

VERSION 1.0  
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## FOREST MANAGEMENT STRATEGY

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The goal of the document is to provide strategies that provide mitigation from wildfire for the Summer Village of Birchcliff residents and visitors while protecting the health of the forested area while adhering to the communities planning documents.

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### DOCUMENTS

Statutory plans and guiding documents utilized in the enclosed strategies include:

- The Municipal Development Plan
  - Open Space Master Plan
  - Land Use Bylaw
  - Wildfire Mitigation Strategy
  - Birchcliff Forest Health and Liability Assessment
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### MUNICIPAL DEVELOPMENT PLAN

In this section we will review pertinent information from the Municipal Development Plan

### VISION STATEMENT

The Summer Village of Birchcliff remains a quiet, safe and secure community in serving to meet the lifestyle needs of permanent and seasonal residents. The community character will be personified by passive, family-oriented uses and activities and exemplified by the country lane atmosphere of Birchcliff Road. The natural attractiveness of the community continues to be conserved by the residents' attitudes of respect and stewardship of the landscapes, views, wildlife, vegetation, shoreline and water quality of the provincially significant Sylvan Lake.

### CORE VALUES

Intertwined within the Birchcliff community vision are the following core values:

1. This is HOME.
2. A traditional small village atmosphere, in which safety and security are mainstays.
3. The quiet, peaceful enjoyment of private property and public areas.
4. Retaining the quality of life of its residents.
5. Being champions of stewardship to conserve the natural setting of the village and health of Sylvan Lake and its watershed.
6. Community autonomy, while still collaborating responsibly in planning, guiding and managing growth and land use changes around Sylvan Lake.

## GUIDING PRINCIPLES

In addition to the aforementioned vision and core values, the Birchcliff Municipal Development Plan 2013 is shaped by fundamental guiding principles. These guiding principles are:

1. Birchcliff will foster compatible land uses, including property and building standards, and manage development densities to maintain the community's small village atmosphere.
2. Birchcliff, while setting standards to sustain a small village atmosphere, recognizes that individual property rights need to be respected in planning, subdivision and development approval processes.
3. Birchcliff is committed to collaborating with all municipalities around Sylvan Lake to build and maintain positive and mutually beneficial relationships regarding matters of mutual significance.
4. Particularly, Birchcliff is committed to collaborating with all municipalities around Sylvan Lake to conserve the environmental health of the Lake and its watershed, and the enjoyment of their recreational attributes.
5. Birchcliff will consider options regarding the expansion of the community's land base, while also responding cooperatively to plans and proposals for land use change around the village.

## APPLICABLE POLICY STATEMENTS

In addition to the aforementioned vision, core values and guiding principles the following statements from the Municipal Development Plan require mentioning:

- 4.3.2(c) In guiding growth and managing land use change, a fundamental goal shall be to sustain the community essence of Birchcliff. The community essence of Birchcliff is a traditional and small village atmosphere, in which public areas shall remain accessible.
  - 4.3.2(d) In guiding growth and managing land use change, a fundamental goal shall be to sustain the community essence of Birchcliff. The community essence of Birchcliff is a traditional and small village atmosphere, in which residents are champions of environmental stewardship.
  - 5.2.1(2) The goals for managing community form and land use are to retain the country lane atmosphere of Birchcliff Road.
  - 6.1 The ongoing enjoyment of Sylvan Lake by resident and visitors to the lake, is dependent on the conservation of the Lake and its watershed. Lake Water Quality and the retention of sensitive environments, including the immediate shoreline contact zones and riparian areas along the lake, are especially important
  - 7.2.1(2) The open spaces goals include to conserve, wherever possible, areas having natural attributes so they remain an integral part of the community.
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## OPEN SPACE MASTER PLAN

In this section we will review pertinent information from the Open Space Master Plan.

### KEY ELEMENTS

The Open Space Master Plan needs to address planning, environmental and social aspect. Each of these aspects will serve to contribute to retain the quality of life of resident far into the future.

Management aspects include:

- ✚ Guardianship and maintenance.

### OPEN SPACE MANAGEMENT ACTIONS

To maximize the benefits of open space to the community, the Summer Village needs to undertake actions to promote / manage open spaces as outlined.

