

From: Mayor Bob Thomlinson

Date: December 2017

Greetings from your Municipal Council in the Summer Village of Jarvis Bay. The following is a summary of 2017 activity and 2018 planned events in our community:

- ***Sign Up for Email Notifications*** – Do you want notices about Fire Bans, changes in garbage pick up or other time sensitive information about Jarvis Bay? You can sign up for email notifications on our website at <http://www.sylvansummervillages.ca/jarvis-bay.html>
- ***2018 Interim Budget Approved*** – Council approved a 2018 Interim Municipal Budget which allows regular municipal business to continue in 2018, as required by the Municipal Government Act. Council's budget objective is to maintain level tax rates, year over year, to cover municipal spending and school taxes combined. We don't receive the annual ASFF (school tax) requisition until late January so the final 2018 budget debate and approval should occur in February.
- ***Repaving Roads*** – During the 2018 budget debate, Council will decide on the timing for a repair and repaving program for all municipal roads in the Summer Village. This project will be covered in the 3-year capital budget and expected to occur in stages from 2018 to 2020. The costs will be covered by grants and transfers from our reserve funds.
- ***May 26, 2018: Save the Date*** – A **Team-Up to Clean-Up** event is being planned in all eight municipalities around Sylvan Lake. This new 3-hour event will be held annually thereafter on the first Saturday after the May long weekend. Volunteer family teams can help enhance their communities by collecting litter that accumulated over the winter. Each Jarvis Bay team will be assigned an area from our municipal reserves, environmental reserves, road allowances or Petro Beach. Participants will be rewarded with a community BBQ at noon, a great way to greet the new summer season with your neighbours. Stay tuned for more details.
- ***Sylvan Creek Walking & Biking Bridge*** – An engineering decision resulted in Provincial approval for the bridge being located about 30 metres from the Highway 20 boundary (closer to the lake). Neither Council nor the property owner, who is granting us the right-of-way for the pathway, were happy with this location. A revised application was submitted to go through the whole approval process again. Since the construction contract has been awarded, construction should start when the ground thaws.
- ***Solid Waste (Garbage) Containers*** – Council wishes to remind all residents that our Waste Disposal Bylaw stipulates the use of a "Refuse Receptacle" by all residents. Approved receptacles can be either a galvanized circular metal container equipped with a close fitting metallic cover and handles, or a durable plastic container with a close fitting lid and handles.

Garbage not properly contained offers a veritable banquet for birds and furry animals to spread around the neighbourhood. Close fitting lids are important because foxes have been known to remove loose fitting lids. This bylaw has been in force since March 9, 2000 and

provides for fines of up to \$1,000 for repeat offenses. Please note that complaints to our Summer Village Administration will be investigated by our Municipal Enforcement officer.

- ***Animal Waste Complaints*** – Council does not get a lot of complaints from Jarvis Bay residents but in 2017 we received several written and verbal complaints about “dog owners” not picking up after their dogs and/or leaving waste disposal bags along the side of the road. Most complaints were about unidentified “dog owners” in general, which makes it hard to follow up. The complaints were accompanied by suggestions that we send letters to all residents, erect more signs and/or install dog waste stations on all roads and pathways. With no evidence to suggest that the problem is entirely caused by residents, Council is skeptical about the effectiveness of sending letters or installing more signs. Our garbage collection contract also has specific restrictions on the handling of animal waste.

So, we would prefer to start by asking all residents to be vigilant and ready to offer polite reminders to neighbours, guests and total strangers that animal waste should be picked up and disposed of in garbage receptacles at their own home.

