



**PRIVATE Forest Resource
Improvement
Association of Alberta**
ADVANCE \D 3.0 P.O. Box 11094, Main Post
Office,
Edmonton, Alberta T5J 3K4 ADVANCE \D 3.0

EOI # (from RFP invitation)	EOI-23-04
Project Title	City of Edmonton Whitemud District Wildfire Hazard and Risk Assessment
Project Type	Planning

FRIAA FIRESMART PROGRAM

Request for Proposal Summary - Application Form & Template

FRIAA-FFP MARCH 2023, RFP

Submission Deadline: May 8, 2023 4pm MST

Attn: FRIAA Administrator

Telephone: 780-429-5873

Submission Portal:

<https://friaa.ab.ca/program-submissions/>

Applicant Information

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FireSmart Discipline - Project Information

Primary Eligible Activity		Term of Project	Amount of Funding Applied for
Planning (e.g. FireSmart community plans - wildfire preparedness guides, wildfire mitigation strategies)	<input type="checkbox"/> Emergency planning (e.g. develop or update procedures and response plans)	June 2023 to March 2024	\$40,000

Applicant has been in contact with a FRIAA Field Liaison to discuss the specified application activity. **(REQUIRED)**

Applicant has substantially completed all other FRIAA FireSmart projects, particularly in this discipline. **(REQUIRED)**

Agency Support Attachments:

- ☒ Project Support Letter from Fire Department / Fire Emergency Service Provider, **OR** the Fire Department/Fire Emergency Service Provider is the applicant of this project – **REQUIRED**. (If submitted with the EOI, do not need to resubmit.)
- ☐ Project Support Letter from Wildfire Management Branch – Forestry, Parks and Tourism - strongly encouraged. (If submitted with EOI, do not need to resubmit.)
- ☐ Cover Page of Current Approved Plan, if one exists. (If submitted with EOI, do not need to resubmit.)

Acknowledged by Applicant

- ☐ Band Council Resolution (attached for applications from Alberta First Nations)
- ☐ Settlement Council Resolution (attached for applications from Métis Settlements) or President of Métis Co-operative/Enterprise/Local Municipality Council Resolution (for applications from Municipalities)

The Applicant acknowledges that it has read, understands and agrees with the requirements, terms and conditions of the FRIAA FireSmart Program (the "Program"), the Request for Proposal (the "RFP") and Program Outline, and the FRIAA FireSmart Project Grant Agreement (the "PGA") and by its submission of this Application and its Proposal acknowledges and agrees that the Applicant shall be bound by the requirements, terms and conditions of the Program, the RFP and Program Outline, the PGA and FRIAA's policies, procedures protocols and guidelines as well as any and all requirements and directions as may be determined by FRIAA's Board of Director at its sole discretion. The Applicant also acknowledges and agrees that this Application and Proposal may be accepted by FRIAA on further terms and conditions which shall be binding on the Applicant and that the acceptance of this Application and Proposal does not represent a commitment by FRIAA to fund all or any of the activities proposed therein.



Authorized Representative (as named above)

May 4, 2023

Date

City of Edmonton Application

1. Project Overview (Values-At-Risk)

1.1 DESCRIPTION OF PLAN(S) THAT WILL BE DEVELOPED

- ☒ Wildfire Hazard and Risk Assessment (WHRA)

1.2 DESCRIPTION OF VALUES-AT-RISK IN THE COMMUNITY/PROJECT LOCATION

- ☒ Other: This project will encompass an entire district within the City of Edmonton municipality and thus includes multiple values-at-risk including critical infrastructure, standards values and all other infrastructure, including green infrastructure.

2. Project Location (Access and Egress)

The project is located within the City of Edmonton municipality which falls within the Central Parkland Ecoregion. Given the large scale of the City, it was determined that for this proposal, a pilot area would be selected from the 15 planning districts within the City of Edmonton. Therefore, the Whitemud planning district has been selected as the pilot project location. This district was selected as there have been previous fire risk studies completed on this area and it has a large amount of forested natural areas.

