

Utility Newsletter

June 2006



GEOTHERMAL ENERGY INFORMATION MEETING

Why? – The continuing rise in energy costs and concern over the effects of greenhouse gases on the environment has caused Sun Peaks Utilities and some Sun Peaks Strata Councils to explore geothermal energy options. We would like to engage all interested Sun Peaks residents in a discussion on this green energy source. We have recent information on the issues and options for creating geothermal energy capability at Sun Peaks that take into consideration protection of our potable water aquifer (the source of Sun Peaks' drinking water).

What is Geothermal Energy? – The Earth is a storehouse of energy that is produced internally by radiogenic heat production and long-term cooling of the planet. The surface of the Earth is also warmed by solar radiation. We refer to the Earth's energy as "Geothermal Energy". This energy is available to us for use in a variety of applications, including direct use for heating, cooling and power generation.

(Reprinted from the Canadian Geothermal Energy Association at www.geothermal.ca).

How does it work? – Pumps draw geothermal heat out of the ground by circulating a solution of water and anti-freeze through a series of tubing embedded in the subsoil under and around your property. This tubing can be inserted either vertically or horizontally into the ground, literally "tapping" into the geothermal energy contained within. The extracted heat energy then flows back through a water-heat exchanger, where it is absorbed by a refrigerant. The refrigerant is then compressed, increasing its temperature to 160°F, and an air-heat exchanger circulates it throughout your property. By simply reversing the process, ambient heat can be removed, and you are left with a cool, dehumidified interior.

Environmental concerns - When asked what the potential impacts of having many kilometers of tubing containing an anti-freeze buried into the ground, Bill Eggertson of the Earth Energy Society of Canada (EESC), stated that "no firm research has been done." In Ontario though, Eggertson advised, the government elected to restrict the use of methanol (anti-freeze) as it poses a potential hazard to the safety of drinking water were it to be present in concentrated amounts. BC does not currently have any restrictions but is currently reviewing the matter.

Options at Sun Peaks – Every community's potential for geothermal use for heating and cooling is different. Sun Peaks Utilities, our consulting engineers, various ministries and regulators, and some Sun Peaks Strata Councils have been exploring different options in search of a method that would be safe and effective for Sun Peaks. Assuming ministry and regulatory acceptance, it is possible for individual land owners to create self contained geothermal energy capability. Another option is a centralized Geothermal Utility that can utilize horizontal drilling in areas outside of the highly vulnerable Sun Peaks Aquifer.

In order to continue the Utility's focus to minimize the environmental impact of its operations, the Utility is currently exploring options as it relates to geothermal energy.

Prior to doing more work on the possibilities of geothermal at Sun Peaks, we want to hear from the community and our customers to find out what they think. If you are interested in learning more on this subject and would like to schedule an information meeting some time in September or October, please register on our web site at www.sunpeaksutilities.com or contact the office at 250-579-5490. Once we have a firm date, we will contact everyone who has expressed an interest. *(Further updates on this subject will be made available on the Utility's web site at www.sunpeaksutilities.com and in future newsletters.*

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WATER QUALITY UPDATE

SUMMER HYDRANT FLUSHING AND FLOW TESTING PROGRAM – In order to



ensure that all of Sun Peaks' has good quality water and that the Fire Hydrants are in good working order, Sun Peaks Utilities' Field Staff will be conducting its annual water main and fire hydrant flushing and flow testing program **starting June 12, 2006 and continuing for the next three weeks.** Hydrant and water main flushing and flow testing will be conducted by Utility Field Staff between the hours of 8:00 am and 4:30 pm each weekday.

While flushing will occur throughout the resort during this time period, water to individual properties should only be affected for a short period of time, typically between 30 to 60 minutes. During this time, residents and commercial properties may notice a slight drop in water pressure accompanied by a slight discolouration of the water.

The process of running water at high velocity to scour the inside of the water mains does leave a small amount of iron or rust (red particles) and manganese (black particles) suspended in the water for a few hours. These particles are

harmless and the water may be safely consumed.

Please use caution when using water for sensitive activities if you notice any discolouration of your water. It is suggested that laundry and dishwashing be done between 6 p.m. and 7 a.m. on weekdays or any time on weekends, since work will not be done on the hydrants and water lines during these time periods.

If you do notice discoloured water, it is recommended that you turn on an outside spigot and allow water to run for approximately three to five minutes or until the water appears clear. If you do laundry during this period of time and you find that some staining occurs, there is a remedy. Most grocery and hardware stores carry laundry aids which remove rust stains.

The flow testing being performed at the same time as the flushing will confirm the amount of water available to the fire department for fire protection, the condition of the distribution system and detect any closed water main valves that may limit flows. The information on the system is provided to the Sun Peaks Fire Department and Insurance Underwriters Organization to assist in obtaining the best possible insurance fire rating for Sun Peaks.

Please assist us in keeping shrubs and trees pruned back from fire hydrants. Motorists are encouraged to slow down and use caution when approaching flushing crews.

For more information on this project or any other utility matter, please contact the Utility's office at 250-578-5490.

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