



## COVID-19 and Our Drinking Water and Sewerage Services

### 1. Your water supply and Sewerage Services

Recognizing the importance of water for public health, all water and sewerage services companies throughout the country are doing everything they can to maintain the water supply, sewerage services and protect the consumers.

The MWA is confident that the water services industry will continue to provide clean, safe, reliable drinking water for everyone. Across the industry, companies are working together so that every single person across Malaysia can continue to rely on their water supply and sewerage services. At all times, they are working closely with the regulators and authorities as they continue to monitor the situation to ensure safety and security of the services for the consumers. The MWA commends the water companies who had constantly provide the update information and guidelines on their operations to the consumers.

Following are some of the **Frequently Asked Questions (FAQs)** compiled by the MWA as a service to the community and consumers who are concerned about the effects of COVID-19 on our water supply and sewerage services.

### 2. COVID-19 Water Supply and Sewerage Services FAQs

Q1	Can I get COVID-19 from tap water?
Q2	What is Being Done to Ensure the Drinking Water Remains Safe?
Q3	How does COVID-19 (coronavirus) spread?
Q4	As the pandemic spreads and MCO is extended, will my water service be disrupted?
Q5	Can the COVID-19 virus spread through sewerage systems?
Q6	Is COVID-19 present in wastewater?
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Q9	What are water companies doing about protecting their workers and consumers?
Q10	How do private well owners protect their well from COVID-19 infiltration?
Q11	How can I conserve water use while combatting COVID-19 challenge?
Q12	Who to contact during emergencies?

### **Q1 : Can I get COVID-19 from tap water?**

No. The COVID-19 virus has not been detected in drinking water. The World Health Organization (WHO) has stated that the *“presence of the COVID-19 virus has not been detected in drinking-water supplies and based on current evidence the risk to water supplies is low.”*

Conventional water treatment methods that use filtration and disinfection, such as those in Malaysia should remove or inactivate the virus that causes COVID-19. Hence, the water quality treatment processes we take — now and always — are effective to protect your water from viruses and pathogens, including the coronavirus. Groundwater undergoes natural processes, including natural filtration and attenuation, which facilitate the removal of viruses, bacteria, and other microbial contaminants, such as COVID-19. Water from properly constructed, located, and maintained drinking water wells is generally safe. However, it is noted that private wells using a shallow water table aquifer, such as dug or bored wells, and wells close to a failed/failing septic tank would be at risk of microbial contamination.

### **Q2 : What is Being Done to Ensure the Drinking Water Remains Safe?**

The Ministry of Health Malaysia has established regulations with treatment requirements for public water systems that prevent waterborne pathogens such as viruses from contaminating drinking water. These treatment requirements include filtration and applications of disinfectants such as chlorine that remove or kill pathogens before they reach the tap.

The Ministry of Health National Water Quality Surveillance Program is also in place and all water companies are required to comply with the monitoring and testing of all parameters on a daily basis and/or set frequency for sampling testing. The program involve techniques for routine sampling of directly measurable parameters, including chlorine residual, temperature, pH, and turbidity. This routine and ongoing sampling ensures that the treatment is effective to address pathogens including viruses.

The regulator SPAN and Ministry of Health have reached out to waterworks owners and companies to provide information and encourage owners and companies to prepare for potential future events. The whole water industry is working hard to ensure customers continue to enjoy the same world class water and sewerage service they expect.

### **Q3 : How does COVID-19 (coronavirus) Spread?**

- While many questions remain regarding transmission of COVID-19, most often the virus is spread from person-to-person during close contact — about 2 m (6 ft).
- Through respiratory droplets produced when an infected person coughs or sneezes.

- With most respiratory viruses, people are thought to be most contagious when they show symptoms of infection.
- People are also thought to be most contagious when they are most symptomatic (the sickest) and vulnerable like senior citizens and suffering chronic illnesses.
- However, some viruses can be contagious prior to symptoms development, and the COVID-19 has been reported to have spread from an asymptomatic infected patient to a close contact, but this is not thought to be the main way the virus spreads.
- It is possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes.
- Members of public are advised to remain vigilant and observe good personal hygiene practices.

