

Planning Report Kinokamau Plains Area Nakota Isga

Edmonton

12603 - 184 Street NW & 12220, 12720 & 12750 - 170 Street NW Position of Administration: Support



Summary

Bylaw 20777 proposes an amendment to the Kinokamau Plains Area Structure Plan (ASP) to reconfigure a portion of the Kinokamau Lake Conservation easement and redesignate those lands as medium and heavy industrial land use. An administrative amendment is also proposed in the southwest portion of the plan area to align the ASP conservation easement boundary with the registered conservation easement.

Public engagement for this application included a mailed notice and information on the City's webpage. No responses were received.

Administration supports this application because it:

- Facilitates the ongoing development of the Kinokamau Plains Area while ensuring the integrity of Kinokamau Lake and its surrounding ecosystem remain intact.
- Supports City Council's Climate Resilience goal of transitioning to a low carbon future, and offers adaptations to a changing climate in alignment with Edmonton's Community Energy Transition Strategy.
- Supports The City Plan big city move *Greener as We Grow* protecting and enhancing our land, air, water and biodiversity by providing an opportunity for a carbon capture, utilization and storage facility.

Application Details

This application was submitted by WSP Canada Inc. on behalf of Heidelberg Materials.

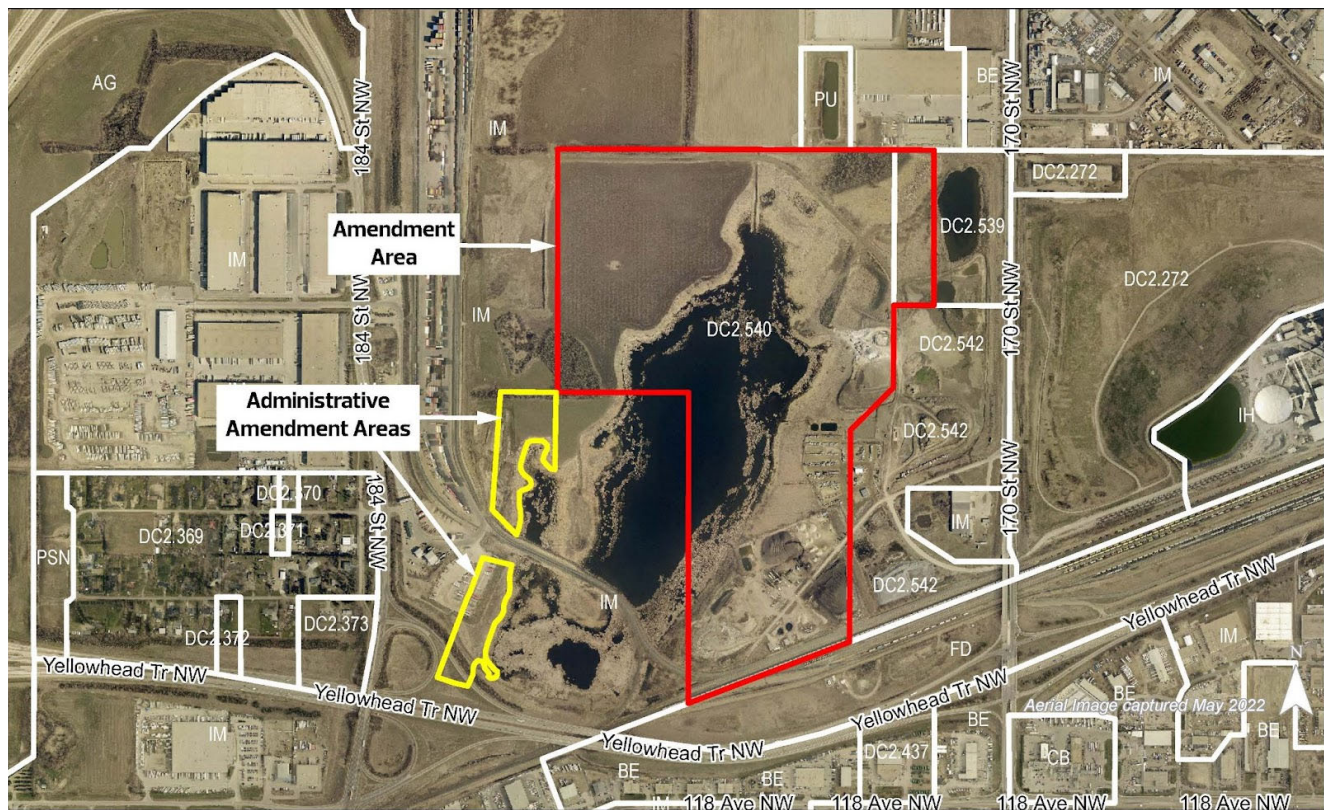
Bylaw 20777 proposes to amend text as well as Figures 3 & 6 of the Kinokamau Plains Area Structure Plan (ASP) to facilitate the reconfiguration of a portion of the Kinokamau Lake Conservation easement and redesignate those lands as medium and heavy industrial land use.

