

Summary of Recommended Mitigation Measures - to address post-wildfire natural hazards (from MFLNRORD Report)

Short-Term Actions (IMPORTANT AND URGENT – prior to 2022 freshet)	Description	Responsibility
Public awareness	<p>Recommend that property owners prepare for unusually high runoff in the spring (along water courses and within zones of groundwater emergence).</p> <p>Conduct public information meetings, develop a public information bulletin on recognizing hazard situations and how to respond. Provide emergency response information (egress routes, warnings, evacuation instructions). Install warning signs on roads and at bridges.</p>	<p>Because the affected area includes multiple jurisdictions, there could be collaboration in preparing a consistent message.</p> <p>Distribution of message and emergency response information and protocols should be developed specific to each jurisdiction.</p> <p>RDCO – to disseminate information via e-bulletin, website, social media and other RDCO channels.</p>
Prepare for increased runoff	<p>Prior to spring freshet, inspect ditches and culverts to ensure they are clear of sediment and debris.</p>	<p>On private lands - responsibility to inspect and maintain is on property owner.</p> <p>On public roadways – responsibility to inspect and maintain is on MOTI Roads Contractor (AIM)</p> <p>RDCO – to share information with property owners and with MOTI to identify vulnerable areas and to establish monitoring schedule.</p>
Protect assets	<p>Identify elements at greatest risk and protect by relocation or physical protection (ditching, berms, barriers). Further assessment may be required.</p> <p>Identify material sources and stockpile prior to freshet.</p>	<p>RDCO – Staff to identify whether there are infrastructure components at risk and to establish monitoring and inspection schedule.</p> <p>RDCO – could facilitate emergency protective measures through the EOC and establish material stockpiles in case of emergency in collaboration with Fire Departments.</p>

Long Term Actions (IMPORTANT BUT NOT URGENT – longer term)	Description	Responsibility
Reduce potential for soil erosion (in high-risk areas)	Implement measures to reduce potential for soil erosion (each have pros and cons): <ul style="list-style-type: none"> • Straw mulch • Wood mulch • Seeding 	<p>On private lands - responsibility to protect is on property owner.</p> <p>On public lands – responsibility to protect is on Provincial agencies (e.g. MOTI or MFLNRORD).</p> <p>RDCO – to share information with property owners and with MFLNRORD to identify vulnerable areas.</p>
Reduce potential for sediment transport on gullies or stream channels	Implement measures to reduce potential for sediment transport (site-specific): <ul style="list-style-type: none"> • Check dams or weirs • Trash racks or catch basins • Channel clearing 	<p>Where stream channels originate on Crown Land, there is no clear responsibility for managing risk. The responsibility to protect private land from stream channel impacts is on the individual property owner. Therefore, more detailed assessments are the responsibility of the land owner.</p> <p>RDCO – may be able to advocate the Province (through EMBC or other potential funding sources assigned post-wildfire response) to address hydrologic hazards.</p>
Further assessment of upstream channels to refine mapping.	More detailed site assessment including ground-based traverse of stream channels upstream of the developed area to review instability, blockages, etc.	RDCO – may be able to advocate the Province (through EMBC or other potential funding sources assigned post-wildfire response) to address need to refine stream mapping.
Further assessment of stream channels flowing through developed area.	More detailed site assessment to further characterize connectivity with upstream channels and identify opportunities to restore nature drainage patterns.	<p>RDCO – may be able to advocate the Province (through EMBC or other potential funding sources assigned post-wildfire response) to address hydrologic hazards.</p> <p>Because the updated mapping and assessment work is largely within the developed lands of RDCO, there may be a shared responsibility to cover the costs of completing this work.</p>

For Select High Risk Properties within the RDCO (from RDCO Report)

Recovery Actions	Description	Responsibility
Reduce potential for soil erosion	Implement measures to reduce potential for soil erosion. Property owners should consider seeding and revegetating burned slopes and restoring riparian vegetation along foreshore areas. In addition to seeding and planting, locally sourced wood fiber mulch or coarse woody debris scattered across the slope would help protect exposed soil surfaces, reduce rainfall impact, and help retain seed.	<p>On private land - responsibility to protect is on property owner.</p> <p>RDCO – to share information with property owners to identify vulnerable areas.</p>
Further soils/geotechnical assessment	For select properties with observed slope instability or where retaining walls have become destabilized, as part of the rebuild process conduct soils/geotechnical (slope stability/geohazard) assessment.	<p>On private lands - responsibility to protect is on property owner.</p> <p>RDCO – to share information with property owners and with MFLNRORD to identify vulnerable areas and to request further soils/geotechnical assessments from property owners/applicant where necessary through the Development Permit process.</p>
Further groundwater (hydrogeology) assessment	For properties located within zones of groundwater emergence, conduct a groundwater assessment to ensure drainage through the site is maintained.	<p>On private lands - responsibility to protect is on property owner.</p> <p>RDCO – to share information with property owners and with MFLNRORD to identify vulnerable areas and to request further groundwater/hydrogeological assessments from property owners/applicant where necessary through the Development Permit process.</p>