- ***Storage of Private Property on Public land*** – The adoption of the revised Municipal Development Plan in 2016 meant that private property can no longer be stored or left on public land within Jarvis Bay. Over the past year our Public Works staff have been identifying items and materials that needed to be moved and tracking down the owners. Notices were placed on various items in the spring and we physically removed some boat lifts left behind on the lakeshore and park areas at Petro Beach. Boat lifts left in the water can also be removed by our staff, working under removal orders from Alberta Environment. In 2018 we will continue to identify owners and physically remove items that are not claimed.
- ***Wastewater Disposal Challenges and Cost Increases*** – 2017 was a year of highs and lows for Wastewater around Sylvan Lake. The high came in May when the Province announced a grant of \$37.08 million to the Sylvan Lake Regional Wastewater Commission for a new pipeline to the Regional Wastewater Treatment Facility in Red Deer. This announcement came after years of work and lobbying efforts by the Commission. Our current wastewater treatment facility in the Town of Sylvan Lake has reached its capacity and Alberta Environment will not allow expansion of older low-tech treatment facilities.

The low point started in 2016 when the Town was unable to meet a new and more stringent set of federal regulations for the release of treated waste water. Despite the installation of additional treatment equipment, the Town was again unable to pass the tests in 2017. The treated wastewater had to be diluted with collected storm water and water pumped out of the lake under a Temporary Diversion License issued by the Province.

All eight municipalities were budgeting future wastewater costs to increase, based on the pipeline operating expenses and the processing fees charged by the Red Deer facility. The new costs for diluting treated discharges from the existing treatment facility were not expected and not included in any budget forecasts. The Town recently announced that their wastewater collection charges would more than double for Town residents in 2018. Jarvis Bay increased our annual charges in 2017, in anticipation of the cost increases.

- **Lake Water Levels** – The most frequent question we had this year has been “How much is the lake level going down from the withdrawal of water to dilute treated wastewater?” Since the pumps have been installed in Jarvis Bay, our Administration Office has fielded many of these questions from people all around the region.

A Temporary Diversion License (TDL) was first issued in 2016 for 1.41 million cubic metres of water, although that volume was not actually reached. Based on the surface area of the lake, this diversion produced a drop of 4 cm in the lake level. Three separate TDLs, totalling 1.617 million cubic metres, were issued in 2018. The contractor was able to pump 1.426 million cubic metres by October 3, 2017 when they had to shut down because the water level had dropped to an elevation specified in the TDL. The water withdrawn in 2017 would have accounted for 5 cm of the lake level drop.

The hydrological report on waterbody inflows and losses is called a Water Balance. For waterbodies like Sylvan Lake, the Water Balance is reviewed regularly but doesn’t change much over the long term. A detailed study conducted in 2005 for the Sylvan Lake Management Committee is still considered accurate (see below).

Sylvan Lake Water Balance (1983 - 2000)

Source: 2005 Study by AXYS Environmental Engineering

General Metrics for Sylvan Lake:				
Total Lake Surface Area - Square Kilometers	41.75	km ²		
Total Lake Drainage Area - Square Kilometers	109.25	km ²		
Total Lake Volume - Million Cubic Meters	420.00	Mm ³		
Current Average Annual Rainfall in Millimeters	483	mm		
Volume Required to Change Lake Level by 1 cm	0.42	Mm ³		

Mean Annual Inputs: (Million Cubic Meters per Year)	Mm ³ /a	% of All Inputs	% of Lake Volume	Height in Millimeters
Mean Annual Precipitation	20.4	59.0%	4.9%	489
Mean Annual Surface Inflows	10.8	31.2%	2.6%	259
Mean Annual Groundwater Inflows	3.4	9.8%	0.8%	81
Total Inputs	34.6	100.0%	8.2%	829

