The Corporation of the City of Kawartha Lakes

Agenda

Lindsay-Ops Landfill Public Review Committee Meeting

2019-151
Wednesday, March 20, 2019
3:00 P.M.
Weldon Room
City Hall
26 Francis Street, Lindsay, Ontario K9V 5R8

Members:

Councillor Pat Dunn
Chris Appleton
Karen Buckley
Barry Hodgson
William McLaren
Lloyd Robertson
Larry Scrivens
Ken Trodd

Accessible formats and communication supports are available upon request.

		Pages
1.	Call to Order	
2.	Adoption of Agenda	
3.	Disclosures of Pecuniary Interest	
4.	Approval of the Minutes of the Previous Meeting	3 - 6
5.	Reports	
5.1	PRC Activity Summary Spreadsheet	7 - 7
6.	Landfill Complaints	
7.	Leachate Outbreaks	
8.	Other New Business	
8.1	Lindsay Ops Environmental Assessment	
8.2	Integrated Waste Management Strategy Update	
9.	Public Comment Period	
10.	Next Meeting	
11.	Adjournment	8 - 15

The Corporation of the City of Kawartha Lakes

Minutes

Lindsay-Ops Landfill Public Review Committee Meeting

2019-150
Wednesday, February 20, 2019
4:00 P.M.
Weldon Room
City Hall
26 Francis Street, Lindsay, Ontario K9V 5R8

Members:
Chris Appleton
Karen Buckley
Barry Hodgson
William McLaren
Lloyd Robertson
Larry Scrivens
Ken Trodd

Accessible formats and communication supports are available upon request.

1. Call to Order

David Kerr called the meeting to order at 4:03 pm.

2. Election of Officers

Staff made the first call for nominations to the Chair position. Lloyd Robertson was nominated. Lloyd Robertson accepted the nomination.

A second call for Chair nominations was made. No nominations were put forward.

The final call for Chair nominations was made. No nominations were put forward.

Lloyd Robertson accepted the position of chair.

Lloyd Robertson made the first call for nominations to the Vice-Chair position. Chris Appleton was nominated. Chris Appleton accepted the nomination.

The final call for Vice-Chair nominations was made. No nominations were put forward.

Chris Appleton accepted the position of Vice-Chair.

Carried

3. Adoption of Agenda

Moved By B. Hodgson
Seconded By W. McLaren

Carried

4. Disclosures of Pecuniary Interest

There were no declarations of pecuniary interest noted.

5. Approval of the Minutes of the Previous Meeting

Moved By K. Trodd
Seconded By L. Scrivens

Carried

6. Reports

6.1 Committees of Council Orientation Package

Staff handed out copies of the Committees of Council Orientation Package to the PRC. The package was reviewed and members were asked to sign a training form and volunteer waiver.

6.2 PRC Activity Summary Spreadsheet

7. Landfill Complaints

No complaints.

8. Leachate Outbreaks

No leachate outbreaks.

9. Other New Business

9.1 Lindsay Ops 2017 Annual Monitoring Report MECP Surface Water Comments

The MECP surface water comments on the 2017 Lindsay Ops Landfill Annual Monitoring Report were provided to the PRC for review. Staff and the PRC discussed the comments as well as next steps in responding to the comments.

Moved By L. Scrivens
Seconded By W. McLaren

Resolved that staff report back to this committee in a timely fashion with questions raised from surface water comments.

Carried

9.2 Schedule time for future meetings

All in favor of moving future meeting times to 3:00pm.

Carried

10. Public Comment Period

B. Wilson commented on concerns relating to the Water Pollution Control Plant as well as the landfill involving the lagoons and methane monitoring.

11. Next Meeting

The next meeting will be Wednesday, March 20th at 3:00 p.m. in the Weldon Room, City Hall.

12. Adjournment

Moved By W. McLaren
Seconded By B. Hodgson

Resolved that the meeting adjourn at 6:05pm.