The proposed heavy industrial land use will allow for the development of a carbon capture utilization and storage facility (CCUS). The CCUS facility will be used to capture and store CO₂ exhaust emissions from the Heidelberg Materials cement plant and additionally provide some surplus electrical power generation benefits. The medium industrial area will accommodate the development of future medium industrial land uses.

The proposed amendment will establish a new conservation easement boundary which will align with the new conservation easement agreement that will protect Kinokamau Lake's integrity and the surrounding ecosystem. Administrative amendments in the southwest portion of the plan area are also proposed to align the ASP conservation easement boundary with the registered conservation easement (#012085802).

Site and Surrounding Area

The proposed amendment area encompasses approximately 45 ha of land located north of the CN Rail line and west of 170 Street NW. The most prominent feature in the area is Kinokamau Lake and its surrounding ecosystem, of which a portion falls within the amendment area. The surrounding lands are mainly undeveloped and are designated for future industrial development. East of 170 Street NW is the current Heidelberg Materials cement plant site, which will tie into the CCUS Facility through a network of pipes if approved. Transit service is offered via 184 Street NW and 170 Street NW.



Aerial view of application area

	Existing Zoning	Current Development
Subject Site	Site Specific Development Control Provision (DC2.539, DC2.540 & DC2.542)	General Industrial / undeveloped land
North	Medium Industrial Zone (IM) Public Utility Zone (PU)	General Industrial /Undeveloped land Stormwater Management Facility
East	Medium Industrial Zone (IM) Site Specific Development Control Provision (DC2.272.1 & DC2.272.2)	General industrial General Industrial/Open Space/ undeveloped land
South	Medium Industrial Zone (IM) Future Urban Development Zone (FD)	Kinokamau Lake CN Railway
West	Medium Industrial Zone (IM)	CN Rail Yard

Community Insights

This application was brought forward to the public using a basic approach. This approach was selected because the application facilitates anticipated development for the area in alignment with Edmonton's Community Energy Transition Strategy. The basic approach included:

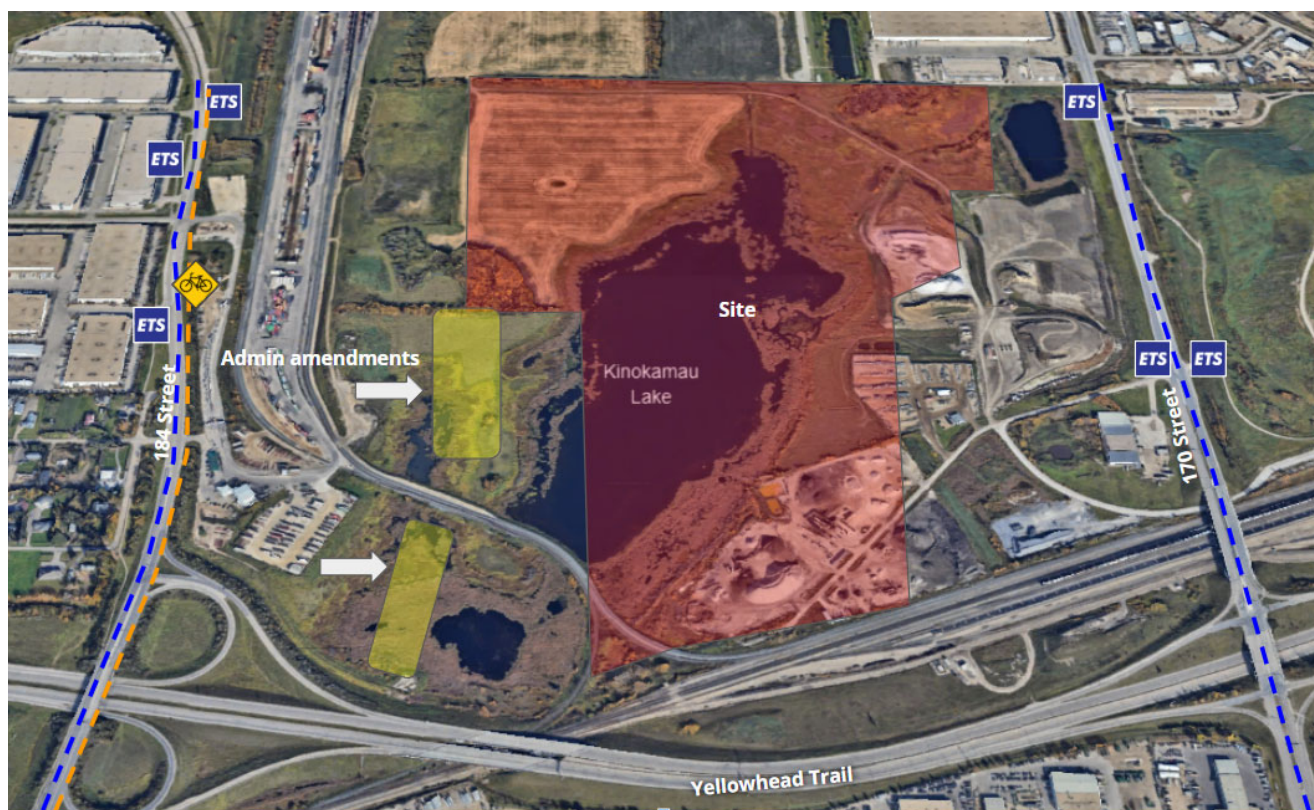
Mailed Notice, January 16, 2024

- Notification radius: 121 metres
- Recipients: 56
- Responses: 0

Webpage

- edmonton.ca/rezoningapplications

Application Analysis



Site analysis context

The City Plan

The proposed amendment area is located within the Northwest District of The City Plan and is identified as an “Established Non-residential Area.” The proposal supports The City Plan big city move *Greener as We Grow*, protecting and enhancing our land, air, water and biodiversity by

providing an opportunity for a carbon capture, utilization and storage facility. Furthermore, the proposed amendment moves us towards the direction of The City Plan by:

- Supporting Edmontonians' transition to a low carbon future in their daily lives.
- Encouraging innovation to reduce non-residential process energy and carbon footprint.
- Moving Edmonton towards a total community-wide budget of 135 megatonnes of greenhouse gas emissions and a net per-person greenhouse gas emissions of zero.

In addition, the proposed amendment aligns with one of the four main goals from ConnectEdmonton: *Edmonton is transitioning to a low carbon future, has clean air and water and is adapting to a changing climate*. This goal is supported by a number of policy objectives detailed through The Community Energy Transition Strategy which include:

- Making Edmonton resilient to disturbances from climate change that could affect its energy supplies and distribution system.
- Advancing Edmonton along a path to a low carbon future.

By allowing for the development of the CCUS facility Edmonton is one step closer to achieving its overall climate resilience goals.

Area Structure Plan

The Kinokamau Plains area is guided by the Kinokamau Plains Area Structure Plan (ASP) which establishes high level land use to guide future development. The amendment proposes to reconfigure a portion of the Kinokamau Lake Conservation easement area and redesignate those lands for medium and heavy industrial land use.

The conservation easement (# 012085802), owned and operated by Ducks Unlimited Canada, was established in 2001 to manage the integrity of the Kinokamau Lake ecosystem and protect wetland-related wildlife. In support of this application, Ducks Unlimited has provided a letter of authorization to facilitate the necessary planning approvals in accordance with applicable policies and bylaws.

Administrative amendments in the southwest portion of the plan are also proposed to redesignate those lands to railway area which will align the conservation easement boundary with the registered conservation easement (#012085802).

