

Recommendations - Junction Creek Safety Committee

Sub Ctee	Terms of Reference	Recommended Action	Lead Department/ Agency	Comments
Infrastructure	Review infrastructure criteria including safety grates at water crossings, storm drainage inputs and examine potential safety measures along the route of the creek such as landscaping, buffer areas, fencing, signage and water course restoration.	*1. Develop a policy for safety fencing along the creek and open water bodies, especially urban areas that are densely populated and affected by pedestrian traffic.	Infrastructure (Operations)	<p><u>Infrastructure Services:</u> This policy will involve a multi-disciplinary examination by the Infrastructure, Administrative Services (Legal), Finance, Community Development (Parks) Departments on the pros and cons of fencing, on insurance and legal liability elements and on the implementation criteria for the provision of fencing as necessary around the City's creeks, ponds, rivers and lakes. The resulting policy paper is proposed to provide guidelines for City staff and Council and is scheduled to be completed by October 1, 2009.</p> <p><u>Junction Creek Stewardship Committee:</u> Do not endorse the recommendation for fencing of any kind along Junction Creek. They do not believe this will enhance safety in any way and contradicts one of their goals, which is to enhance appreciation and enjoyment of the waterway by members of the public.</p>
		*2. Conduct fencing safety assessment to determine necessary repairs on properties owned by the City or City agencies (i.e. Sudbury Housing)	Infrastructure (Operations) Finance (Risk Mgmt.) Greater Sudbury Housing	<p><u>Infrastructure Services:</u> Fencing exists at various locations at road crossings, park areas and Sudbury Housing areas adjacent to Junction Creek. Repairs and improvements to existing fencing is estimated to cost \$20,000. This work is scheduled to be completed in 2009.</p> <p><u>Risk Management:</u> Any fencing installed before a policy is complete creates a liability exposure for unfenced areas. Fencing will make rescue efforts more difficult. Children can climb better than adults.</p> <p><u>Greater Sudbury Housing Corporation:</u> Does annual inspections of all their fencing at both Louis Street locations which run along CGS property and Junction Creek. Tree trimming and repairs to fences are made as well as backfilling with dirt any holes under the fencing. Regular inspections are done throughout the year and repairs made as required.</p>
		3. Install snow fence along Louis Street to beyond playground until fencing policy is complete.	Community Development (Parks) Finance (Risk Mgmt.)	<p><u>Risk Management:</u> Any fencing installed before a policy is complete creates a liability exposure for unfenced areas. Fencing will make rescue efforts more difficult. Children can climb better than adults.</p> <p><u>Parks Services:</u> Due to the liability involved with the installation of a temporary fence, Parks Services will address the fencing issue by installing a permanent fence at this location with funds to be provided from the 2008 budget for fencing upgrades to playground sites.</p>

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		<p><i>*4. Locking pins and locks installed on all City owned and Sudbury Housing access gates to the creek, as was implemented at Hnatyshyn Park and assess reversing hinge action on gates to provide additional entry resistance.</i></p> <p>* 5. Develop signage design for swift water and an implementation policy.</p> <p>6. Continue developing Junction Creek Waterpark Trail with attention to creating a safe buffer zone.</p>	<p>Infrastructure (Operations, Drainage) Community Development (Sudbury Housing)</p> <p>Administrative Services (Design - Communications) Infrastructure (Operations) Finance (Risk Mgmt.)</p> <p>Junction Creek Stewardship/ Rainbow Routes</p>	<p><u>Infrastructure Services:</u> The structural revisions to gates, hinges and installation of locking pins and locks is estimated to cost \$3,000. This work is scheduled to be completed in 2009.</p> <p><u>Greater Sudbury Housing Corporation:</u> Does not own any locks or gates to Junction Creek. The access gates at the Louis Street projects are owned by the City of Greater Sudbury.</p> <p><u>Risk Management:</u> Signs are good but language has to be correct. Cannot setup a situation which we cannot enforce, must be advisory only.</p> <p><u>Corporate Communications:</u> Will develop a bilingual design for Swift Water.</p> <p><u>Junction Creek Stewardship Committee:</u> Is very much in favour of the continued development of the Waterway Park Trail. This will enhance safety, because people will be more likely to see children playing near or in the water.</p> <p><u>Rainbow Routes:</u> Much of Junction Creek Waterway Park is already developed with the trail within view of the creek. The whole purpose of the trail near the creek is to "put eyes on the creek" so if things such as trees or shopping carts at/in the creek or children are playing in the water people/passersby will see something amiss and take action.</p>

