

ELLERSLIE ROAD EXPANSION WHITEMUD CREEK CROSSING

ENVIRONMENTAL IMPACT ASSESSMENT

Recommendation

That Urban Planning Committee recommend to City Council:

1. That the Whitemud Creek Crossing Environmental Impact Assessment and Site Location Study as outlined in Attachments 1 and 2 of the June 3, 2025, Urban Planning and Economy report UPE02998, be approved pursuant to the North Saskatchewan River Valley Area Redevelopment Plan, Bylaw 7188.
2. That the location of the proposed Whitemud Creek Crossing in the river valley, as outlined in Attachment 2 of the June 3, 2025, Urban Planning and Economy report UPE02998, be deemed essential pursuant the North Saskatchewan River Valley Area Redevelopment Plan, Bylaw 7188.

Requested Action		Decision Required	
ConnectEdmonton's Guiding Principle		ConnectEdmonton Strategic Goals	
CONNECTED This unifies our work to achieve our strategic goals.		Regional Prosperity	
City Plan Values	ACCESS		
City Plan Big City Move(s)	A rebuildable city	Relationship to Council's Strategic Priorities	Mobility Network
Corporate Business Plan	Serving Edmontonians		
Council Policy, Program or Project Relationships	<ul style="list-style-type: none">● Bylaw 7188 - North Saskatchewan River Valley Area Redevelopment Plan● Bylaw 14380 - Arterial Roads for Development● Bylaw 24012 - Southwest District Plan		
Related Council Discussions	<ul style="list-style-type: none">● N/A		

Executive Summary

- This report requests City Council's approval of the Environmental Impact Assessment (EIA) and Site Location Study (SLS) included in Attachments 1 and 2 for the planned Ellerslie Road Expansion Whitemud Creek Crossing (the Project) within the North Saskatchewan River Valley.
- The EIA describes the Project's potential environmental impacts on surrounding wetland areas, the Whitemud Creek watercourse beneath the proposed bridge, vegetation, fish and wildlife habitats. It concludes that any possible adverse effects related to the construction of the new bridge and roadway can be tempered by applying appropriate mitigation measures during construction.
- Approval of this report demonstrates the City's commitment to environmental reviews, environmental permitting and environmentally robust design, as well as its commitment to ensuring the City's environmental stewardship objectives are met during the construction of this Project.
- Construction of Ellerslie Road (four lanes) at Whitemud Creek is identified as a developer responsibility in Bylaw 14380 - Arterial Roads for Development, and an area developer has signed a development servicing agreement that includes this construction. The proponent is planning to begin construction in 2025, pending Council's approval.

REPORT

As identified in Charter Bylaw 24012 - Southwest District Plan and Bylaw 14380 - Arterial Roads for Development, upgrading Ellerslie Road to a four-lane cross section is included in the Windermere and Heritage Valley Arterial Road Assessment (ARA) catchment areas and is to be constructed by developers of the catchment lands. It serves as a major east-west corridor for communities in the southwest part of Edmonton and is subject to high traffic volumes. The upgrades proposed in the Ellerslie Road Expansion Whitemud Creek Crossing (the Project) are required to support current and future development within the Windermere and Heritage Valley Area Structure Plans, and will accommodate increased traffic volumes.

The major components of the Project include:

- Relocation of utilities within the existing Ellerslie Road right-of-way
- Construction of two additional traffic lanes between Graydon Hill Boulevard and Ambleside Eco Station Road
- Stormwater drainage infrastructure including below-ground retention tanks
- A new two-lane bridge over Whitemud Creek, north of the existing bridge
- Armouring of the banks of Whitemud Creek
- A shared use path (SUP) connecting to existing SUPs at Graydon Hill Boulevard and Ambleside Eco Station Road

Attachment 1 - Environmental Impact Assessment - Ellerslie Road Expansion Whitemud Creek Crossing (the EIA), outlines the current conditions in the project area, evaluates potential risks and identifies adverse impacts. It further focuses on available measures to eliminate, minimize or mitigate these potential risks and impacts through design and construction measures.

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Potential environmental impacts are anticipated to be localized within the project area. The Project is anticipated to result in minimal cumulative impacts that can be mitigated by applying the measures identified in the EIA.