All evidence from the spread of the virus shows that drinking water supply is not a route for transmission of the virus. People should continue to use tap water as normal, including for drinking, handwashing, bathing, cooking and cleaning teeth.

**Q4 : As the pandemic spreads and MCO is extended, will my water service be disrupted?**

Our water system infrastructure continues to operate normally. Perhaps now more than ever, having a safe and reliable supply of clean water is vital to the health and well-being of the community.

One of the major challenges of resiliency for water and wastewater utilities is providing clean water and safely treating wastewater – this is a critical service that many people take for granted. Water and wastewater services are vital for a healthy community, and the industry is working to ensure these services will continue especially for all those experiencing hardship at this time. What gives us confidence is that our utilities provider puts forth strong commitment and dedication in protecting our health together with strong problem-solving capability to address challenges and to ensure safe water quality while also sometimes dealing with ageing infrastructure. It is a responsibility the water utilities team takes seriously.

**Q5 : Can the COVID-19 virus spread through sewerage systems?**

At this time, the risk of transmission of the virus that causes COVID-19 through sewerage systems is thought to be low. Although transmission of COVID-19 through sewage may be possible, there is no evidence to date that this has occurred. This guidance will be updated as necessary as new evidence is assessed.

Properly treated and disinfected sewage is vital for preventing disease and protecting health and the environment. Previous studies investigating persistence of coronavirus and SARS in sewage showed that in the absence of disinfection, the virus can survive in sewage from hours to days. In the 2003 SARS outbreak, there was documented transmission associated with sewage aerosols. Data suggest that standard municipal sewerage system chlorination practices may be sufficient to inactivate coronaviruses, as long as utilities monitor free available chlorine during treatment to ensure it has not been depleted.

Our sewage treatment operations are designed to return non-polluting effluent to the rivers that comply with Department of Environment effluent discharge standards. There is no evidence that risks are altered by the pandemic.

#### **Q6 : Is COVID-19 present in wastewater?**

Recent information suggests that COVID-19 may be transmitted through the faecal-oral route. The virus RNA was detected in patient stool after scientists noticed that some patients infected with the COVID-19 virus experienced diarrhea in the early stages of infection instead of a fever, the latter being more common.

While evidence exists to show coronavirus is found in the faeces of patients, scientific evidence has shown that its survival in sewage is poor - due to the virus having a lipid based outer envelope.

The Centre for Disease Control (CDC) of the US said that *“the risk of transmission of COVID-19 from the faeces of an infected person is also unknown”*.

However, it added, the risk is expected to be low based on data from previous outbreaks of related coronaviruses, such as SARS and the Middle East respiratory syndrome (MERS). There have been no reports of faecal-oral transmission of COVID-19 to date, CDC added.

However, *previous work also highlights that SARS can readily be disinfected* when chlorine dosing produces a free chlorine residual between 0.2 and 0.5 mg/L for municipal sewage. These results imply that standard municipal sewerage system disinfection and hyper (or shock) chlorination practices may be sufficient to control the virus provided utilities monitor free available chlorine during treatment to ensure it has not been depleted.

Sewerage and sewage workers are also protected and they should use standard practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) as prescribed for current work tasks.

In line with current advice, the most effective form of protection is to maintain high levels of hygiene – such as thoroughly washing hands, using personal protective equipment and maintaining at least 2m distance between yourselves and others.

**Q7 : What can I flush down the toilet?**

Nothing should be flushed down the toilet apart from the **3 Ps – Pee, Poo** and (toilet) **Paper**. Other items like wipes and paper towels should be disposed of in the trash, not the toilet. This is because the blockages caused by wet wipes and products like kitchen roll and hand towels which are not designed to be flushed can lead to blockages in internal plumbing and our sewer pipes which can cause sewer flooding – with raw sewage flooding people’s kitchens and bathrooms and our neighborhood.

