



*Tahsis*

# Tsunami Evacuation Guide

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**To Learn More:**



[srd.ca/tsunami](http://srd.ca/tsunami)



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*Cover art: Abby Forth & Flo Boutin Lemieux*



# About this Guide

Tsunamis are series of long, surge-like waves usually resulting from a large, sudden displacement of the ocean floor during an earthquake. They contain considerable energy and can travel further inland than ordinary waves.

Tsunamis can also be caused by landslides, meteor strikes, and explosions. This guide focusses on tsunamis caused by earthquakes, which are the most common cause of tsunamis in this area.

Tsunamis that affect this coastline can originate from both local and distant earthquakes, and both types pose a high risk to the Village of Tahsis.

The purpose of this guide is to share the recommended protective actions to take during both distant and local tsunamis.





# Local (Cascadia) Tsunamis

Earthquakes on the Cascadia Subduction Zone (CSZ), which runs north-south off the west coast of Vancouver Island, pose the most significant tsunami threat to Tahsis. All of the buildings in Tahsis are susceptible to damage from a CSZ earthquake, and over 200 buildings may be directly impacted by the resulting tsunami waves. Following a CSZ earthquake, you will likely need to evacuate to high ground by foot or bicycle/dirt bike, as roads and bridges may be severely damaged.

