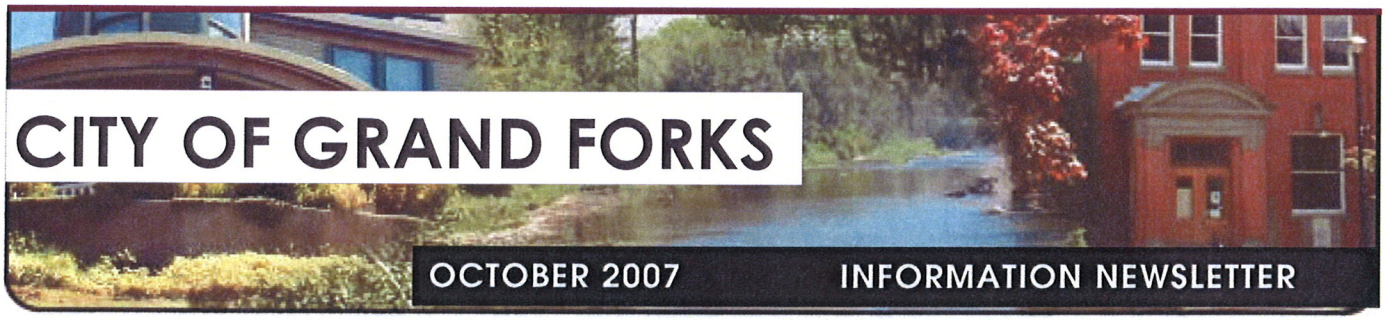

WATER CHLORINATION PROJECT

The recent Boil Water Advisory was ordered by the Interior Health Authority due to a contamination of the City's water supply. The source of the contamination has yet to be found, and City works crews are diligently attempting to locate the source of the contamination. The source of the contamination is unclear, but may potentially be from cross-connections from industrial, commercial or domestic water users. The City has taken extra precautions by increasing the amount of testing of the water supply and in a wider range of locations. Since the initial outbreak, there has been no further contamination found.

The Interior Health Authority gave the City the authorization to lift the Boil Water Advisory and to replace it with a Water Quality Advisory. Under this Advisory, Interior Health Authority recommends that children, the elderly, those with weakened immune systems and anyone seeking additional protection, may, at their own discretion, boil water as an added precaution for one (1) minute or use a safe alternative until further notice. Otherwise, the City's water is safe to drink.

As a part of the ongoing testing and evaluation of the system, the Interior Health Authority has recommended that the City chlorinate our water system. The alternative to this is a Boil Water Advisory that remains in effect until the source of the original contamination is found. Even if the source is found, it is likely that in the near future the Interior Health Authority would have ordered the City to chlorinate its system.

The City is complying with the recommendations from the Interior Health Authority. Equipment has been ordered, and will be installed as soon as possible. The City has five deep wells that bring water from the underground aquifer. Water is pumped from the wells through the system and eventually to the east side reservoir. Most of the water that is pumped is consumed before it makes it to the reservoir. The reservoir acts as a balance to help pressurize the system and as a source of fire protection.

The chlorination plan consists of using chlorine tablets that come in contact with the water at the pumping station releasing a minute dose of chlorine into the system – just enough to provide a free available chlorine residual capable of achieving adequate levels of disinfection of the water. The product that will be used is similar in nature as the product used extensively in the swimming pool industry, but certified for use with drinking water.

The City's engineers also considered Ultra Violet disinfection; however, this system is used primarily in water systems that have a surface water source such as lakes and rivers. These sources have a biological component that suits the UV system. The City's water source is deep wells, and the water from these wells does not have any biological components that would require UV disinfection. The UV disinfection system is used for primary disinfection of water, while the system being installed by the City is a secondary disinfection system that uses the minimum amount of chlorine to destroy bacteria, algae, slime, fungi and other microorganisms. Chlorine disinfection is the only system that provides the disinfectant residual required by the Interior Health Authority.