Carried

Lindsay Ops Landfill Public Review Commitee
Action List

Meeting Date of Activity	Action	Responsilibity	Action Item Date:	Status
15-May-13	PRC requested operational updates on the Landfill Gas Electricity Generation.	CKL	Monthly	**February 20 Meeting**: Generator down most of January and February but up and running at time of meeting. Flare working well. City conducting feasibility study this year on generator.
15-Jan-14	That the PRC is copied on Staff Reports to Council regarding the Lindsay Ops Landfill	CKL	As Available	**February 20 Meeting:** A confidential staff report was sent to council to nominate members to the Waste Management Adivosry Committee
21-Jan-15	Provide update on quarterly PCB testing (SW3/ SW13)	CKL	Quarterly	**February 20 Meeting:** No sampling conducted yet this year. First round to be completed from Feb-Apr.
17-Jun-15	MECP Comments	CKL	As Available	**February 20 Meeting:** Landfill inspection on Feb 6th. MECP 2017 Surface Water Comments discussed as agenda item
18-Nov-15	Fenelon Pollinator Project Updates	CKL	As Available	**February 20 Meeting:** Growing well. Many flowers have bloomed in this first season. Pollinators are present. Currently coordinating monitoring with Fleming College.
23-Nov-16	Biomonitoring	CKL	As Available	**February 20 Meeting:** Cambium awarded work in 2019. Sampling was done February 19th.
21-Jan-19	Leachate Water Quality Results	CKL	As Available	**February 20 Meeting:** Staff will provide PRC with monthly leachate results prior to treatment.
17-May-17	Waste Management Advisory Committee Update	CKL	As Available	**February 20 Meeting:** The first meeting will be held on February 27th at 1:00pm in the Weldon Room.
17-Jan-17	Updates on Blue Box markets and Legislation	CKL	As Available	**February 20 Meeting:** No current updates. Markets continue to face challenges. AMO pushing MECP to move towards Producer Responsibility Blue Box Program.
16-May-18	Construction and Demolition and Mattress Recycling Update	CKL	As Available	**February 20 Meeting:** Pilot programs still going well and will continue through 2019. Over 1000 mattresses recycled in 208 and 125m^3 of landfill space saved through wood chipping.
20-Jun-18	Lindsay Ops EA Process Update	CKL	As Available	**February 20 Meeting:** Staff beginning to look at budgeting for an EA process for the Lindsay Ops Landfill starting in 2020 through the engineering group. No major updates.
17-Oct-18	New Tire Recycling Program	CKL	As Available	**February 20 Meeting:** City signed up with two PROS, tires continuing to be collected