## **How high could the tsunamis be?**

Up to 10.9 meters (35.8 feet) tall

## **When will the tsunamis arrive?**

54 minutes after the CSZ earthquake

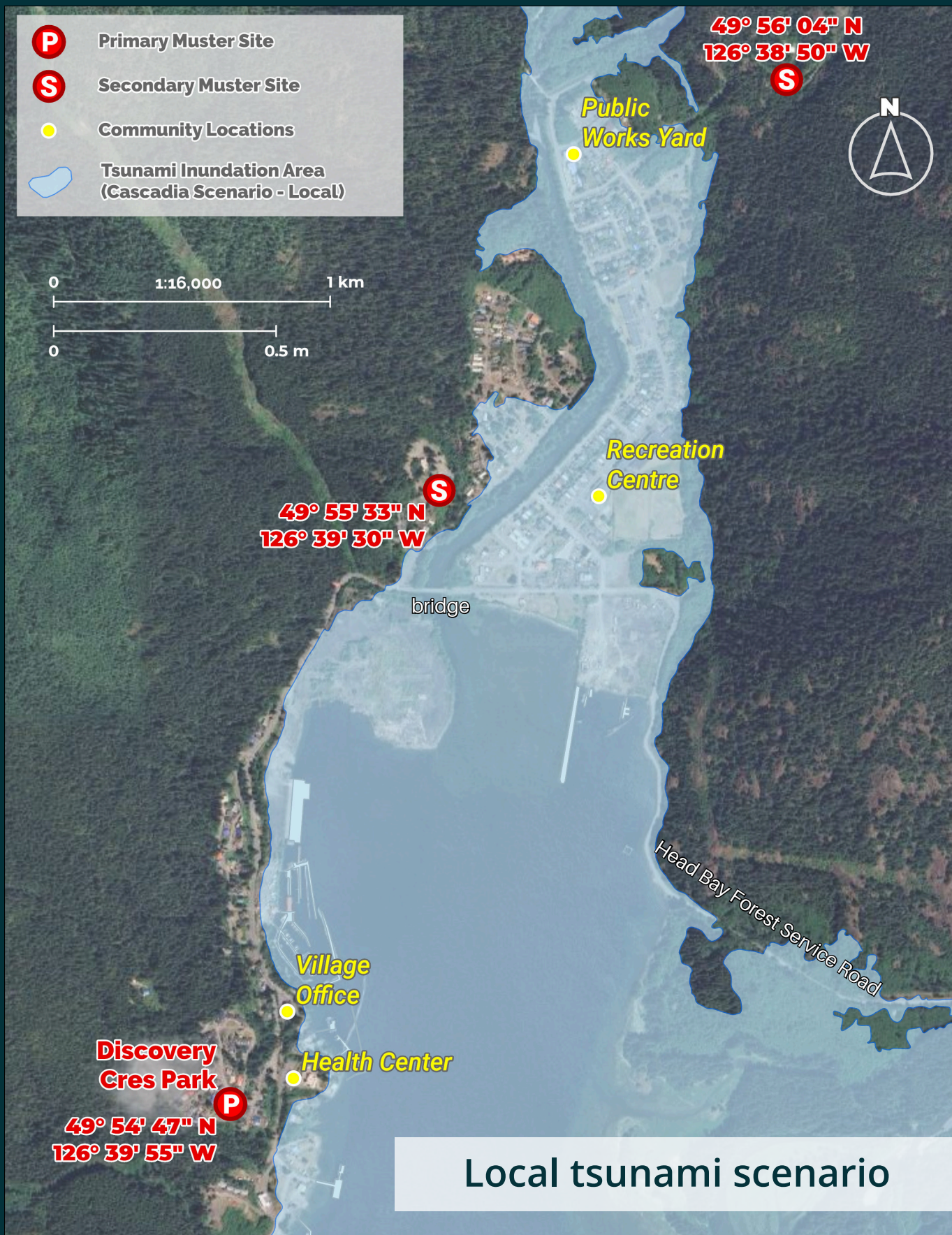


# Evacuating From a Local Tsunami

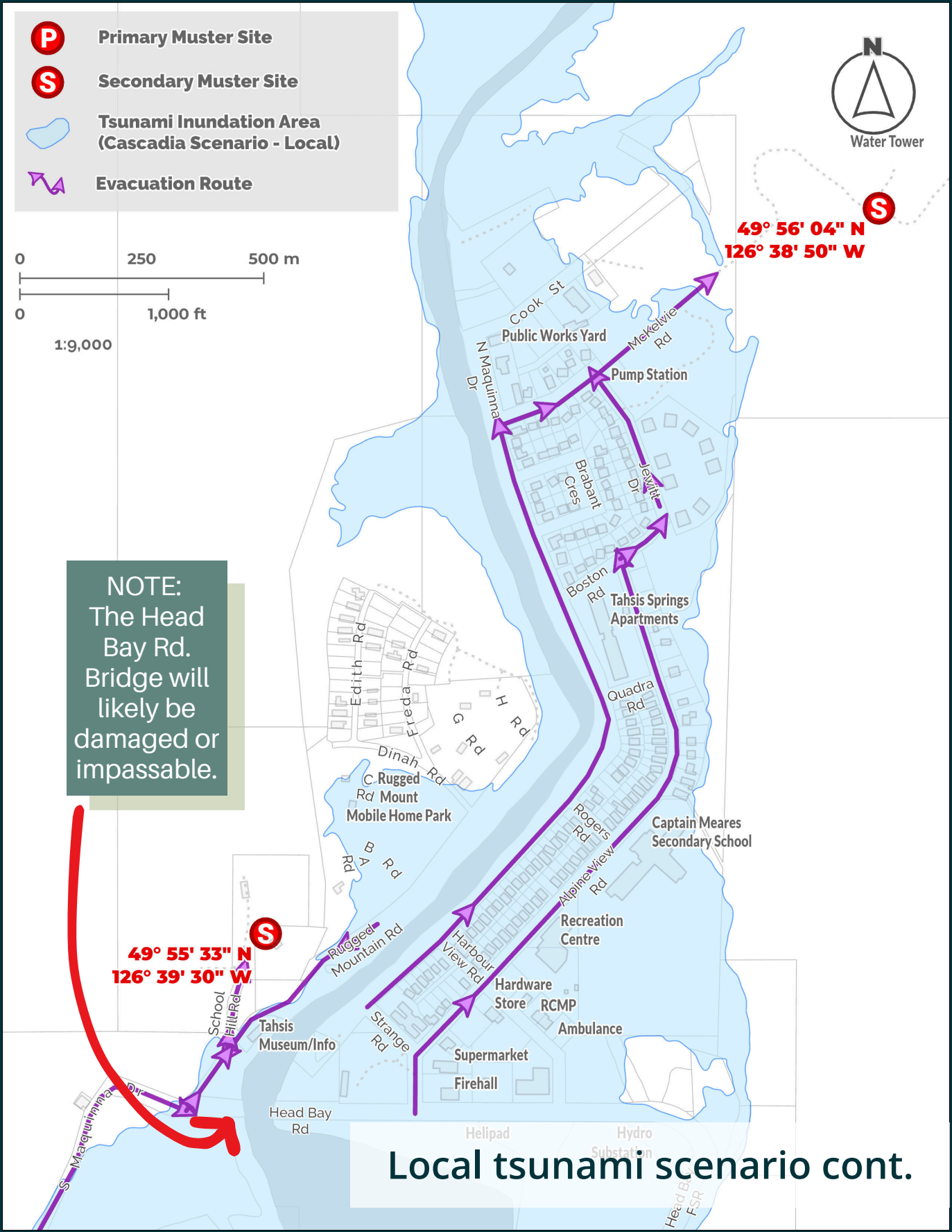
- 1 Drop, cover and hold on during the earthquake.
- 2 If you feel strong shaking, notice a sudden change in sea level, hear loud roaring from the ocean, or are knocked off your feet, **SEEK HIGHER GROUND IMMEDIATELY**, as this means tsunamis are coming. "If it knocks you down, get to high ground."
- 3 Save yourself, not your possessions. Help neighbours and those needing special assistance. Bring all your emergency supplies that you can realistically carry (ideally already packed in your evacuation bag).
- 4 While evacuating, stay away from buildings, trees, streetlights, and overhead lines. Crouch down and cover your head while you are moving.
- 5 The 3 Tsunami Muster Sites are on  
1) Discovery Crescent,  
2) School Hill Road, and  
3) McKelvie Road  
If possible, evacuate to Discovery Crescent, because that is where emergency provisions are stored. If the bridge is damaged during the earthquake and it's impossible to reach Discovery Crescent before waves arrive, go to another muster site or get high uphill wherever you can.