CITY OF GRAND FORKS

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We are on the Web!
www.city.grandforks.bc.ca

WHAT IS CROSS-CONNECTION?

(PART TWO — ON "SAFE DRINKING WATER")

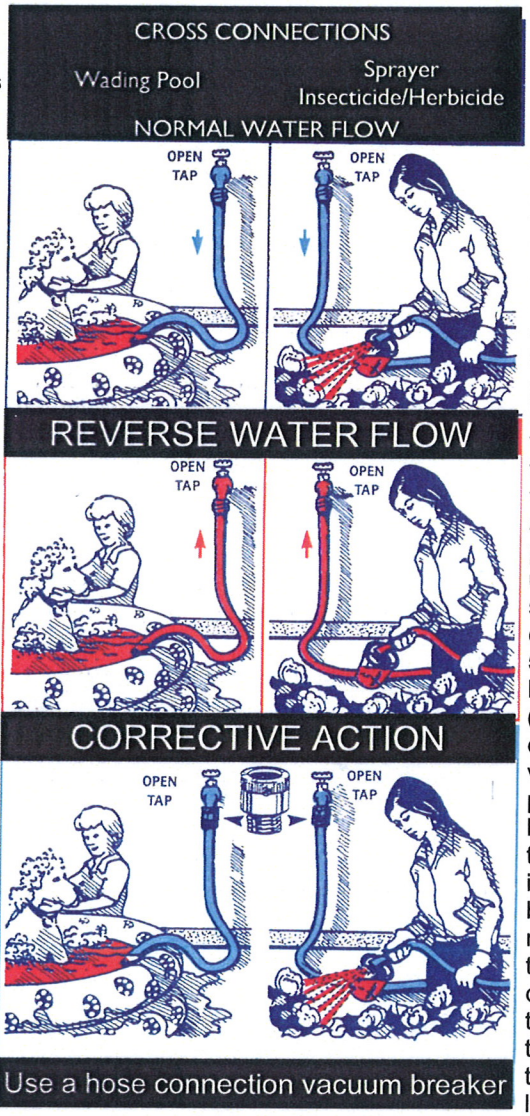
OUTDOOR FIXTURES

As stated in our previous article on Cross -Connection – Indoor Fixtures, the ordinary garden hose is the most common offender. It can be attached to an outside tap or hose bib with the end of the hose connected to a pesticide sprayer or left submerged in an ornamental pool or paddling pool (as shown in the top two examples to the right). If reverse water flow occurs, cross-connection could result in the contamination of your water source (center two examples).

Sprinkler irrigation systems can be one of the worst cross connection problems with its maze of pipes, valves, and sprinkler heads. The majority of sprinkler systems in the Province of British Columbia are connected to a potable (safe for drinking) water supply. This potable water supply could consist of a city water main, a well, or any other source of drinking water supplied by your local water purveyor.

Herbicides, pesticides, fertilizers, or animal feces may collect in cesspools or water around the sprinkler heads creating a potential for the contaminants to be drawn back through the sprinkler irrigation system.

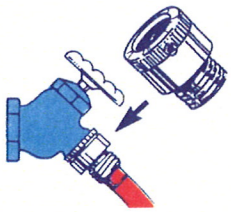
This flow of contaminants (by means of Backflow or Backsiphonage) into the potable water supply line, without an approved means of cross connection control, will result in contamination of the potable water supply.



CORRECTIVE ACTION

There are five basic products used for protection of cross connections.