The City of Edmonton is surrounded by other municipalities and counties, agricultural lands, a Provincial Park, Indigenous lands, forested areas and waterways. Approximately 48% of the City land base is vegetated. Specifically for the Whitemud district, it is surrounded by other districts but is unique in that it has both a large ravine running through the interior and the North Saskatchewan river running along the western border. It is also bordered by three major transportation highways.

The City of Edmonton has a Fire Services Department with 30 Fire Rescue Service Stations located across the City, with more planned as the City expands. Within the Whitemud district, there are three Fire Rescue Service Stations. There are numerous potential evacuation routes given the size of the City and surrounding transportation network. However, the City of Edmonton has a high potential for conflagration. This is in part due to the vast amount of forested and grassland within City limits, as well as our lower ability to extinguish a wildland fire given that our Fire Services Department is focused more on structural firefighting, and is not equipped with the tools or techniques to fight a significant wildland fire or multiple wildland fires simultaneously.

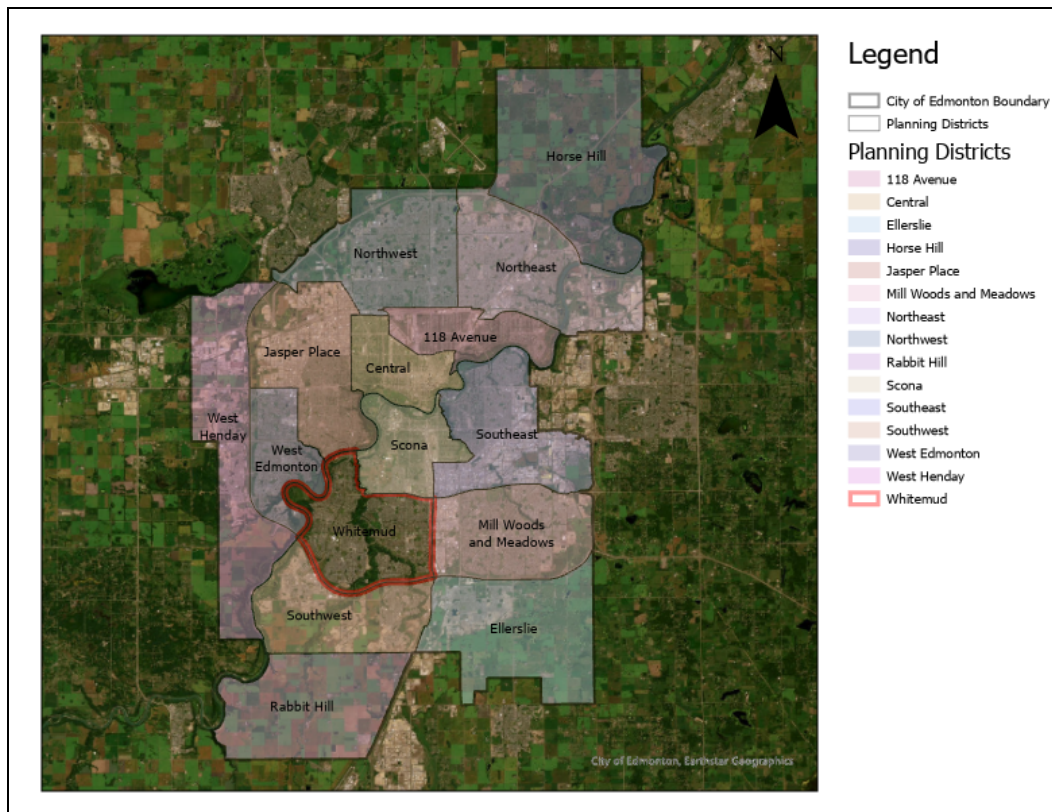


Figure 1. Aerial map of the City of Edmonton including the 15 planning districts. The Whitemud district that will be the planning area for this project is outlined in red.