**Q8 : What are water companies doing to ensure continuity and safe water supply during the MCO?**

- To respond to the COVID-19 emergency, the water companies had announced the adoption of practices, which provide critical support for public health, including proactive measures to ensure continued access to clean water for drinking and handwashing during the COVID-19 pandemic.
- Many water companies have implemented the following:
  - ✓ Suspended cut-offs of water supply due to payment arrears;
  - ✓ Restoring service to customers whose service was previously cut-off;
  - ✓ Refraining from imposing penalties for nonpayment;
  - ✓ Introduce measures for people who struggle to pay their bills or who are vulnerable.
- Utilities on the other hand, are standing ready to activate their respective emergency response plans and drought protocols, which include daily monitoring of dam levels, demand management and water delivery through tankers where needed.
- To secure water quantity and quality, utilities have been mandated to strengthen their quality monitoring. In some places residual chlorine has been adjusted in the distribution system.
- SPAN and state authorities are encouraging the public to use effective water conservation methods, raising awareness on the use of water and encouraging recycling and reuse of water when appropriate.

**Q9 : What are water companies doing about protecting their workers and consumers?**

- All water companies have taken precautionary steps to protect the health of their employees to ensure operations are not disrupted .
- All employees who are able to perform their work from home are doing so. Customers are to conduct their business with companies by phone, email, or online.

- All employees are to follow the preventive measures provided by the Ministry of Health on how they can minimize the risk of catching COVID-19.
- Employees are trained to follow robust emergency operations and business continuity plans that include the possibility of a pandemic, and will continue to be updated for COVID-19, as necessary, to meet service obligations to customers and communities.
- They have suspended on premise meter readings as of March 2020. Customers will receive estimated water bills, based on past usage. Once it is safe to resume on premise meter readings, actual meter readings will be used to revise back accounts.
- Some of the employees must continue to work in the field to perform their duties to maintain water service and water quality, such as water main flushing, water quality testing and treatment and water system operation.
- Employees who have direct customer contact will practice social distancing, such as avoiding handshakes and wearing disposal nitrile gloves while in customers' homes.
- Only emergency construction activities, such as repairs to water mains or other critical infrastructure necessary to maintain water service and water quality, are being performed.
- Non-essential construction, such as water main replacement projects, are being suspended until further notice to protect employees and their "mission-critical" roles in providing water service.
- Further, non-emergency construction work can result in planned and unplanned service interruptions at a time when we need to maintain continued water service for handwashing, good hygiene and sanitation.

#### **Q10 : How do private well owners protect their well from COVID-19 infiltration?**

Small communities often pump well water straight from the ground to kitchen sinks without any disinfection. Because sanitary sewers and private lavatory are commonly located near drinking water wells, it is important for private well owners to proactively seek the authorities assistance to test the water from their wells for the presence of coliform bacteria, which indicate fecal matter contamination somewhere in the system.

Some measures the well owners can take starting with protecting their water source and collection points, ensuring the water collected is safely stored at home in regularly cleaned and covered containers and boiling their water at all time. If coliform levels exceeded MOH mandated thresholds, a good safeguard is to have appropriate dosed free chlorine be added to the water besides always boil the water at all times.

## Q11 : How can I conserve water use while combatting COVID-19 challenge?

The most critical measure in preventing the spread of the novel COVID-19 is handwashing, which depends on an adequate water supply.

As the nation embarks on mitigation measures to combat the spread of the COVID-19, The Malaysian Water Association stands ready to partner with the state agencies, regulators and water companies to ensure that our people, especially members of the vulnerable population have access to safe potable water.