1. **Air Gap** (shown in our previous newsletter) is an unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe and the flood level rim of the receptacle. The physical separation must be at least twice the diameter of the inlet pipe and never less than 1".
2. **Atmospheric Vacuum Breakers**— which also include hose connection vacuum breakers. These vacuum breakers screw onto taps and allow water out, but not back in. Prior to winter, avoid damage due to freezing by manually draining outdoor vacuum breakers and by turning off indoor valves that service outdoor taps.
3. **Pressure Vacuum Breakers** have an atmospheric vent valve which is internally loaded by a spring. The PVB can therefore be installed on the pressure side of a shutoff valve and used in situations that are operating under continuous pressure. A PVB should be installed 12 inches above the highest outlet on the non-potable water system. A PVB also includes a backflow preventer with intermediate atmospheric vent for 1/2" and 3/4" lines. Vacuum breakers, whether pressure or atmospheric are effective against backsiphonage only. They cannot be used in backpressure situations.



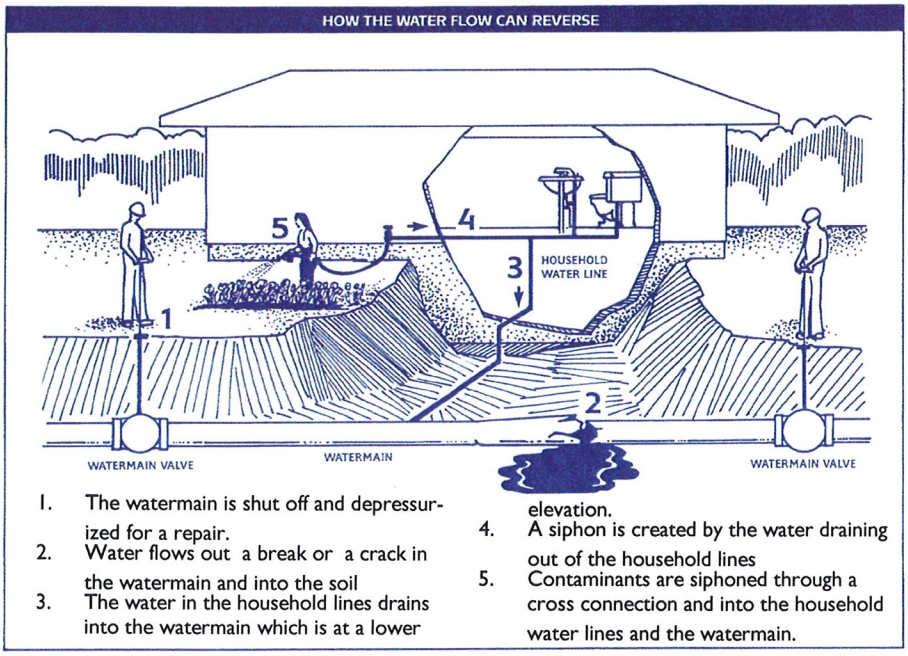
Atmospheric Vacuum Breaker

4. **Double Check Valve Assembly** (DCVA) consists of two approved check valves, internally loaded either by a spring or weight, which are installed as a unit between two tightly closed shutoff valves. DCVA's are effective against backflow caused by backpressure or backsiphonage and are used to protect water systems from substances which are not hazardous to health.
5. **Reduced Pressure Principle Backflow Prevention Device** (RPBD) consists of two independently acting, internally loaded check valves separated by a reduced pressure zone. The device should be installed as a unit between two tightly closing shutoff valves. During normal operation, the pressure between the two check valves is maintained at a lower pressure than the supply pressure. If either check valve should leak, a differential pressure relief valve will maintain the pressure difference between the supply pressure and lower pressure zone by discharging to the atmosphere. Inspection of the unit will therefore indicate a malfunctioning before a danger of backflow exists.

Cross-Connection control devices have internal seals, springs and moving parts that are subject to fouling, wear or fatigue and should be serviced when required and tested periodically to ensure that they are functioning properly.

Some degree of pressure loss is experienced essentially with all cross connection control devices. The typical pressure drop across a device depends on the type, make, size and location of the device. Refer to the manufacturer's literature.