Lindsay Ops Leachate

Exceeds Bylaw Value
Exceeds PWQO Value

Parameters	CKL Sewer Bylaw Limits (mg/L)	Provincial Water Quality Objectives (mg/L)	Jan. Results (mg/L)	Feb. Results (mg/L)
Hardness (CaCO3)	N/A	N/A	593	596
Alkalinity (CaCO3)	N/A	N/A	609	599
Biochemical Oxygen Demand (BOD)	300	N/A	<3	19
TDS	N/A	N/A	991	1005
Dissolved Organic Carbon	N/A	N/A	13.1	13.4
COD	N/A	N/A	73	62
Chloride	N/A	N/A	176	199
Ammonia (N) - Total	N/A	1.11	17.6	17.6
Fluoride	10	N/A	0.2	0.1
Phenolic, 4AAP	1	0.001	0.012	<0.002
Sulphate	N/A	N/A	45	42
Nitrite	N/A	N/A	<0.05	<0.05
Nitrate	N/A	N/A	0.08	0.15
Kjeldahl Nitrogen - Total	50	N/A	19.7	20.5
Aluminum - Total	50	0.075*	0.27	0.12
Antimony - Total	5	0.02	<0.0005	<0.0001
Arsenic - Total	1	0.1	0.0024	0.0013
Barium	N/A	N/A	0.331	0.297
Beryllium	N/A	1.1**	<0.002	<0.002
Boron	N/A	0.2	0.382	0.426
Cadmium - Total	0.7	0.0002	<0.00007	<0.000015
Calcium	N/A	N/A	179	175
Chromium - Total	2.8	0.0099	0.017	0.011
Cobalt - Total	5	0.0009	0.0013	0.007
Copper - Total	2	0.005	0.0042	0.0011
Iron	N/A	0.3	27.7	11
Lead - Total	1	0.005	0.0025	0.00012
Magnesium	N/A	N/A	35.3	38.6
Manganese - Total	5	N/A	0.45	0.363
Mercury - Total	0.01	0.0002	<0.00002	<0.00002
Molybdenum - Total	5	0.04	<0.0005	0.0002
Nickel - Total	2	0.025	0.01	0.01
Potassium	N/A	N/A	18.1	21.3
Phosphorus	N/A	N/A	<0.1	<0.1
Phosphorus - Total	10	0.01	0.05	0.03
Selenium - Total	1	0.1	<0.005	<0.0001
Silver - Total	0.4	0.0001	<0.0001	<0.0001
Sodium	N/A	N/A	121	136
Strontium	N/A	10 bg/L	0.64 mg/L	0.715 mg/L
Thallium	N/A	0.0003	<0.0003	<0.00005
Vanadium	N/A	0.006	0.0018	0.0009
Zinc - Total	2	0.03	0.023	0.009
Benzene	0.01	0.1	0.0023	0.0007
Toluene	0.02	0.0008	<0.0005	<0.0005
Ethylbenzene	0.06	0.008	0.0027	<0.0005
Xylene, m, p -	N/A	N/A	0.0042	<0.001
Xylene, o -	N/A	0.04	0.0005	<0.0005
Xylene, m, p, o -	N/A	N/A	0.0042	<0.0011
Xylene - Total	0.3	0.072	0.0089	<0.0026

Parameters	Limits	Provincial Water Quality Objectives	Jan. Results	Feb. Results
pH (at 25 ºC)	6.0 - 9.5	6.5 - 8.5	7.34	7.68
Conductivity (at 25 ºC	N/A	N/A	1750 µm ho/cm	1780 µm ho/cm
Conductivity (calculated)	N/A	N/A	1650 µm ho/cm	1720 µm ho/cm
Anion Sum	N/A	N/A	18.1 meq/L	18.5 meq/L
Cation Sum	N/A	N/A	20.3 meq/L	20.2 meq/L
% Difference	N/A	N/A	5.77%	4.51%
Ion Ratio (AS/CS)	N/A	N/A	0.891	0.914
Sodium Adsorption Ratio	N/A	N/A	2.16	2.42
TDS (calc.) / EC (actual)	N/A	N/A	0.567	0.565
Langelier Index (at 25ºC)	N/A	N/A	0.875	1.19

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G81594 **REPORT No. B19-04128 (i)**

Report To:

City of Kawartha Lakes
PO Box 9000, 12 Peel St
Lindsay ON K9V 5R8
Attention: Kerri Snoddy

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 14-Feb-19
DATE REPORTED: 22-Feb-19
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Lindsay OPS
P.O. NUMBER:
WATERWORKS NO.

