids (Note 1)	30.0	45.0	15.0	25.0	1,633
Total Ammonia as N					
January – March (Note 1)	--	--	7.0	9.0	588
April – September (Note 1)	--	--	5.0	7.0	457
October-December (Note 1)	--	--	9.0	11.0	718
				Non-acutely lethal to Rainbow Trout and Daphnia Magna	
Total Phosphorous (Note 1)	1.0	1.0	0.5	0.8	52
<i>E. coli</i> (CFU/100ml) (Note 3)	200		100	200	n/a
Total Residual Chlorine (Note 2)		1.0	0.02	0.04	2.6
pH of the effluent shall be maintained between 6.0 and 9.5, inclusive, at all times					
Notes:					
1) Based on Monthly Average Concentration					
2) Never to exceed. Chlorine residual would be eliminated with Ultraviolet Disinfection					
3) Based on Monthly Geometric Mean Density.					

- The Opinion of Probable Cost for the project was updated for a total of \$64 698 000 plus taxes in two phases (Phase 1 - \$60 715 000 and Phase 2 - \$3 983 000)
- The use of Biological Aerated Filtration (BAF) and Ultraviolet Irradiation (UV) were reconfirmed as the preferred technologies for secondary treatment and disinfection, respectively.
- Preliminary site plans were prepared for both suppliers of the BAF technology (see previous pages)

Implementation Schedule

- Preliminary Design & Pre-selection of Major Equipment Suppliers – March to December, 2010
- Detailed Design & Preparation of Contract Documents – January to December, 2011
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- Start-up of Operations – September, 2014

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CORNWALL WASTEWATER TREATMENT PLANT ENVIRONMENTAL ASSESSMENT UPDATE



January 21, 2010

Public Information Centre

Lower Boardroom,

City of Cornwall Municipal Works
Complex (1225 Ontario Street)



2005 Environmental Assessment (EA) Summary

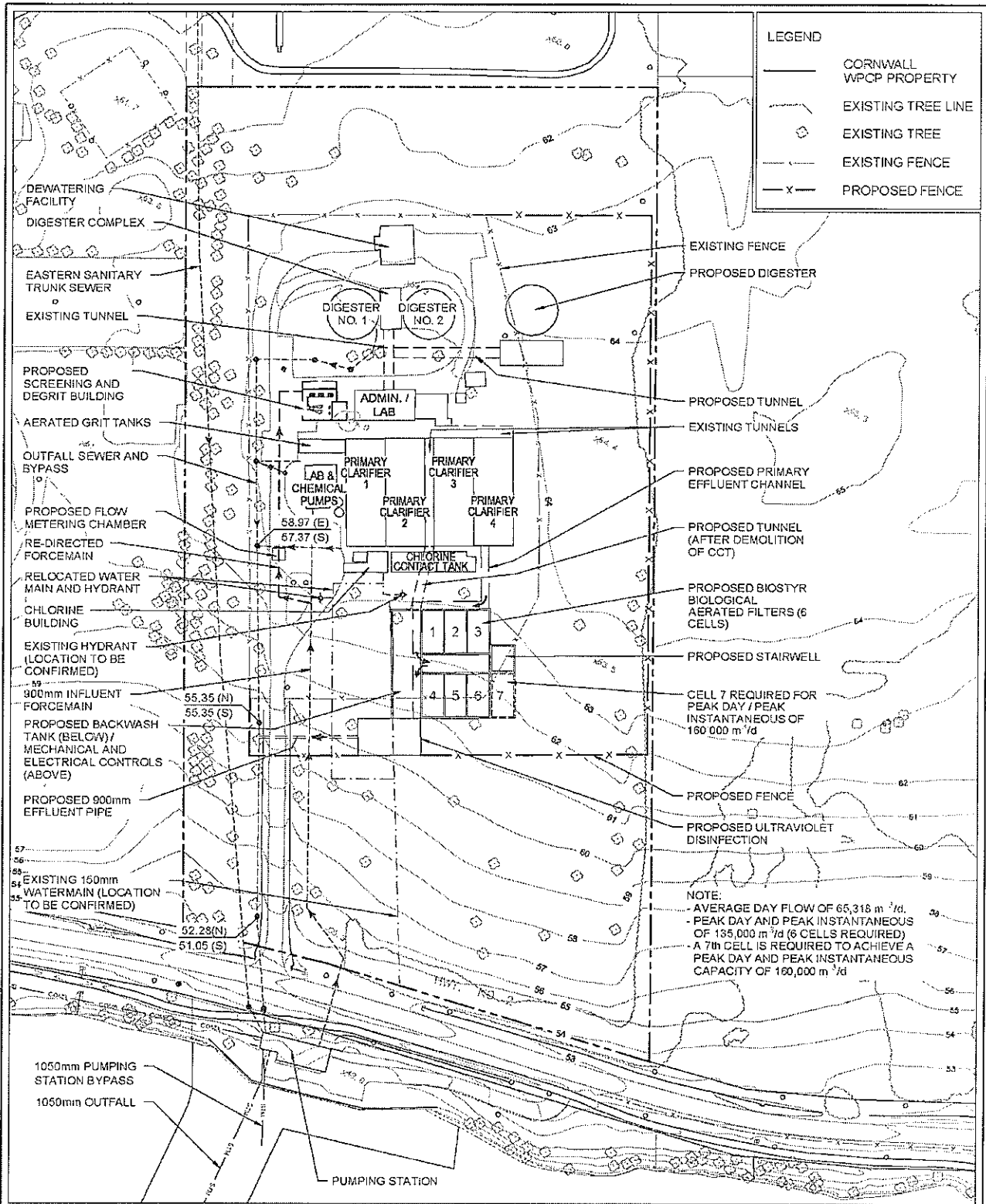
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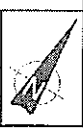