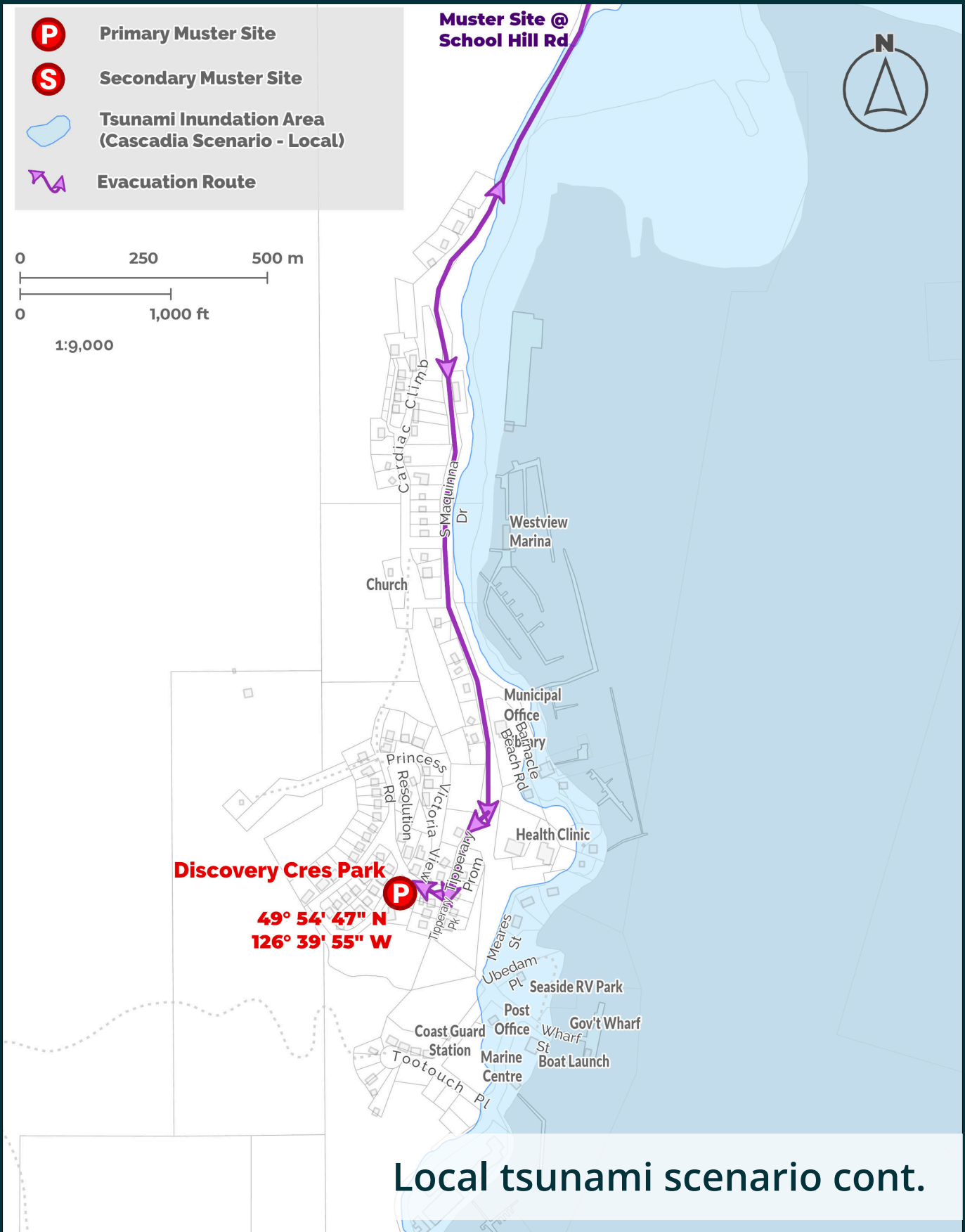














# Distant (Alaskan) Tsunamis

Earthquakes on the Alaska-Aleutian Subduction Zone (AASZ) pose the second-highest tsunami risk to Tahsis and may damage over 150 buildings. In the event of a distant tsunami, emergency personnel will make every effort to notify you via:

- ◆ Marine Radio Channel 16
- ◆ Door-to-Door Notifications
- ◆ Tsunami Warning Sirens (located at the Fire Hall and Health Centre)
- ◆ Environment Canada Weather Radio
- ◆ Alertable regional
- ◆ Alert Ready (broadcast on TV, radio, and compatible cell phones via push notifications)