Some of the potential impacts and mitigations identified in the EIA include:

- Hydrology and Surface Drainage
 - Impacts and risks include additional runoff from increased road surface and altered hydraulics of Whitemud Creek.
 - Mitigation measures include the addition of bridge piers designed to be located above the ordinary water level, the armouring of the banks to reduce erosion and drainage infrastructure designed to accommodate road and bridge runoff, including stormwater retention tanks to control the discharge rate to the Whitemud Creek outfall.
- Vegetation
 - Impacts include the potential for loss or alteration of plant diversity and the introduction or spread of invasion vegetation.
 - Mitigation measures include minimizing native plant removal where possible and planning for native plant re-vegetation of disturbed areas as soon as construction allows.
 - Further mitigations include ensuring equipment arrives at the site clean and free of soil or vegetative debris, as well as weed monitoring and control throughout the course of construction.
- Wildlife and Wildlife Habitat Disturbance
 - Impacts include the potential for adverse impacts to wildlife as a result of construction activities disturbing habitat and creating barriers to wildlife movement.
 - Mitigation measures include limiting construction activities with the Restricted Activity Period for migratory birds, completing nest sweeps and implementing required setbacks prior to construction commencing, as well as staging construction to allow for strategic openings and movement paths for wildlife through the project area.
 - The Project also includes the construction of a new wildlife passage under the proposed bridge to better facilitate movement of terrestrial animals under Ellerslie Road.
- Historical Resources
 - The Project received *Historical Resources Act* approval from Alberta Arts, Culture and Status of Women (AACSW) on October 18, 2024. There were no requirements for archaeological, Indigenous traditional use sites or provincially designated historic resources.
 - The approval required a Historic Resources Impact Assessment for palaeontological resources in the form of a monitoring program to be completed by a professional consulting Palaeontologist prior to commencing construction, which will be completed by the proponent.

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- If historical or archaeological resources are discovered during construction, all work will be immediately suspended, and AACSW will be contacted.

Legal Implications

Sections 3.4.1 and 3.5.3 of Bylaw 7188 requires City Council to approve the EIA (Attachment 1) before the proposed expansion of the Whitemud Creek Crossing can proceed to construction.

In addition, Sections 3.4.1 and 3.5.3 of Bylaw 7188 requires City Council to approve Attachment 2 - Ellerslie Road Southwest at Whitemud Creek Expansion Site Location Study. City Council also must deem that the location of the Whitemud Creek Crossing within the River Valley is essential before the Project can proceed to construction.

Community Insight

Ellerslie Road is an important arterial connection for the communities of Southwest Edmonton, and traffic volumes on the roadway have increased in line with the progression of development in Windermere and Heritage Valley. This has led to numerous inquiries and requests from residents regarding the eventual upgrading of Ellerslie Road. The focus of these inquiries and requests can be summarized as:

- Increased intersection capacity at 141 Street to facilitate improved traffic movement into and out of the Heritage Valley community
- Improved safety and connectivity for pedestrians and cyclists wanting to travel east/west
- General request for more traffic capacity in the area

The proponent has coordinated with the local Councillors' offices (Ward pihêsiwin and Ward lpiihkoohkanipiaohtsi) to facilitate sharing of project information with area residents, stakeholders and the general public. Pre-construction communication will be provided by the proponent to local residents to outline construction impacts and detours in advance of the construction start date. Traffic signage for detours and traffic impacts will be placed in advance of the start of construction.

The project team is also in the process of completing their Indigenous consultation requirements pursuant to the *Public Lands Act* and *Water Act* as directed by the Government of Alberta's Aboriginal Consultation Office (ACO). Enoch Cree Nation and Paul First Nations were contacted by the project team for consultation.

Enoch expressed an intent to consult. The project team met with Enoch on March 24, and completed a site visit with them on April 7. Game trails, bird nests and ceremonial plants were noted and discussion included the nest sweep(s) that will be completed prior to construction.

Enoch is currently completing a review of the EIA and has not identified any further concerns. If this changes, the project team will work with Enoch to address their concerns to support filing for an Adequacy Assessment with ACO.

GBA+

During the Project design process, City staff have reviewed the proponent's design submissions to ensure conformance with the City of Edmonton Design and Construction Standards, in particular the Volume 2: Complete Streets standard. To mitigate or remove barriers to inclusion, the following was implemented:

- Accessibility/Safety:
 - The new roadway and bridge design will include Shared Use Path (SUP) connectivity through the Whitemud Creek area, connecting to existing SUP systems in the Graydon Hill and Ambleside neighbourhoods on either side.
 - The bridge and SUP design includes safety railings in locations where grading slopes to existing ground creates fall risks for active transportation.

