



Corporate Report

NO: R186

COUNCIL DATE: July 25, 2005

REGULAR COUNCIL

TO: Mayor & Council DATE: July 19, 2005
FROM: General Manager,
Engineering FILE: 4803-709
SUBJECT: Updated Drainage By-law for Improved
Infrastructure and Environmental Protection

RECOMMENDATION

The Engineering Department recommends that Council:

1. Endorse the establishment of a new Drainage by-law that will meet the following objectives:
 - (a) Replace the existing Sewer By-law No. 2240;
 - (b) Replace the "Surrey Waterways Protection" By-law No. 2659 and formalize the City's current natural drainage policy;
 - (c) Integrate sediment control objectives (either as a separate by-law or within the drainage by-law);
 - (d) Provide more enforcement power to help prosecute infractions;
 - (e) Incorporate sustainable drainage measures that have been proven to be effective in the East Clayton Neighbourhood Concept Plan in other areas of the City;
 - (f) Provide a greater level of protection for Surrey's creeks and streams.
2. Authorize staff to undertake stakeholder consultation and bring forward the applicable new by-laws.

BACKGROUND

The City of Surrey currently has a number of by-laws and policies that deal with drainage and the City's drainage system:

1. Sewer By-law No. 2240
2. Surrey Waterways Protection By-law No. 2659
3. Subdivision By-law
4. Surrey Design Criteria Manual

The intent of a new comprehensive drainage by-law is to combine the objectives of the aforementioned by-laws and policies and to enhance them to better protect the City's current and future drainage infrastructure and the City's aquatic environment.

DISCUSSION

Surrey's drainage system is an important component of the services provided by the City of Surrey. The existing system has been developed to respond to the needs of the population by minimizing nuisance flooding and providing flood proofing to habitable and business land uses while ensuring safe conveyance of extreme flooding events. The City's natural watercourses are an integral part of this drainage system while still providing valuable environmental and recreational benefits.

The existing sewer by-law covers both sanitary and storm sewer servicing. This by-law was originally aimed at covering sewer extensions and connections with some clauses dealing with prohibiting and restricting the discharge of water of poor quality into the sewer system. Since the storm drainage system differs considerably from the sanitary sewer system, it was felt that separate Sanitary Sewer and Drainage by-laws would be required.

System Extensions

The new drainage by-law will maintain those clauses that control construction, extension and connections associated with the piped drainage system. Standard clauses associated with storm sewer drainage extensions covering general conditions, funding options, and design will be maintained in the new by-law with a section associated with user charges.

Service Connections

The service connection section will also be maintained to deal with pre-servicing connections, building connections, service failures, discontinuation and re-instatement of services, prohibited and restricted water discharges, accidental discharge and spill reporting, and inspection and monitoring.

The most significant additions to the by-law will be related to protection of the City's natural and man-made open water courses as well as protection of the City's floodplains.

Natural Watercourse Protection

The City's "Waterways Protection By-law" was aimed at maintaining the natural functionality of Surrey's watercourses but is now somewhat dated. This By-law, together with various engineering and planning solutions, provided a level of protection for watercourses. However, it has been known for some time that changes in land uses will potentially affect watercourses. By implementing various management practices, such as detention ponds, it was felt that impacts to the watercourses could be minimized. Over the years, ongoing maintenance on a number of impacted creeks has lead the City to investigate other options to help minimize the impacts of land use changes on watercourses. Additionally, the state of the art for stormwater management has evolved. The new by-law will incorporate our own experience and the latest technical understanding to set a framework to help implement newly emerging low impact standards. Some of these are currently being evaluated as part of the East Clayton Neighbourhood Concept Plan. This approach is consistent with the Integrated Stormwater Management Plan (ISMP) process the City has committed to under the Regional District's Liquid Waste Management Plan. The ISMP process has been endorsed by senior levels of government and is becoming a requirement of the approval process associated with permitting for in-stream works.

Lowland/Floodplain Protection

Since 1998 the City of Surrey has been actively implementing the Serpentine/Nicomekl Flood Control Strategy. One of the key issues highlighted as a cause of increased flooding in the lowlands is the displacement of floodplain storage resulting from the placing of fill and construction of ring dykes within the lowlands. Placing of fill and construction of ring dykes protects subject properties but causes increased flooding on neighbouring properties. The new drainage by-law will be developed to address this issue by restricting the placement of fill in the lowlands as well as controlling the construction of ring dykes on private property. Also we propose that private pumped drainage connections (whether to ditches, creeks or rivers) be restricted and controlled under this new drainage by-law to protect neighbouring properties.

Silt Control and Water Quality Protection

Deposition (either direct or indirect) of sediment into a natural watercourse can have negative impacts on both watercourse hydraulic characteristics and habitat value. For this reason, we recommend new sediment control procedures be set out whether as a stand alone by-law or integrated into this new drainage by-law. These procedures will help protect our watercourses and drainage infrastructure while providing clear direction to the development industry, construction industry, and by-law enforcement.

Similarly, the deposition of other deleterious products into our watercourses can have negative impacts on Surrey's environmental resource. As a policy, the City has requested that the drainage systems of commercial and industrial

developments integrate water quality features such as bio-swales and oil/grit separators. The new drainage by-law should include regulations that will help ensure the long-term operation and maintenance of these features.

CONCLUSION

Our past practices for drainage and environmental protection has resulted in Surrey being in a leadership position with respect to preserving its natural creeks and streams. By reducing and updating our old by-laws we will provide a greater level of protection for Surrey's natural assets as well as safeguarding our residents from flooding.

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