6TH REPORT OF THE

ADVISORY COMMITTEE ON THE ENVIRONMENT

Meeting held on September 2, 2015, commencing at 12:19 PM, in Committee Room #4, Second Floor, London City Hall.

PRESENT: M. Bloxam (Chair), J. Baxter, K. Birchall, S. Brooks, S. Hall, M. Hodge, J. Howell, C. Kushnir, L. Langdon, S. Ratz, G. Sass, B. Schulz and D. Szoller and B. Mercier (Secretary).

ABSENT: C. Baranik.

ALSO PRESENT: S. Armstrong, K. Chambers, J. Stanford and E. Veittiaho.

I. CALL TO ORDER

Disclosures of Pecuniary Interest

That it **BE NOTED** that no pecuniary interests were disclosed.

II. ORGANIZATIONAL MATTERS

2. Orientation – Accessibility for Ontarians with Disabilities Act (AODA) – Integrated Accessibility Standards

That it **BE NOTED** that an orientation of the *Accessibility for Ontarians with Disabilities Act* (AODA) Integrated Accessibility Standards, was received.

III. SCHEDULED ITEMS

3. Orientation - Environmental and Engineering Services and Wastewater and Drainage Engineering

That it **BE NOTED** that the <u>attached</u> orientation presentations were received from:

- a) the Director of Environment, Fleet and Solid Waste, with respect to Environmental and Engineering Services; and,
- b) K. Chambers and E. Veittiaho, Environmental Service Engineers, with respect to Wastewater and Drainage Engineering;

it being noted that the Advisory Committee on the Environment also reviewed and received a report dated April 20, 2015, from the Director of Environment, Fleet and Solid Waste, with respect to Environmental Programs.

IV. CONSENT ITEMS

4. 5th Report of the Advisory Committee on the Environment

That it **BE NOTED** that the 5th Report of the Advisory Committee on the Environment from its meeting held on May 6, 2015, was received.

5. 3rd Report of the Transportation Advisory Committee

That it **BE NOTED** that the 3rd Report of the Transportation Advisory Committee from its meeting held on May 5, 2015, was received.

6. Notice of Second Draft of the London Plan

That it **BE NOTED** that the Notice dated May 21, 2015, from H. McNeely, Senior Planner, with respect to an application submitted by the City of London relating to the second draft of The London Plan, was received.

V. SUB-COMMITTEES & WORKING GROUPS

7. Sub-Committee Updates

That it **BE NOTED** that a communication dated May 21, 2015, from S. Ratz, with respect to the Advisory Committee on the Environment (ACE) Sub-Committees, was received; it being noted that the ACE heard verbal updates from the Waste Management and the Education Sub-Committees.

VI. ITEMS FOR DISCUSSION

8. ACE Best Practices

That the matter of the Advisory Committee on the Environment (ACE) best practices **BE DEFERRED** to a future meeting of the ACE.

9. 2016 Mayor's New Year's Honour List - Nominations Requested

That it **BE NOTED** that the Advisory Committee on the Environment (ACE) reviewed and received a communication dated August 5, 2015, from the City Clerk, with respect to the 2016 Mayor's New Year's Honour List (MNYHL); it noted that Members were encouraged to consider nominations for the MNYHL to bring forward.

VII. DEFERRED MATTERS/ADDITIONAL BUSINESS

None.

VIII. ADJOURNMENT

The meeting adjourned at 2:50 PM.

NEXT MEETING DATE: October 7, 2015





ACE'S MANDATE

The Advisory Committee on the Environment is responsible for the following:

to serve as an advisory, resource and information support group to the Planning and Environment Committee, the Municipal Council, and its Committees as required, and to the citizenry to encourage and promote sustainable programs and functions such as the following:

- remedial planning toward the clean-up of contaminated areas;
- waste reduction, reuse and recycling programs;
- water and energy conservation measures; climate change mitigation;
- to investigate such other aspects of environmental concerns as may be suggested by
- the Municipal Council, its other Committees, or the Civic Administration; and to initiate and/or receive submissions and/or delegations regarding any environmental concerns and to report with recommendations to the Planning and Environment





