Environment & Sustainability Experts Panel

August 13, 2020
1:00 p.m.
Virtual

Pages

1. CALL TO ORDER

2. APPROVAL OF THE AGENDA

3. ADOPTION OF THE MINUTES

   3.1 Adoption of Minutes - June 26, 2020 — 1

4. BUSINESS ARISING

5. NEW BUSINESS

   5.1 Stormwater Management Policy — 5

   This item was referred to the Environment and Sustainability Experts Panel at the Regular Council meeting held on July 20, 2020.

   5.2 Future Presentations/Delegations of Interest

6. OTHER BUSINESS

7. DATE AND TIME OF NEXT MEETING

8. ADJOURNMENT

ST. JOHN'S

Environment & Sustainability Experts Panel Minutes

June 26, 2020
1:30 p.m.
Virtual

Present:	Kieran Hanley, MBA - Sustainable Economic Growth, Chair Joel Finnis, PhD - Climate Science & Resilience Dennis Knight, MSc, MCIP - Sustainable Urban Planning & Economic Growth Krista Langthorne, BA, SEBT - Resilience & Natural Resources Joseph Daraio, PhD, PEng - Sustainable Urban Planning & Resilience Michel Wawrzkow, PEng, PGeo - Natural Environment & Resilience
Regrets:	Councillor Ian Froude, Council Representative Pablo Navarro - Socio-cultural & Quality of Life
Staff:	Brian Head, Manager - Parks & Open Spaces Edmundo Fausto, Sustainability Coordinator Shanna Fitzgerald, Legislative Assistant
Others:	Natalie Godden, Manager of Family and Leisure Services Bruce Knox, Healthy City Fieldworker

1. CALL TO ORDER

2. APPROVAL OF THE AGENDA

Moved By Dennis Knight
Seconded By Joseph Daraio

That the agenda be adopted as presented.

MOTION CARRIED

3. ADOPTION OF THE MINUTES

3.1 Adoption of Minutes - May 28, 2020

Moved By Kieran Hanley
Seconded By Dennis Knight

That the minutes of the meeting held May 28, 2020 be adopted as presented.

MOTION CARRIED

4. BUSINESS ARISING

4.1 Review of Parking Requirements for Section 8 of the Envision St. John's Development Regulations

The Draft Recommendation of Energized Parking Requirements for Section 8 of the Envision St. John's Development Regulations was presented by the Panel members and discussed. The review focused on commercial buildings with the inclusion of apartment buildings. Residential requirements may require updates to the building code as well as larger updates to distribution standards. The Panel agree with the recommendation as it is written with one minor change. The final recommendation will be provided to the Panel before proceeding to Council.

The following motions were put forward by the Chair:

Recommendation
Moved By Kieran Hanley
Seconded By Krista Langthorne

That Council consider electric vehicle spaces in new construction regulations.

MOTION CARRIED

Recommendation
Moved By Kieran Hanley
Seconded By Michel Wawrzkow

That Council consider providing guidance for bicycle spaces and facilities in new construction regulations.

MOTION CARRIED

5. NEW BUSINESS

5.1 Sustainability Plan Engagement & Communication Discussion

The Sustainability Coordinator presented the engagement process and outlined the next steps of the Multi-stakeholder Working Group. The Panel were invited to provide feedback.

5.2 Future Presentations/Delegations of Interest

This item was deferred to a future meeting of the Panel.

5.3 St. John’s Healthy City Strategy Presentation

Natalie Godden and Bruce Knox of Community Services were in attendance to present the St. John's Healthy City Strategy to the Panel. Members were asked to provide feedback and during discussion the following was noted:

- The Healthy City Strategy is a long-term plan to improve the physical, mental, social, and environmental conditions that impact health.
- This long-term plan runs over 10 years with short, medium, and long-term goals designed to bring health to the forefront of decision making.
- An economic pillar was suggested by the Panel members. It was noted that in the new model for BC's Healthy Built Environment toolkit, a cross section of mental and social wellness and economic impacts has been added.
- Members noted the importance of the linkage between environment and urban design and built environment (designing green infrastructure).
- It was recommended that the pillar should be labeled as 'Environment' with the asset of 'Protection of Environmental Benefits (Ecological Services)' which could further be expanded to include the protection of the natural environment - natural systems and ecosystems services including wetlands, natural flood mitigation and water cleansing, reduced air pollution due to planting sufficient trees, reduced urban heat impacts, and pollination.