We encourage our people to practice good hygiene by, among other things, the frequent washing of hands. A 20-seconds handwashing is estimated to take up to 2.5 liters of water. It is vitally important that these habits be carried out without the wastage of water. For example, while hands are being washed, the tap should not be left running. The call to the population is to reduce water usage where possible, recycle if you can and re-use when appropriate. The reduce, recycle and re-use strategy must be employed in a bid to have water over the sustained period to combat the threat of the coronavirus and any possible effects of a prolonged drought.

## Q12 : Who to contact during emergencies?

The State Water Operators and Water Companies (Contact Numbers)

Water Companies	
1.	Syarikat Air Perlis (SAP) T 604 977 9300 F 604 978 1300 E <a href="mailto:aduan@airperlis.com.my">aduan@airperlis.com.my</a> W <a href="http://www.airperlis.com.my">www.airperlis.com.my</a>
2.	Syarikat Air Darul Aman Sdn Bhd (SADA) T 604 740 0501 F 604 740 0510 E <a href="mailto:website@sada.com.my">website@sada.com.my</a> W <a href="http://www.sada.gov.my">www.sada.gov.my</a>
3.	Perbadanan Bekalan Air Pulau Pinang Sdn Bhd T 604 200 6600 604 255 8255 (24H) F 604 261 3581 E <a href="mailto:customer@pba.com.my">customer@pba.com.my</a> W <a href="http://www.pba.com.my">www.pba.com.my</a>
4.	Pengurusan Air Selangor Sdn Bhd T 603 2088 5400 F 603 2088 5404 E <a href="mailto:info@airselangor.com">info@airselangor.com</a>

5.	Syarikat Air Negeri Sembilan Sdn Bhd (SAINS)	T 606 603 3500 F 606 601 7513 E <a href="mailto:aduan@sainswater.com">aduan@sainswater.com</a> W <a href="http://www.sainswater.com">www.sainswater.com</a>
6.	Syarikat Air Melaka Berhad (SAMB)	T 606 292 1736 F 606 283 6749 E <a href="mailto:aduan@samb.com.my">aduan@samb.com.my</a> W <a href="http://www.samb.com.my">www.samb.com.my</a>
7.	Ranhill SAJ Sdn Bhd	T 607 224 4040 F 607 224 0033 E <a href="mailto:customer.care@ranhill.com.my">customer.care@ranhill.com.my</a> W <a href="http://www.ranhillsaj.com.my">www.ranhillsaj.com.my</a>
8.	Pengurusan Air Pahang Berhad (PAIP)	T 609 571 2222 F 609 571 2221 E <a href="mailto:aduan@paip.com.my">aduan@paip.com.my</a> W <a href="http://www.paip.com.my">www.paip.com.my</a>
9.	Syarikat Air Terengganu Sdn Bhd (SATU)	T 609 621 4154 F 609 620 1104 E <a href="mailto:helpdesk@satuwater.com.my">helpdesk@satuwater.com.my</a> W <a href="http://www.satuwater.com.my">www.satuwater.com.my</a>
10.	Air Kelantan Sdn Bhd (AKSB)	T 609 743 7777 F 609 747 2030 E <a href="mailto:pintas@airkelantan.com.my">pintas@airkelantan.com.my</a> W <a href="http://www.airkelantan.com.my">www.airkelantan.com.my</a>
11.	LAKU Management Sdn Bhd (LAKU)	T 6085 442 000 F 6085 442 005 E <a href="mailto:lakumyy@lakumanagement.com.my">lakumyy@lakumanagement.com.my</a> W <a href="http://www.lakumanagement.com.my">www.lakumanagement.com.my</a>

<b>Water Supply Organisations</b>		
1.	Perak Water Board	T 605 255 1155 F 605 255 6397 E <a href="mailto:aduanadmin@lap.com.my">aduanadmin@lap.com.my</a> W <a href="http://www.lap.com.my">www.lap.com.my</a>
2.	Sabah Water Department	T 6088 232 364 F 6088 232 396 E <a href="mailto:CustomerService.JANS@sabah.gov.my">CustomerService.JANS@sabah.gov.my</a> W <a href="http://www.sabah.gov.my/air/">www.sabah.gov.my/air/</a>