			Client I.D.		WPCP Pumping Chamber			
			Sample I.D.		B19-04128-1			
			Date Collected		14-Feb-19			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Alkalinity(CaCO3) to pH4.5	mg/L	5	SM 2320B	19-Feb-19/O	599			
Conductivity @25°C	µmho/cm	1	SM 2510B	19-Feb-19/O	1780			
pH @25°C	pH Units		SM 4500H	19-Feb-19/O	7.68			
TDS(ion sum calc.)	mg/L	1	Calc.	20-Feb-19/O	1005			
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	21-Feb-19/O	13.4			
BOD(5 day)	mg/L	3	SM 5210B	15-Feb-19/K	19			
COD	mg/L	5	SM 5220D	20-Feb-19/O	62			
Phenolics	mg/L	0.002	MOEE 3179	19-Feb-19/K	< 0.002			
Chloride	mg/L	0.5	SM4110C	19-Feb-19/O	199			
Fluoride	mg/L	0.1	SM4110C	19-Feb-19/O	0.1			
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	19-Feb-19/K	17.6			
Sulphate	mg/L	1	SM4110C	19-Feb-19/O	42			
Nitrite (N)	mg/L	0.05	SM4110C	19-Feb-19/O	< 0.05			
Nitrate (N)	mg/L	0.05	SM4110C	19-Feb-19/O	0.15			
Total Kjeldahl Nitrogen	mg/L	0.1	E3199A.1	19-Feb-19/K	20.5			
Hardness (as CaCO3)	mg/L	1	SM 3120	20-Feb-19/O	596			
Aluminum	mg/L	0.01	SM 3120	20-Feb-19/O	0.12			
Antimony	mg/L	0.0001	EPA 200.8	19-Feb-19/O	< 0.0001			
Arsenic	mg/L	0.0001	EPA 200.8	19-Feb-19/O	0.0013			
Barium	mg/L	0.001	SM 3120	20-Feb-19/O	0.297			
Beryllium	mg/L	0.002	SM 3120	20-Feb-19/O	< 0.002			
Boron	mg/L	0.005	SM 3120	20-Feb-19/O	0.426			

Christine Burke
Lab Manager

R.L. = Reporting Limit
Test methods are modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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Final Report

C.O.C.: G81594 **REPORT No. B19-04128 (i)**

Report To:

City of Kawartha Lakes
PO Box 9000, 12 Peel St
Lindsay ON K9V 5R8
Attention: Kerri Snoddy

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

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			Sample I.D.		B19-04128-1			
			Date Collected		14-Feb-19			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Cadmium	mg/L	0.000015	EPA 200.8	19-Feb-19/O	< 0.000015			
Calcium	mg/L	0.02	SM 3120	20-Feb-19/O	175			
Chromium	mg/L	0.001	SM 3120	20-Feb-19/O	0.011			
Cobalt	mg/L	0.005	SM 3120	20-Feb-19/O	0.007			
Copper	mg/L	0.0001	EPA 200.8	19-Feb-19/O	0.0011			
Iron	mg/L	0.005	SM 3120	20-Feb-19/O	11.0			
Lead	mg/L	0.00002	EPA 200.8	19-Feb-19/O	0.00012			
Magnesium	mg/L	0.02	SM 3120	20-Feb-19/O	38.6			
Manganese	mg/L	0.001	SM 3120	20-Feb-19/O	0.363			
Mercury	mg/L	0.00002	SM 3112 B	19-Feb-19/O	< 0.00002			
Molybdenum	mg/L	0.0001	EPA 200.8	19-Feb-19/O	0.0002			
Nickel	mg/L	0.01	SM 3120	20-Feb-19/O	0.01			
Potassium	mg/L	0.1	SM 3120	20-Feb-19/O	21.3			
Phosphorus-Total	mg/L	0.01	E3199A.1	19-Feb-19/K	0.03			
Phosphorus	mg/L	0.1	SM 3120	20-Feb-19/O	< 0.1			
Selenium	mg/L	0.001	EPA 200.8	19-Feb-19/O	< 0.001			
Silver	mg/L	0.0001	EPA 200.8	19-Feb-19/O	< 0.0001			
Sodium	mg/L	0.2	SM 3120	20-Feb-19/O	136			
Strontium	mg/L	0.001	SM 3120	20-Feb-19/O	0.715			
Thallium	mg/L	0.00005	EPA 200.8	19-Feb-19/O	< 0.00005			
Vanadium	mg/L	0.0001	EPA 200.8	19-Feb-19/O	0.0009			
Zinc	mg/L	0.005	SM 3120	20-Feb-19/O	0.009			
Anion Sum	meq/L		Calc.	20-Feb-19/O	18.5			

Christine Burke
Lab Manager

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P.O. NUMBER:
WATERWORKS NO.

