



## **INTERFACE MANAGEMENT Bear Mountain Estates and Country Club Neighbourhood Plan – District of Highlands**

Bear Mountain Estates and Country Club (Bear Mountain) is seeking approval to expand its large-scale golf course and subdivision resort development at Langford into adjoining lands in the District of Highlands, BC. The proposed development would create a large new “interface” in Highlands.

The interface is the area where human structures and other developments are intermingled, or located next to undeveloped wildlands and flammable natural vegetation. Houses and other buildings offer new potential sources of fuel. Interface development provides challenges for land-use planning.

In a survey conducted a few years ago, the Ministry of Forests rated most of the lands within Bear Mountain’s development area as having an extreme fire hazard. Mainly attributable to physical factors, the rating reflects the hilly topography and forested, largely undeveloped features of the landscape. There are many areas of inaccessibility. Summer droughts are not uncommon.

Since construction commenced approximately two years ago at Bear Mountain Estates and Country Club in Langford, fire hazard ratings have decreased in developed areas. Working closely with the District of Langford, Bear Mountain spearheaded Langford’s new interface management practices. Interface Fire Hazard Assessments were conducted at all phases of subdivision development, and at the Bear Mountain village centre. Follow-up assessments are done at the building stage. Interface management extends to the golf course, where fairway perimeters have been thinned and brushed as a mitigative measure to reduce fuel-loading.

The District of Highlands has a strong mandate to oversee interface development. As one of a few communities (besides Langford) in BC that has been instrumental in establishing interface guidelines as part of its Official Community Plan Local, local government has the ability to take preventative measures to address interface and wildfire concerns. Highlands is able to draw upon its own experiences with interface development. Highlands is also afforded an opportunity to benefit from the progression made in interface management at Bear Mountain.

Interface management at Bear Mountain Estates and Country Club is a dynamic process. Success results from a combination of the following factors:

**Collaborative Planning:** With a development project the size and scope of Bear Mountain, a consultative approach is essential. With each new phase of development, local administrative officials are encouraged to consult with developers, project engineers, professional biologist, and professional forester. Regularly scheduled meetings and field tours are invaluable.



**Interface Hazard Assessment:** An interface hazard assessment (conducted by a Registered Professional Forester with experience relevant to the applicable matter) must be completed for each phase of subdivision development to assist the local government, developers, and resource managers in determining what conditions or requirements are necessary to reduce the fire risk.

**Environmental Considerations:** Bear Mountain Estates and Country Club is committed to managing the interface fire hazard while addressing environmental issues. The development's mission statement, "to respect and enhance the magnificent natural environment in which we will work, live, and play", is achieved through a careful balance of vegetation management techniques.

It is sometimes necessary to modify environmental reserve standards to permit fuel modifications where needed for the mitigation of interface fire risk. Wherever possible, rarer native plant associations are retained, especially those that include fire-resistive species. Native vegetation enhances local biodiversity

**Subdivision Layout and Density:** Subdivision shape and layout is designed to minimise development perimeters in order to reduce interface hazards. Subdivision density is also important. Clustering development can improve fire safety if buildings are adequately spaced and native vegetation is modified appropriately.

**Subdivision Staging:** Staging, or phasing, is important. Careful planning, avoiding randomly staged development, minimises the risk of wildfire to the entire subdivision (or subdivisions).

**Infrastructure Development Standards:** Transportation, engineering, planning, and emergency services staff review existing development standards. A smoothly functioning infrastructure within the interface community can significantly reduce the risk of tragic and costly losses.

**Emergency Fire Plan:** During the clearing and construction phase, an emergency fire plan is essential, outlining emergency procedures in case of fire. All workers on site should be familiar with the plan, as should visitors to the site (realtors, professionals, salespeople, prospective buyers, and insurance agents). Access to construction sites should be secured.

**Water Supply Management:** An adequate and reliable water supply for firefighting is an essential part of fire protection. A large, dependable supply of water for fire suppression must be provided at the time of subdivision design.

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**Vegetation and Fuels Management:** The type and amount of vegetation surrounding a structure assumes a key role in determining the interface hazard. Properly managed vegetation increases structural protection from approaching wildfires, and also reduces the possibility that a building fire will spread to adjacent wildlands.

Fuel Modified Zones must be established around homes and structures.

A fuel-free zone around the immediate structure is essential.

Beyond the fuel-free zone, the surrounding forest may require thinning and brushing in fuel-reduction and fuel-conversion zones.

**Building Construction:** The safety of buildings assumes a high priority in areas with elevated interface fire risks. Those involved with the construction industry, including manufacturers, real estate professionals, inspectors, building material suppliers, insurers, and mortgage lenders should be informed about what can be done to reduce the vulnerability of buildings to wildfires.

Building materials used in roofing and siding must meet fire-retardant ratings of Class B or better.

Development control must ensure construction reduces the fire risk.

Design guidelines can be used to regulate the siting of buildings, and setbacks from slopes.

**Landscaping:** Interface residents should attempt to use fire-resistive vegetation and materials when planting new landscapes, and in converting from more flammable plant and tree species.

**Post-Development:** Post-development (at the clearing stage, and again, as required, at the building phase), a follow-up interface assessment should be conducted to ensure appropriate mitigative measures have been implemented.

Ongoing home and property maintenance is essential.

**The Future:** As the largest-growing residential development on Vancouver Island, and possibly in British Columbia, Bear Mountain Estates and Country Club has an excellent opportunity to showcase interface management at the District of Highlands.





Picture above shows conifer thinning and pruning.



Above picture shows fire-smart landscaping and fuel-free zone around structure.