Land Use Compatibility

The proposed amendment will allow for the development of a CCUS facility while still protecting Kinokamau Lake's integrity and its surrounding ecosystem by maintaining a 50 m buffer area around the lake. The proposed heavy industrial land use will accommodate the CCUS facility, while the medium industrial area will accommodate the development of future medium industrial land uses.

The proposed CCUS facility is a complementary use to, and will support the operation of the adjacent Heildelburg Materials cement plant. Before the CCUS facility is operational, the applicant must apply for a rezoning application at a later date. As part of the future rezoning and development permit applications, the applicant will be required to submit an Environmental

Impact Assessment (EIA), which will outline any environmental impacts the facility may have and offer strategies to reduce or mitigate impacts. A comprehensive review and sign off of the EIA from City staff is required before advancing the rezoning and development permit applications and approving the CCUS facility.

The surrounding lands are designated as light, medium, and heavy industrial and are compatible with the proposed amendment.

Mobility

The approved Concept Plan for 170 Street NW indicates a future signal at the site access (122 Avenue). Upgrades to the intersection including signalization will be assessed with rezoning application for this proposed development.

Edmonton Transit Service (ETS) operates conventional bus service along 170 Street NW and On-demand bus service along 184 Street NW. Transit riders using bus service along 170 Street NW are connected to Clareview Transit Centre & LRT Station or West Edmonton Mall Transit Centre & future LRT Station.

Transit service in the area may change in the future and bus stops have been constructed north of the plan amendment area along 175 Street NW and 129 Avenue NW accordingly. Further, a mass transit bus route is anticipated to operate on 170 Street NW as part of the future mass transit network associated with the 1.25 million population scenario of The City Plan.

Open Space

The proposed ASP amendment includes adjusting the configuration of a conservation easement, which includes Kinakamu Lake and portions of the surrounding upland and wetland area. This easement is managed by Ducks Unlimited Canada, and the City is not directly involved as the land remains privately owned. The terms of the conservation easement remain the same, but the easement within the plan amendment area has been reduced to cover an area within 50 m of Kinokamu Lake. This exceeds the standard 30 m buffer required under the Natural Area Systems Policy c531, which the City has applied to other water bodies.

An Environmental Impact Assessment (EIA) is required to support a future rezoning for the CCUS facility, and will review potential impacts and mitigation in coordination with detailed design. It should be noted that additional detail may be required with an update to the EIA at the Development Permit stage.

Utilities

The plan amendment generally conforms to the Kinokamau Plains Area Master Plan, which identifies sanitary and stormwater servicing plans for the area. Sewer services are available for connection via existing sewer systems near to the amendment area. These existing systems have been designed and constructed to accommodate the industrial development shown in the plan amendment.

At the time of future development, the applicant/owner will be responsible for all costs associated with infrastructure improvements required by this application and preparing any additional technical servicing studies required by Administration.

