



# Sand Lake Estates

RR1, Elgin, Ontario K0G 1E0

Newsletter

Summer 2016

## The Geology of the Sand Lake Area

Back in 2011, the lead article in our newsletter was “Cottaging on a Mountain Top” – where it was explained how we’re sitting on the eroded remnants of a very old mountain range. The part we’re on is called the Frontenac Axis. In this article we’ll take a brief look at the geology of our local region.

The bedrock geology map shows that our lake is mostly underlain by metamorphic rocks (rocks changed by heat and pressure) – crystalline limestone (aka marble), shown as the blue unit 3 on the map, and schists and gneisses, shown as the brown unit 4. These are the oldest rocks in our area, formed over 1 billion years ago. South of us (York Bay area) is granite (quartz monzonite – unit 8), part of the Crow Lake Pluton. The granite is a bit younger, about 900 million years old, arriving near the end of the metamorphic changes to the older rocks. That metamorphism was part of a mountain building event as two early continental plates collided. When that process ceased, having created mountains as high as the Himalayas, erosion took over, wearing the mountains down over millions of years.

Continental drift moved our area close to the equator and we were covered by a shallow sea from 520 to 460 million years ago. Marine sediments were deposited on the eroded remnants of the old mountain range. Those sediments turned into limestone, sandstone, dolomite and shale. On our lake we see unit 11, sandstone, which occurs in various spots including the waterfront along Pine Ridge Road. It is this same sandstone unit that provided the stones for our local locks (Jones, Davis and Chaffey’s), quarried just east of Elgin, in the old Halladay quarry.

There is a classic example of the younger sedimentary rocks overlying the older metamorphic rocks in the Highway 15 road cut at the intersection of County Rd. 8 (entrance to Elgin). It’s known as the Elgin Unconformity (look it up on the Internet). The underlying rocks are part of the old mountain; the overlying rocks are the marine sediments that were deposited on top of it.



**Elgin Unconformity**

The red line represents a 400 million year period of erosion.

Now, jumping ahead a few hundred million years, we come to

### Notice of Annual General Meeting

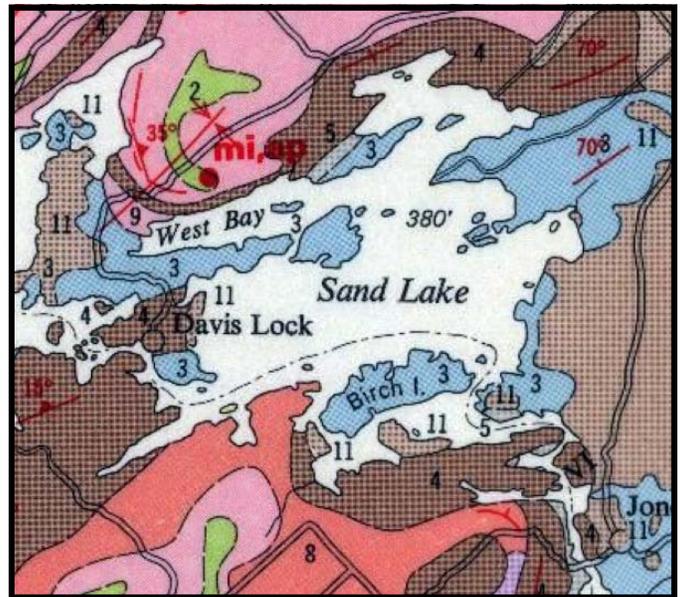
**Date:** Sunday, July 3, 2016

**Time:** 10:30 a.m.

**Place:** Elgin Municipal Complex (beside the Post Office). Chairs will be provided.

**Bring:** your annual dues (\$100)

Any and all donations of refreshments (juice/water) or edibles (cookies/muffins) will be graciously accepted. Please call Peter O’Neill 613-291-4660 or email: [Oneillinottawa@teksavvy.com](mailto:Oneillinottawa@teksavvy.com), no later than June 30.