- The Multi-stakeholder Sustainability Team workshops will include members of the Healthy City Strategy group.

This matter will be discussed further at a future meeting of the Panel.

6. OTHER BUSINESS

7. DATE AND TIME OF NEXT MEETING

The date of the next meeting is to be determined.

Purpose of next meeting:

1. Drive Thru Referral
2. Further discussion of the St. John's Healthy City Strategy
3. Future Presentations/Delegations of Interest

8. ADJOURNMENT

There being no further business, the meeting adjourned at 3:18 pm.

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CHAIRPERSON, KIERAN HANLEY

DECISION/DIRECTION NOTE

Title: Stormwater Management Policy

Date Prepared: June 16, 2020

Report To: Committee of the Whole

Councillor and Role: Councillor Maggie Burton, Planning & Development

Ward: N/A

Decision/Direction Required: Approval of a Stormwater Management Policy and rescission of a current related policy.

Discussion – Background and Current Status:
This policy provides a comprehensive Stormwater management approach for all development within the City of St. John's.

A previous related policy (08-04-19 Stormwater Detention Policy) related only to stormwater detention systems for new developments. It will be rescinded if the Stormwater Management Policy is approved.

Key Considerations/Implications:

1. Budget/Financial Implications: There is no net financial or budget impact expected.

2. Partners or Other Stakeholders: This policy will affect developers, property owners, and employees who have responsibility for stormwater management activities.

3. Alignment with Strategic Directions/Adopted Plans: This policy aligns with the "A Sustainable City" strategic direction and is included as an initiative in the related goal (S2 - Plan for land use and preserve and enhance the natural and built environment where we live).

4. Legal or Policy Implications: The Office of the City Solicitor has reviewed and approved the policy.

5. Privacy Implications: Any personal information will be managed in accordance with the City's Privacy Management Policy and the provincial Access to Information and Protection of Privacy Act, 2015.

6. Engagement and Communications Considerations: The Department of Planning, Engineering, and Regulatory Services will advise developers of the new policy.

7. Human Resource Implications: The new policy will be implemented with existing human resources.

8. Procurement Implications: Not Applicable.

9. Information Technology Implications: Not Applicable.

10. Other Implications: Not Applicable.

Recommendation:
That Council approve the Stormwater Management Policy and rescind the current related policy (08-04-19 Stormwater Detention Policy).

Prepared by: Trina Caines, Policy Analyst
Reviewed by: Dave Wadden, Manager, Development Engineering
Approved by: Jason Sinyard, DCM, Planning, Engineering, and Regulatory Services; Elaine Henley, City Clerk, CPC Co-Chair; Roshni Antony, Manager - HR Advisory Services, CPC Co-Chair

Attachment:
Stormwater Management Policy (draft)

Report Approval Details

Document Title:	DN Stormwater Management Policy.docx
Attachments:	- Draft Stormwater Management Policy - For COTW.docx
Final Approval Date:	Jun 23, 2020

This report and all of its attachments were approved and signed as outlined below:

Elaine Henley - Jun 23, 2020 - 2:29 PM

DRAFT – For Discussion Only

City of St. John's Corporate and Operational Policy Manual

Policy Title: Stormwater Management Policy	**Policy #:** 06-01-07 (to be assigned) (replaces 08-04-19 Stormwater Detention Policy)
Last Revision Date: Not applicable	**Policy Section:** Development > Development
Policy Sponsor: Deputy City Manager (DCM), Planning, Engineering, and Regulatory Services	

1. Policy Statement

The purpose of this policy is to provide a comprehensive Stormwater management approach for any Development within the City of St. John's in accordance with the City of St. John's Act and the Urban and Rural Planning Act, 2000.

2. Definitions

"Attenuation" means the storage of excess Stormwater during a runoff event followed by the controlled release of the stored Stormwater, usually to a specified pre-Development release rate.

