COMMUNITY SELF-HELP TO MITIGATE ACUTE VULNERABILITY TO EXTREME RISK OF INTERFACE FIRE



CURRENT STATUS AND IMMEDIATE NEEDS OF THE MUDGE ISLAND CITIZENS SOCIETY (MICS)

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http://www.mudge.ca/fire-prevention/

The Mudge Island Citizens Society (MICS) is a non-profit society which provides support for fire prevention, firefighting equipment and emergency services on Mudge.



MICS is not a recognized fire department. It is a community self-help initiative of Mudge residents which provides an immediate response capacity in the minutes and hours before the Wildfire Service or other emergency responders can mobilize and get to the island.



Temporary shelters provide some protection for MICS equipment, pending completion of a permanent, fire-resistant building. Maintaining the operational readiness of firefighting equipment without adequate shelter is an ongoing challenge.

SUMMARY

- Mudge Island is acutely vulnerable to extreme risk of interface fire. During fire season this
 represents an imminent threat to life, livelihoods & property. This is a public safety issue
- Mudge falls through the cracks of RDN & Provincial firefighting resources
- The island is too small to sustain an accredited volunteer fire department
- Residents have organized for self-help through the Mudge Island Citizens Society (MICS) to prevent & contain fire & render other emergency assistance, until outside help can arrive
- In addition to vigilance in fire prevention, MICS has a proven track record of supressing wildfires & responding effectively to other life-threatening emergencies, within minutes
- To date, these efforts have been sustained almost entirely through community fundraising efforts and hundreds of volunteer hours per year
- A permanent building is essential for protecting the operational readiness of MICS firefighting apparatus & other emergency equipment. On present trends it will take 3+ more years of community fundraising to enable completion of a permanent building
- Fundraising from the community at the current level requires a massive investment of volunteer time and energy. The building will be erected entirely with volunteer labour
- Acute vulnerability to fire & the need to ensure the readiness of MICS to respond have led the MICS board to actively seek additional funding from the community and outside sources
- MICS intends to cover ongoing costs for maintenance & upkeep of the building & emergency equipment through continued volunteer & community fundraising efforts.



Location of MICS AEDs / first-aid points, firefighting cisterns & other key emergency response locations.

MUDGE ISLAND

Mudge is one of the Southern Gulf Islands in the Strait of Georgia. It lies within the Regional District of Nanaimo (RDN) between Gabriola Island and Vancouver Island, and is considered part of the De Courcy group of islands. At approximately 200 hectares (490 acres) it is about 0.8 km (0.5 mi) wide and 4 km (2.5 mi) long. It has near-continuous forest cover with mature fir and cedar, and has a steep, treed topography.

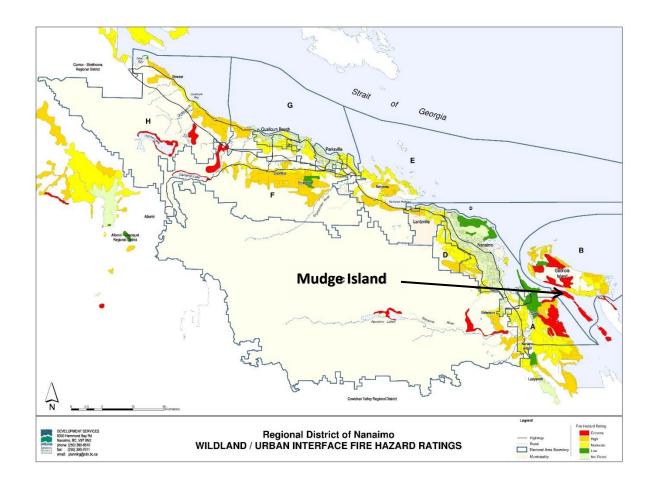


The island is home to about 80 year-round residents and has a summer population of well over 200. Nearly all dwellings are embedded in mature forest. Mudge is also a popular destination for kayakers and day-trippers during fire season. There is no bridge or ferry service to Mudge Island, but there is a private all-weather / all-tide marina at Moonshine Cove. There is also an emergency helicopter landing site (daylight) on the island.