MNDM Map 2054

#### Simplified Geology of the Sand Lake Area

*Pre-Cambrian metamorphic rocks:*

Unit 3 = marble (crystalline limestone)

Unit 4 = schists and gneisses

Unit 8 = granite

*Cambrian sedimentary rocks:*

Unit 11 = sandstone

Comments about the newsletter can be directed to the editor, Ken Watson, at [rideauken@gmail.com](mailto:rideauken@gmail.com)

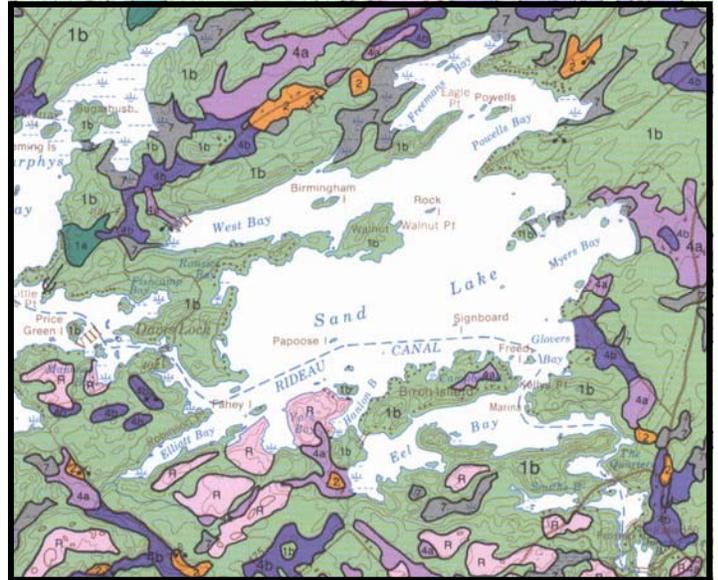
more recent times, the ice ages. There have been several. Early ones helped to gouge out the basins that form our local lakes. Our gravels and sands are a result of the most recent period of continental glaciation, the Wisconsin Glacial Episode. In our area that glaciation peaked a little over 20,000 years ago, with an ice thickness of over 1.5 kilometres. The weight of ice depressed the entire landscape by about 175 m (575 ft) below where it is today.

The glaciers not only scraped and eroded as they expanded, they also deposited sand and gravel (tills) as they retreated. On the surficial geology map, this is shown as the light green unit 1b, a generally thin (less than 1 m) thickness of sand, clay and gravel. Glacial retreat started about 20,000 years ago as the climate warmed. By about 14,000 years ago, the ice had retreated far enough to allow the expansion of Lake Ontario. With the ice gone from this area, but the landscape still depressed, and the lower St. Lawrence still blocked by ice, the lake expanded in size, covering our entire area (as far north as Perth).

This large glacial lake was known as Lake Iroquois and it left evidence in our area in the form of deep water sediments, silt and silty clay, unit 4a (light purple) and nearshore sediments, sorted sand and gravels, unit 4b (deep purple). By about 13,350 years ago a channel opened up in the ice dam (near Rome, NY), rapidly draining much of the lake, leaving our area high and dry except for the lakes we have today. At the same time the land was rising as the weight of the ice was removed (this rising is called "isostatic rebound"). That rebound is still occurring, although at a greatly reduced rate in our area (about 3 mm per year).

Humans use rocks and minerals for various things (human civilization was built on mining). While there is no direct evidence of local native mining, they may have mined ochre from a small deposit near Jones Falls. The first mining by Europeans in our region was the small iron deposit on Lower Beverley Lake. The iron ore was used for the smelter in Lyndhurst (1801-1811). That iron deposit was noted during the first exploration of the region in 1783.

Mining near our lake was first done in about 1870 when Mr. Ed Schultze mined fifteen tons of apatite for export to Germany. The location was on the north shore of West Bay, what is today known as the Sand Lake Mica Mine (a small open pit mine, on private property).