"Best Management Practices" or "BMPs" mean methods that have been determined to be the most effective and practical for preventing and/or reducing non-point source pollution mitigation.

"Building" shall have the same meaning as defined by the City of St. John's Act, that is "every structure, erection, excavation, alteration, or improvement in or upon lands comprised in the area (within the boundaries of the City of St. John's)".

"Catchment Area" means the total area of land which drains naturally or unnaturally to a low point.

"Developer" means a proponent seeking approval from the City for a rezoning, subdivision, Development, or Building application.

“Development” means the carrying out of building, engineering, mining, or other operations in, on, over, or under land; or the making of a material change in the use, or the intensity of use of land, Buildings, or premises and the:

(i) making of an access onto a highway, road, or way;
(ii) erection of an advertisement or sign;
(iii) construction of a Building; and
(iv) the parking of a trailer, or vehicle used for the sale of refreshments or merchandise, or as an office, or for living accommodation;

and also includes:

(v) excavation, filling, clearing, grubbing, and the subdividing or consolidating of parcels of land;

and excludes:

(vi) carrying out of works for the maintenance, improvement or other alteration of any Building, being works which affect only the interior of the Building or which do not materially affect the external appearance or use of the Building;
(vii) carrying out by a highway authority of any works required for the maintenance or improvement of a road, being works carried out on land within the boundaries of the road reservation;
(viii) carrying out by a local authority or statutory undertakers of works for the purpose of inspecting, repairing or renewing any sewers, mains, pipes, cables or other apparatus, including the breaking open of a street or other land for that purpose; and
(ix) the use of a Building or land within the courtyard of a Dwelling house for a purpose incidental to the enjoyment of the Dwelling house as a Dwelling.

“Development Area” means the area of land being proposed to be developed as defined in the definition of Development, including all future phases of Development.

“Dwelling” shall have the same meaning as defined by the City of St. John’s Act, that is “a house or Building, or portion of a house or Building, which is occupied in whole or in part, as the home, residence, or sleeping place of one or more persons.”

“Floodplain” means the area of land adjacent to a Watercourse or a water body that will be inundated by the one percent annual chance flood.

“Foul” means to directly or indirectly deposit, discharge, spill, dump, or wash a Prohibited Substance into a Watercourse or storm sewer system.

“Green Street” means a Stormwater management approach that incorporates vegetation (e.g., perennials, shrubs, trees), soil, and engineered systems (e.g., permeable pavements) to slow, filter, and cleanse Stormwater runoff from impervious surfaces (e.g., streets, sidewalks).

“Low Impact Development” or **“LID”** means a Stormwater management strategy applied at the lot or subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale, hydrologic controls to replicate the pre-Development hydrologic condition.

“Major Stormwater Systems” means all drainage pathways that convey, detain, divert, and/or intercept the major design (100-year Return Periods) Stormwater runoffs. For example, urban streets in combination with storm sewers, rivers, detention facilities, bridges, culverts, etc.

“Minor Stormwater Systems” means all drainage pathways that convey, detain, divert, and/or intercept the minor design (10-year and 25-year Return Periods) Stormwater runoffs. For example, local storm sewer pipes, manholes, catch basins, and outfall structures.

“Non-residential Development” means Development in accordance with the Development Regulations that is not for residential use.

“Prohibited Substance” means

(i) pesticide, herbicide or fertilizer; soap or detergent; household and/or commercial grade cleaning compound; paint or solvent; chlorinated water, water boiler water (blowdown), or non-contact cooling water; oil, waste oil, fuel, or grease; combustible liquid; sewage or leachate; chemical; or debris;

(ii) any material or substance which is a hazardous product, contaminant, toxic substance, deleterious substance, special waste, dangerous good, or reportable substance that is identified or described in or defined by any applicable statute, regulation, or law, including any substance whose discharge to a Watercourse would violate Federal or Provincial Acts or Regulations; and/or

(iii) any sediment, rock, gravel, sand, clay, silt, earth, construction or excavation wastes, cement, concrete, exposed aggregate wash water, or other substance which, when introduced into a Watercourse, will at the point of deposition constitute an excessive suspended solids discharge, a temperature increase of 2 degrees Celsius or more, or cause the pH of receiving waters to be outside the range 3.0 above or below background levels.