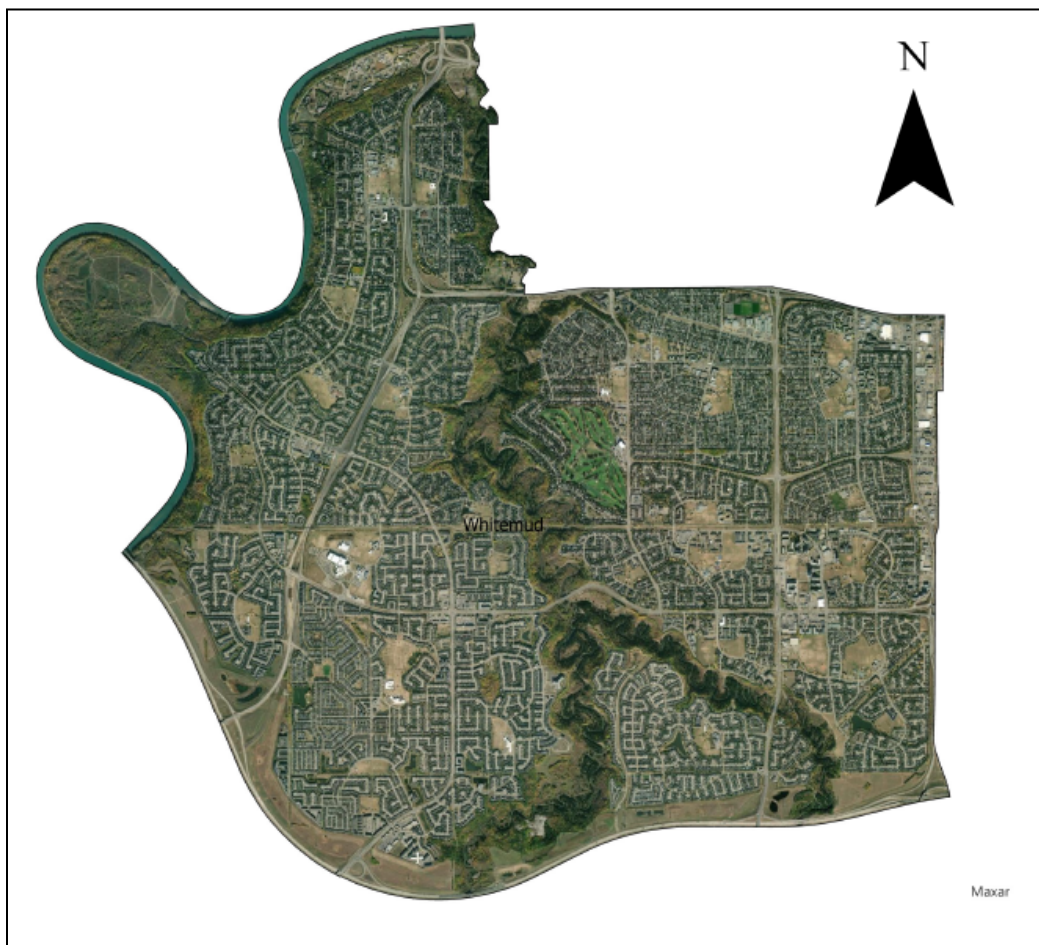


Figure 2. Aerial map of the Whitemud Planning District.

3. Emergency Services Engagement

3.1 INDICATION OF ENGAGEMENT AND SUPPORT OF FIRE EMERGENCY SERVICES PROVIDER(S)

Communications and meetings with Fire Rescue Services have taken place multiple times over the past several years in regards to the need to become a more wildfire resilient community, yet little to no action has been taken due to lack of capacity. With respect to this proposal, our Senior Fire Protection Engineer was engaged. Positive feedback was received and willingness to partake in the project as it moves forward. A letter of support from our Fire Rescue Services Department was submitted with the EIO.