GSC Map 1801A

**Surficial Geology of the Sand Lake Area**

- Unit 1b = Till Veneer (unsorted sand, gravel, clay)
- Unit 4a = Offshore Sediments
- Unit 4b = Littoral and Nearshore Sediments

Apatite, a mineral containing phosphate, was used for fertilizer, most of it exported to England and Germany. The geological environment that formed apatite is also conducive to the formation of mica. By the late 1800s, with the economics of hard rock apatite mining no longer viable, several of these mines turned into mica mines.

In 1900, the Sand Lake mine was acquired by the

Brockville Mining Company who mined it that year for its mica content. It was known at the time as the McLaren and Fulford mine and sometimes as the Hardy Mine. It was mined again from 1905 to 1907. The dumps were worked in 1910 and the last known mining was done in 1912 by Mr. Mendels and Mr. Smith of Perth, when 12 tons of mica, with a value of \$20,570 at the time, was mined. By 1916 it appears that the mine was owned by Mr. Fahey and Mr. Sullivan of Elgin, but it unclear if they did any further mining other than to scavenge the dumps.



Mica (phlogopite) from the Sand Lake Mica Mine. Mica was originally used for windows in stove and furnace doors, goggles and lamp chimneys. In the twentieth century uses for mica developed for insulation and electrical equipment. Ground mica is also used in the manufacture of paints, wallpaper and lubricants.

Elsewhere on the lake, an early map (1926) of Sand Lake shows a small feldspar mine near Eagle Point, mining feldspar from a pegmatite unit that makes up much of the point. On the south side of Birch Island you can still

## SAND LAKE ESTATES

see the lime kiln built by the Jackson brothers in the early 1900s. They mined crystalline limestone on the island to make quicklime (from the burning of limestone).

Today, the rugged terrain of the Precambrian rocks of the Frontenac Axis host the lakes in our region. At one point this entire area was farmed, but the poor soil development on this terrain made the economics of these farms problematic so it evolved into cottage country. The crystalline limestone that underlies many of our lakes provides a buffer against acid rain, helping to maintain our water quality and supporting a good fish population. All in all, we can say that we have an ideal cottaging environment due to our area's geology.

To learn more about the geology of our area you can use the Internet to obtain the main geological report and map of this area. "Westport map area, Ontario, With Special Emphasis on the Precambrian Rocks"; Wynne-Edwards, H R. Geological Survey of Canada, Memoir 346, 1967. Both the report and the geological map are available as free downloads – you can find links to them at: [www.rideau-info.com/canal/history/geology.html](http://www.rideau-info.com/canal/history/geology.html)

- Ken W. Watson



### Entrance TLC

Our entrances are getting some needed TLC. The "Sign Refresh Project" is being led by Peter O'Neill who has been working at repairing the entry signs on Pine Ridge Road and Walnut Point Road. Work on this will continue this summer.

Mike Miles has planted a new tree to replace the almost dead entry tree. The Touzel family has added a bench in memory of Stewart Touzel who was an extremely active volunteer with Sand Lake Estates.

If you would like to help, please contact Peter O'Neill, 613-291-4660 or [Oneillinottawa@teksavvy.com](mailto:Oneillinottawa@teksavvy.com)

Our 2015 AGM was held on Sunday, July 5, at the Elgin Community Hall. Several reports were presented including finances and road maintenance. It was reported that our managed forest application has been submitted to MNR and that, once approved, that info will go to MPAC and taxes on our backlands will be reduced to a similar rate as agricultural land.

The issue of maintenance of access roads over private properties was raised at the 2015 AGM. It was noted that the required liability waivers are likely out of date and the board will look into getting these up to date so that any required maintenance work can be done.

We're still looking for members to serve on our board of directors (we're two short). At our 2016 AGM a motion will be put forward allowing a designate to serve in place of an owner. Our current by-laws state that only owners of SLEI properties can serve on the board. Please contact Peter O'Neill if you are interested in serving on the board.