## How high could the tsunamis be?

Up to 5 meters (16.4 feet) tall

## When will the tsunamis arrive?

3 hours and 30 minutes after an earthquake on the AASZ



# Evacuating From a Distant Tsunami

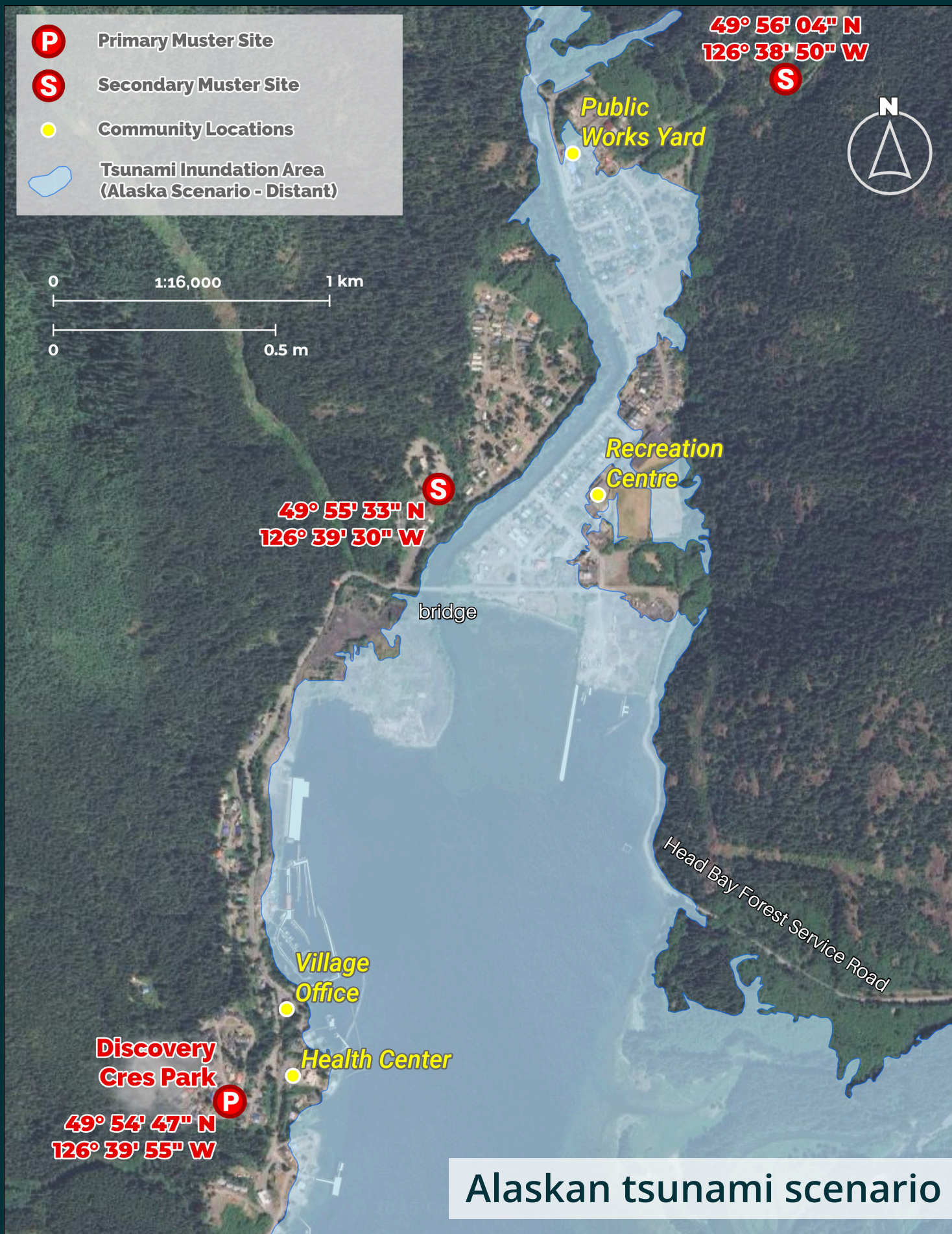
- 1 Receive the tsunami warning.
- 2 Grab your evacuation kit for each member of your family, including pets. The kits should be adapted to your needs, but kept light and manageable.
- 3 Check on your neighbours and those who may need special assistance.
- 4 If using a vehicle to evacuate, stay calm and follow the evacuation route signs to Discovery Crescent.
- 5 When you arrive at Discovery Crescent, remain calm and follow instructions.

