

FLOODREPORT.CA

Flood Risk Assessment

Comprehensive Property Analysis

PROPERTY



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PREPARED BY
floodreport.ca

DATA SOURCES
Government of Canada • Government of Alberta • City of Calgary • OpenStreetMap contributors

Confidential Report - This report is intended solely for the use of the property owner or authorized representatives. This analysis provides informational insights and does not constitute professional engineering, legal, or insurance advice. See full disclaimers within.

Executive Summary

FLOOD RISK ASSESSMENT

MODERATE TO HIGH

This property is located within the **1-in-20 year flood zone**, indicating approximately a **5.00% annual probability** of flooding based on historical data and terrain analysis. Over a 25-year period, this translates to a cumulative **72.3% chance** of experiencing at least one flood event.

Key Findings

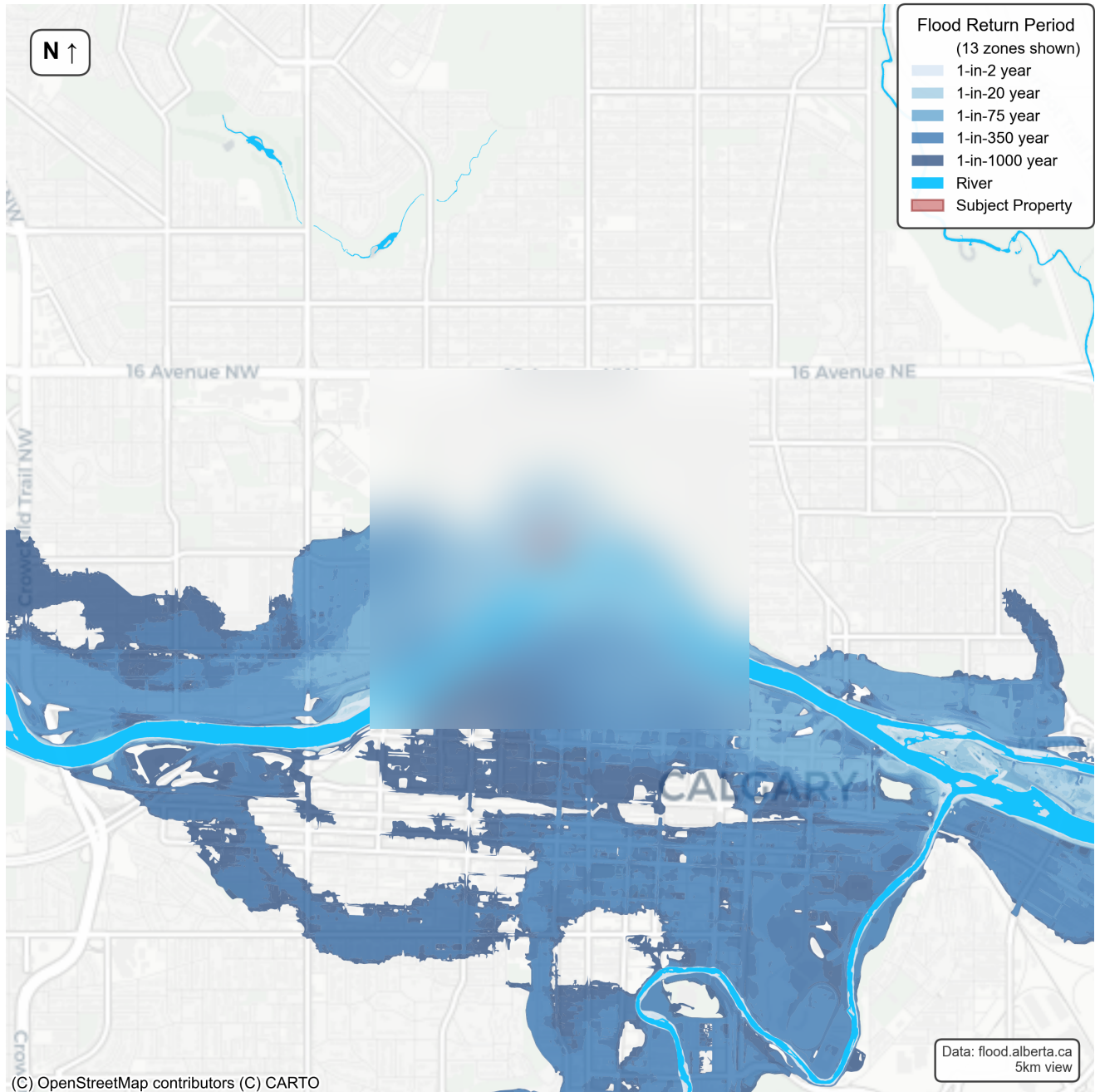
Flood Risk Level	Moderate to High	Significant flood risk; insurance essential
Primary Flood Zone	1-in-20yr	Highest-probability zone affecting property
Distance to River	197m	Proximity to major waterway
Neighborhood Context	272 of 1597 buildings (17.0%)	In flood zones as severe or worse