The island's development is entirely residential, although many residents earn their livelihoods out of their homes or as a function of living on Mudge. Others commute to Gabriola Island or Nanaimo. Several gravel roads connect the residences and provide good access to all parts of the island. Mudge has full electric, telephone and cable television service, unique among the smaller De Courcy Islands.

ACUTE VULNERABILITY OF MUDGE TO EXTREME FIRE RISK – THE THREAT TO LIFE, LIVELIHOODS AND PROPERTY

The Province and the Regional District of Nanaimo (RDN) have mapped the Wildland / Urban Interface Fire Hazard Ratings for the district:



Mudge, Link and De Courcy Islands are among the few areas within the RDN that have been designated with an 'Extreme' fire hazard rating (shown above in red). The only areas of the RDN designated with an 'Extreme' rating which are <u>not</u> covered by either a RDN Volunteer Fire Department or a Municipal / Improvement District Fire Department are Mudge, Link and De Courcy Islands.

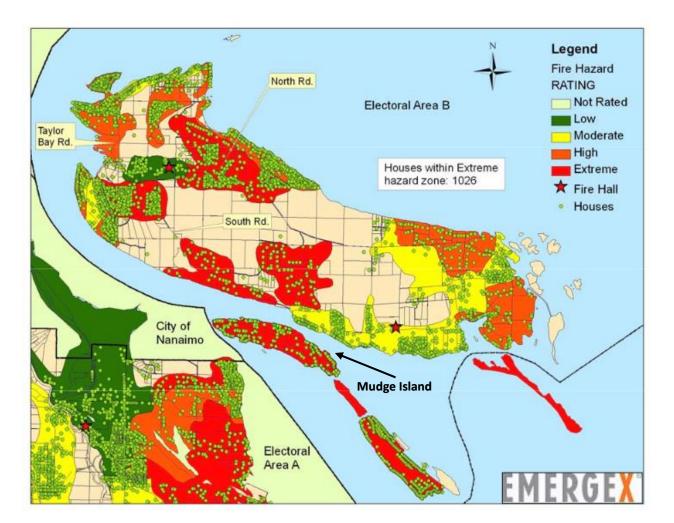
The population of Mudge Island is acutely vulnerable to extreme risk of interface fire in the dry summer months. Due to its location and limited accessibility, Mudge falls through the cracks of Provincial and RDN fire protection resources. The small population base of the island renders it impossible to justify and sustain an accredited volunteer fire department. Mudge Islanders recognize that they are on their own until BC Wildfire Service crews and other emergency resources can deploy.

With Mudge Island's steep slopes and dense forest cover, fire is expected to spread very rapidly in the dry summer months, especially if winds are unfavorable. Experience has shown that housing density across the island is such that dwellings are likely to be threatened within minutes of a

wildfire's ignition. In addition, heavy snowfall in early 2018 resulted in increased amounts of surface debris and ladder fuel.

In summer months when the risk of fire is most extreme, the island is a favorite destination for daytrippers, commercial kayaking expeditions and other occasional visitors. Not all visitors are attuned to the extra precautions required to prevent wildfire. Accordingly, fire prevention education is an ongoing priority for MICS, residents at large, and the seasonal BC Forest Service warden.

If a fire starts on Mudge, residents are instructed to call 911 or the BC Wildfire Service, followed by a call to MICS. In daylight hours only, BCWS is likely to dispatch crews by helicopter from either Errington or Parksville. Several conditions will determine how quickly BCWS can reach Mudge, including other priorities / commitments of fire crew, weather (flying conditions for helicopter), and remaining daylight.



From Hazard Vulnerability Risk Assessment commissioned by RDN in 2006. Extreme risk locations in Area A & on Gabriola Island have RDN fire protection. Mudge Island & De Courcy Island do not. Since this vulnerability was first made known to the RDN 12 years ago, the numbers of dwellings & visitors to Mudge during fire season have both increased. MICS capacity to contain wildfire has improved dramatically over the same period, but risk of wildfire and Mudge's vulnerability to it have both increased due to a longer fire season & increases in population & visitors.