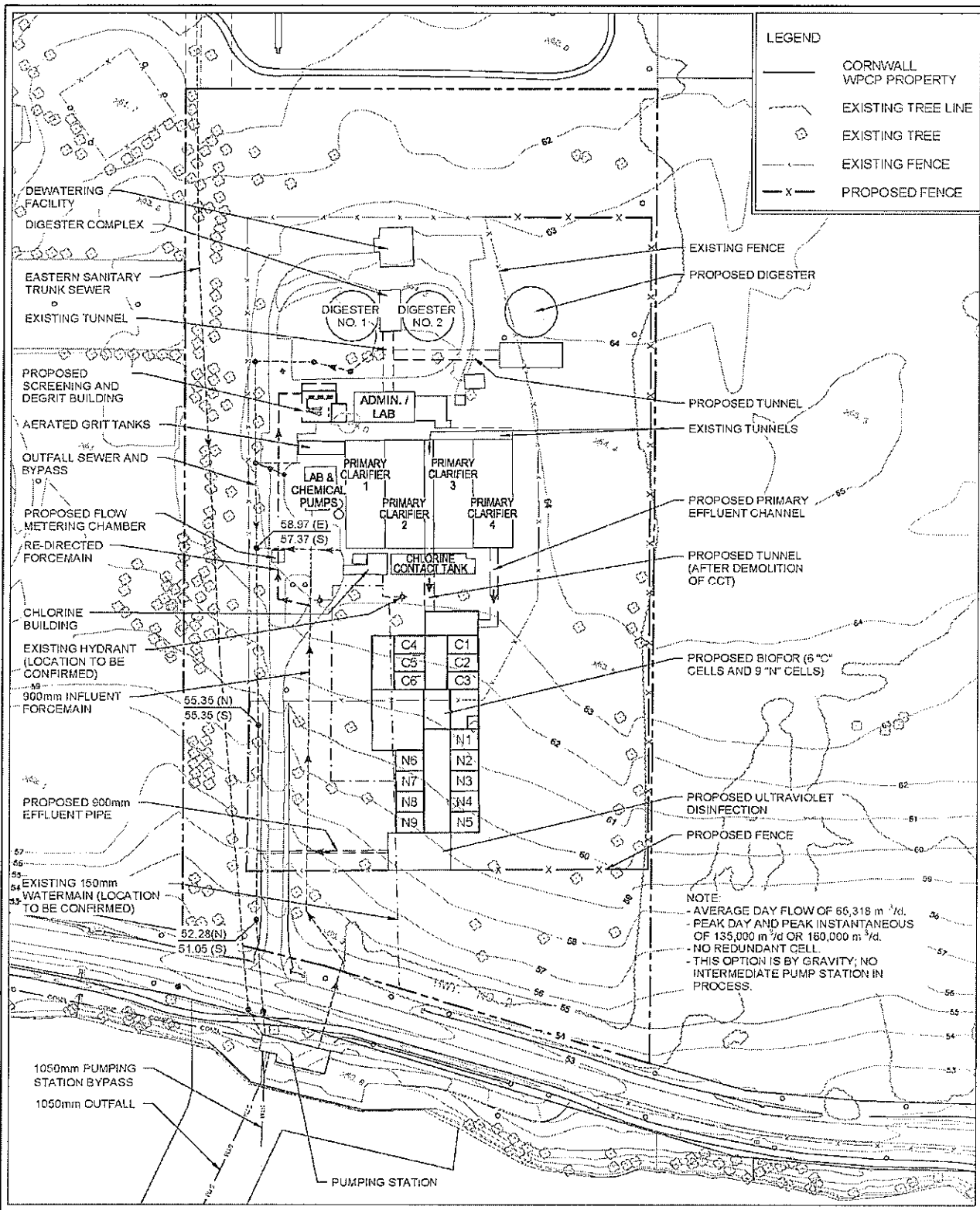
PROJECT: CORNWALL W.W.T.P. ENVIRONMENTAL ASSESSMENT UPDATE CORNWALL, ONTARIO

DRAWING: BIOSTYR BIOLOGICAL AERATED FILTERS PRELIMINARY SITE PLAN POST VALUE ENGINEERING

DESIGN: DYL
 DRAWN: JGSS
 CHECKED:
 PLOTTED: 2010/01/08

DRAWING NO.: BIOSTYR BAF
 JLR NO:
 23695

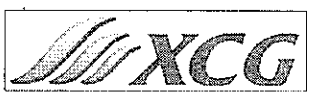
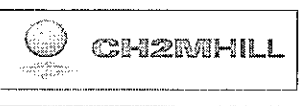




1 SITE PLAN

BIOFOR BAF SCALE: 1:1500

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PROJECT:
**CORNWALL W.W.T.P.
 ENVIRONMENTAL
 ASSESSMENT UPDATE
 CORNWALL, ONTARIO**

DRAWING:
**BIOFOR
 BIOLOGICAL AERATED FILTERS
 PRELIMINARY SITE PLAN
 POST VALUE ENGINEERING**

DESIGN: **DYL**
 DRAWN: **JGBS**
 CHECKED:
 PLOTTED: **2010/01/08**

DRAWING NO.:
BIOFOR BAF
 JLR NO:
23695



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**Cornwall Wastewater Treatment Plant
Schedule C Class Environmental Assessment Update**

Comment Sheet

The City of Cornwall is interested in receiving the community's comments, questions, and concerns regarding the Environmental Assessment Update. Please take a few minutes to fill out this brief comment sheet. Please feel free to use the back of this sheet or other paper if there is insufficient space provided below.

1. This study updated the previously completed 2005 Environmental Assessment, which followed the requirements of the Municipal Class Environmental Assessment process for a Schedule C project. *Do you have any questions, comments, or concerns about the update process that was followed?*

2. Do you have any general comments regarding this Environmental Assessment update?

with our understanding of chemicals like pharmaceuticals, should we not be "biting the bullet" and not stopping simply at secondary treatment? → Cost? → is there really a value we can put on our water systems? Maintaining the quality of water is essential for the ecosystem our own future will.

I would speculate that new regulations would will be applied in the future that will require further upgrade... why stop at this point (secondary upgrade)

Thank you for taking the time to provide your comments. Comment sheets may be returned to any of the presenters, or can be mailed, emailed, or faxed to the following: see back

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It should be our priority to save water quality,
and be seen in a progressive environmental
fight...