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	Explore associated problems such as the effect of new development on existing water bodies (from building to road development as well as limitation in restoration)	7. Add Junction Creek to Storm Water Management Study in 2009.	Infrastructure (Drainage)	<u>Infrastructure Services:</u> A comprehensive Storm Water Management Study to determine the deficiencies of the existing storm water conveyance system and to recommend solutions for controlling the rate of flow and improving water quality in this section of Junction Creek. This project is estimated at \$200,000 and is scheduled for completion in 2010.
		8. Create a Dumping By-law Roundtable to begin September 2008.	Councillor Landry-Altman	<u>Councillor Landry Altman:</u> Will introduce a Notice of Motion to form a Dumping By-law Advisory Panel.
		9. Explore the possibility of including Junction Creek a municipal agricultural drainage system and managed under the Drainage Act.	Infrastructure (Drainage)	<u>Infrastructure Services:</u> The establishment of a municipal drain on parts of the creek will deal with issues pertaining to access to the creek, jurisdiction of maintenance and assessment of cost of maintenance. Given authority to proceed, it is proposed that the process to implement the municipal drain will start in 2009 with completion in 2010.
	Explore actual and future climate warming effects on existing water bodies.	10. Junction Creek Stewardship Committee to monitor water temperature and levels on a regular basis.	Junction Creek Stewardship Committee	<u>Junction Creek Stewardship Committee:</u> Monitors water temperatures on a monthly basis, as a part of our water quality monitoring program. Currently, we do not monitor water levels.
Safety and Rescue	Identify the rescue agencies/programs and recommendations: Identify that can directly and indirectly affect the rescue effort in a direct/indirect role.	11. Develop rescue procedures specifically for swift water like Junction Creek, in conjunction with rescue agencies (Fire, Police, EMS) including identifying access points using GPS and developing a common code such as <i>Child in the Water</i> .	Fire/Police/EMS	<p><u>Fire /EMS/Police:</u> <i>"Develop rescue procedures specifically for swift water like Junction Creek...."</i></p> <p>This recommendation will require enhancing the water rescue training currently performed by Fire Services in the following ways:</p> <ol style="list-style-type: none"> 1. That the Sudbury Fire Services certify 8 Sudbury Fire Services Instructor/Trainers with swift water rescue. Training to be provided by a provincially recognized provider such as "Equinox Adventures". <p>Start up cost: \$20,000.00. Includes additional Sudbury Fire Service firefighter wages, equipment and expenses for visiting instructors.</p> <p>Re-occurring costs every two years: \$20,000.00 for re-certification of 8 instructors with provincially recognized provider such as "Equinox Adventures".</p>