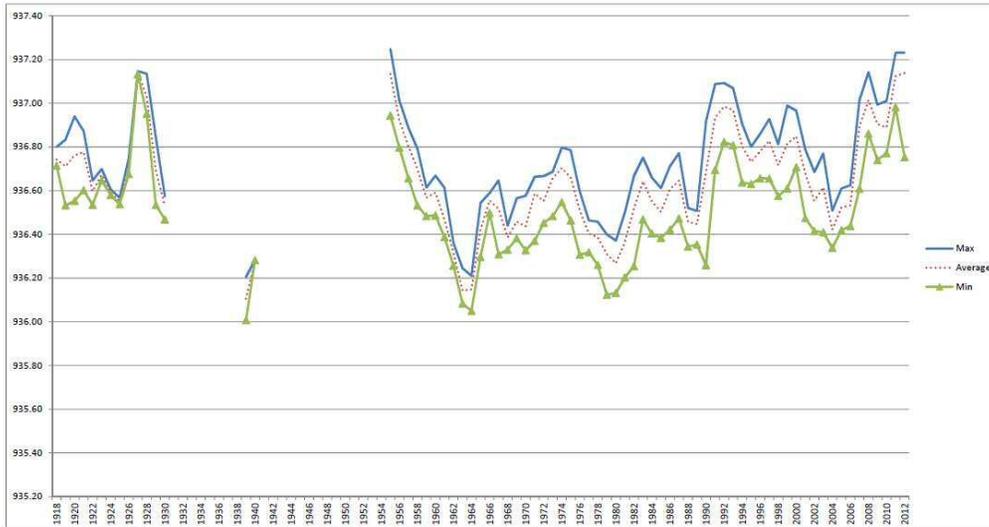
Mean Annual Losses: (Million Cubic Meters per Year)	Mm ³ /a	% of All Losses	% of Lake Volume	Height in Millimeters
Mean Annual Evaporation	31.2	91.5%	7.4%	747
Mean Annual Outflow (Sylvan Creek)	2.9	8.5%	0.7%	69
Mean Annual Outflow to Groundwater	0.0	0.0%	0.0%	0
Total Losses	34.1	100.0%	8.1%	817

It should be obvious that our lake level is primarily dependent on precipitation inflows (rain and snow falling on the lake and within the watershed) and losses from evaporation. We will remember 2017 for it’s great weather. The winter snowpack was below average and there was not a lot of rain (which reduced the water inflows). We also enjoyed hot days and cool nights (which provide the best conditions for evaporation).

Environment Canada operates a water level gauge station next to the Marina. Real time data is available online for about 3 years and archived daily levels are available back to 1918. The easiest way to access the data is with **RiverApp**, a free app for IOS and Android devices. This app was created by the Kayak community to monitor river levels and flows and it can access gauge stations from all over the world. Search on **Canada**, then **Alberta** then pick the **Sylvan Lake (ab)** station from the list. The chart below demonstrates that lake water levels trend up and down over a roughly 7 year cycle, which follows longer term weather patterns.

Sylvan Lake Water Level from 1918 to 2012

Recorded Surface Elevation in Meters Above Sea Level
Data Source: Environment Canada Hydrometric Data for Station 05CC003 - Sylvan Lake
(No data available for 1931 to 1938 and 1941 to 1954)



- **Smoke and Carbon Monoxide (CO) Detectors** – Council and the Sylvan Lake Fire Department wish to remind residents that you should have suitable placed Smoke and Carbon Monoxide detectors installed in your dwellings. They should be tested and any batteries changed regularly.

These devices also have a fixed life span which is governed by federal regulations. All detectors that have been sold in recent years either have an expiry date or a maximum usage life printed on them. They must also issue an audible alarm when that expiry date or operating time has been reached. The newer models will start timing their own life from when they are first installed and power is supplied (hard wired and/or battery power).

- **Septic Pump Life Span Risks** - Council again wishes to remind everyone that our sanitary sewer system is now in it's 18th year of operation. The nominal life expectancy of residential septic pumps is 10 years. Your property could be at risk if you operate a pump beyond it's life expectancy.

Copies of the engineering requirements for attachment to the sanitary sewer system are available, on request, from the Summer Village Office at (403) 887-2822 or by email to info@sylvansummervillages.ca. This specification calls for septic pumps to be capable of 40 litres per minute with a head pressure of 70 Psi (480 kPa). An independent study of our sewer system, by Stantec Engineering, confirmed that the use of undersized septic pumps could result in operational issues such as those experienced by some residents in the spring of 2011.

Please note that our entire sewer line is now inspected and flushed annually.

Best regards,
Mayor Bob Thomlinson
Summer Village of Jarvis Bay, December 2017