yiyχmɛštəm qʷaqʷtəm

We Will Take Care of the Creek

Willow Creek Watershed Risk Assessment and Stream and Wetland Restoration for Climate Adaptation and Resilience

Hazard and Vulnerability Summary

Situation

The χʷɛmaɬkʷu village is located on Vancouver Island, approximately 12 km south of the Campbell River city centre on Homathco Road (off Jubilee Parkway just east of the Campbell River airport). Our lands are surrounded by the City of Campbell River and the Strathcona Regional District. The χʷɛmaɬkʷu lands at Campbell River measure 234 ha.

Fire and rescue service is provided by the City of Campbell River, policing by the RCMP, and ambulance service by BCEHS.

At present the lands are host to 91 residences providing shelter to 245 persons, as well as the Nation administration offices, a health centre, and our radio station. Actively under construction are 16 additional homes, and a day-care centre. In advanced planning are an additional administrative building and a community centre. Future planning addresses up to 200 additional residences.

Hazards

The following matrix is the community hazard and risk profile drawn from the all-hazards emergency management plan.

Figure 10. Hazard and Risk Profile for the Homalco Community

Likelihood	4 Very Likely (1-3 years)	4 Medical Emergency	8 Power or Communication Failure	12
	3 Likely (3-10 years)	3 Influenza Domestic Violence Transport Accident - Road	6 Severe Weather House Fire Flood	9 Interface Wildfire
	2 Unlikely (10-100 years)	2 Critical Facility Failure Criminal or Terrorist Violence Pest Infestation	4 Carbon Monoxide Poisoning Water Contamination or Disruption Sanitary Sewer Failure Dangerous Goods Spill Multi-casualty Accidents	6 Earthquake Epidemic/Pandemic Transport Accident Air
	1 Very Unlikely (100+ years)	1 Epidemic – Animal	2 Fire – Industrial Subsidence	3 Explosions or Emissions
		1 Minor	2 Moderate	3 Severe
		Impact		

High risk hazards are interface wildfire, extended power or communications failure when compounded by poor weather or other factors, house fires, flooding, major earthquake, communicable diseases, and air transport accident.

Vulnerabilities

Particularly notable community vulnerabilities are:

- Flooding risk due to poor drainage, high water table, and Willow Creek and multiple of it's tributaries flowing through the land;
- All but one roadway water crossing have significantly undersized and ageing (end of material life span) water conveyance structures;

- Two currently jeopardized stormwater detention structures at the upstream extent of the χʷɛmaɬkʷu lands, including a significant risk to one crossing on the single egress route;
- Only a single road access/egress route for emergency vehicles and evacuation, with critical services behind as many as three at-risk water crossings;
- Electrical power failure due to lack of redundancy with a single above-ground service into the community;
- Communication failure due to a lack of redundancy with a single Telus fibre optic cable that enters the community on the hydro poles along Homathco Road; and
- Proximity to the airport with attendant risk of an airplane crash.

Please see the χʷɛmaɬkʷu Evacuation Map presented below for spatial reference for the above.

Flood Risk and Mitigation Program

χʷɛmaɬkʷu is currently undertaking preliminary watershed risk assessment, mitigation planning, protection and conservation of riparian areas, detailed wetland restoration design, and design and construction of one at-risk water conveyance replacement.