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				<p>Sudbury Fire Services trainers will then certify 40 rescuers to the technician level - a 'GO' rescue activity, with swift water entry and patient contact.</p> <p>Annual cost: \$25,000.00. Includes additional Sudbury Fire Service firefighter wages and expenses.</p> <p>Sudbury Fire Services will certify 100% of the Fire Department emergency responders to Operations level (shore-based rescue). This training allows Sudbury Fire Service personnel to operate in support roles as riggers, safety personnel, lookouts, officers, etc.</p> <p>Cost: No additional cost as this training is accomplished while Sudbury Fire Service firefighters are on duty.</p> <p>Sudbury Fire Services will provide "Swift Water Rescue" awareness training material to other emergency agencies (Police and EMS) to distribute and educate their membership.</p> <p>Cost: No additional cost.</p> <p>Impact: Upon Council's direction and funding, the Sudbury Fire service will prepare to implement this enhanced emergency response within 6 months.</p> <p>Start up cost: \$45,000.00 for instructor and rescue crew training.</p> <p>Recurring annual cost: \$25,000.00 for scenario training.</p> <p>Recurring cost every two years: \$20,000.00 for recertification of instructors.</p> <p><i>"Identifying access points using GPS and developing a common code such as Child in the Water..."</i></p> <ol style="list-style-type: none"> Emergency Services are working with City GIS to develop specific mapping of the Junction/Nolin Creek system to ensure common mapping exists. The maps identify the creeks, on surface and in large culverts, surface streets, and will include numbered rendezvous areas for emergency services. Once complete the maps will be share amongst Police, Fire, and EMS,

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		<p><i>12. Parks Department to remove fallen trees that hinder creek current and trees that provide unsafe balance beam for children and that identified trees be removed immediately.</i></p>	Community Development (Parks)/Infrastructure (Assets)	<p>including the respective emergency services dispatch centre's.</p> <p>3. GPS is not used by emergency services as a primary method to identify call locations or dispatch resources to emergency calls as the public do not have the ability or training to properly identify emergencies utilizing GPS.</p> <p>4. Emergency services have dispatch protocols in place specific to each service and their respective response function. Currently, trained dispatches obtain specific information from the caller, based on the information obtained the dispatcher will send the required resources and identify the urgency of the call. There is no evidence a common code word such as "child in the water" would improve on the current dispatch process.</p> <p>Impact: No cost. These initiatives will proceed as described.</p> <p><u>Junction Creek Stewardship Committee:</u> Is not in favour of removing fallen trees from the waterway. The following is published in a Fisheries and Oceans Canada Fact Sheet: "Leave fallen trees and branches in the water. Woody debris is important to lake and river ecosystems. Beneath the water it provides a home to tiny aquatic organisms that feed fish and a place for fish to hide from predators; above water, it provides a sunny platform for ducks and turtles."</p> <p><u>Infrastructure (Assets):</u> Will assist in determining property ownership. If ownership is determined to be private, property owners must consent to removal of fallen trees.</p> <p><u>Parks Services:</u> Trees that have fallen in the water can only be removed by Infrastructure under the drainage regulations or we will need to obtain permits from the Department of Fisheries and Oceans to do work in the creek. Parks can only remove trees on Parks property that are causing unsafe conditions only if they are not in the watercourse. Any other work in or near the water body will require proper permits. Parks will be bringing forward a budget option for this in the 2009 budget as this is a new area of responsibility and is presently underfunded.</p>

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		<i>*13. Introduce a grocery cart by-law that controls carts being stranded, specifically in the creek.</i>	Administrative Services (Legal)	<u>Legal Services:</u> Currently examining by-laws from other jurisdictions relating to shopping carts and will present a series of options for Council's consideration. It is expected that this matter will be presented to the Priorities Committee in September.
	Develop programs to interact and practice with other agencies, i.e. Police Services, Emergency Medical Services.	14. Rescue agencies to co-develop mock rescue operations based on adopted rescue code.	Fire/Police/EMS	<p><u>Fire Services:</u> Contacted both Police and EMS Services to arrange joint training exercises for the fall of 2008 in conjunction with currently scheduled training exercises.</p> <p>Will provide "Swift Water Rescue" awareness training material to other emergency agencies (Police and EMS) to distribute and educate their membership.</p> <p>Impact: No cost. These initiatives will proceed as described, with or without Council action on the new rescue initiative.</p>
	Review capabilities versus risks.	15. Engineering to design anchor pins and develop an installation strategy for culverts and along creek beds to allow life line to be attached for rescuers.	Infrastructure (Drainage) (Operations)/ Fire/EMS/Police	<p><u>Infrastructure Services:</u> a) Install creek side safety anchor pins</p> <p>Install anchor safety pins along the banks of selected urban areas of Junction Creek to facilitate emergency service operations at approximately 50 metre intervals. This work is estimated at \$40,000. This work is proposed to be completed in 2009.</p> <p>b) Install culvert safety anchor pins</p> <p>Install anchor pins at the inlets of major road crossing culverts in the urban area. This work is estimated at \$5,000.</p> <p><u>Fire/EMS/Police:</u> Greater Sudbury Fire Services will review the anchor pin strategy during the swift water implementation/training phase, considering proposed locations and public safety factors.</p> <p>Impact: No cost at this time.</p>