"Residential Development" means Development for residential use in accordance with the Development Regulations.

"Return Period" means the average recurrence time interval that an extreme event will be equaled or exceeded.

"Stormwater" means runoff generated by rainwater, snowmelt, or any other form of precipitation.

"Stormwater Detention" means the temporary storage of Stormwater in above-ground or below-ground facilities with release of Stormwater through a control structure which limits post-Development flows to the pre-Development condition.

"Stormwater Retention" means the capture and infiltration of Stormwater flow into the ground through a Stormwater Retention facility.

"Watercourse" means a creek, pond, lake, river, stream, or brook, whether usually containing water or not, and any spring or Wetland that is integral to a Watercourse.

"Watercourse Corridor" means the area of land occupied by a creek, pond, lake, river, stream, or brook; its Floodplain; and Floodplain buffer during an extreme runoff event.

"Wetland" means land, with or without visible banks, which is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal conditions, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, fens, and similar areas.

3. Policy Requirements

3.1 General

a) All Stormwater infrastructure within the City shall be designed in accordance with the current version of the Development Design Manual. Developers shall make application to the City and receive approval for all Stormwater management infrastructure providing all required information in accordance with the Development Design Manual.
b) Notwithstanding (a), the City may exempt Development that falls within certain areas from Stormwater Attenuation requirements as identified in the Development Design Manual.
c) Developers shall endeavor to reduce flow velocities, promote natural storage, and provide infiltration and recharge areas.
d) Developers shall be responsible for Stormwater management designs related to their Development and for preventing and/or mitigating impacts on any downstream Stormwater drainage facilities and Watercourses, as directed by the City.
e) All Stormwater management systems shall be planned and designed in accordance with the Development Design Manual, including, but not limited to:
   i. managing quality of Stormwater runoff during construction;
   ii. controlling quantity and rate of Stormwater runoff; and
   iii. encouraging natural groundwater recharge.
f) When required by the City, a Stormwater management plan shall be submitted by a Developer to the City.
g) Developers may be required to design and install Stormwater infrastructure that will become City Stormwater infrastructure at the request of the City.
h) City Stormwater infrastructure built by Developers shall be located within existing or proposed City rights-of-way or City-owned land.
i) Notwithstanding (h), locating City Stormwater infrastructure on or through private land shall be considered only if technically necessary, and at the sole discretion of the City.
j) Developers shall be responsible for establishing appropriate easements for any City infrastructure that will be constructed through private lands as part of an approved Development.

k) Developers shall comply with minimum and maximum design criteria for Stormwater management infrastructure to protect the environment and to minimize operational and maintenance procedures, in accordance with the Development Design Manual.
l) Attenuation of Stormwater runoff using rooftop storage shall not satisfy any Attenuation requirements in the Development Design Manual.
m) The City shall set the sizing requirements of the City Stormwater infrastructure that shall be constructed solely at the Developer's expense.
n) Any person, corporation, or entity requiring a connection to the City storm sewer system shall, upon connection to the City's storm sewer system, maintain, in good working order, the private service lateral or storm sewer system on their property.
o) Site redevelopments may require, at the sole discretion of the City, upgrades to Stormwater infrastructure to the current standards in the Development Design Manual.
p) All required activities, including Development, contemplated in this Policy are subject to applicable federal, provincial, and/or municipal legislation.

3.2 Storm Sewer Systems

a) Storm sewer systems shall be designed as separate systems from the sanitary sewer system and shall have sufficient capacity, as determined by the City, to convey Stormwater runoff from the ultimate Development scenario for which the Catchment Area is zoned.
b) Major Stormwater Systems and Minor Stormwater Systems shall convey Stormwater runoff from snowmelt and rainfall events in accordance with the Development Design Manual.
c) The City shall direct the size, location, and extent of City storm sewer system extensions.
d) For Residential Development or Non-residential Development, Storm sewer service laterals for new or redeveloped lots shall connect to the City storm sewer system; with such installation being at a time directed by the City.
e) There shall be no cross-connections between sanitary sewer systems and storm sewer systems.
f) Effluent from sanitary sewer systems shall not be discharged to storm sewer systems. Any drainage from Non-residential Development that

may be contaminated shall not be discharged to storm sewer systems without appropriate treatment.