			Client I.D.		WPCP Pumping Chamber			
			Sample I.D.		B19-04128-1			
			Date Collected		14-Feb-19			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Cation Sum	meq/L		Calc.	20-Feb-19/O	20.2			
% Difference	%		Calc.	20-Feb-19/O	4.51			
Ion Ratio	AS/CS		Calc.	20-Feb-19/O	0.914			
Conductivity (calc.)	µmho/cm		Calc.	20-Feb-19/O	1720			
Sodium Adsorption Ratio	-		Calc.	20-Feb-19/O	2.42			
TDS(calc.)/EC(actual)	-		Calc.	20-Feb-19/O	0.565			
Langelier Index(25°C)	S.I.		Calc.	20-Feb-19/O	1.19			

Christine Burke
Lab Manager

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G81594 **REPORT No. B19-04128 (ii)**

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P.O. NUMBER:
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			Client I.D.		WPCP Pumping Chamber			
			Sample I.D.		B19-04128-1			
			Date Collected		14-Feb-19			
Parameter	**Units**	**R.L.**	**Reference Method**	**Date/Site Analyzed**				
Benzene	µg/L	0.5	EPA 8260	19-Feb-19/R	0.7			
Toluene	µg/L	0.5	EPA 8260	19-Feb-19/R	< 0.5			
Ethylbenzene	µg/L	0.5	EPA 8260	19-Feb-19/R	< 0.5			
Xylene, m,p-	µg/L	1.0	EPA 8260	19-Feb-19/R	< 1.0			
Xylene, o-	µg/L	0.5	EPA 8260	19-Feb-19/R	< 0.5			
Xylene, m,p,o-	µg/L	1.1	EPA 8260	19-Feb-19/R	< 1.1			

Christine Burke
Lab Manager

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Public Works Department
12 Peel Street, Lindsay, Ontario, K9V 3L8
Tel: (705) 324-9411 ext. 2360, 1 888-822-2225
Fax: (705) 328-3122
ksnoddy@kawarthalakes.ca

Kerri Snoddy, C.Tech., *Regulatory Compliance Officer*

March 11, 2019

Mr. Glenn Rutherford
Senior Environmental Officer
Ministry of the Environment, Conservation and Parks
Peterborough District Office
300 Water Street, 2nd Floor South
Peterborough, ON, K9J 8M5

Dear Mr. Rutherford,

Re: 2017 Lindsay Ops Landfill Annual Status Report, Surface water Review

This letter is in response to Dana Cruikshank's comments and recommendations made January 14, 2019 regarding the 2017 Lindsay Ops Landfill Annual Status Report. This report was submitted in 2018 and is for the 2017 annual monitoring period. The City would like to thank you for reviewing this document. Below is each recommendation with the City's response:

1. **The Recommendations provided by Cambium in the biomonitoring report should be reviewed by EMRB. The reviewer is inclined to agree that the sampling protocol should be changed to OBBN but wonders if historical data could be assessed/transferred to the OBBN protocol. A suggestion was made that perhaps both methods should be implemented for a couple of years to determine if historical data could be transferred.**

   The City is interested in implementing these recommendations by Cambium. Since Cambium's recommendations are similar for the 2018 annual reporting period as 2017 we have forwarded the most recent 2018 Biomonitoring report to you so that you could in turn review and also forward to the EMRB for review. We hope to set up a teleconference meeting with the EMRB, yourself and Dana Cruikshank to discuss the recommendations further and what the City's next steps should be.

2. **A discharge estimate of flows entering the Scugog River should be made at SW3, SW13 and WPCP to determine loadings. This would help determine if the landfill contributes to a sufficient loading to the Scugog River to impact on water quality.**

   The City has forwarded the surface water comments to Golder Associates for advice on how to collect data in 2019 in order to estimate the flows entering the Scugog River for the 2019 Annual Monitoring Report and will propose a method to do this. It may be challenging to get non-stop flow data as the ditches are periodically dry for extended durations in most years. However the City will look at actual flow monitoring where

possible combined with some level of modeling to come up with estimated annual loadings.