1. Prepare an open space brochure that shows community open spaces, the classification of open spaces and where and how public access and use is acceptable; this brochure should include the proposed trail system.

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## LAND USE BYLAW

### ENVIRONMENTAL OPEN SPACE DISTRICT (EOS)

Permitted Use – Natural Environmental Preservation

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## WILDFIRE MITIGATION STRATEGY

### WILDFIRE INCIDENCE

Grass and field fires are the most common type of wildfire in the Sylvan Lake area. The cause of wildfire is almost exclusively human induced; however, lightning has started fires in the area. The average number of wildfires per year is highly variable and dependent on ignition sources, time of year, and fuel types.








### FIREFIGHTING CAPABILITIES

Sylvan Lake Fire Department relies mainly on volunteer firefighters and provides fire rescue and emergency medical services to Sylvan Lake resident. Bush trucks and mini-pumpers are on pick-up truck chassis and tend to be better suited to action wildfire. The fire department has a water tender, which will benefit remote firefighting by supplying water to areas where water sources may not be readily available.

## FIRESMART ACTIVITIES, RECOMMENDATIONS AND URGENCY RATING

- 1 Public Education
  - 1.1 Educate and encourage ratepayers to participate in FireSmart - **MODERATE**
  - 1.2 Identify a community leader to assist with FireSmart education - **MODERATE**
- 2 Development
  - 2.1 Develop a secondary access on the northern section of the community that residents can use as an escape route during an emergency - **HIGH**
  - 2.2 Administration meet with local Fire Department to discuss issues and strategies – **HIGH**
- 3 Vegetation Management
  - 3.1 Residents maintain Zone 1 (0-10 meters), known as priority zone, as this the most critical to consider. Keeping this area clear of flammable vegetation and debris reduces the risk of home igniting during a wildfire, increases defensibility of the structure and is essential to the FireSmart process. No vegetation management should happen in any riparian zone. - **HIGH**
- 4 Legislation
  - 4.1 Review and revise Burning and Fire Pit Bylaw to include specific dimensions of fire containers and consolidate a section on fire hazards. - **MODERATE**
- 5 Interagency Cooperation – no recommendations
- 6 Cross-Training – no recommendations
- 7 Emergency Planning – no recommendations

## FIRE DEPARTMENT RESOURCES

-  35 personnel
-  3 engines
-  1 water tender
-  1 rescue unit
-  1 utility vehicle
-  1 bush truck
-  2 squad trucks

## SUPPRESSION TACTICS

The initial attack would be conducted with the water that was brought on the trucks from the Sylvan Lake Fire Department (Engine and Tender) approximately 3500 gallons total. If additional water was required a couple of scenarios can unfold:

- 1 Tender would locate closest hydrant and shuttle water back and forth from there. Dumping in a porta tank (winter operations, lake frozen). Generally speaking if this scenario was enacted other Tenders from Mutual Aid partners would be dispatched.
- 2 A “turbo draft” device would be deployed from the engine and water would be drafted from a water supply (lake).
- 3 A variation of 1 & 2 could be utilized. \* *Sylvan Lake Fire Chief*

## EVACUATION ROUTES

Northern Portion – South on Birchcliff Road, north on RR 15

Southern Portion – South on Birchcliff Road, the north on RR 14 or east on Twn. Rd 392

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## BIRCHCLIFF FOREST HEALTH AND LIABILITY ASSESSMENT

### ANALYSIS

Open spaces are forested with multi-cohort trees with a variety of understory species. There is no excessive wind, insect or disease damage to trees. Therefore is in the author's opinion that the open space forests are in good health. However there are some concerns, with forest health and liability, which Birchcliff will need to address. The following will identify concerns and make recommendation to mitigate concerns.