3.2 INDICATION OF REVIEW AND SUPPORT WILDFIRE MANAGEMENT BRANCH

An email was sent to our regional Forestry, Tourism and Parks (AFTP) Wildfire Management Branch (WMB), however a response was not received prior to submitting this proposal. We will continue to reach out and engage our WMB as we move forward with this project.

4. Project Scope and Priority

4.1 DESCRIBE THE PROJECT SCOPE

The scope of this project will be to develop a pilot Wildfire Hazard and Risk Assessment (WHRA) for the Whitemud planning district in the City of Edmonton. The WHRA will focus on the forested river valley and ravine areas within the district. The project will follow the process outlined in the FireSmart Guidebook for Community Protection (2013) and will utilize previous analyses completed on fire risk for the City of Edmonton.

As the City does not have a wildfire specialist, a qualified consultant will be sought through the City's procurement process. The intent is to begin the procurement process of this project in the summer of 2023 and complete the final report prior to the end of Q1 2024.

The WHRA will help the City of Edmonton to better understand the wildfire hazard in the Whitemud district and will provide a starting point for next steps to begin identifying, prioritizing and implementing FireSmart strategies. In addition, much of the forested areas in the Whitemud district are considered 'Preservation Zones'. Therefore it will be critical in this project to ensure cross jurisdictional management and understanding of fire risk, and develop a strategy prioritization of values.

4.2 DESCRIBE IN DETAIL YOUR APPROACH AND PROJECT PLAN

(a) Detailed work plan

The first step of the project will be to develop a project team composed of internal stakeholders. The roles of key City staff from Fire Rescue Services, Urban Planning and Economy, and City Operations Departments will be determined and will either be part of the Steering Committee, Working Group or Advisory Group. Once a project team is established, the procurement process to hire a qualified consultant for the project will be initiated. The City of Edmonton's procurement process generally takes approximately 120 days to complete. While the procurement process is occurring, the City's Working Group team will begin gathering the data and information required for the WHRA, as well as put together the documents required for the procurement.

Once a consultant has been awarded, a project kick-off meeting will occur with the City project team and the consultant. This kickoff meeting will go through the scope of the project, timelines, deliverables, and the information required to begin the WHRA. Once the supporting documentation and data is provided to the consultant, subsequent regular meetings will be set up to ensure the project is staying on track, and to get regular internal feedback on the assessment modeling and report. In addition, meetings will be held to gather City

expertise and perspective on wildfire hazard and risk in the Whitemud planning district, along with constant email communications.

At this time, public engagement is still being determined as to whether it will occur as part of this project, or whether it will be completed at a later date (this will be determined when completing the Project Charter). Should public engagement occur, the methodology will be discussed with the awarded consultant and will likely consist of presentations and feedback sessions to the various community leagues. As part of the WHRA, field assessments may be required and will be organized with the consultant and City project team. Once the WHRA is complete, internal City staff will complete ground truthing in Q2 2024 using summer staff.

As the project will overlap with seasonal holidays, the deadline for the project is set for March 2024. This is to ensure there is adequate time to complete the WHRA given the likelihood of project team members being on vacation during the months of December and January.

(b) Work schedule / milestones

Set up project team and develop Project Charter	Jun 2023
Initiate consultant tender process (City Project Team)	Jun 2023
Bi-weekly internal project team meetings (City Project Team)	July-Sept 2023
Complete consultant tender process by selecting a qualified consultant (City Project Team)	Sept 2023
Project kick-off meeting (City Project Team & Consultant) + <i>Progress Report 1</i>	Oct 2023
Provide supporting documentation and data (City Project Team)	Oct 2023
Analysis of data and documentation (Consultant)	Oct 2023
Field Assessments (Consultant and City Project Team)	Oct to Nov 2023
Develop WHRA (Consultant) + <i>Progress Report 2</i>	Nov 2023
Public Engagement (Consultant) - To Be Determined	Jan 2024
Review Draft WHRA (City Project Team) + <i>Progress Report 3</i>	Feb 2024
Finalize WHRA (Consultant) + <i>Final Progress Report</i>	Mar 2024