The current (2015/16) Executive is:

President: Peter O'Neill

Vice-President: Mike Miles

Treasurer: Peter O'Neill (acting)

Secretary: Phoebe Wright

Directors at large are: John Ziegler and Reid Barter. Our Lake Steward is Ken Watson. Our Managed Forest Manager is Mike Miles.

### Dues

2016 dues are \$100 and can be paid at the AGM, on-line (see below), or by mailing your cheque and the enclosed annual dues form to Sand Lake Estates, RR1, Elgin, ON K0G 1E0. You can also pay your due on-line, using the PayPal link on our website at [www.sandlakeestates.ca](http://www.sandlakeestates.ca)

For questions about your dues contact our acting Treasurer, Peter O'Neill at 613-291-4660 or [Oneillinottawa@teksavvy.com](mailto:Oneillinottawa@teksavvy.com)

### 2016 AGM

A reminder that our 2016 AGM is on Sunday, July 3 at 10:30 am. It will be held in the Elgin Municipal Complex, chairs will be provided. The AGM is the best venue to chat with the directors and ask any questions you might have about our association.

### Minutes

The draft minutes of our 2015 AGM and the minutes of the August 2015 Executive Meeting have been included in our email-out to members.

## 2015 FINANCIAL REPORT

### Income Forecast

Dues	4,700.00
Back Dues	0
Road Grant	872.00
Interest	1.00
<b>Total</b>	<b>5,573.00</b>

### Expenses

Taxes	1,433.61
Hall Rental	109.84
Insurance	1,071.36
website	16.94
Roads	2,544.06
Managed Forest Plan	791.00
FOCA	319.50
Sign Refresh Project	579.63
<b>Total</b>	<b>6,865.94</b>

### Reconciliation

1 January 2015 - Opening Balance	7,103.08
31 December 2015 - Closing Balance	5,681.54

Opening Balance	7,103.08
Add Deposits	<u>5,444.40</u>
	12,547.48
Minus Expenses	<u>(6,865.94)</u>
	<b>\$5,681.54</b>

BMO Term Investment (contingency fund)	<b>\$4,371.91</b>
---	-------------------

---

## TREES

We want to remind members and their guests that the backlands are a forest, not a park. If people are strolling through the woods they are reminded to be vigilant for partially fallen trees or other hazards. Hiking through the backlands is done at your own risk.

For trees that fall or partially fall on the road allowance, residents are asked to contact i) the Road Superintendent or ii) Ontario Hydro (if trees are or may potentially interfere with hydro lines) so that an assessment can be made to ensure no one is hurt dealing with tricky removals.



## ROAD MAINTENANCE

Almost half of your annual dues is used for the summer maintenance of SLE roads. Our volunteer Road Superintendent is John Ziegler who does a magnificent job - **thanks John!** We expect grading to be done in mid-June this year and some extra gravel will be added. John announced last year that he was stepping down as Road Superintendent, so any volunteers are welcome. Please contact Peter O'Neill if you'd like to help.

Peter O'Neill has done a great job with his tractor on fixing up the roads when the need arises. There are also several volunteers who help out by trimming vegetation that encroaches on the road, cutting grass, filling in pot-holes, digging out ditches and other maintenance work. These include Reid Barter, Bob Haapala, Ken Watson and others (in addition to John and Peter). Feel free to help out if you see an issue with any of the roads.

### Winter Ploughing

Sand Lake Estates does not do (or pay for) any winter maintenance/clearing of the roads. Private individuals are paying for all winter sanding and ploughing. Winter ploughing costs are shared on a volunteer basis. Contact John Ziegler for Pine Ridge/Eden roads or Bob Haapala for Walnut Point Road if you would like to contribute to the ploughing of the main access roads.

Those wishing to have their driveways ploughed should contact our contractor, Terry French, of French's Trucking, directly at: 613-272-2465.

