

**OUR RESPONSE TO COVID-19****AGHAM AT KAALAMAN PARA SA BAYAN!****OFFICERS**

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**PAASE BULLETIN # 2****ON PAASE STRATEGIC ACTION GROUP 1: CONTAINMENT & MITIGATION**

**Addressed to: General public and LGUs**

**SARS-CoV-2 IN WATER AND WASTEWATER**

SARS-CoV-2 is in the family of viruses most susceptible to environmental conditions and disinfection, more easily inactivated by chlorine disinfection and UV-C treatment than other waterborne pathogens such as coliforms and protozoa. Therefore, properly treated (filtered and disinfected) drinking water should be free from infectious virus and safe to drink. Commercially available bottled water, typically disinfected with ozone and/or treated via reverse osmosis, are also safe and virus-free. *It is important that the general population has access to clean, safe water for drinking, cooking, washing, and hygiene.*

**COVID-19 and Human Wastewater:**

SARS-CoV-2 has been detected in the feces of some patients diagnosed with COVID-19, and in municipal sewer systems. The amount of virus released from the body (shed) in stool, and whether the virus in stool is infectious are not known. The risk of transmission of SARS-CoV-2 from the feces of an infected person is also unknown. SARS, a similar coronavirus, has been detected in untreated sewage for up to 2 to 14 days. In the 2003 SARS outbreak, there was documented transmission associated with sewage aerosols. At this time, the risks of transmission through sewerage systems is considered low.

Previous findings related to SARS indicates that CoV-1 is disinfected when chlorine dosing produces a free chlorine residual between 0.2 and 0.5 mg/L in municipal wastewater. *Good hygiene practices (e.g., washing hands, regular disinfection of surfaces in the toilet, reducing aerosolization during flushing) are the best barriers to a fecal-oral transmission pathway.*

However, wastewater systems in many cities in the Philippines often result in untreated wastewater (e.g., from septic tanks) going to storm drains, and eventually rivers and streams. Data from "classic" SARS virus studies show that the virus can persist for days in natural water. While the risks are low, drinking from and exposure to untreated waters (swimming in lakes and rivers contaminated by human waste) may be a transmission pathway for COVID-19. *We therefore advise people to avoid ingesting or swimming in untreated waters at this time.* Swimming pools and hot tubs are typically properly chlorinated, and should be safe.

For workers in wastewater treatment, the SARS-CoV-2 hazard is expected to be controlled with standard risk mitigation strategies currently employed. The US CDC has provided the following guidance for wastewater treatment workers:

"Wastewater treatment plant operations should ensure workers follow routine practices to prevent exposure to wastewater. These include using engineering and administrative controls, safe work practices, and PPE normally required for work tasks when handling untreated wastewater. No additional COVID-19-specific protections are recommended for employees involved in wastewater management operations, including those at wastewater treatment facilities."

**References:**

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