Overview of EES

Regional Water Supply

Water, Wastewater & Treatment

- Water Operations Water Engineering
- **Stormwater Management**
- Industrial Land Development Sewer Operations
- **Wastewater Treatment Operations**
- Wastewater & Drainage **Engineering**

NOTE: Bold and larger font identifies services generally within ACE's mandate

Roads & Transportation

Construction Administration Roadway Lighting & Traffic Control Transportation Planning & Design

Transportation & Roadside Operations Geomatics

Environment, Fleet & Solid Waste

Environmental Programs

Fleet & Operational Services **Solid Waste Collection** Solid Waste Management



MANAGING DIRECTOR & CITY ENGINEER

Lead Name: John Braam, Managing Director & City Enging Telephone: 519.661.2500 x2391 e-mail: jbraam@london

Overview

We are proud and committed to Londoners, employers and visitors. We are a large Service Area called Environmental & Engineering Services (EES). It is virtually impossible for anyone in London to get through a day without taking advantage the many public services offered to our community by EES. From the water we drink, to the roads and bridges we drive on, our work and services are visible all year long, day and night, from season to season.

day and night, from season to season.

EES undertakes approximately 200 capital works projects ar programs yearly and is responsible for an annual budget of \$360 million (averaging a daily expenditure of approximately \$1 million). To be accountable and results-oriented for this expenditure requires over 1,000 full, part-time and contracted employees to complete a diverse array of engineering, construction, operations and maintenance services. Many of our activities occur 24 hours per day, 7 days a week.





Environmental & Engineering Services



MANAGING DIRECTOR & CITY ENGINEER



Our Purpose (Mission) and Goals

Our purpose (mission) is to provide safe, dependable, affordable and environmentally responsible services that help London's communities thrive and the city prosper. Ensuring that we solve today's complex problems while navigating tomorrows technology driven solutions is essential to managing sustainability and best value for our services.

Our two priority goals are 1) to engage and meet our customers' needs, and 2) to protect the environment and encourage an environmentally sensitive and sustainable city.

To meet our goals and fulfill our mission, our core areas include:

- · Regional Water Supply
- Water, Wastewater and Treatment
- Solid Waste Management

Our technical, operational and multi-disciplinary collaboration services include: Construction Administration, Environmental Programs, Fleet and Operational Services, Geomatics, and Industrial Land Development.



WATER, WASTEWATER & TREATMENT 2014

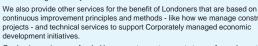
Lead Name: John Lucas, Director - Water, Wastewater & Treatment Telephone: 519.661.2500 x5537 e-mail: jlucas@london.ca



This area has, as its primary reason for existing, a focus on the protection of public health and the environment through the delivery of clean drinking water, by reclaiming water after it has been used and by disposing of contaminants removed from it in a safe manner. Water and Wastewater are highly regulated public utilities that require the application of science and engineering to plan, design, construct and operate complex systems, as well as personal commitment from decision makers.

Who We Are

London staff have specific training for their roles, many with significant years of service and knowledge that they share from the local to international scene.



Our basic services are funded by user rates, not property taxes. As such, customer service expectations are specific to the value received – in our case, the value of water in all its forms. Clear accountabilities and financial objectives help to complete the value of water statement with a long term view to be sustainable in everything we do.





WATER ENGINEERING 2014

Lead Name: Roland Welker, Division Manager – Water Engineering
Telephone: 519.661.2500 x5593 e-mail: rwelker@london.ca Telephone: 519.661.2500 x5593

Services Provided

- Long range planning and design to address growth and renewal
- Infrastructure condition assessment using historical data and innovative technologies Conservation and education
- · Billing system for water and wastewater
- Provide customer service on water accounts Source Water Protection for the standby wells
- Source Water Protection for the standby wells Ensure regulatory compliance by decommissioning production wells which were previously abandoned Maintain the City's water distribution model for hydraulic capacity and water quality analyses
- Backflow Prevention Program to ensure the safety of municipal drinking water Development application reviews

Water, Wastewater & Treatment **Environmental & Engineering Services**





WATER ENGINEERING 2014

Recent Accomplishments (2012-2014)

- New funding model for the and storn ter utiliti
- and stormwater utilities

 Updated Water Financial Plan achieving financial
 sustainability by 2016 with minimal debt

 Developed a calibrated computer model of the
 water distribution system for hydraulic capacity
 and water quality analyses
- Undertook energy optimization at two of the City's eight pumping stations and received grants to undertake the work.