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		<p>16. Explore installing a wire across the culverts at an appropriate height for rescue measures.</p> <p>17. Installation of emergency egress at 199 Larch Street concurrent with the Larch Street Bridge restoration.</p>	<p>Fire/EMS/Police/ Infrastructure (Operations) (Drainage)</p> <p>NDCA</p>	<p><u>Infrastructure Services:</u> On a trial basis, install a safety cable with floats across the entrance to a large rectangular box culvert. This cable, subject to water level in the creek, will be able to move freely up and down vertical side rails mounted on the sides of the culvert. This trial installation is estimated at \$7,000. This work is to be completed in 2009.</p> <p><u>Fire/EMS/Police:</u> Will review utilizing this strategy from a risk vs. benefit perspective during the swift water implementation/training phase, considering proposed locations and public safety factors.</p> <p>Impact: No cost at this time.</p> <p><u>NDCA:</u> Construction started on July 28, 2008 and will be completed by September 2008. The cost of the project is \$595,000.</p>
Communication/ Education	Develop public education campaigns and awareness materials which promote water safety near bodies of water including interactive displays, pamphlets and swift water demonstrations	<p>18. Develop a public education campaign aimed at school age children and their parents, to be named after Adam Dickie and to reinforce key messages. Lansdowne School to develop a swift water insert for the North American Risk Watch Unintentional Injuries program that is used in city-wide schools.</p> <p>SDHU's Children's Water Festival will participate with interactive displays e.g. illustrate the instability of creek bottoms,</p>	Councillor Cimino/ Lansdowne Public School/Sudbury & District Health Unit/Junction Creek Stewardship	<p><u>Risk Management:</u> Education is the best risk management practice.</p> <p><u>Rainbow Routes:</u> Public education especially aimed at school aged children and their caregivers is the most important element in these recommendations.</p> <p><u>Sudbury and District Health Unit:</u> The Children's Water Festival to be held September 24 and 25, 2008 will include an interactive display regarding Junction Creek Safety.</p> <p>They are contributing to the development of educational resources to promote water safety near water bodies.</p> <p><u>Councillor Cimino</u> - Educators from Lansdowne Public School and Councillor Cimino will be working on the Risk Watch Insert for Swift Water which will be completed by the end of October 2008.</p>
	Develop a communication strategy which targets schools and homes in localities near water bodies.			

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		e.g. jumping exercise to approximate distances. 18. Junction Creek Stewardship Committee will include a safety message in their brochures and school programs		
	Encourage agencies to deliver consistent joint safety messages and programs	19. NDCA to revive their spring thaw advisory program. 20. Contact swimming courses to include a swift water survival strategy.	NDCA Fire	<u>NDCA:</u> Will make this part of the annual spring flood preparedness program for elementary schools (English and French). Advisory Program will take place in the early March 2009 at a cost of \$2,000. <u>Fire Services:</u> Greater Sudbury Fire Services Public Safety Officers will contact swimming course providers within the City of Greater Sudbury to encourage them to include swift water survival strategy information and or training component. Impact: No cost. These initiatives will proceed as described, with or without Council action on the new rescue initiative.
	Hold public consultation session(s) in affected area(s) to gain input from citizens to assist in short and long term measures.	Public Consultation Held on April 7, 2008		