## Why can't I just drive to Gold River?

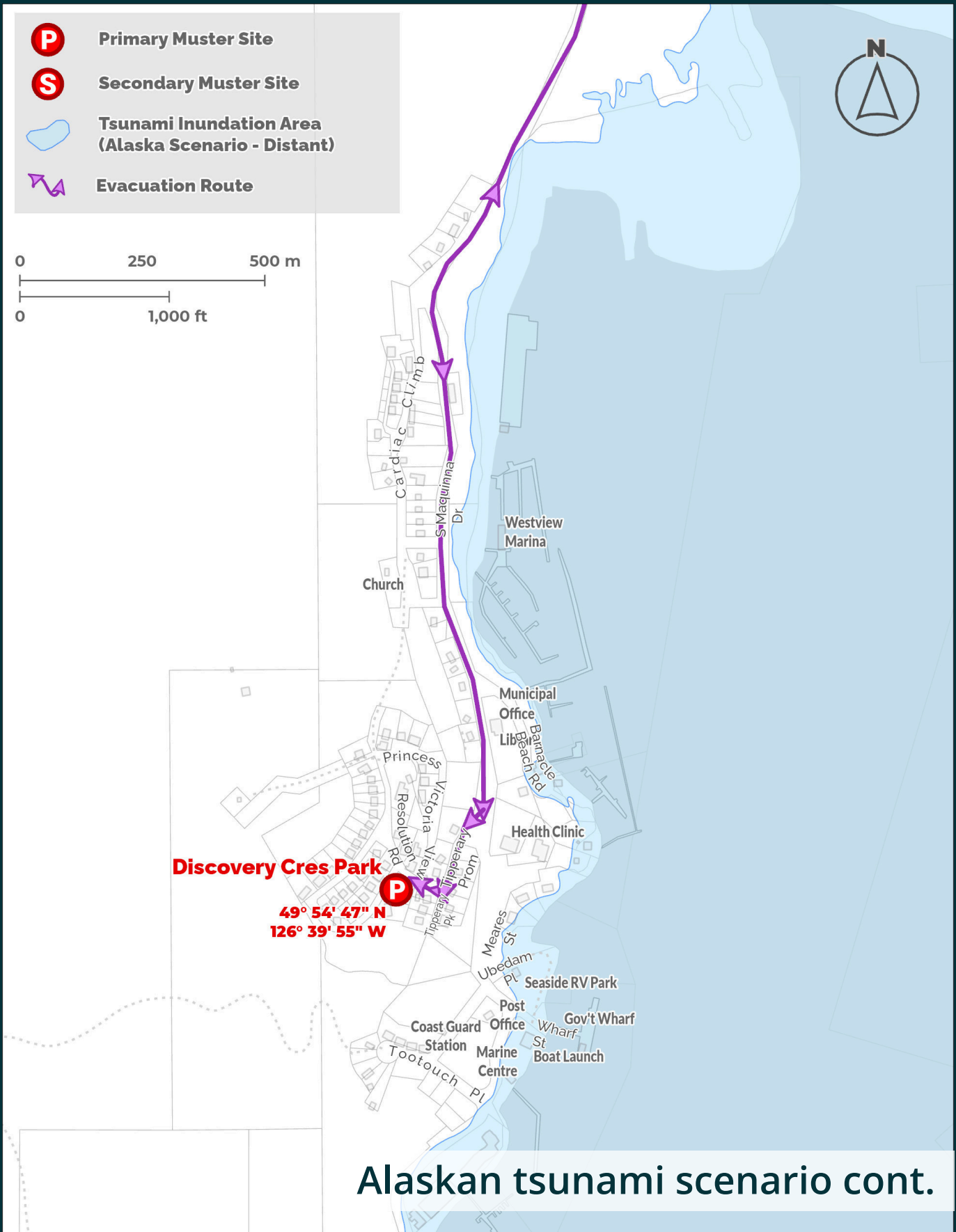
Approximately 20 km of the Head Bay Forest Service Road (FSR) runs close to the shoreline, which will likely be affected by AASZ-generated tsunamis. FSRs are not built to accommodate large volumes of traffic. In 2020, McElhanney Ltd. modelled a full vehicle evacuation taking ~3 hrs 15 mins to complete. Since not all of Tahsis will be able to safely reach Gold River before an AASZ tsunami arrives, it is not recommended that you attempt to drive to Gold River.