Challenges & Opportunities (2015-2018)

- Build appropriate reserve fund going forv period of declining water sales
- Continue the development of teacher resource materials in partnership with the school boards to improve the understanding of the value of water
- Continue the use of structural lining technology using trenchless techniques versus full ng trenchless techniques ve
- Tutlize computer model of the distribution system to optimize energy usage at the pumping stations and undertake a vulnerability assessment of the system
- Complete condition assessment of 20% of the large diameter watermains inside London

Your Bill is Changing



Water, Wastewater & Treatment **Environmental & Engineering Services**

WASTEWATER & DRAINAGE ENGINEERING 2014

Lead Name: Tom Copeland, Division Manager – Wastewater & Drainage Engineering Telephone: 519.661.2500 x4662 e-mail: tcopelan@london.ca

Services Provided

- Rebuild sanitary and storm sewer servicing infrastructure that is at the end of its lifespan
- Plan and construct sanitary servicing to accommodate a growing City
 Resolve system wide problems such as basement flooding and combined sewer overflows
- Bylaws / Policies / Design Standards updates and management
- Customer Liaison / Management of Sump Pump Grant Program
- Liaise with internal and external groups and agencies on issues such as: development and growth, system optimization, industrial land servicing emergency services and health of Thames River
- on Manager serves as London's Municipal

Water, Wastewater & Treatment **Environmental & Engineering Services**





WASTEWATER & DRAINAGE ENGINEERING 2014





Water, Wastewater & Treatment

Challenges and Opportunities (2015 - 2018)

- (2015 2018)

 York and King Streets Sewer Separation

 Strategy: The existing combined sewers
 downtown represent 3,400 linear meters of
 pipe that were installed between 1852 and
 1926. Separation and replacement of these
 combined sewers will allow for the
 intensification of the downtown core.
- Construct Development Charges funded sanitary servicing works in the southwest quadrant
- Develop, budget and construct mitigation works to reduce combined sewer overflow and bypasses to the Thames River
- Completion of trunk works in the Burbrook/ Vauxhall area that will allow the separation of combined sewers and reduce the likelihood of basement flooding



Environmental & Engineering Services

STORMWATER MANAGEMENT 2014

Lead Name: Scott Mathers, Division Manager – Stormwater Management
Telephone: 519.661.2500 x4430 e-mail: smathers@london.ca

Services Provided

- Protection of the environment through the quality and quantity control of stormwater
- Water resources planning and the implementation of Regional stormwater agement facili
- Manage the water resources component of climate change adaptation
- Maintain and manage the repair and reconstruction of the City's system of
- dykes with agency partners
 Support development through the review of stormwater servicing development
- Respond to and mitigate flooding complaints





STORMWATER MANAGEMENT 2014

Recent Accomplishments

- Constructed the Hyde Park #4 Stanton Drain Stormwater Management Facility
- Transition of all new SWM facility design and construction management to the City through the approval of the Development Charges bylaw
- Development of new Wildlife Management Policy in conjunction with Planning
- Constructed the Old Victoria #2 Stormwater Management Facility
- Challenges & Opportunities (2015 2018)
 Completion of Climate Change Adaptation Water
 Resource Strategies
 Implementation of Regional SWM facilities as
 identified in the Growth Management
 Implementation Strategy
 Construction of the Dingman Creek Erosion
 Control Facility

- Construction of Fox Hollow #1 Stormwater Management Facility Phase 1







WASTEWATER TREATMENT OPERATIONS 2014

Lead Name: Geordie Gauld, Division Manager – Wastewater Treatment Operations Telephone: 519.661.2437 e-mail: ggauld@london.ca Services Provided Water recovery and environmental protection Operations and maintenance of Wastew Treatment Plants and Pumping Stations Maintenance, Electrical and SCADA support services for Water and Solid Waste ewater Capital Works including facility asions and upgrades