WHAT IS CROSS-CONNECTION? (CONCLUSION FROM PAGE 2— ON "SAFE DRINKING WATER")



1. The watermain is shut off and depressurized for a repair.
2. Water flows out a break or a crack in the watermain and into the soil
3. The water in the household lines drains into the watermain which is at a lower elevation.
4. A siphon is created by the water draining out of the household lines
5. Contaminants are siphoned through a cross connection and into the household water lines and the watermain.

Consider this scenario: it's a hot, sunny, water-using day. You've decided it's time to use the garden hose to spray fertilizer on your lawn. Attached to your garden hose is one of those handy bottles that applies the fertilizer at the proper rate and dosage when you turn on the faucet. You've taken all the right precautions to prevent yourself from being contaminated by the product by wearing a respirator and gloves. You're spraying the product on your lawn, when suddenly your teenager decides to take a midday shower and your spouse turns on the dishwasher and does a load of laundry. The high use of water from your home results in negative reverse flow, allowing the unwanted products to be sucked into your home water supply to poison you.

Another scenario: while you are spraying the product on the lawn, a fire erupts down the street. There is a sudden drop in water pressure as water is rapidly pulled out of the mains from the fire department. The product in the garden hose is then drawn into the water mains beyond your home contaminating the water and causing the entire neighbourhood to become suddenly ill and possibly causing death. You didn't take the right precautions to prevent your neighbor's water from being contaminated. A properly installed protective backflow (or back siphonage) valve could have prevented the contamination and death.

To prevent contamination from a home faucet, each outdoor spigot should have a ***vacuum breaker*** (as shown on page 2) installed. This type of cross-connection prevention device will stop backsiphonage from occurring.

WATER QUALITY

Safeguarding your drinking water is *everyone's responsibility*.

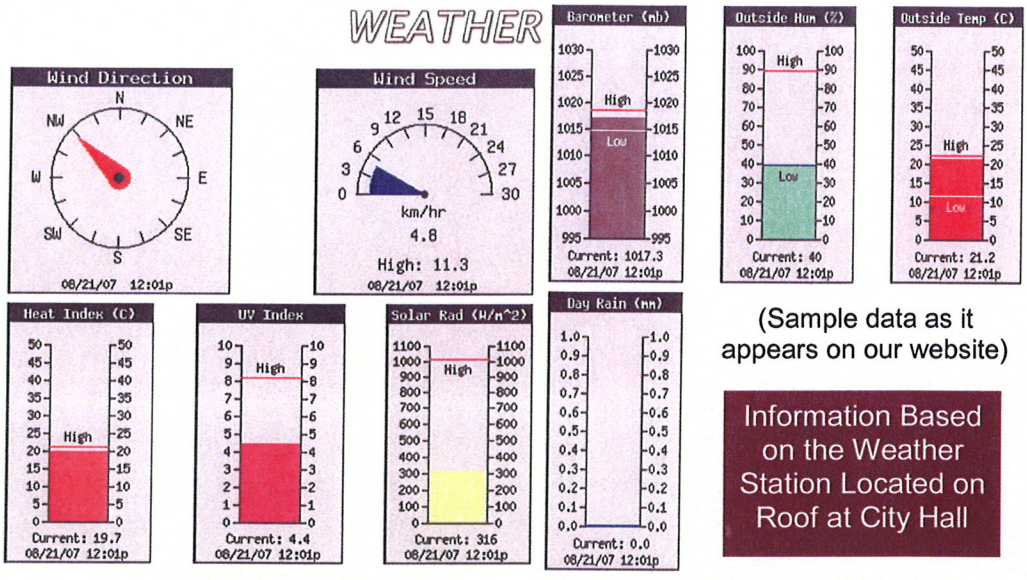
Your municipality lives up to its responsibility by producing and supplying safe drinking water that meets the "recommended Canadian Drinking Water Standards".
The Provincial Government lives up to its responsibility by setting high standards for water quality.
Homeowners have a responsibility, too. They must ensure that no cross-connections exist on their property.