Flood Hazard Mapping

The following maps show your property in relation to official Alberta flood hazard zones at multiple scales. Darker blue areas indicate higher-frequency flood zones.

Regional Context

5 kilometer radius view



Property Detail

250 meter view



Insurance Considerations

Availability	[REDACTED]
Estimated Annual Cost	[REDACTED]
Recommendation	[REDACTED]
Coverage Notes	[REDACTED]

Source: Insurely Canada High Flood Risk Area Report (April 2025); Canada.ca Financial Consumer Agency - Insurance for Unexpected Events

Important: Insurance costs vary significantly based on property-specific factors including building elevation, construction type, flood mitigation features, claims history, and coverage limits. These estimates are for general guidance only. Contact licensed insurance brokers for accurate quotes.

Recommendations

1 Purchase comprehensive flood insurance immediately. Budget \$800 - \$2,000 annually annually for premiums. Request quotes from multiple brokers to compare coverage options and costs.

2

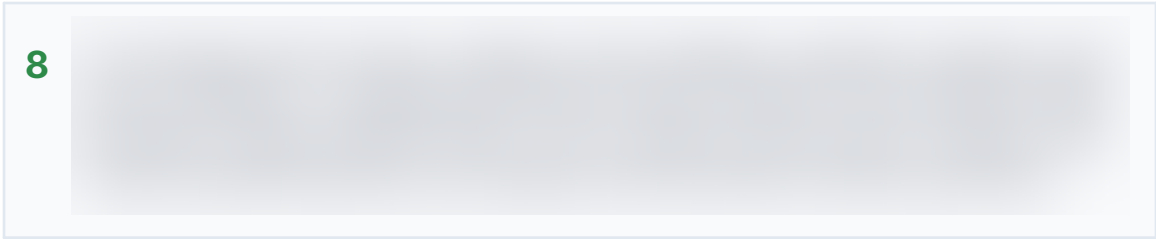
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Questions to Ask

Questions for the seller or real estate agent

Q1 Has this property ever flooded? If yes, when, to what extent, and what repairs were made?

Q2

Q3

Q4

Q5

Q6

Q7

Q8

Q9

Q10

Understanding Flood Risk

What does '1-in-100 year flood' mean?

This terminology is frequently misunderstood. A '1-in-100 year flood zone' indicates a 1% annual probability of flooding in any given year, NOT that floods occur only once per century. In fact, over a typical 30-year mortgage period, a property in a 1-in-100 year flood zone has approximately a 26% cumulative probability of experiencing at least one flood event. Multiple floods can occur within short time periods.

Climate Change Considerations

Current flood maps are primarily based on historical data and may not fully account for the impacts of climate change. According to Environment and Climate Change Canada research, North America has seen an increase in the frequency and severity of heavy rainfall events, largely due to global warming (Kirchmeier-Young et al., 2020). Recent studies analyzing data from 1950 to 2021 show field significant increasing trends in extreme rainfall across Canada (Shephard et al., 2024). Climate models project that storms which would historically occur once a century may now occur as frequently as once every 20 years. This means historical flood return periods may underestimate future risk, and '100-year floods' may occur more frequently than indicated by these maps.