g) No person shall discharge anything into any City or private storm sewer system which may:
   i. interfere with the operation of a storm sewer system;
   ii. obstruct or impede the flow within a storm sewer system;
   iii. cause damage to any City or private storm sewer system;
   iv. be a hazard to persons, animals, property, or vegetation;
   v. negatively impact the water quality in any body of water; or
   vi. contravene legislation.
h) Without limiting the foregoing, no person shall Foul any City or private storm sewer system.
i) Downspouts conveying runoff from rooftops to the ground for Residential Development, except apartment buildings, shall not be connected to the storm sewer system.
j) Property owners own their storm sewer laterals to the point of connection with the City storm sewer system main and shall be responsible for the operation and maintenance of the same.

3.3 Streets

Where appropriate, in the sole opinion of the City, streets built as a result of new Development shall incorporate Green Street BMPs in accordance with the Development Design Manual.

3.4 Parking Lots

a) Parking lots shall be designed to capture all surface drainage and convey all Stormwater into a City storm sewer system or approved Watercourse. Infiltration of some or all Stormwater into the ground may, however, be acceptable where it can be demonstrated to the City's satisfaction through a geotechnical report that the ground can accommodate the surface drainage without any negative impacts.
b) The City encourages parking lot design that promotes groundwater recharge and erosion reduction.
c) As directed by the City, parking lot design shall incorporate methods for Stormwater management utilizing LID technology.

3.5 Stormwater Detention

a) Stormwater Detention facilities shall be designed to accommodate runoff from specific Return Periods and durations in the Development Design Manual.
b) Where Stormwater Detention is required, release rates from a proposed Development shall not exceed pre-Development rates. Pre-Development rates shall be approved by the City and calculated in accordance with the methodology in the Development Design Manual.
c) Stormwater Detention shall not adversely affect fish, fish habitat, or other natural resources.
d) Where feasible, in the sole discretion of the City, Stormwater Detention facilities shall be designed as wet ponds or engineered Wetlands.
e) Stormwater Detention facilities shall be privately built, owned, operated, and maintained, unless otherwise approved by Council. Any Stormwater Detention facilities conveyed to the City shall be in addition to any lands required by the Development Regulations to be dedicated for open space or public purposes.
f) Notwithstanding (e), Stormwater Detention facilities designed as multi-use facilities that address recreational, environmental, and aesthetic elements, together with flow control, may be considered, at the sole discretion of the City, as fulfilling open space or public purpose requirements, or a portion thereof, of the Development Regulations.
g) Where directed by the City, Developers of surface Stormwater Detention facilities shall be required to submit a dam safety analysis report in accordance with the Development Design Manual.
h) Every owner and/or operator of a Stormwater Detention facility shall be required to monitor, inspect, and maintain the facility.

3.6 Stormwater Retention

a) Stormwater Retention facilities shall be designed to accommodate runoff from specific Return Periods and durations in the Development Design Manual.
b) All Stormwater Retention facilities shall be privately built, owned, operated, and maintained.
c) Every owner and/or operator of a Stormwater Retention facility shall be required to monitor, inspect, and maintain the facility.

3.7 Watercourses

a) No person shall obstruct, impede, or Foul a Watercourse.
b) Open Watercourses shall remain above ground unless otherwise approved by Council. The culverting of Watercourses, other than bridges and driveway culverts, shall be avoided. Watercourses that have been previously piped shall be opened, where possible.
c) Crossings of open Watercourses shall accommodate fish passage.
d) Prior to commencing Development, sediment and erosion control measures shall be in place and shall remain so until the City determines that they may be removed.
e) No changes shall be made in or about a Watercourse without the appropriate legislative approvals.
f) No filling or soil removal activities shall occur in proximity to Watercourses without appropriate legislative approvals.
g) Developers may be required, as determined by the City, to ensure that there is an adequate baseflow in receiving rivers and streams for post-Development conditions and that fish habitat is protected.
h) Watercourse Corridors may be on private property and the City may acquire an easement over a Watercourse Corridor.
i) The remediation of the erosion of a Watercourse riverbank on private property shall be the responsibility of the property owner.