Water, Wastewater & Treatment **Environmental & Engineering Services**

WASTEWATER TREATMENT OPERATIONS 2014

nt Accomplishments (2012 - 2014)

- Biosolids upgrades completed at Greenway (2013) with \$400,000 in annual operations savings and \$33 million in deferred Capital Expenditu
- International Water Centre of Excellence (IWCE) completed at Greenway (2014)

- Greenway (2014)
 Greenway Ash System

 2012 Ontario Public Works
 Association and American Public
 Works Association-Technical
 Innovation Award

 2014 Water Environment Association
 of Ontario-Exemplary Biosolids Award
 Vauxhall Plant Upgrades-2014 Ontario
 Consulting Engineers-Award of Merit
 Vauxhall high efficiency blower
 upgrade-\$340,000 installed cost with
 \$130,000 in annual hydro savings plus
 \$205,000 Ontario Power Authority
 incentives



Challenges & Opportunities (2015 - 2018)

- Greenway Expansion-co nstruction will begin in spring 2015.
- Состина располностью will begin in spring 2015
 The Optimization Strategy will provide a roadmap for future works including:
 - wet weather treatment improvements
- flood proofing
- capacity expansions and optimization
- · life cycle renewals
- efficiency upgrades
- · Establish IWCE as a World Class Research and testing facility

Water, Wastewater & Treatment **Environmental & Engineering Services**



ROADS & TRANSPORTATION 2014

519.661.2500 x4936 e-mail: esoldo@london.ca

Who we are

The Roads and Transportation area is responsible for Transportation

Mobility Management delivered through a customer focused lens.

The area is divided into 5 divisions, delivering infrastructure projects, maintaining assets and operating our infrastructure in a safe, efficient and sustainable manner.



Roads & Transportation **Environmental & Engineering Services**



TRANSPORTATION PLANNING & DESIGN 2014

Lead Name: Doug MacRae, Division Manager – Transportation Planning & Design

Services Provided

- Implementation of capital projects identified in the Transportation Master Plan
- Delivery of the Rapid Transit initiative Renewal of transportation lifecycle
- assets
- Effective response to operational and safety concerns
- Engineering and Education for Traffic Safety Initiatives
- Implementation of Active ransportation (walking and cycling) cilities



533 Roads & Transportation **Environmental & Engineering Services**



TRANSPORTATION PLANNING & DESIGN 2014

Recent Accomplishments (2012 - 2014)

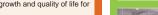
- Completion of the Transportation Master Plan and incorporation of projects into the approved Development Charges by-law
- Hyde Park Road Improvements (underway)
- King Street and Meadowlily Century Bridge Rehabilitations
- Hwy 401 / Wonderland Road New Interchange (underway) Wonderland Road / Sunningdale Road Roundabout
- Over 12 km of new sidewalks in
- Gore Road Bridge Replacement
- · Southdale Road Improvements

Challenges & Opportunities (2015 - 2018)

- Implementation of the Smart Moves Transportation Master Plan will improve mobility and support economic growth and quality of life for
- The Rapid Transit initiative will lay the groundwork for enhanced sustainable mobility options for all Londoners in the coming decades and will promote/catalyze infill and intensification opportunities consistent with the draft London Plan.



Roads & Transportation **Environmental & Engineering Services**





A new Cycling Master Plan will identify future actions to promote mobility choices that improve the quality of life and health of Londoners.



ENVIRONMENT. FLEET & SOLID WASTE 2014

Lead Name: Jay Stanford, Director – Environment, Fleet & Solid Waste
Telephone: 519.661.2500 x5411 e-mail: jstanfor@london.ca

The area known as Environment, Fleet & Solid Waste contains a variety of internal and external services operating under two 'Calls to Action'. First we live under a philosophy of Continuous Improvemen and, second, we operate under an operational banner called At Your Service. The area contains excellent and dedicated staff with a numb having more than 25 years experience in their respective fields.

Who We Are

We are also fortunate to work with or alongside some of the best private sector companies and their employees that the business has to offer. The skills and business smarts exhibited by our contractors is an asset to the businesses and residents of London.

