

COVID-19 and Water Issues - Questions and Answers

1. How can the COVID-19 virus impact our drinking water systems?

- Provided normal operation and maintenance of a drinking water treatment plant and adequate disinfectant (typically chlorine) is maintained in the distribution system the virus causing COVID-19 will not affect drinking water supplies.

2. How does a water treatment plant deal with the COVID-19 virus?

- Treatment and disinfection processes effectively inactivate the COVID-19 virus. Information from the World Health Organization shows that chlorine disinfection can effectively inactivate the virus when proper treatment is done.

3. What is the Water Security Agency doing to prevent against this?

- The Water Security Agency is maintaining its regular inspection and emergency reporting/follow-up services to aid water and wastewater operators in ensuring effective treatment.
- WSA has provided technical information related to the COVID-19 virus on the management of drinking water and wastewater treatment systems for operators in the province.
- WSA is contacting municipalities to ensure they have plans in place in case their waterworks operator becomes ill and will provide contact information for replacement operators.
- In conjunction with industry WSA has determined there are adequate water treatment chemical supplies available for a prolonged period.

4. How does COVID-19 impact a wastewater treatment plant?

- Based on material provided by the World Health Organization (WHO) there is no evidence to date that the COVID-19 virus has been transmitted via sewage systems including those with or without wastewater treatment. The available literature suggests that coronavirus may persist in domestic wastewater for up to three days.
- WHO information also suggests that lagoon systems, such as those used at Saskatchewan towns and villages are well suited to destroying pathogens given the relatively long retention time combined with sunlight.
- Some communities, particularly the larger communities have Ultraviolet (UV) disinfection in place at their wastewater treatment plants as a means to inactivate microbes before an effluent release in a river or stream.

5. What about communities that are downstream of others that release into the river, how does that impact their water source?

- Viruses, bacteria and other microbes are present in surface water and to a lesser extent groundwater source waters all the time. Provided approved water treatment and disinfection processes remain in place, there is no threat to treated drinking water.
- It is essential now as always, that waterworks operators continue to maintain effective treatment and disinfection at their drinking water systems.

6. What happens if a drinking water treatment plant isn't working properly?

- If a drinking water treatment plant is not functioning properly, it must be reported to the Water Security Agency (24-hours upset Reporting Line @ 1-844-536-9494) as soon as possible and guidance will be provided.
- In some instances, it may be necessary to issue a Precautionary Drinking Water Advisory or an Emergency Boil Water Order. If that is the case, consumers are, as always, strongly advised to follow the guidance provided. Boiling drinking water can inactivate bacteria, viruses and other microbes that could be present in drinking water if there is a breakdown in the treatment and/or distribution system.
- A listing of current PDWAs and EBWOs can be found at:
<http://www.saskh2o.ca/advisories.asp>

7. What is being done to prevent against the spread of COVID-19 in treated wastewater?

- Larger communities such as Regina, Saskatoon, Prince Albert, Moose Jaw and others have UV disinfection systems in place to reduce the level of bacterial, viral and other microbial contaminants in the treated effluent.
- WHO information also suggests that lagoon systems, such as those used at Saskatchewan towns and villages are well suited to destroying pathogens given the relatively long retention time combined with sunlight.
- Operators of wastewater systems must avoid direct contact with wastewater or aerosols generated by pumping and treatment systems since wastewater may contain coronavirus from affected individuals. Operators should use personal protective equipment such as gloves, face shields, boots and appropriate clothing where exposure is possible.
- The best way to deal any contamination of surface water sources with the COVID-19 is to ensure that the drinking water plants and distribution systems are working properly and that the chlorine residual remains at an appropriate level.
- Deep groundwater-based drinking water treatment systems are typically not at risk of contamination of these raw water sources due to release of treated wastewater effluent.

8. There have been reports of water plant operators not coming into work because of the COVID-19 virus, what are you doing about this?

- On March 25, 2020 the Government of Saskatchewan released a list of what is considered essential services during this time and public utilities like water and wastewater operators are considered to be essential and need to continue to operate as normal.
- WSA has contacted owners and operators of waterworks and advised that provision of safe drinking water is essential and normal operations must continue using distancing and protective equipment related precautions in place during the COVID-19 outbreak.
- Should operators fail to attend to their duties WSA has legal authority to issue Waterworks Protection Orders to intervene, or to appoint replacement operators at the expense of the owner.
- Again, maintenance of safe drinking water through effective system operation and maintenance is essential at all times and during the COVID-19 pandemic.