3.	FT Labuan Water Supply Division	T 6087 410 200 F 6087 410 203 E <a href="mailto:zulkeflee.yusof@jba.gov.my">zulkeflee.yusof@jba.gov.my</a>
4.	Sarawak Rural Water Supply Department (JBALB)	T 6082 263 001 F 6082 263 199 E <a href="mailto:jbalbsteno@sarawak.gov.my">jbalbsteno@sarawak.gov.my</a> W <a href="http://www.jbalb.sarawak.gov.my">www.jbalb.sarawak.gov.my</a>
5.	Kuching Water Board (KWB)	T 6082 222 222 F 6082 222 257 E <a href="mailto:kwb@kwb.gov.my">kwb@kwb.gov.my</a> W <a href="http://www.kwb.gov.my">www.kwb.gov.my</a>
6.	Sibu Water Board (SWB)	T 6084 211 001 F 6084 211 543 E <a href="mailto:swbs@swb.gov.my">swbs@swb.gov.my</a> / <a href="mailto:enquiries@swb.gov.my">enquiries@swb.gov.my</a> W <a href="http://www.swb.gov.my">www.swb.gov.my</a>

### Regulatory Bodies

1.	Penang State Water Regulatory Body	T 604 650 5463 / 604 264 3481 F 604 264 5112 E <a href="mailto:safie@penang.gov.my">safie@penang.gov.my</a>
2.	Melaka State Water Regulatory Body (BKSA)	T 606 230 7674 F 606 232 1779 E <a href="mailto:shahrulhafidz@melaka.gov.my">shahrulhafidz@melaka.gov.my</a>
3.	Johor State Water Regulatory (BAKAJ)	T 607 266 1201 F 607 266 1202 E <a href="mailto:bakaj@johor.gov.my">bakaj@johor.gov.my</a>
4.	Pahang Water Regulatory Body	T 609 515 7452 609 516 4066 F 609 515 7552 E <a href="mailto:bksa@pahang.gov.my">bksa@pahang.gov.my</a>
5.	Terengganu Water Department	T 609 626 4455 F 609 626 4466
6.	Kelantan Water Department	T 609 747 5240 F 609 747 5520 E <a href="mailto:jank@kelantan.gov.my">jank@kelantan.gov.my</a>

<b>Sewerage Services Companies</b>		
1.	Indah Water Konsortium Sdn Bhd (IWK)	T 603 2780 1100 603 2083 2828 F 603 2095 7005 E <a href="mailto:care@iwk.com.my">care@iwk.com.my</a> W <a href="http://www.iwk.com.my">www.iwk.com.my</a>
2.	Majaari Services Sdn Bhd	T 609 743 0055 F 609 747 2223 E <a href="mailto:susilawati@majaari.com.my">susilawati@majaari.com.my</a> W <a href="http://www.majaari.com.my">www.majaari.com.my</a>

<b>Government Agency</b>		
1.	Department of Environment Ministry of Environment and Water	T 03-8871 2000 / 2200 F 03-8888 9987 / 03-8889 1040 E <a href="mailto:aduan_k@doe.gov.my">aduan_k@doe.gov.my</a>
2.	Suruhanjaya Perkhidmatan Air Negara (SPAN)	T 603 8317 9333 F 603 8317 9336 E <a href="mailto:aduan@span.gov.my">aduan@span.gov.my</a> W <a href="http://www.span.gov.my">www.span.gov.my</a>

<b>Water Asset Management Company</b>		
1.	Pengurusan Aset Air Berhad (PAAB)	T 603 2614 5555 F 603 2614 5588 E <a href="mailto:comms@paab.my">comms@paab.my</a> W <a href="http://www.paab.my">www.paab.my</a>