---

## PARKS CANADA

Parks Canada has renovated the Davis Lockmaster's House and it is now available as a weekly rental (\$1,200 to \$1,500 per week). The rental is being managed by Rideau Lakes Cottages, you can see the listing here: [www.rideaulakescottages.com/host\\_view\\_dtl.cfm?ref\\_num=15753](http://www.rideaulakescottages.com/host_view_dtl.cfm?ref_num=15753)

The Government of Canada announced a new round of infrastructure funding for the Rideau Canal. This will help meet a promise by Parks Canada to take all the structures currently in poor condition, to fair or good condition by March 2020. One such project is the flight of 3 locks at Jones Falls, originally slated for repair back in 2010. It received funding in this recent announcement. A previous funding announcement for Jones Falls included the replacement of the old wooden bridge that goes to the base of the locks (from the Hotel Kenney) and the bridge over the weir.

## GARBAGE PICKUP and CHANGES TO RECYCLING

Garbage pickup by the Township during the summer (Victoria Day to Thanksgiving) is at the end of **your driveway** (NOT at the end of the main roads) every Monday (or Tuesday if Monday is a holiday). It is your responsibility to clean up any spills of your garbage in a timely manner. To ensure that spills don't happen in the first place, regular garbage should be placed in a "critter proof" container. Please note that containers you'll see along our roads are private. Organic material should be composted.

The recycling schedule of paper/cardboard/boxboard recycling one week with plastic and metal recycling the next week, continues in 2016. You find the schedule on each page of your Township calendar. Calendars are available at the Post Office in Elgin.

Garbage must be placed in a clear bag and have a Township bag tag attached. A bag without a valid bag tag will not be picked up. Tags can be purchased at Gordanier Grocery in Elgin. Recycling is free and must be in a clear blue bag. Fibres and paper may be bundled but must be tightly tied (or it won't be picked up). There is a limit of 2 bags of garbage and 5 bags of recycling per week and each bag must weigh less than 40 pounds.

Details about the Township's waste collection policy, including a full list of how to sort your recyclables, can be found on the Township website at: [www.twprideaulakes.on.ca](http://www.twprideaulakes.on.ca)

Please ensure that **all users** of your cottage (i.e. guests or renters) are aware of the rules.

## WATER QUALITY

Your association's Lake Steward, Ken Watson, participates in the Ontario Ministry of the Environment's Lake Partner Program. This involves taking weekly water clarity readings using a secchi disk, taking weekly water temperature readings and taking six water samples a year that are measured for phosphorus content.

In 2015, the average secchi water clarity reading was 4.9 metres, up from 4.6 m in 2014. The average phosphorus content of our lake (6 samples) in 2015 was 13.7 ug/L, up slightly from 13.1 ug/L the year before (lower is better).

We seem to be levelling out at pretty good quality. The recent downward trend was due to the decline in zebra mussel populations – but that seems to be stabilizing. Overall clarity and phosphorus content remain very good for a lake of our type (Mesotrophic, moderately enriched with nutrients).



## OUR LOONS

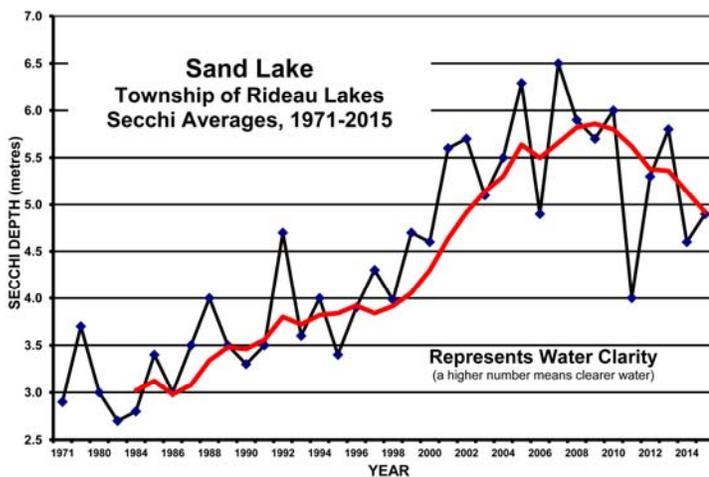
There are a number of artificial loon nesting platforms on Sand Lake. We ask that you and your guests avoid approaching any of these during nesting season, early-May to mid-June. This can disrupt the nesting loon, sometimes to the point of nest abandonment.