The 2013 Southern Alberta Flood

In June 2013, Southern Alberta experienced catastrophic flooding that became Canada's costliest natural disaster. The flood caused approximately \$6 billion in insured and uninsured losses, displaced over 100,000 residents, and demonstrated that even properties outside mapped flood zones can be vulnerable. Many properties that had never previously flooded experienced significant damage. This event fundamentally changed how insurance companies underwrite flood risk in Alberta, leading to higher premiums, coverage restrictions, and outright denials in high-risk areas.

2013 Flood Extent

Actual flooding in relation to your property

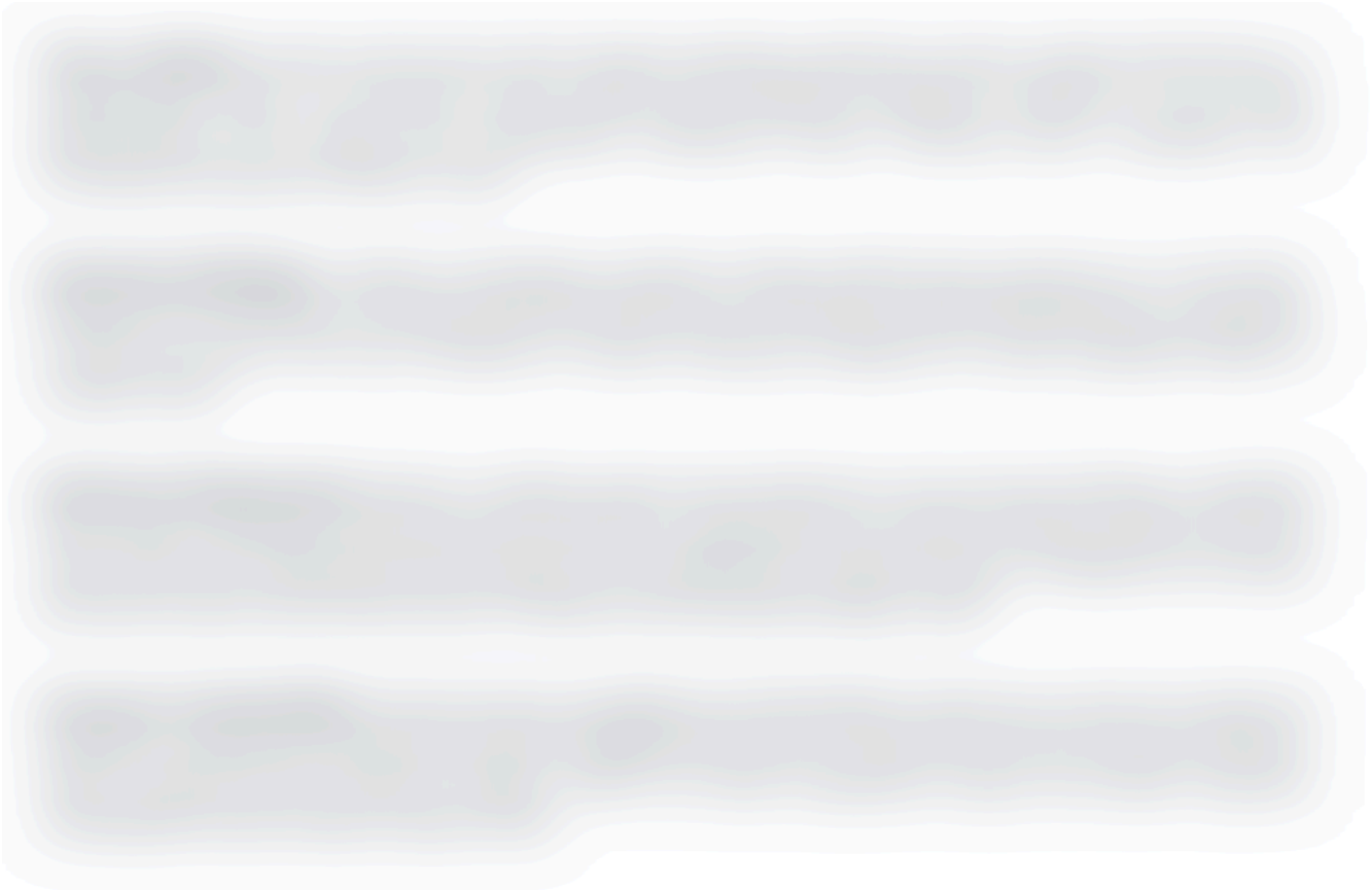


The map shows the actual extent of flooding during the June 2013 event.