3.8 Floodplains

a) The City shall endeavor to protect its Watercourses and Floodplains.
b) Where a Watercourse passes through or abuts a Development Area, the Developer shall delineate the Floodplain in accordance with the Development Design Manual.
c) The City may require a Developer to assess the cumulative impact on downstream Floodplains and infrastructure resulting from Development, in accordance with the Development Design Manual, and where required in the sole opinion of the City, take remedial action inside and/or outside the Development Area.
d) The City may approve public infrastructure along Watercourses and Floodplains.
e) Existing Dwellings within a Floodplain may be replaced provided the new Dwelling is constructed within the existing footprint and the lowest

floor elevation is at least 0.3m above the 100-year high water elevation.

f) All new Dwellings and structures that the City determines to be hydraulically impacted by a Floodplain shall have their lowest floor elevation at least 0.3m above the 100-year high water elevation.
g) Floodplains shall be delineated in accordance with the Development Design Manual.

3.9 Wetlands

a) The City shall endeavor to protect its Wetlands.
b) Wetlands shall be classified in accordance with the Development Design Manual.
c) The functional assessment of Wetlands shall be done in accordance with the Development Design Manual.
d) The City encourages the use of natural and engineered Wetlands in Stormwater management.
e) The lowest floor elevation of all new Dwellings and Buildings that the City determines to be hydraulically impacted by a Wetland shall be at least 0.3m above the elevation of the Wetland, as determined by the City.

3.10 Stream Crossings

a) The City shall use its best efforts to ensure that all stream crossings do not negatively impact riparian zones and fish habitat.
b) The City, in its sole discretion, may refuse to permit a stream crossing.
c) Stream crossings shall be designed in accordance with the Development Design Manual.
d) Stream crossing type, sizing, location, installation plans, and bridge and culvert locations shall be approved by the City.
e) Bridges and culverts shall be bottomless (i.e., the natural river channel shall remain in place as part of the bridge or culvert installation).

3.11 Erosion and Sediment Control

a) All Developments shall implement erosion and sediment control measures, in accordance with the Development Design Manual.

b) At the City's sole discretion, Developers may be required to protect and stabilize rivers and streams to control erosion and downstream sedimentation, in accordance with the Development Design Manual.

3.12 Watersheds

a) The City shall continue to protect its drinking water supply watersheds through Best Management Practices.
b) The City shall follow its Salt Management Plan in the application of road salt within watersheds.

3.13 Climate Change

a) The City shall adapt its municipal Stormwater management to climate change and incorporate any changes in the Development Design Manual.
b) The City shall encourage adoption of innovative Stormwater management practices that take into account climate change.

4. Application

This policy applies to all Development activity in the City, with the exception of City operations and/or actions.

5. Responsibilities

5.1 **The Department of PERS** is responsible for:

a) implementing this policy;
b) communicating this policy to Developers; and
c) taking appropriate action for any potential contravention.

5.2 **The Department of Public Works (PW)** is responsible for:

a) working with PERS with respect to implementing relevant sections of the policy.

5.3 The DCMs of PW and PERS are responsible for:

a) ensuring that this policy is communicated to all applicable individuals in their departments; and
b) ensuring their departments comply with this policy.

6. References

Development Design Manual
Development Regulations
Water Pollution By-Law

7. Approval

- Policy Sponsor: DCM, PERS
- Policy Writer: Manager, Development Engineering / Policy Analyst
- Date of Approval from
  - Corporate Policy Committee: December 9, 2019
  - Senior Executive Committee:
  - Committee of the Whole:
- Date of Approval from Council:

8. Monitoring and Contravention

The Planning and Development Division, PERS shall monitor the application of the policy.

Any contravention of the policy shall be reported to PERS and/or PW; and may be reported to the Office of the City Solicitor and/or the City Manager, for further investigation and appropriate action.

9. Review Date

Every 5 years