

## Status of Projects in Mill Creek Ravine

	Project Name	Project Description	Schedule	Budget Estimate
<b>Planning Projects</b>				
	Mill Creek Erosion Study (Drainage)	Creek Erosion Assessment and Flood Plain Mapping: Characterize the condition of the creek in terms of flow, erosion and sediment transport and identify specific threats of erosion to infrastructure; identify, recommend, prioritize and provide cost mitigation measures.	June-Dec 2015	\$150,000.00
	Mill Creek Ravine Trails Master Plan	Develop a phased trail master plan informed by an assessment of erosion patterns, infrastructure condition, connectivity requirements, natural features and stakeholder consultation. Plan Area: Between Argyll and Connors Road.	May-August 2015 - Trail Counts and User Surveys Feb-September 2016 - Trail Master Plan Development	\$150,000.00
	(NEW) - Mill Creek - End of the Pipe Plan (Drainage)	Initiation of low impact development implementation plan to look at upstream treatment and source control within Mill Creek Basin ( 2016-2018) and a conceptual study for the storm water management facility at the confluence area in Mill Creek.	2016 - 2018	TBD
<b>Capital Projects</b>				
1	Mill Creek - Bridge 234	Severe erosion has exposed the foundations at the north abutment of Bridge 234. Bank stabilization and abutment repairs are required. A temporary emergency repair is proposed for the Spring of 2015 to protect the bridge, followed by a full repair in the Fall of 2015.	Design and Construction: 2015	Emergency Repair: \$80,000; Full Repair: \$140,000
2	Mill Creek - Erosion and Instability South of 76 Avenue affecting lower pedestrian trail.	Slope instability and bank erosion are impacting lower granular trail along the creek. Ongoing instrumentation monitoring is underway to provide input to the detailed design in 2015. Slope reconstruction is planned together with re-establishment of the lower trail and rip-rap armoring of the bank.	Concept design - 2014 Instrumentation Monitoring and Detailed Design - 2015 Construction - 2016	\$300,000.00
3	Mill Creek Ravine N (S of B277) trail realignment	Rail is undercut and falling into Creek. Currently fenced as passible. Trail needs to move east of current location. Bank erosion protection to be evaluated.	Concept design - 2015 Detailed Design - 2015-2016 Construction - 2016	Concept budget: \$75,000 Design & Construction budget TBD
4	Mill Creek Ravine N (S of B278) creek arming	Creek erosion protection has been damaged due to high flows. Enhancement of the creek bank armoring to be assessed.	Concept design - 2015 Detailed Design - 2015-2016 Construction - 2016	Concept budget: \$75000 Design & Construction budget TBD

5	Mill Creek Ravine Park Road and Parking Lot	Resurface access road and parking lots	Concept design - 2015 Detailed Design - 2015-2016 Construction - 2016	Concept budget: \$8,000 Design & Construction budget TBD
6	Mill Creek Granular Trail NE of 82 Ave road bridge	Disaster Recovery #32 - bank eroded during 2012 storm and is threatening the trail. Trail realignment required	Design and Construction: 2015	Current budget: \$10,000. May increase.
7	Mill Creek - Bank failure at 74 Avenue and 89 Street	Recent local instability (March 2015) of upper portion of steep slope with little vegetation cover, arising from saturation due to spring thaw conditions. Instability not impacting any trail amenities or other City infrastructure, except near to informal 'goat' trail.	The City will continue to monitor for any further adverse changes. Signage to be installed. No remedial action is planned at this site.	Nil
8	Mill Creek - Slope instability at Vogel Hill Road, west of 87 Avenue and 95 Street	Instability of ravine slopes impacting upper portion of roadway above previously constructed retaining structure. Engineering assessment and monitoring of slope inclinometer instrumentation underway to determine requirement for additional remedial measures.	Instrumentation Monitoring and Detailed Design - 2015 Construction - 2016 (where required)	Engineering Assessment and Instrumentation: \$50,000; Design & Construction Estimate : \$400,000
9	(NEW) Transmission main rehabilitation led by EPCOR Water Services	Water transmission line repairs and installation of blow off hydrant where access road to pool meets the large parking lot. This work is part of a larger transmission main rehabilitation project east of Mill Creek, along 83 Ave to Bonnie Doon Mall.	Construction - First two weeks of May	Not known
	(NEW) Grit Separators and/or Storm Filters (Drainage) - Top of Bank not in Ravine	installation of oil grit separators and/or storm filters at 3 locations at the top of the ravine	Construction 2015	Design & Construction budget: \$1.8M
<b>Operations/Maintenance</b>				
	Throughout Mill Creek Ravine	Clean snow of hard surface trails	When snow accumulates to 1-1 1/2 inches	
	Throughout Mill Creek Ravine	sand trails if icy		
	Throughout Mill Creek Ravine	sweep all trails in the spring off chips/sand	Done in the spring	
	Throughout Mill Creek Ravine	weekly garbage pick up	all year	
	Throughout Mill Creek Ravine	prune trails back - good sight lines	spring/summer	
	Throughout Mill Creek Ravine	monitor all gravel surface trails and prune also	re gravelling trails every 3-5 years depending on need	
	Throughout Mill Creek Ravine	monitor and get paving done as needed along the hard surface trails	summer	
	Throughout Mill Creek Ravine	Put up signage and remove graffiti	all year	
	Throughout Mill Creek Ravine	clean up day camps area- clean picnic stoves	summer	
	Throughout Mill Creek Ravine	monitor the creek level and close lower trails if needed	summer	
	Throughout Mill Creek Ravine	set ski tracks (Argyll) 1.5 km	winter	
	Throughout Mill Creek Ravine	monitor stairs (repair) clean snow		
	Throughout Mill Creek Ravine	remove trees/shrubs from around the bridges		