City of Edmonton Drainage Services
Summary Notes of Rossdale Flood Mitigation Meeting
Held May 26, 2015 at Rossdale Community Hall

Presenters

Miressa Fola, Project Manager, Drainage Planning
Maxime Belanger, Project Manager, Sameng Inc.

In attendance were approximately 15 residents.

River Valley Neighbourhoods Flood Risk Study

Please note: a copy of the presentation is available of the City's website under the name Rossdale Flood Risk Study at:
http://www.edmonton.ca/residential_neighbourhoods/20150526_Public_Consultation_Rossdale.pdf

The presentation began with the review of the floodplain map and the existing drainage system in Rossdale. The results of a detailed study by Sameng, which included a survey of residents, were then shared. Main issues for the neighbourhood when rainfall is intense are:

- Too much stormwater runoff flowing into combined sewers, especially in southeast Rossdale, which could cause sewer backup in those areas.
- Large sewage flow coming from upstream neighbourhoods through the 97th Avenue sewer trunk line, which could cause sewer backup west of 101 Street.
- Insufficient capacity of storm sewer system in West Rossdale which results in surface runoff flowing towards southeast Rossdale. This could cause very localized surface flooding in southeast Rossdale.

Flood mitigation improvement options for intense rainfalls include:

- Provide additional sewer separation (catchbasin reconnections, new storm sewers and outfalls)
- Prevent surface drainage from west Rossdale flowing to southeast Rossdale (new pond, surface grading modifications)
- Provide adequate storm and sanitary servicing for west Rossdale redevelopment.
- Reconnect existing combined sewers currently connected to the 97th Avenue trunk to another suitable sewer pipe.

Main issues for the neighbourhood when the river level is high are:

- The river backflows into combined sewers via outfalls and interconnections. This could cause sewer backups in southeast Rossdale.
- The river overflows roads and enters catchbasins connected to the local combined sewer system. This could cause sewer backups in southeast Rossdale.
- Water levels in the river which have 2% chance of exceedance (or higher) in any given year can spill into the floodplain, and may cause widespread surface flooding.

Flood mitigation improvement options for high river levels include:

- Prevent river water from entering the combined sewer system via the outfalls. This can be done by inserting flap gates at outfalls/interconnections, removing interconnections and removing the existing manual backflow gates.
- Prevent river overflow from entering the combined sewer system by sealing manholes located in the floodplain.
- Reconnect catchbasins located in the floodplain to the storm sewer system.
- Redirect the 97th Avenue combined sewer trunk to flow south on 101 Street towards the existing storage tunnel and pump station, while still allowing larger flows to overflow into the river. This would allow the combined sewer trunk located along the river banks to be eliminated.
- An additional, alternative solution is to look at the feasibility of a permanent or temporary flood barrier along the river.

The Alberta Government is conducting a study on the North Saskatchewan River Basin, which includes Edmonton river valley neighbourhoods and other upstream and downstream communities. The study will investigate the risks of floods and identify alternative solutions for mitigation or defences for all at risk communities in the basin. Drainage Services will integrate the findings of that study (expected to be completed in the fall of 2015), and action the provincial government might take, into its own future planning for Rossdale and other floodplain neighbourhoods.

While prioritizing, financing, designing and constructing flood mitigation improvements in the neighbourhood will take some time, Drainage Services will as next steps:

- Improve communication to residents should there be a potential flooding threat from high river levels.
- Take community input, further validate the options and prioritize recommended improvements.
- Look at how high priority projects can be advanced as quickly as possible.
- Follow up with the provincial North Saskatchewan River Basin Study and integrate provincial plans into City planning where feasible and appropriate.
- Continue to support homeowners via Drainage Services' Flood Prevention Home Check-up, flood proofing subsidies, and responsive drainage repair and maintenance.

Comments and Feedback

Q. We live in southeast Rossdale. If you are lowering the criteria for closing the manual backflow gates will that increase the risk of sewer backup if mitigating factors aren't put in place in time?

A. The current sewer system layout in Rossdale protects from residential sewer backup even if the gates are closed at a lower water elevation, so the risk is negligible.

Q. Why are the criteria being lowered then, if there is less risk of sewer backup in this area?

A. It will help us protect the pump station and the storage tunnels from excessive River flows. We still have to look at this suggestion to ensure it is the right thing to do. The old backflow protocols are from 1990. We want to make sure the protocols are standardized across the system.

Q. This community is mainly empty Monday to Friday, 8:00 a.m. to 5:00 p.m. How are you going to connect with residents when we are not home?

A. We are working internally and other City staff like 311 and the City's central communications team to ensure communications with residents can provide 24/7 coverage. However, we need cooperation from members of the community providing email or social media contact information so we can reach residents on evenings, weekends, and holidays. We are trying to be proactive because in the past we have often been reactive when it comes to communication. You can also sign up for the Alberta Emergency Alert app that will provide information from the province of Alberta.

Resident's Comment – The Alberta Rivers app is also available. It will give you an alert when river levels start to rise.

Q. Is it true that all homes built after 1988-89 were required to have a backwater valve installed?

A. Yes, depending on the plumbing layout, the building code was changed to require a backwater valve. You can book a flood proof inspection with the City to have your valve checked out. Call 780-944-7777.

Q. Where can I find the map that shows the 1-in-100 year floodplain?

A. Visit the Alberta Environment and Sustainable Resource Development website and search for flood hazard maps. http://esrd.alberta.ca/water/programs-and-services/flood-hazard-identification-program/flood-hazard-mapping.aspx

Q. Does the City have a map of the areas in Rossdale that flooded in 1986?

A. Yes, the City evaluated the 1986 flood event as part of this study. The area would have been a little higher that the areas shaded green on slide 8 of our presentation; it is categorized as a 1:68 year event. We also have aerial photos that we can reference that were taken during that flood.

Q. The 1915 flood happened before there were any dams on the North Saskatchewan River, so don't you have to throw out that incident as non-comparable?

A. The dams are located upstream of the area where most of the rain fell, so the dams would not have much impact on the peak flows if such an event was to happen today. We cannot rely on the dams to control extreme peak flows in the River.

Q. Calgary has plans for a river diversion or dam to prevent flooding. Is that something that's an option for Edmonton?

A. It can be an option but the cost-benefit ratio may not make a lot of sense for Edmonton. Calgary has much more vulnerable land and infrastructure built in the floodplain. This gives that area a much higher recovery cost when floods occur.