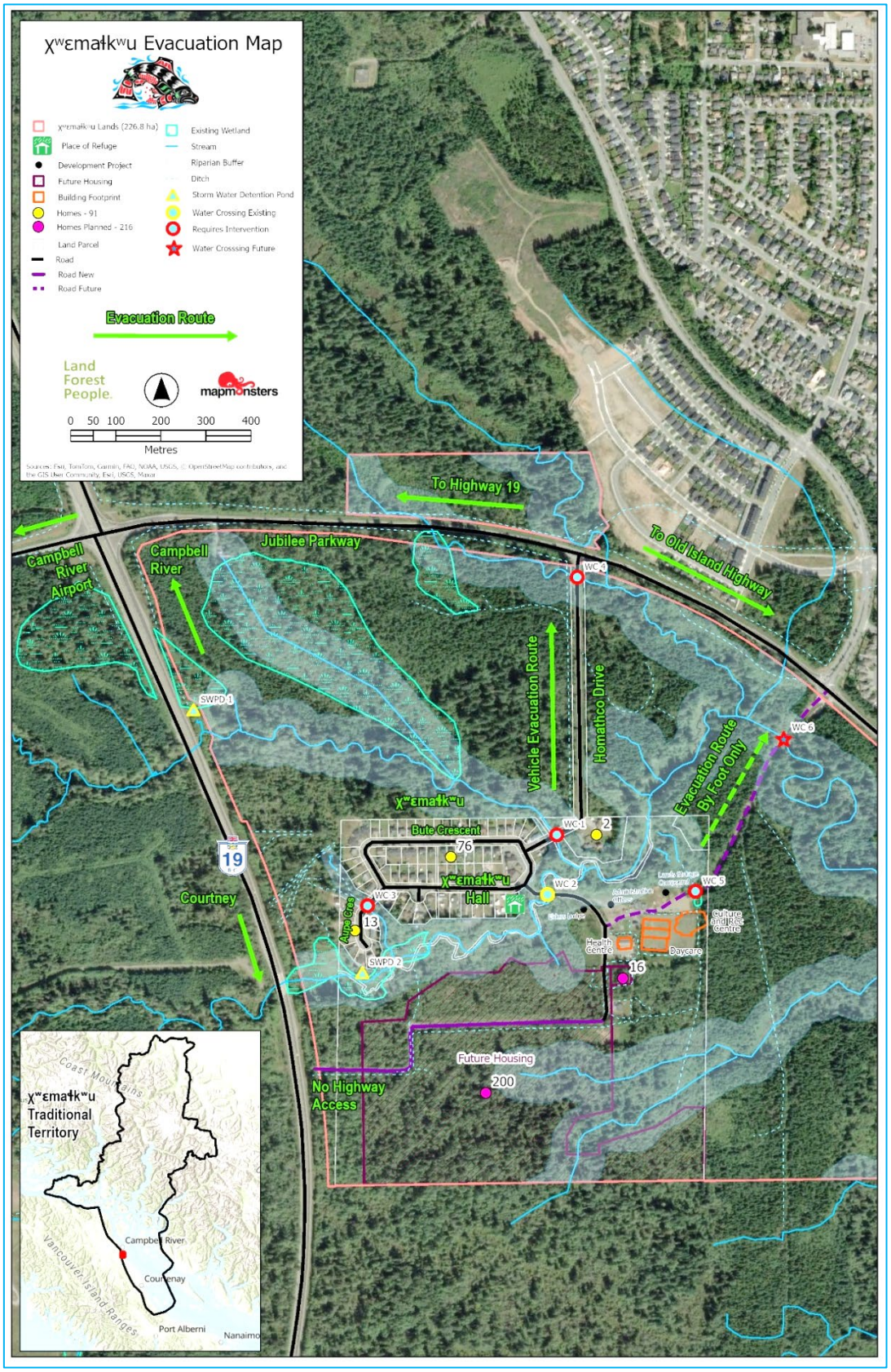
χʷɛmaɬkʷu is currently seeking funding to:

- Stream and wetland restoration on χʷɛmaɬkʷu lands for climate adaptation and resilience. Salmon and wildlife habitat enhancement;
- Salmon habitat assessment, detailed restoration design, community stewardship, restoration works to modify in-stream habitat, restoration of connectivity and spawning and rearing channels, restoration of wetlands and upland habitat such as revegetation, sediment source remediation;
- Design and construct the two additional at-risk water crossings;
- Design and construct a bridge crossing on the proposed second access/egress route to the community.

These activities are all critical elements of addressing our community's inherent vulnerability to flooding in the context of the current climate emergency.

Evacuation Map

The Xʷɛmaɬkʷu Lands at Campbell River Evacuation Map is shared on the next page for context to the above information. We note that it is best viewed at its larger actual size. You will note one vehicle access/egress route and three high-risk water crossings on that route.


χʷɛmaɬkʷu Evacuation Map
χʷɛmaɬkʷu Lands (226.8 ha)
Place of Refuge
Development Project
Future Housing
Building Footprint
Homes - 91
Homes Planned - 216
Land Parcel
Road
Road New
Road Future
Existing Wetland
Stream
Riparian Buffer
Ditch
Storm Water Detention Pond
Water Crossing Existing
Requires Intervention
Water Crosssing Future
Evacuation Route
Land Forest People.
mapmonsters
0 50 100 200 300 400
Metres
To Highway 19
To Old Island Highway
Campbell River Airport
Campbell River
Jubilee Parkway
WC 4
Vehicle Evacuation Route
Homathco Drive
Evacuation Route By Foot Only
WC 6
SWPD 1
χʷɛmaɬkʷu
Bute Crescent
WC 1
2
76
WC 5
WC 2
χʷɛmaɬkʷu Hall
WC 3
Alpine Cres
13
SWPD 2
Culture and Rec Centre
Health Centre
Daycare
16
19
Courtney
Future Housing
200
No Highway Access
χʷɛmaɬkʷu Traditional Territory
Coast Mountains
Campbell River
Courtenay
Vancouver Island Ranges
Port Alberni
Nanaimo