We also ask boaters to please be aware of the small loon chicks, especially during July and August. Also please make all visitors and renters aware of the fact that loon chicks are in the area and that they are very vulnerable to being run over by a boat or PWC. They are hard to spot in the water and too young to be able to avoid boats. It is up to you to avoid them.

The loons in Rancier Bay abandoned the nest in late May this year. The nest was fine, but no sign of eggs or chicks. Last year they hatched one chick. It survived the summer to fly south in late fall.

## ICE IN - ICE OUT

Sand Lake froze over on January 5, 2016, then opened on Jan 10 and froze again on Jan 14. The ice was gone from the lake on March 29, 2016.



## BOATING INFORMATION

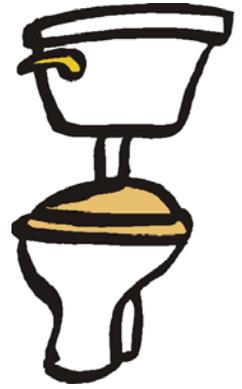
- Everyone who operates a powered pleasure boat must have a Pleasure Craft Operator's Card.
- No one under the age of 16 may operate a personal water craft (PWC).
- No one under the age of 12, and not directly supervised by a person 16 years of age or older, may operate a vessel with more than a 10 HP engine.
- No one between the age of 12 and 16, and not directly supervised by a person 16 years of age or older, may operate a vessel with more than a 40 HP engine.
- Make sure you have all safety equipment required for your boat, which includes items such as a buoyant heaving line, a watertight flashlight (with batteries loaded) and a manual sound-signaling device.
- A personal flotation device of appropriate size must be available for each person on board (i.e. if you have children in a boat, you must have child-size PFDs.)
- For most boats (including canoes/kayaks), consuming alcohol on board is against the law. And, just like a car, you have to be sober to operate a boat.
- If you are a tow boat for a water-skier, tuber, etc., you must have at least 2 people and 3 seats in the boat. There must be a driver, an observer and a spare seat for each person being towed.
- While refueling, all occupants of the boat must be ashore, all engines must be off, all open flames must be extinguished. Portable fuel tanks must be filled ashore.



## SEPTIC SYSTEMS

This is your yearly reminder to take stock of your septic system - is it working as it should? Have you had it pumped out recently?

An improperly working septic system will allow the release of harmful bacteria such as E. coli (fecal bacteria) into our lake. It can even contaminate groundwater (i.e. your well or your neighbour's well).



Follow these six steps to keep a healthy system:

- Step 1 – Do** have your septic tank pumped out every three years
- Step 2 – Don't** overload your septic system with water
- Step 3 – Don't** give your septic system indigestion
- Step 4 – Don't** drive or park cars or heavy machinery on the septic bed
- Step 5 – Don't** plant trees or shrubs on or near the septic bed
- Step 6 – Do** let your system grow with the family and usage – know its capacity

### ***Does your septic tank need to be pumped out this year?***

If you didn't know you had a septic system, if it hasn't been pumped out in the last 3 years, if you can't remember when it was last pumped out, then you should have it pumped this year.

Two local contractors who do this work are Bryan's Septic Service in Westport (**613-273-3078**) and Hogan's Septic Service of Seeleys Bay (**613-387-3432** or **1-800-395-1375**).

### **Free Lockage in 2017!!**

As part of Canada 150, Parks Canada will be providing lockages for free on the Rideau Canal during the entire 2017 season.