GRAND FORKS WEATHER DATA NOW LOCATED ON OUR WEBSITE!!!

You can now get up-to-date **"live"** weather data through our city website. Address is: **www.city.grandforks.bc.ca**

Choose **"aboutgf"** and then choose **"Weather"** on the left menu.

You can view the Outside Temperature, Outside Humidity, UV Index, Heat Index, Solar Rad, Rain, Barometer, Wind Speed and Direction.



(Sample data as it appears on our website)

Information Based on the Weather Station Located on Roof at City Hall

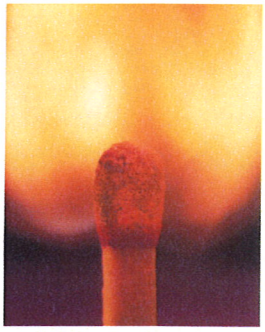
"BURN IT SMART" WORKSHOP IS COMING TO GRAND FORKS

On Thursday,
October 18th, 2007
7:00 PM
at Selkirk College

The Workshop is going to be approximately 2 hours long and includes the following topics:

⇒ Introductions And Overview
⇒ Wood Heat Options
⇒ Planning An Effective Wood Heat System
⇒ Selecting And Locating A Chimney
⇒ Firewood
⇒ Tips On Burning Wood Without Smoke
⇒ Link Between Health And Our Environment
⇒ Maintenance of Wood Burning Systems
⇒ Insurance Issues
⇒ Conclusion

Two examples of operating wood burning stoves will be on display showing the differences between an old stove and a new model.
Everyone is invited to attend this ***FREE*** workshop. Bring a sample of your own wood for moisture testing.



PUBLIC CONSULTATION MEETING TO BE HELD ON NOVEMBER 19TH, 2007 at 7:00 PM AT THE SENIOR'S CENTRE

Topics:
⇒ 2007 Project Updates
⇒ Financial Plan-2008-13
⇒ Capital Plan-2008-13
⇒ Community Sustainability Plan
⇒ Other Service Issues

COMMISSIONAIRES.....

⇒ Council will be renewing the contract for another year starting October 16th, 2007
⇒ Implementing the Commissionaires has made a difference — A number of businesses have commented on reduced vandalism
⇒ We still need the public's co-operation in phoning in all complaints or suspicious activities to Crime Stoppers at 1-800-222-TIPS or emergencies at 9-1-1.

CITY OF GRAND FORKS CONSULTATION ON SUSTAINABLE COMMUNITY PLAN LOOKING FOR PUBLIC PARTICIPATION IN A STEERING GROUP

Council intends to engage the public in creating a long term vision of the Community primarily focusing on the principles of sustainability. The Province has granted $93,300 towards this project. The project will review the City's current plans and policies and will develop ways in which the City can integrate its approach to creating a more livable and sustainable community.
To fully involve the public, Council will create a Steering Committee comprising of individuals from the general public & specific interest groups and stakeholders. Individuals appointed to the Steering Committee must be willing to:

- Attend a minimum of four Steering Group meetings;
- Participate on ad-hoc meetings between the monthly meetings;
- Personally invite community residents to community meetings and attend those meetings;
- Participate in the December 7th and 8th community workshop as small group leaders;
- Provide timely and constructive feedback;
- Represent the highest interests for the entire community;
- Commit to working with the basic ground rules of mutual respect, willingness to work with new information, and construction attitude; and
- Serve as ambassadors for the project.

Council has hired the firm of Urban Systems out of Kelowna & the Pomegranate Institute out of Seattle, Washington to undertake the public process on behalf of Council. Council will provide the leadership to the project and consultants on the project will work within the general guidelines established by Council.

The City is asking that members of the general public who are interested in being a part of this Steering Group , to contact City Hall by emailing: **info@grandforks.ca**. In your email, please indicate why you are interested in the project and provide a basic resume.