The area is divided into 4 divisions, with each division delivering numerous programs and projects. Our top 3 collective goals are:

- 1. Meeting or exceeding customer expectations
- Delivering valued services in a cost effective and safe manner
 Protecting and improving the environment through service delivery and community engagement





ENVIRONMENTAL PROGRAMS 2014

Lead Names: Jamie Skimming; Pat Donnelly – Environmental Programs telephone: 519.661.2500 x5204; x0418 e-mail: jskimmin@london.ca; pdonnell@lor

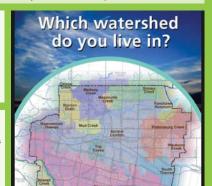
Services Provided

- Active Transportation, Cycling and Transportation Demand Management
- Air quality, climate change, energy conservation & community energy programs
- Corporate Energy Management Urban watershed programs
- Community outreach & engagement Community outreacn & engagement
 Support for corporate environmental actions

Key Performance Indicators

- Engaged 40 stakeholder groupsEngaged 10 neighbourhoods and communities
- · Participation in 25 community events
- Supported 7 corporate actions, including Rethink London and the Climate Change Adaptation Strategies Project

Environment, Fleet & Solid Waste Environmental & Engineering Services





ENVIRONMENTAL PROGRAMS 2014

Challenges & Opportunities (2015 – 2018)

- (2015 2018)
 Senior government energy policies and programs will have significant influence on how London's Community Energy Action Program (CEAP) is implemented.
 The London Plan will have significant influence on the implementation of several program areas including watersheds, the CEAP as well as the longer-term Comprehensive AT and TDM Actions.
- Comprehensive AT and TDM Actions.

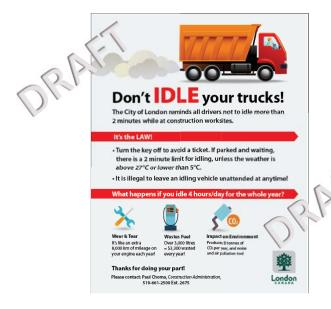
 Greater emphasis will be placed on working with key stakeholders and community champions who can influence a large number of Londoners.

 New programs related to implementation of Source Water Protection will expand education activities for water conservation and protection
- and protection.
- New information technologies and new/social media provides challenges a opportunities for reaching out to Londor

Environment, Fleet & Solid Waste Environmental & Engineering Services







FLEET & OPERATIONAL SERVICES 2014

Lead Name: Mike Bushby, Division Manager – Fleet & Operational Services
Telephone: 519.661.2500 x4961 e-mail: mbushby@london.ca Services Provided Fleet Administration and Asset Management Fleet Planning – Capital Acquisitions and Disposal Fleet Maintenance – Fleet Repairs and Service

Fuel Management – Supply Storage and Dispensing Facilities 24/7 Operational Dispatch Centre

2-Way Radio System – Programming and Radio Asset Management

Scheduling external equipment

Environment, Fleet & Solid Waste Environmental & Engineering Services



FLEET & OPERATIONAL SERVICES 2014

Recent Accomplishments (2012 - 2014)

- Introduced B5 (Biodiesel) significantly reducing our emissions and environmental impact
- Expanded shared services model, EMS and Fire actively using public works refuelling infrastructure saving money and effectively utilizing public infrastructure
- Completed PwC internal audit process Fleet Challenge E3 (Energy, Environment, Excellence) review process underway
- Met operating and capital budget reductions annually over the last

Challenges & Opportunities (2015 – 2018)

- Actions plans initiated to evaluate and maximize employee
- Targets identified for promoting "At Your Service" philosophy
- Continued spending and cost reductions while maximizing sustainable, affordable, safe, and "right fit" fleet solutions for our customers



SOLID WASTE COLLECTION 2014

1540 (10)

Lead Name: Kevin Springer, Manager - Solid Waste Collection

telephone: 519.661.2500 x5578 e-mail: kspringe@london.ca Environmental & Engineering Services Call Center: 519.661.4570

Services Provided

- Curbside Pickup
 Multi-residential Pickup
 Leaf & Yard Waste Pickup
 Downtown & Litter Bin/Container Pickup
- Special Pickups

General Statistics

- 28 rear packers; 3 side loaders; 5 top
- 120,000 households collected curbside 51,000 multi-units collected
- 92,000 tonnes of garbage collected per year
 10,000 tonnes of leaf and yard waste collected per year