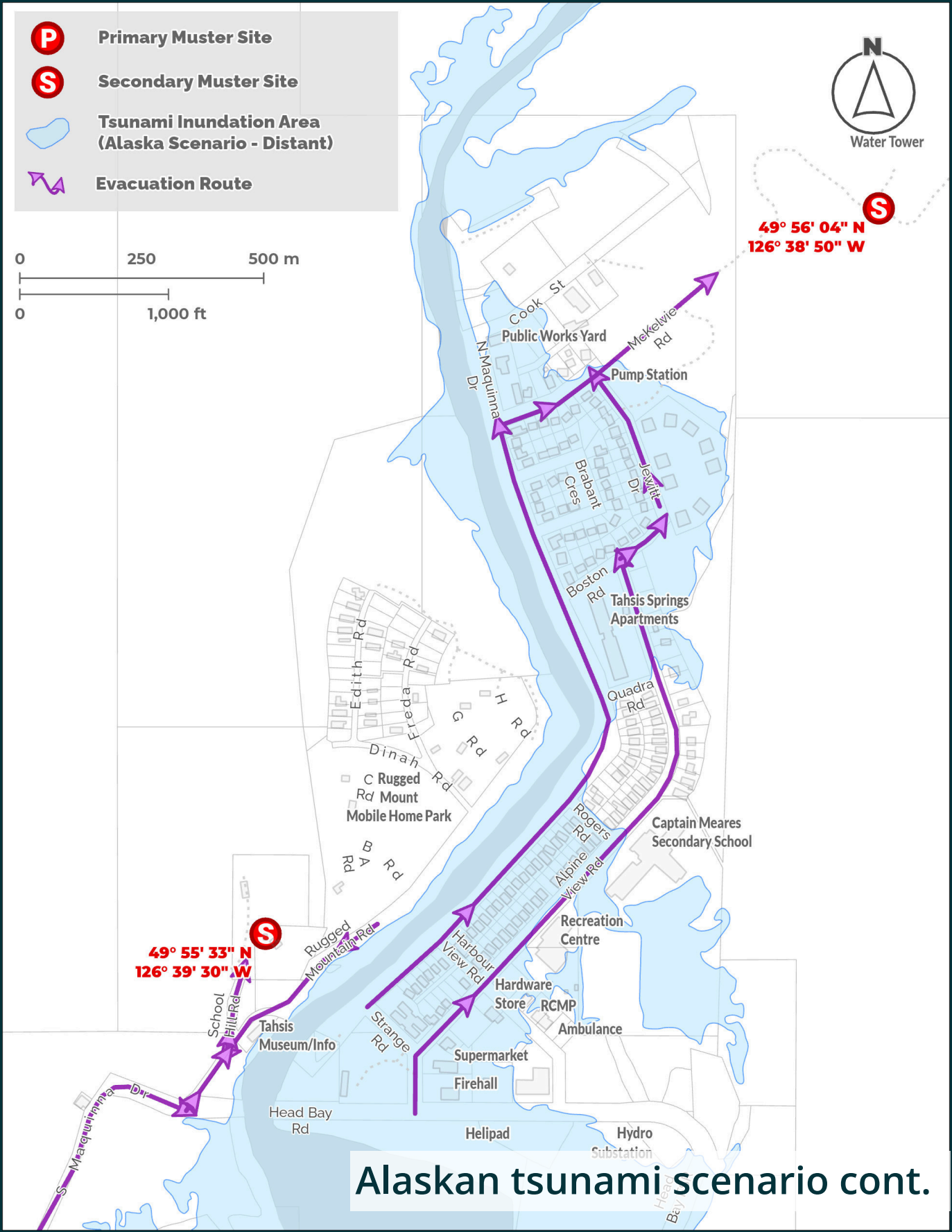








Alaskan tsunami scenario cont.



Alaskan tsunami scenario cont.



# How to Receive Emergency Notifications

Residents and visitors in Tahsis can receive local emergency notifications from Strathcona Regional District via Alertable. Sign up FREE at [www.srd.ca/alerts](http://www.srd.ca/alerts).



**You can also download the free App to receive geographically relevant emergency alerts from other sources such as the provincial Alert Ready system, Environment Canada weather warnings, and Drive BC.**

**You can manage what type of alerts you'd like to receive in the App settings.**



# Interpreting Tsunami Alert Levels

**!** In the event of a distant tsunami, you will likely receive an official alert. Most of the information in this guide is for a Distant Tsunami *Warning* scenario: instructions for what to do *when* a tsunami is coming.

If a distant tsunami *is possible* but not confirmed, you may receive a Tsunami Advisory, Watch, or Information Statement notification via Alertable. Read the information below to learn what to expect and how to stay safe in each scenario.

## TSUNAMI ALERT LEVELS EXPLAINED



LEVEL	THREAT	ACTION
<b>WARNING</b>	Dangerous coastal flooding & powerful currents are imminent. West coast communities will be flooded.	Go to high ground immediately. If possible, evacuate to muster site.
<b>ADVISORY</b>	An advisory is issued due to the threat of a tsunami with potential to produce strong, dangerous currents.	Stay out of water & above high tide line. Secure boats.
<b>WATCH</b>	A distant earthquake has occurred, and a tsunami is possible. Danger level is not yet known.	Stay alert for more information. Know your evacuation route.
<b>INFORMATION STATEMENT</b>	An earthquake has occurred, but there is no threat of a destructive tsunami. Minor waves at most.	No action required at this time.
<b>CANCELLATION</b>	Cancels any previously-issued tsunami messages. Evidence of tsunami waves no longer observed at tide stations.	Resume normal activities.