WHAT MUDGE ISLAND DOES AS A COMMUNITY

Recognising its vulnerability, the Mudge community -- through MICS -- has organized to protect itself and, over several years, has demonstrated a proven ability to minimize the risk from wildfire and to contain outbreaks of fire, within minutes, before the effects become catastrophic. Similarly, MICS is equipped to respond to medical emergencies while awaiting help from off-island.

Residents tend to be keenly aware of fire risk and are generally well-disciplined in fire prevention, particularly during mandated 'shutdowns' when conditions are extreme. Many individual residents have taken significant self-help steps to a) mitigate the risk of wildfire spreading to their homes by using FireSmart measures on their properties, and, b) keeping personal fire pumps, hoses and water sources such as cisterns and ponds ready for use in the vital minutes or hours before the Wildfire Service can respond.



MICS has placed AEDs and first aid kits at 3 points in the north, central and south parts of the island. There are MICS cisterns for firefighting water placed at accessible locations in the north, central and south island, holding a total of 12,000 gallons of freshwater. Cisterns have been plumbed for quick connection to the MICS trucks.

Beyond these efforts, MICS was formed as a non-profit society to pool community efforts. MICS has an excellent track record as a self-sustaining community organization. It enjoys consistently staunch support from residents. More than two decades of active fundraising within the Mudge community has enabled the purchase of firefighting vehicles and other firefighting and first-aid equipment. Recent RDN Community Grants-in-Aid have allowed for the purchase of two-way radios, a shipping container for equipment storage, and cisterns for firefighting water. Periodic practice sessions and maintenance work-parties ensure that residents can operate the equipment and that the equipment itself is kept in ready-to-use condition. Several Mudge residents have completed the BC Wildfire Service Basic Fire Suppression and Safety (S-100) course.

A centrally-located building lot has been purchased by MICS solely from fundraising efforts within the community, with the intent of erecting a permanent, fire-resistant home for MICS equipment. Construction with volunteer labour commenced in April 2018.

MICS COMMUNITY FUNDRAISING & VOLUNTEER EFFORTS

MICS annual fundraising revenues between 1 January 2014 and April 2018 have averaged nearly \$29,000 per year, an astonishing figure for a community the size of Mudge Island and a strong indicator of the level of community support for MICS efforts. Average annual operating & administration costs for MICS are approximately \$11,000 / year, including fuel, maintenance, insurance and accounting fees.

MICS Community Fundraising Jan 2014 – Apr 2018	
Taxable donations	\$24,399
Non-taxable donations	\$24,480
Fundraising events	\$41,970
Mudge Gear sales	\$22,800
Memberships	\$1,832
TOTAL	\$115,481



A few of the MICS fundraising events organized by Mudge residents. Donations from residents & visitors supplement revenues from nominal membership dues, annual fundraisers & sales of firewood & 'Mudge Gear'.



Annual FireFest on Mudge

Fundraising is a means to an end. All fundraising activities by MICS aim to improve and safeguard the Society's readiness to respond to fire and other emergencies.

Fundraising from the community at the current level requires a massive yearly investment of volunteer time and energy. At the same time, MICS relies solely on volunteer efforts for prevention measures and to maintain its operational readiness to respond to emergencies. Volunteers with the Society organise, conduct and participate in year-round practice sessions, equipment maintenance, and work parties.

Construction of the MICS building is being completed entirely with volunteer labour.

MITIGATING THE RISK: MUDGE ISLAND CITIZENS SOCIETY (MICS)

MICS was created by residents as a non-profit society to provide support for fire prevention, firefighting equipment and emergency services on Mudge. MICS is <u>not</u> a recognized fire department, nor does it intend to become one. It is a community self-help initiative of Mudge residents which provides an immediate response capacity in the vital minutes and hours before the Wildfire Service or other emergency responders can mobilize and get to the island.

Over the past 2 decades MICS & the community group which preceded it have responded to more than 10 fires on Mudge. A surface & crown wildfire in late May 2016 is particularly noteworthy. Several structures were threatened. MICS extinguished the blaze with 32 Mudge Islanders responding & all MICS equipment deployed. The BC Wildfire Service dispatched a crew by helicopter & arrived for mop-up approximately 2 hours after the first report was called in.