(c) Project management

The City of Edmonton follows an established process-based approach to project management which allows for consistent and predictable project management practices. The processes specific to this project will be: Project Initiation, Scope Management, Schedule Management, Cost Management, Quality Management, Communication and Stakeholder Management, Risk Management, Procurement and Contract Management, Change Management, Resource Management and Project Close.

Quality management for the project will be developed and administered by the City project team. All the deliverables will be reviewed for completeness and correctness by our internal reviewers before delivery. Experienced technical advisors and upper management reviewers part of the Steering Committee and Advisory Group will participate at milestone reviews, providing input and guidance to the project team. Any nonconforming deliverables will be identified and recorded. The City project team will then summarize the results, issues,

concerns, suggestions and lessons learned, and generate a quality control summary report.

Change management strategies will be in place prior to the project starting to ensure that any changes are proactively managed, including cost control. Should any changes be required, a change request must be submitted and reviewed. An impact analysis of the change request will include: impact of the change request, impact of not implementing the change request, alternatives to the change request and the recommended action. If approved and the change results in a need for a contract amendment, a change order process will be initiated.

Currently, the project will be overseen by Courtney Teliske, lead Ecologist with the City of Edmonton's Natural Area Operations team. Courtney has a Masters of Science and a Masters of Forestry, as well as her Professional Biologist Designation. She has taken fire behavior courses, and has been conducting wildfire risk assessments and completing fire risk mitigation for approximately 7 years with the City of Edmonton. Courtney was a subject matter expert for the Fire Risk Model completed for the City of Edmonton, and oversaw a student project which prioritized fire risk in the City's natural areas.

4.3 DESCRIPTION OF ANTICIPATED PROJECT OUTCOMES

The outcome of the project will be a pilot WHRA that can be used as a starting point to begin creating FireSmart implementation plans for the Whitemud district. In addition, this project will give the City of Edmonton staff the experience and expertise to set up a FireSmart Committee and continue to develop WHRA's for each of the 15 planning districts within the City of Edmonton.

The WHRA itself will help the City of Edmonton to prioritize its various ecological, economic, social and environmental values and ensure we are meeting the City's Municipal Development Plan's (The City Plan, 2020) strategic goals: Healthy City, Urban Places, Climate Resilience and Regional Prosperity. It will determine the role of each of the stakeholders and the importance of being accountable as it relates to community wildfire resilience. Key FireSmart actions will be an important outcome of the assessment and will provide the City with the foundation of understanding the risks and strategizing the various mitigation strategies that can work to reduce our overall wildfire risk.

4.4 DESCRIPTION OF HOW THE PROPOSED ACTIVITIES LINK TO CURRENT FIRESMART PLANS

Currently, the City of Edmonton does not have any comprehensive FireSmart plans and lacks interdepartmental communication on what FireSmart activities are taking place within the various departments. Each of the departments work on specific pieces of FireSmart, but do so with little coordination between departments. This assessment will help to provide a starting point to understand the wildfire hazard and risk in the Whitemud Planning District, and offer a holistic view of the risk mitigation activities that are and should be taking place, who is accountable and how we can work together with our stakeholders to create a more resilient community.

With regards to previous work, the University of Alberta (UofA) completed a Fire Risk Model for the City of Edmonton in 2021. This analysis was the first step to understanding the wildland urban interface fire risk in the City and how it is projected to change over time as the climate changes. The model indicated that fire risk will only increase over time. Therefore, it is crucial for the City to begin reducing the risk of fire.