## COMING EVENTS

For more details on events see: [www.twprideaulakes.on.ca/rec-events.html](http://www.twprideaulakes.on.ca/rec-events.html)

- |            |   |
|------------|---|
| June 26    | Queen's University Biological Station Open House, noon to 3 p.m. - on Opinicon Lake                                 |
| July 1     | Canada Day Fireworks – from 10 to 11 pm on Big Rideau Lake near Portland (good viewing from Hanna Park in Portland) |
| July 1 - 3 | Rideau Lakes Garden and Studio Tour (look for brochures in Elgin)   |
| July 3     | Sand Lake Estates AGM – 10:30 a.m. at the Elgin Municipal Complex   |
| July 8-10  | Elgin Days – includes a BBQ and a parade  |
| July 21-24 | Delta Fair  |
| July 30    | Annual Craft Market at Chaffeys Lock – 8 am to 4 pm.  |

## BASS FISHING

A reminder to all that the bass fishing season does **not start until the third Saturday of June** (June 18).

The problem with pre-season poaching of bass is that if the bass are pulled off their nests, other predatory fish (sunfish, etc.) will swoop in and eat the bass eggs or fry. This means that even catch and release fishing is damaging to bass stocks.

It is illegal to fish for or take bass before the **third Saturday in June** or after December 15th.

This means that it is against the law to do any type of fishing which potentially targets bass such as casting in areas that are less than 1.8 m (6 ft) in depth, using bass lures or using live bait. **This includes catch-and-release.**

If you see a poacher, report the license number of the boat to MNR at **1-877-TIPS-MNR** (1-800-847-7667).



Bright spots that you can see underwater in shallow areas of our lake are bass “nests.” Once the water temperature is high enough (about 18°C/65°F) the female will lay her eggs and the male will continue to guard the nest until they hatch.

---

## Be Tick Aware

Our 2013 newsletter carried an article about the dangers of ticks and Lyme disease. This danger is growing with the increase in the blacklegged tick (aka deer tick) population in our region. If you’ve got a dog, you’re well aware of ticks (and likely have some expertise in properly removing them). There are some basic rules to follow:

**Prevention** – the best defense is to avoid getting a tick on you. Ticks generally hang out in long grasses and plants (such as we have on most of our properties and the sides of our roads). Covering up (long pants, socks, long sleeves) generally works, but is often not practical in summer. Mosquito repellent containing Icaridin or DEET works against ticks – apply it to any exposed area of skin that a tick might latch onto. For more information see:

[www.cps.ca/documents/position/preventing-mosquito-and-tick-bites](http://www.cps.ca/documents/position/preventing-mosquito-and-tick-bites)

**Removal** – you should do a tick check every day. They can be very small, but look for something that shouldn’t be there (they can look like a small seed). They prefer a warm spot – neck, armpit or groin area. The good news is that it takes a tick carrying Lyme disease 24 to 48 hours to transmit that to the host – so you can avoid the problem by removing the tick early. The trick is to very gently pull or pry the tick away from the skin, taking care not to leave the head lodged in the skin. Gentle but firm pulling will force the tick to let go. Then swab the affected area with rubbing alcohol to remove any tick-borne bacteria and apply a topical antibiotic (i.e. Polysporin) to prevent possible infection.



**Lyme Disease** – this can be a debilitating disease for humans and may be hard to detect, although it is easy to treat with antibiotics if caught early. The symptoms vary and may include fever, headache, fatigue, depression, and a characteristic circular skin rash. The rash is a clear give-away – a bulls-eye pattern rash that can appear from a few days to a month after the initial bite. **BUT not everyone develops the rash** (about 80% do but **20% don’t**).

**If In Doubt** – if you have a tick that appears to have been on you for more than a few hours then save it once removed (for later identification of type). Unfortunately our nearest health centre, Country Roads Community Health Centre in Portland, does not do tick identifications. However they will do tick removals and if they believe that you’ve been exposed to Lyme disease, they can initiate a test. You’ll be best off in the long run dealing with your own family physician.

**Dog Owners** – there are new tick prevention meds now available. Ask your vet about your dog’s best options.

**More Information:** the internet of course has tons of information, best to check with official health provider websites. A good place to start is : [www.healthunit.org/hazards/documents/lyme.htm](http://www.healthunit.org/hazards/documents/lyme.htm)