Appendices

1. ASP Land Use Concept Map Comparison

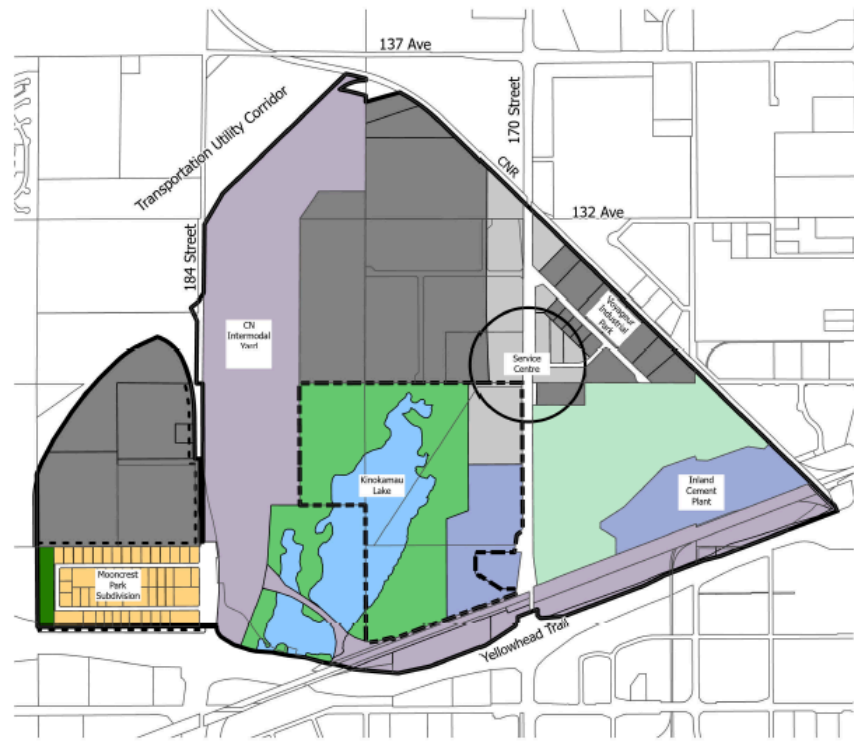
Written By: Luke Cormier

Approved By: Tim Ford

Branch: Development Services

Section: Planning Coordination

Plan Land Use Concept Map Comparison

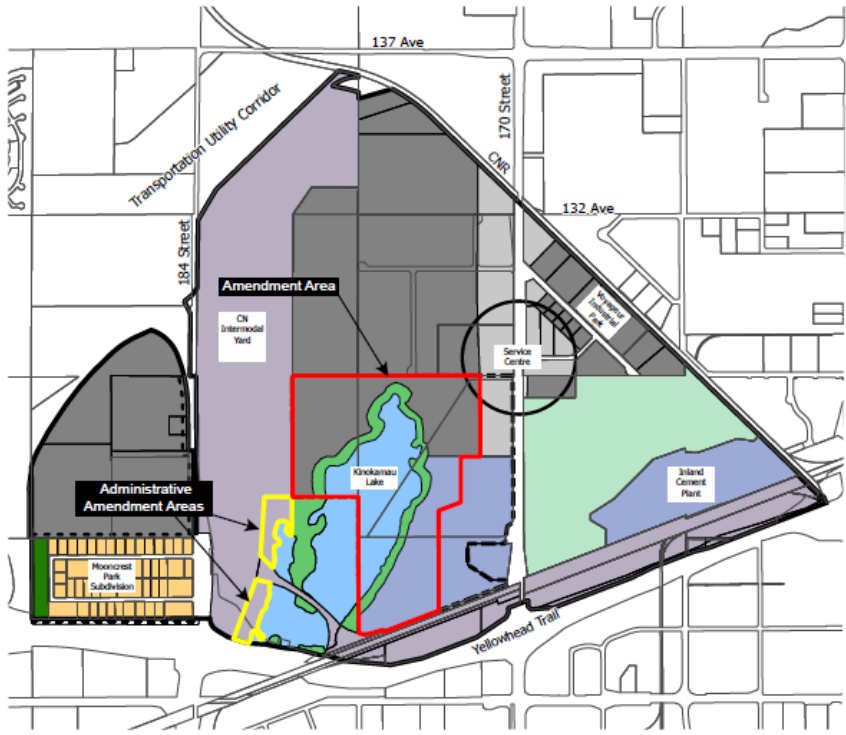


BYLAW 18823
APPROVED
KINOKAMAU PLAINS
Area Structure Plan
(as amended)

- | | |
|-------------------------------|--------------------------------------|
| Lake | Light Industrial |
| Railway | Medium Industrial |
| Acreage Residential/Mooncrest | Direct Control Development |
| Private Open Space (landfill) | Boundary of Kinokamau Plains A.S.P. |
| Open Space | Buffer (trees or landscaped setback) |
| Conservation Easements | |
| Heavy Industrial | |

Note: Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.

Current Land Use Concept Map



BYLAW 20777
AMENDMENT TO
KINOKAMAU PLAINS
Area Structure Plan
(as amended)

- | | |
|-------------------------------|--------------------------------------|
| Lake | Light Industrial |
| Railway | Medium Industrial |
| Acreage Residential/Mooncrest | Direct Control Development |
| Private Open Space (landfill) | Boundary of Kinokamau Plains A.S.P. |
| Open Space | Buffer (trees or landscaped setback) |
| Conservation Easements | Amendment Area |
| Heavy Industrial | Administrative Amendment |

Note: Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.

Proposed Land Use Concept Map