3. **Groundwater should review to determine if contaminated groundwater could be impacting water quality in the north and south ditch.**

   Agreed. We will try to setup a teleconference meeting with the groundwater reviewer, yourself and Dana Cruikshank about these recommendations to provide some context for their review and if there are any further specific things they need from us.

4. **The lagoons need to be monitored more closely to prevent seeps entering either ditch.**

   The Ontario Clean Water Agency (OCWA) which currently operates the Lindsay WPCP for the City inspects the lagoon berms weekly. This frequency is increased during weather events (storms, melts, etc.) and when they are diverting to and pumping back from the lagoons. The City has informed OCWA that this was brought up as a concern by the MECP in the surface water review of the 2017 Annual Monitoring Report. For information, a geotechnical assessment was undertaken by Golder Associates several years ago on Lagoon 6 after it was pumped dry and no significant seepage was found. This study was part of the larger EA to support the WPCP upgrades. Lagoon 4 is scheduled to have sludge removed this year and the City will ask the engineer to evaluate the integrity and risk of seepage as well and report back to your office on the findings. In summary the City recognizes the sensitivity of the lagoons and importance that they are working and maintained properly.

5. **Future reports should include a map showing storm sewer outlets between McQuarrie Pt and Alpine St.**

   The City has located the storm sewer outlets through the City's Geographic Information System. These locations were forwarded to Golder Associates to include in a figure in the 2018 Annual Monitoring Report.

There were a number of other statements in the surface water comments document that the City would like to address below:

Page 8 Paragraph 4: "The data would suggest that runoff from the Lindsay-Ops Landfill and the Lindsay WPCP is likely having a small negative impact on water quality in the Scugog River that is mostly restricted to Embayment A"

The City and Golder Associates will look into this further and after reviewing additional loading estimates will provide further information on any potential impact to the embayments and river.

At this point the downstream water quality is very similar to upstream quality with some expected variation in quality between the embayment areas and main flow channel. Within the embayment areas there will be increased vegetation mass, less intermixing with the main flow channel, increased stagnation and the presence of standing water. These differences between the embayment setting and the main channel may also be factors which influence the noted differences in water quality of the two areas. We will ask Golder Associates to further look into this and provide some additional rationale for water quality noticed particularly in Embayment A. As well the City and Golder Associates will further review the source of water in the storm ditches and overall impact on the Scugog River. The storm ditches around the site have catchment areas that are not isolated to just the landfill but also include runoff and non point source contaminants from many different land uses in the area i.e. including road runoff, runoff from residual industrial commercial traffic and operational practices, agricultural runoff etc. Better understanding the loading estimates from the ditches on the river as suggested will definitely aid in this assessment. If it is determined there are areas where leachate is entering the storm ditches the City will remediate as required.

Page 8 Paragraph 3: "I believe there was a major PCB contaminated sediment project on Sinister Creek. Was any follow-up sampling done in the Scugog River since the clean-up to confirm levels in the River have dropped. If not samples should be taken"

The City has taken PCB samples at the river monitoring locations within the surface water as well as the sediment in 2018. PCB levels in the surface water were undetected. PCBs were analyzed in sediment samples from Embayments A and C in 2018 and were also undetectable. The City also completed a wetland study in 2018 as required in the ECA for the Lindsay Ops Landfill. This study included sediment sampling in the Scugog River. This study found that PCBs were undetectable at all locations sampled other than one which was consistent with historical results. On the same note the City is aware that there was a remediation project concerning an industrial source of PCB's in Sinister Creek historically and the City was not involved in this remediation. It was undertaken by the Industry. We do not have any verification samples confirming the level of residuals remaining. However the City also recognizes that there are historic residual PCB's throughout the sediments of the Trent Severn Waterway related to the industrial activities along its length. In order to be due diligent the City does its best to ensure no PCB's are allowed into the landfill and are intercepted through screening by attendants. As well the City has enacted by-laws to ensure PCB's are not included in sewage entering the WPCP.

If you have any questions please call me at (705) 324-9411 extension 2360.

Yours truly,

Kerri Snoddy
Regulatory Compliance Officer