Property Value & Resale

Location within a designated flood zone can significantly impact property values and marketability:

Price Discount: Flood-exposed homes tend to sell for materially less than comparable properties outside flood-affected areas. National post-flood market analysis found that flooded homes sold for an average of 8.2% less than non-flooded comparables, indicating a measurable market discount (CMHC, 2022).



Data Sources & Methodology

This report integrates multiple authoritative data sources to provide comprehensive flood risk assessment:

Alberta Environment and Protected Areas, Flood Hazard Maps: Official provincial flood hazard mapping data used to identify inundation extents across multiple return periods, including floodway and flood fringe delineations. Derived from the Alberta Flood Awareness Map Application (Government of Alberta, 2024).

City of Calgary, 2013 Flood Boundary Dataset: Geospatial boundary data representing the extent of inundation during the 2013 Calgary flood, used as a historical benchmark for event-based risk assessment (City of Calgary, 2013).

Open Database of Buildings (ODB): Nationwide open-access building footprint dataset including structure outlines, geometry, and positional attributes for properties across Alberta. Used for structure-level exposure modeling (Government of Canada, 2024).

OpenStreetMap: Open geospatial data providing road networks, rivers, land use, and infrastructure layers, supporting contextual and environmental analysis for flood risk applications (OpenStreetMap Contributors, 2024).

Nominatim Geocoding: Open-source geocoding service used to translate user-provided addresses into precise latitude and longitude coordinates for spatial flood-risk evaluation (Nominatim/OpenStreetMap, 2024).

Methodology: Risk assessment is performed by analyzing the spatial intersection of the subject property with official flood hazard zones, calculating proximity to major waterways, and comparing flood exposure to neighboring properties within a 1-kilometer radius. Insurance cost estimates are derived from published industry rate schedules and local insurance broker data.

Limitations & Uncertainties

1. Flood maps represent modeled scenarios based on historical data and may not account for all potential flood mechanisms, including urban drainage failures, ice jams, or dam breaches.
2. Property-specific factors such as building elevation, foundation type, grading, and flood mitigation features can significantly modify actual risk compared to mapped zones.
3. Climate change is altering precipitation patterns, making historical data less reliable for predicting future flood frequency and severity.
4. This analysis uses publicly available data and does not include site-specific engineering assessments, which may provide more precise risk characterization.
5. Insurance costs are estimates based on typical policies and may vary substantially based on individual circumstances, chosen coverage limits, and deductibles.
6. Flood maps are periodically updated as new data becomes available. Users should verify with Alberta Environment for the most current mapping data.

Disclaimers & Limitations

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Consult Qualified Professionals

Before making ANY decisions regarding property purchase, insurance, construction, or flood mitigation, you MUST consult with appropriately licensed and qualified professionals.

No Prediction of Future Events

This report analyzes historical data and current flood zone mapping. It does NOT and CANNOT predict whether any specific property will or will not flood in the future. Flood events are inherently unpredictable and influenced by numerous factors beyond the scope of this analysis.

Data Limitations

This report relies on publicly available data that may be outdated, incomplete, or contain errors. Flood zone boundaries are approximate and subject to interpretation. Property boundaries shown are derived from publicly available building footprint data and may not reflect legal property boundaries. Always obtain a professional survey for legal boundary determinations.

Insurance Estimates Are Not Quotes

Insurance cost estimates provided in this report are general approximations based on publicly available industry data. They are NOT insurance quotes, commitments, or guarantees of coverage availability. Actual insurance costs and coverage availability vary widely based on numerous factors.

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Comprehensive Flood Risk Analysis for Alberta Properties

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