4.5 DESCRIBE AUTHORIZATIONS TO CONDUCT THE PROPOSED WORK

No permits or authorizations will be required for this project as it is largely a desktop based assessment. Future implementation of the FireSmart strategies may require permits and authorizations should vegetation modification be required.

5. Community Engagement

5.1 DESCRIBE THE APPLICANT AND PROJECT PARTNERS

The City of Edmonton is the capital of the province and has a population of approximately 1 million people. The CoE is committed to ensuring safe spaces while maintaining the ecological integrity of its natural areas and is eager to begin actively preventing and mitigating its wildland urban interface fire risk as the City looks to double its population by the year 2050. Currently wildfire specialists have not been identified. However they will be engaged with as the City continues to develop this project and will be considered a key subject matter expert throughout the length of the project.

The Fire Risk Model completed by the UofA will be used as a source of data to help develop the plan as it can guide the City to the areas that may have higher risk and should be considered priority. The City of Edmonton has numerous other GIS layers that will be used in the plan development. Layers that may be used are but are not limited to: zoning parcels, land and vegetation inventory, land ownership, maintainer, critical infrastructure, etc. Other wildfire data from the federal and provincial government will be explored as part of this project.

5.2 DESCRIBE THE STAKEHOLDERS

Stakeholders of the WHRA include the Whitemud district residents, businesses, organizations, Indigenous communities, internal staff, utility and other companies, facilities and visitors. These stakeholders will all play a critical role in the assessment, whether it is in the development stage or implementation stage. Certain stakeholders will be engaged directly during the project, specifically those involved with land-use planning, emergency response, and land management. Others will be engaged in the implementation of the project to ensure that the community understands the importance of wildfire resiliency.

The City of Edmonton has several means of engaging its stakeholders that will be utilized. These include Community Insight Surveys, updates through social media and the City website, as well as reaching out directly to indigenous communities, Community Leagues, utility companies, and homeowner and business associations.

5.3 PROJECT SUPPORT

A letter of support from Fire Services was provided with the EIO. We are still in the process of securing the Municipal Council Resolution, and will be submitted at a later time. Wildfire resilience is linked to multiple City goals including climate resilience, wildland management and emergency planning/response, and is included in high-level corporate plans such as the City Plan, Ribbon of Green, Open City Initiative and ConnectEdmonton.

6. Funding Requested

6.1 DESCRIBE PROJECT BUDGET AND FUNDING REQUEST

The City of Edmonton will be procuring a qualified consultant with extensive experience in wildfire risk assessments and FireSmart. Therefore, a detailed project budget is not available at this time. The high level estimated services and costs based on inquiries to multiple consultants are as follows:

- 1) Project management - \$2500
- 2) Data and information collection and review - \$5000
- 3) Stakeholder engagement - \$4500
- 4) Field assessments - \$9600
- 5) Wildfire Assessment Modelling - \$4000
- 6) WHRA - Values at risk ID - \$4000
- 7) Report Mapping - \$3000
- 8) Report Writing - \$4000

An estimated detailed breakdown is provided in section 6.3. A 10% contingency will be added to the funding request.

The City's procurement process is as follows:

1. The Sourcing Phase will issue a sourcing event in Ariba, which will allow us to receive bid submissions through ARIBA Discovery, and respond to any inquiries from potential vendors. Sourcing events are posted publicly by our Corporate Procurement Buyer to Ariba Discovery with a notification posted to Alberta Purchasing Connection (APC).
2. The Evaluate Phase is the period following receipt of bid submissions from participants in which scoring is completed and a successful party is selected or a shortlist of participants is created. A decision is made to either go to negotiation or award the contract.
3. The Negotiate Phase is an optional step. The negotiation phase allows the City and the Successful Participant to engage in negotiation of specific terms, conditions and/or the scope of work included in the original RFEOI.
4. The Award Phase occurs once the Sourcing Event and Negotiations are complete and an agreement has been reached between the City and the Supplier.