**Want to receive tsunami notifications?**

Sign up to receive free emergency alerts at [www.srd.ca/alerts](http://www.srd.ca/alerts) and download the free Alertable app.



# TSUNAMI BOATER SAFETY

Prior to arrival of the March 11, 2011 tsunami along the California coast, many boat owners took their boats offshore without adequate supplies or knowledge of how long they would need to stay offshore. As a result, boaters tried to re-enter harbors too early, while dangerous tsunami conditions still existed. They put themselves and harbor personnel at risk of injury and death. If you do not have a long-term supplies of essential disaster preparedness items in your boat, **DO NOT** attempt to take your boat offshore.

**Secure your boat to the dock and leave the dock area before the tsunami arrives.**

## WHAT IS A TSUNAMI?

A tsunami is a series of water surges usually caused by an earthquake beneath the sea floor. These can cause strong, dangerous currents inside harbors and bays.

### TSUNAMIS CAN TRICK YOU!

- The first surge may not be the largest.
- It is not unusual for tsunami surges to continue for days afterwards and in some cases much longer.
- Just when you think it is all over, another very large surge may come.

## 2 ways to know if a tsunami is coming:

### \*Natural Warnings\*

On shore: GROUND SHAKING, a LOUD OCEAN ROAR, or the WATER RECEDING UNUSUALLY FAR exposing the sea floor.

On the water: You may still feel the earthquake through the hull of your boat. You could see a rapid and extreme shift to an outgoing tide.

### \*Official Warnings\*

On shore: You may hear an outdoor siren.

On the water: You may receive a Tsunami Advisory or Warning on your marine VHF radio's CHANNEL 16 or weather frequency (as long as your radio has the Alert feature).

## There are a number of TSUNAMI HAZARDS that could affect boats/boaters:

- Sudden water-level fluctuations Boats that hit bottom as water level drops
- Strong and unpredictable currents
- Tsunami bores and amplified waves
- Eddies/whirlpools
- Drag on large keeled boat
- Collision with boats, docks, and debris

## What to do if you receive a warning?

### IF ON LAND

or tied up at the dock  
Leave your boat and go to high ground on foot as soon as possible. You don't have time to save your boat in this situation and could die if you try to do so. If you are on the water but very near shore

### IF IN SHALLOW WATER

If you can beach or dock your boat and get to high ground on foot, then this is your best chance. If that is not possible, head to deep water as quickly as possible.

### IF IN DEEP WATER

or very close, take your vessel further offshore beyond a depth of at least 100 meters (328 feet).

**After a major earthquake**  
For a locally-generated tsunami from a major earthquake, there will be no time to motor a boat into deep water because waves can come ashore within minutes. Leave your boat at the pier and physically move to higher ground.

## Should you take your boat OFFSHORE?

The answer to this question depends on:

1. The SIZE of the tsunami.
2. How much TIME you have.
3. The PREPAREDNESS of the boat/
4. The WEATHER at sea could be as dangerous as the tsunami itself.

## Note for trailer boat owners:

Expect congested boat ramps and remember that you have to get your boat to the trailer, out of the water, and out of the tsunami zone before the tsunami arrives.

For more information on the Tsunami risk in this area please visit [www.srd.ca/tsunami-mapping](http://www.srd.ca/tsunami-mapping)

## ENTERING



# Protect Yourself During Earthquakes!

**IF  
POSSIBLE**



**USING  
CANE**



**USING  
WALKER**



**USING  
WHEELCHAIR**



Earthquake  
Country  
Alliance  
We're all in this together.

[www.EarthquakeCountry.org/disability](http://www.EarthquakeCountry.org/disability)


**Want more information?**


Contact [preparedness@srd.ca](mailto:preparedness@srd.ca) or  
250-830-6702 to learn more.





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