In recent years the fundraising efforts of MICS within the community has enabled it to purchase 3 serviceable fire trucks and various other firefighting and first aid equipment. Cisterns for storing 12,000 gallons of freshwater for firefighting have been installed by MICS at 3 strategic locations across the island and are ready for immediate hook-up to the MICS fire trucks.

MICS EQUIPMENT

4WD bush truck, 300-gal, Honda pump, 2" line, 1987
Fire truck Hale 625GPM pump, 4", 1000-gal, 1978
Tanker 3000-gal quick dump, collapsible pond, 1979
5 X Honda 164gpm pumps + line
3 X AEDs south, central and north island
4 X first aid kits / stretcher / portable oxygen
Various extinguishers, picks, shovels, etc.

MICS Callouts Sept 2015 – Jul 2018

- 29 Sept 15 -- Smoke from house on False Narrows investigated & found to be safe
- 25 May 16 --Responded to report of fire on bank above waterline, south end. Extinguished w/ MICS equipment before arrival of BCWS
- 30 May 16 --6-week old burn started up again. Ground fire extinguished w/ MICS equipment
- 14 Jul 16 Medevac Mudge resident for possible stroke
- 25 Jul 16 Medevac, handover to Nanaimo-based paramedics brought by Port Authority
- 13 Aug 16 Military flare found on beach: military contacted to deal with correctly
- 20 Aug 16 Medevac of resident, met Nanaimo Harbour Patrol & paramedics at Moonshine Cove
- 15 Feb 17 Medevac of resident, met Nanaimo Harbour Patrol & paramedics at Moonshine Cove
- 18 May 17 Welfare check on possible missing person
- 22 May 17 Abandoned burn pile. Extinguished w/ MICS equipment.
- 30 Dec 17 Medevac
- 18 Jan 18 -- Medevac to Gabriola Clinic
- 5 Mar 18 Responded to chimney fire. MICS equipment used to hose down roof
- 12 Mar 18 --Medical callout to rollover of heavy equipment
- 3 Jul 18 Smoke mid-island south side investigated, found to be safe



MICS members practice preventing the spread of fire from a structure. Emphasis on safety, operation of equipment, containment, and water conservation -- not on saving the structure.



4wd bush truck & collapsible tank

WHAT MICS NEEDS

Acute vulnerability to fire on Mudge Island and the need to ensure the readiness of MICS to respond have led the MICS board to actively seek additional funding from the community and outside sources

The operational readiness of firefighting and other emergency equipment depends on keeping it out of the elements in a facility where maintenance and training can occur year-round. This is a public safety issue. A permanent, fire-resistant building to house and maintain MICS trucks and equipment will ensure that the capacity of Mudge Islanders to protect themselves is secured and sustained. A project plan for the building has been finalized and costed out at approximately \$130,000.

Although periodic needs to update the fire trucks and equipment will continue in the coming years, MICS intends to cover ongoing costs for maintenance and upkeep of its building and emergency equipment through community fundraising efforts. However, the need to house the equipment is urgent, and there are limits to what a community of this size can be expected to accomplish on its own where the protection of life, livelihoods and property is concerned.

MICS received a BC Community Gaming Grant of \$30,118 in March 2018 to help finance the building project. These funds are being matched by the Society's cash-on-hand from community fundraising. MICS has purchased a pre-fabricated steel building and began construction in April 2018. There will be no labour costs to erect the structure itself: this is being done with volunteer MICS labour.



Supplier's photo of engineered steel building similar to the one purchased by MICS

The building will be centrally-located on Mudge. It will protect MICS equipment from the elements, provide a sheltered venue for maintenance and training on the equipment, and serve as a muster station for residents in case of emergency.

The structure is pre-fab steel, measuring 50'W X 40'L X 20'H -- large enough to accommodate all MICS vehicles and equipment. There will be 3 roll-up vehicle doors in the front and an entrance door in the rear wall. The building will sit on a 16" x 16" engineered reinforced concrete footing. The inside of the building will have a reinforced 6" concrete slab with 3 drains down the centre, plumbed to a sump. Spray-foam insulation and industrial-grade lighting will be installed. The outside level area and driveway will be constructed using the available rock and crush from the excavated building site: these will provide an outdoor training area and space for a tank farm for firefighting water.