SOLID WASTE COLLECTION 2014

Challenges & Opportunities (2015 - 2018)

- The physical nature of garbage pickup from a health and safety perspective will be further examined by City staff. This will include examining how garbage is placed at the curb, type of containers and type of collection
- Meeting customer needs and expectations remains our number one priority and having the right balance of services, cost and expectations is key.
- Fuel costs continue to rise, prompting the need to examine the future potential role of compressed n gas (CNG).
- Reducing/containing costs continues to be a challenge as the city grows in the north end increasing the hauling distance to the W12A Landfill site in the south end.
- Health and safety, training and more stringent Provincial Government regulations and policies with respect to garbage collection remain a high priority and are being addressed through programs and technology.

Environment, Fleet & Solid Waste Environmental & Engineering Services





SOLID WASTE MANAGEMENT 2014

Lead Name: Wesley Abbott, Division Manager - Solid Waste Management telephone: 519.661.2500 x1812 e-mail: wabbott@london.ca Environmental & Engineering Services Call Center: 519.661.4570 Services Provided

- Composting
 EnviroDepots & Household Special Waste Depot
- Community Outreach and Engagement Waste Disposal

- Management of Closed Landfills
 Contract Management
 Long Term Solid Waste Management Planning

Key Performance Indicators

- Waste Diversion Rate of 44% (69,000 tonnes annually)
- Captured and destroyed 113,000 tonnes of Greenhouse Gases equal to removing 30,000 cars from the road
- Total gross cost of \$79 per household per year

 Net operating cost of \$33 per household per year

Environment, Fleet & Solid Waste Environmental & Engineering Services



SOLID WASTE MANAGEMENT 2014

Challenges & Opportunities (2015 - 2018)

- Challenges & Opportunities (2015 2018)

 The City needs to continue planning for long term disposal capacity (next 40 years) as the W12A Landfill only has 9 to 12 years of capacity remaining. The Environmental Assessment process will begin in late 2015 and take 3 to 5 years.

 The area around the W12A Landfill allows for various resource recovery facilities to be located. The first resource recovery facility to be sited on these lands was the City's new Regional MRF (recycling centre). The opportunity exists to establish more resource recovery facilities.

 Waste diversion initiatives/programs in Road Map
- establish more resource recovery facilities.

 Waste diversion initiatives/programs in Road Map
 2.0 The Road to Increased Resource Recovery
 and Zero Waste and the Interim Waste Diversion
 Plan 2014-2015 will be implemented subject to
 available budget.

 There are several factors beyond the control of the
 City that may have a dramatic impact on the
 funding, timing and requirements (e.g., expected
 introduction of new Provincial waste diversion
 legislation, increased environmental protection).

Environment, Fleet & Solid Waste Environmental & Engineering Services





Questions?





Introduction to the Wastewater and Drainage Engineering (WADE) Division

September 2, 2015



Who We Are

- Professional Engineers and Certified Technologists
- Based on the 9th floor of City Hall, field work performed throughout London
- Committed to providing safe, costeffective, dependable and environmentally conscious sewerage and drainage services for its customers



Services Provided

- <u>Lifecycle Replacement</u>
 Management of Capital Programs
- System Improvements
 Reducing basement flooding, overflows and bypasses
- Growth
 Development Planning and Approvals
- Customer Liaison



Installed Backflow Valve



Lifecycle Renewal Program

Lifecycle Renewal Program

- Older infrastructure requires replacing
- Economically advantageous to replace it before it fails





System Improvements



- To determine best means to reduce overflows and bypasses and to prevent basement flooding
- Pollution Prevention Control Plan (PPCP)
- Basement flooding grant program

Interactive basement flooding image

For more info please visit www.london.ca/sumppumpgrant



Infrastructure Growth

 Expansion of the City's sanitary sewerage system to support future residential, institutional, commercial and industrial lands





Future Outlook

- Reduce basement flooding and sewer overflows
- Renew aging infrastructure (Infrastructure Renewal Program)
- Undertake capital projects to support growth and intensification (Growth Management Implementation Strategy [GMIS])