6.2 DESCRIBE OTHER (NON-FRIAA OR IN-KIND) SOURCES OF FUNDING

As a large municipal organization, the City of Edmonton has the ability to leverage internal resources and staff to provide expertise on this project. Therefore, many internal resources will be used for the project. The consultant tendering process will use the City's internal contract procurement resources. Once the consultant has been tendered, a project team with internal City Staff will be created. At least one representative from each City Department considered a stakeholder in the WHRA will be part of the project team and will be required to be actively engaged in the project. This includes attending meetings, providing input and feedback, and reviewing drafts of the WHRA.

Currently, a representative from Fire Services, Open Space Planning, City Operations, Environment and Climate Resilience, and Development Services are considered key stakeholders and will be part of the Working Group project team. It is estimated that approximately 10% of their time will be required to be allocated to this project. Other key internal staff will be a Communications Advisor, Neighbourhood Resource Coordinators, Senior Buyer, Project Sponsor, and Senior Leadership. They will partake in the project as advisors and be more active at different milestones in the project, but will not require consistent dedicated time. Any field assessments will be covered through our City mileage reimbursement policy and will not be considered a project expense.

6.3 DETAILED PROJECT BUDGET

Activity Type	Description	Unit Quantity	Unit Type	Unit Price	Total
Project Expenses					
	Consultant Project Management	20	hour	\$ 125	\$ 2,500
	Consultant Data and Information Collection	50	hour	\$ 100	\$ 5,000
	Stakeholder Engagement (TBD)	40	hour	\$ 112	\$ 4,500
	Field Assessments	6	day	\$ 1,600	\$ 9,600
	Wildfire Assessment Modelling	35	hour	\$ 115	\$ 4,000
	WHRA - Values at Risk Identification	35	hour	\$ 115	\$ 4,000
	Report Mapping	25	hour	\$ 120	\$ 3,000
	Report Writing	40	hour	\$ 100	\$ 4,000
	Contingency	~10% of project expenses			\$ 3,400
Sub-total					\$ 40,000
In-kind Services					
	Project Manager (Courtney Teliske)	160	hour	\$ 50	\$ 8,000
	Working Group (Procurement, Meetings, Emails, Field Assessments, Progress Reports,	480	hour	\$ 50	\$ 24,000

	Review Drafts and Final Report)				
	Advisory Group (Review Communication material, Contract Procurement, and Review Drafts)	80	hour	\$ 50	\$ 4,000
	Steering Committee (Review Drafts, Approval any Change Requests)	40	hour	\$50	\$ 2,000
	Stakeholder Engagement (TBD)	20	hour	\$100	\$ 2,000
Sub-total					\$ 40,000
Non-FRIAA Funding	None				
Total Project Budget					\$ 80,000

6.4 PROGRESS REPORTING SCHEDULE

Regular progress reports will be sent to FRIAA for reporting. The first will be sent shortly after project initiation once a consultant has been procured and the project kickoff meeting has been completed in October 2023. A second progress report will be submitted at partial progress completion in November 2023 once the WHRA has begun to be developed. A third progress report will be submitted once a draft assessment is complete in February 2024 and will have a draft copy of the plan attached. Finally, the last progress report will be submitted with the final WHRA report at the project completion in March 2024.

6.54 PAYMENT SCHEDULE

It is preferred that one financial report be submitted at the project completion.

7. Additional Information

7.1 ADDITIONAL INFORMATION

Since completing the Fire Risk Modeling work, the City of Edmonton is eager to become a more wildfire resilient community and begin prioritizing values, engaging the community and stakeholders, and outlining the various FireSmart activities that are currently taking place or require further action. As a vast organization, it's crucial for the City of Edmonton to have consistent corporate information which begins with having an assessment in place that can be referenced by all the internal departments and stakeholders, which will lead to a holistic City-wide approach to fire risk mitigation.