

Mill Creek Daylighting – Technical Feasibility Study

What We Heard – What We Did

Public and stakeholder feedback collected in earlier project states assisted us in identifying guiding principles and design priorities for concept development. The following table summarizes what we heard most often during previous engagement events, including the November 16 public open house. The table also summarizes how we incorporated this sometimes conflicting feedback into the three daylighting concepts presented tonight.

What We Heard	What We Did
Reconnect the creek to allow fish to enter from river and create fish spawning habitat	<ul style="list-style-type: none"> • Each concept has a fully daylighted (open air), continuous creek corridor reconnecting upper Mill Creek to the North Saskatchewan River and provides some fish spawning habitat.
Simplify and/or re-design road network	<ul style="list-style-type: none"> • Concept 1 (Ecology) and Concept 3 (Destination Park) involve significant adjustments to the roadway network to: <ul style="list-style-type: none"> ○ create a wider park corridor that provides high ecological connectivity or allows for more recreation opportunities ○ decrease conflict between roads and people ○ reduce the number of bridge crossings required ○ reduce traffic noise
Don't change the road network	<ul style="list-style-type: none"> • Concept 2 (Trail Connectivity) road changes are limited to shifting 98 Avenue.
Create new habitat, restore ecosystem and improve biodiversity	<ul style="list-style-type: none"> • Concept 1 (Ecology) provides a restored corridor that emphasizes new habitat, biodiversity, and strong ecological connectivity. • Concepts 2 (Trail Connectivity) and Concept 3 (Destination Park) provide this to a much lesser degree; however, all options provide fish spawning habitat north of 98 Avenue.
Provide a natural aesthetic, non-manmade character, form and components	<ul style="list-style-type: none"> • All concepts have a natural aesthetic creek. • All concepts have some naturalized vegetation. • All concepts require some retaining walls to accommodate creek grade and create space. • Concept 1 (Ecology) has the fewest man-made elements, while Concept 3 (Destination Park) provides a balanced mix of natural and man-made elements
Extend current uses of the creek and ravine (recreation, natural space, walking, cycling)	<ul style="list-style-type: none"> • Concept 1 (Ecology) is fully naturalized and provides one path suitable for walking, biking, and nature appreciation. • Concept 2 (Trail Connectivity) focuses on trail connectivity, specifically for walking and cycling (including commuting). This concept includes a paved Shared Use Path, naturalized vegetation, and viewpoints. • Concept 3 (Destination Park) extends all current uses of Mill Creek.
Make the area a destination, provide education opportunities	<ul style="list-style-type: none"> • Concept 3 (Destination Park) provides open/green park space, naturalized vegetation, turf and picnic areas, an in-stream pond adjacent to the Muttart LRT stop, viewpoints, trails, and a learning centre.

Turn over 



What We Heard	What We Did
Create wetland habitat	<ul style="list-style-type: none"> All concepts have some wetlands.
Plan for the future, think long-term, and don't rush	<ul style="list-style-type: none"> This feasibility study aims to assess constraints, identify priorities, and provide concepts and associated estimate costs prior to project approval. All concepts account for future infrastructure that will be in the area such as the Valley Line LRT stop and footbridge, and the funicular. All concepts can be built in stages over several years as funding and other opportunities for project coordination become available.
Save mature trees and include many trees in final design	<ul style="list-style-type: none"> All concepts retain some existing trees near the current diversion and near the river, but all require some mature tree removal to re-establish a creek channel. All concepts establish new treed areas.
Ensure high functioning trail system that ties into surrounding areas, trail networks, and funicular	<ul style="list-style-type: none"> All concepts have at least one trail tying into the existing trail network. Concept 1 (Ecology) includes only a single gravel path. Concept 2 (Trail Connectivity) and Concept 3 (Destination Park) include a paved Shared Use Path and other trail types. Where paths are lost in order to facilitate re-establishment of the Mill Creek channel, replacement paths provide equivalent or improved connectivity.
Ensure paths go under roads	<ul style="list-style-type: none"> All concepts include at least one continuous grade-separated trail that crosses under all roads and eliminates crosswalks.
Historical recognition of past uses	<ul style="list-style-type: none"> All concepts include the potential to incorporate various interpretive values through signage and other educational material. Concept 3 (Destination Park) provides the most interpretive opportunities.
Consider winter usage	<ul style="list-style-type: none"> Each concept has a trail or space that could be used for cross-country skiing and snowshoeing.
Improve sense of safety around road network	<ul style="list-style-type: none"> All concepts include trails through the new corridor and road underpasses, eliminating road crossings. All concepts include vegetation to screen traffic from view, further increasing the sense of security.
Make creek swimmable and allow for canoe access	<ul style="list-style-type: none"> Water quality improvements in the creek are currently being investigated by the City through other studies. Major flows will be diverted away from the daylighted reach to minimize downstream erosion concerns; water depths are not expected to be conducive to canoeing or kayaking.
Design the Creek to run through Gallagher Park and Muttart Conservatory	<ul style="list-style-type: none"> Significant technical constraints exist with this option including permission to work on LRT lands, a known contaminated site (because of past, historical land use), existing hills in the area conflicting with Creek profile and elevation, conflicts with existing Muttart Conservatory infrastructure, and creation of two major new crossings. This approach is not impossible but is not included in any of the three concepts due to the above considerations.
Consider flooding	<ul style="list-style-type: none"> High flows are diverted through the existing tunnel to river in all concepts. Creek is well below existing infrastructure in all concepts.