### DANGER TREES

Danger trees are a concern for both the municipality and resident. A dangerous tree is identified as a tree (live or dead, regardless of size) that is a hazard due to:

- ✚ Its location or lean
- ✚ Its physical damage
- ✚ Overhead conditions
- ✚ Deterioration of its limbs, stem or root system, or
- ✚ Any combination of the above

Recommendations when open spaces are:

1. Adjacent to residents removal 30 meters from property line
2. Adjacent to powerlines removal within 20 meters
3. Adjacent to roadways removal within 20 meters
4. Adjacent to walking trails that have high usage removal of danger trees
5. Adjacent to walking trails that have low usage marking of danger trees

### WILDFIRE

Fire spreads in three general categories: ground, surface and crown. Ground fires are unlikely due to a high decomposition rate, most likely caused by earthworm activity. In addition, due to the tree species present, a crown fire is highly unlikely in Birchcliff. Surface fires could occur in Birchcliff. A surface fire would burn the twigs, leaves and vegetation on the surface of the soil. Since there is are high decomposition rates these fire would most likely not be extreme because of the lack of fuels available to burn. Additionally, the Birchcliff Wildfire Mitigation Strategy (2015) does not make wildfire mitigation recommendations on municipal land within the summer village.

Recommendations

1. Focus on education, legislation and private property maintenance

## INSECTS AND DISEASE

A mite that causes leaf galls, witches broom of Saskatoon, and mushroom [conch] were observed during the site assessment. The presence of these insects and disease are not cause for alarm. Endemic populations of insects and disease are an important part of the ecosystem function in any forest. The only insect or disease that may cause liability issues is the mushroom. Conch type mushrooms and other similar species will not kill the Aspen. However, those species will make the stem (tree trunk) susceptible to being blown down by wind.

Recommendations

### **DO NOT TREAT ANY INSECT OR DISEASE IN BIRCHCLIFF**

## INVASIVE SPECIES

### **WEEDS**

- ✚ It is recommended that Birchcliff controls large areas of Canada thistle and other weed species in open spaces.

### **ORNAMENTAL SPECIES**

- ✚ Caragana should be removed from open spaces.

### **OTHER**

- ✚ Southwest of the intersection of RR 15 and Birchcliff Road where the powerlines intersects the open space, an ornamental shrub is growing wild and should be removed.

### **EARTHWORMS**

- ✚ That no carbon is removed from any of the open spaces within Birchcliff. For example if a tree needs to be felled, the tree should be felled and limbed on to the open space and left to decompose naturally. Limbing the tree will decrease the fine fuels and assist with decomposition by having the trunk of the tree on the forest floor.

## WATER BODIES

### **SYLVAN LAKE**

- ✚ No removal of vegetation occurs on open spaces within 60 meters of the Lake. If trees need to be felled for liability reasons, they should be felled onto the open space and left to decompose naturally.

### **CULVERTS**

- ✚ Inspection and repair / maintenance to all culverts to ensure there is no erosion or blockage and or sufficient size.

### **OTHER**

- ✚ No vegetation removal occurs within 10 meters from the edge of intermittent streams high water marks.
- ✚ Revegetation of drainage that parallels Birchcliff Cl. with bushes and trees.

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## ONGOING ACTIONS

### CONITNUAL ACTIONS

- Inventory and repair Emergency Address signage
- Meet with local Fire Department to discuss issues and strategies
- Inventory and maintain Danger Trees according to policy
- Annual invasive weed control measures
- Revegetation of drainage that parallels Birchcliff Close with bushes and trees

### 2017 IMPLEMENTATION STRATEGIES

- Develop education program that will:
  - Provide information to residents on how to better protect their properties from wildfire
  - Educate on evacuation routes
- Develop Danger Tree removal policy
- Begin control of invasive species in open spaces
- Include section in Land Use Bylaw to prohibit the removal of vegetation within 60 meters of Sylvan Lake on open spaces, felled trees should be left to decompose as per Danger Tree Policy

### 2018 IMPLEMENTATION STRATEGIES

- Work with neighbors on agreement to utilize property adjacent to Birchcliff Road for Emergency evacuation route.
- Review and revise Burning and Fire Pit Bylaw to include specific dimensions of fire containers and consolidate a section on fire hazards.
- Removal of caragana from Open Spaces, replant with indigenous species

### 2019 IMPLEMENTATION STRATEGIES

- Inventory, inspect and repair culverts to ensure no erosion or blockage
- Develop on-going culvert maintenance program

### 2020 IMPLEMENTATION STRATEGIES

- Facilitate a review of the Wild Fire Mitigation Strategies
- Facilities a Forest Health and Liability Study
- Review and amend the Forest Management Plan