Environment and Climate Review

The EIA report has effectively described pre-construction environmental conditions for valued ecosystem components in the Whitemud Creek Ravine project development area and outlines mitigation measures for potential impacts on an environmentally sensitive ecosystem. The mitigation measures will be implemented during the project phases and during the operation of Ellerslie road post construction. The following is of note for environmental protection:

Regulatory Requirements and Permits

- Regulatory approvals, permits, notifications and bylaws needed for the project are listed and described in the EIA report. While these regulatory requirements are necessary, the project must also comply with all other applicable environmental statutes, regulations, policies and standards. Key environmentally sensitive areas of interest that require significant regulatory protection are:
 - The armouring of the Creek for bank stabilization and for bridge installation, which will change the hydrological and ecological aspects of the Creek, will require a permit application under the provincial *Water Act*. Submission for a permit will be completed by the contractor prior to Project commencement.
 - The federal Department of Fisheries and Ocean (DFO) is expected to review the Project due to instream work that may potentially affect fish and fish habitat. An Authorization or Letter of Advice will need to be issued prior to project commencement. It is planned that a fish and fish habitat assessment report will be prepared by a Qualified Aquatic Environmental Specialist as part of mitigation measures to ensure the Project does not cause unintended harm, alteration, disruption or destruction (HADD) to fish habitat. If these measures are deemed insufficient to meet HADD requirements for the Project, a plan with measures to offset lost or altered fish habitat together with a monitoring plan will also be prepared to secure approvals.

Roadway and Bridge Construction:

- Slope instability due to steep and unstable banks of the Creek where the new road bridge crossing will be constructed has been identified through technical investigations. To mitigate slope failure risks and to minimize effects of erosion, slope stability

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measures recommended include armoring the Creek, the other identified unnamed ravine within the project development area, and the wildlife passages with mechanically stabilized earth walls. This measure is also important to provide foundation for the bridge structure and prevents encroachment on the existing South Edmonton Sanitary Sewer Line and the ATCO Pipeline Right of Way within the constrained project development area.

- Additionally, erosion into the Creek was observed during technical investigations, and expected to occur due to bank alterations from the bridge and road construction activities. The contractor will be developing and implementing an erosion and sediment control plan following City procedures and protocols as identified in the EIA.

Wildlife Habitat and Movements:

- This project will add two new lanes to the existing Ellerslie Road at the location, making both wildlife habitat fragmentation due to increased road coverage and mortality risks from traffic critical considerations in the protection of wildlife populations.
- To reduce wildlife habitat fragmentation and to reduce future wildlife-vehicle collisions, mitigation measures to improve wildlife movements include establishing permanent fenced areas, improvements to the existing wildlife passages and construction of additional wildlife passage under the new road bridge with consideration for large, medium and small mammals and birds.

Bird Protection

- The Project may impact birds protected under the federal *Species At Risk Act*, such as the Bank Swallow that was encountered during the bird sweep conducted in 2021. As mitigation measures, the EIA recommends adhering to setback restrictions to avoid disturbance of nests along the banks of the Creek, and to ensure work is conducted outside the nesting period for these species and other migratory birds that may frequent the project development area or within this vicinity. It is noted in the EIA that to comply with stringent regulation such as the *Species At Risk Act* and the *Migratory Birds Convention Act*, additional nest sweeps may be conducted if Project timing changes. Both these Acts do not allow distraction of birds nests or eggs.

Tree Removal and Restoration

- Removal of public trees is proposed as part of the Project. A Plant Schedule (Drawings: L300-002 to L300-008) has identified locations and species of plants to be replanted to protect the environment, soil health and provide wildlife habitat. A separate tree Protection Plan will need to be developed in consultation with the City's Urban Forester and Natural Area Operations team to provide a clearer understanding of tree removal requirements. This process shall adhere to City Policy C456C - Corporate Tree Management Policy and Bylaw 18825 - Public Tree Bylaw to ensure the community's tree canopy is carefully stewarded. Finalized plans will need to include a Tree Protection Plan, a Tree Preservation Plan and restoration and landscaping plans.

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Adherence to the EIA's mitigation measures will support the City in meeting compliance requirements.

Attachments

1. Environmental Impact Assessment - Ellerslie Road Southwest Expansion at Whitemud Creek
2. Site Location Study - Ellerslie Road Southwest Expansion at Whitemud Creek