

Welcome, you are in the right place!

The webinar on sewer operation in the current crisis starts today at 15:00 Central European Time

Friday 17th April 2020, 15:00 - 16:00

further information also on
www.ikt.institute
www.komnetabwasser.de

KomNet ABWASSER / Community Network Waste Water

www.komnetabwasser.de
www.ikt.institute



House keeping

- This webinar is being **recorded** so we may make it available to others
- During the presentation please switch off your **microphone and video**
- Please use the Goto **chat room** (speech balloon on your control panel) during the presentation if you want to post a question
- **At the end we take some questions** – then please use your video and microphone
- **.pdf of the slides** will be posted on www.ikt.institute

Three stages in addressing the pandemic

- 1. Preparing for the pandemic**
 - the subject of our last webinar**– the past**
- 2. Responding to the pandemic**
 - the subject of today's webinar**– the present**
- 3. Recovering from the pandemic**
 - the future

- Part 1 – Brief summary of online information - IKT**
- Part 2 – Experience from UK – United Utilities**
- Part 3 – Experience from Flemish Region, Belgium - VLARIO**
- Part 4 – Experience from The Netherlands – RIONED**
- Part 5 - Experience from Germany – KomNetAbwasser & ,
Eigenbetrieb Abwasser**

Moderator: Dr Iain Naismith, Senior Research Fellow, IKT

Part 1 – Information available online

Dr Iain Naismith, Senior Research Fellow, IKT

Information online for sewer operators comprises:

- Fact Sheets and webinars on the virus and its expected behaviour in water/wastewater - preparation
- Advice on prioritising sewer operations, **organising** delivery of services and **protection** of staff - preparation
- Advice on where to find resources - preparation

- Discussions on what **research** is happening - responding
- News articles on **particular topics** - responding
- Starting to see webinars on actions being taken - responding

Who is providing this information?

- **Fact sheets on Coronavirus** by international and national public health bodies and research associations/institutions e.g. WHO, Government public health bodies.
- **Fact sheets and advice for sewer network owners** mainly provided by national or local sewer network owners' associations.
- **Articles, fact sheets & webinars on corona virus in wastewater** by industry research associations and institutions.
- **Advice to the public** by individual sewer network owners
- **Webinars on sewer operation** by national and local associations e.g. DWA and KomNet Abwasser in Germany.

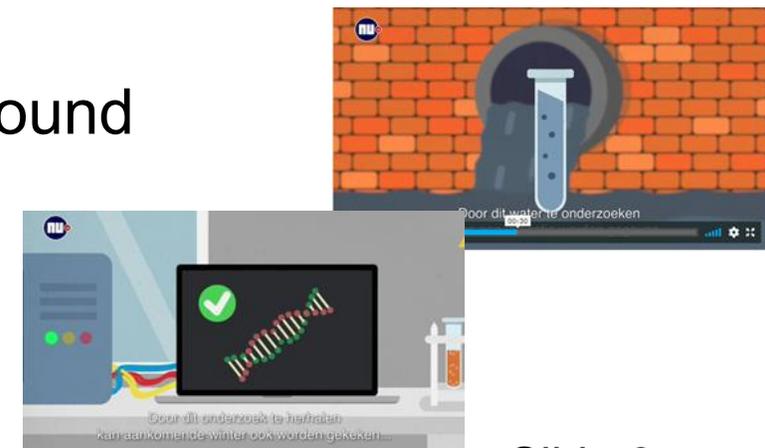
Press articles – still dominated by two topics:

- **Blockages of sewers and pumps due to:**

- Alternatives to toilet paper
- More use of cleaning wipes

- **Testing of sewage for the virus**

- Multiple research facilities in multiple countries developing tests
- Presence of virus derived RNA material confirmed in The Netherlands, Belgium, etc.
 - Misunderstandings that it is not live virus being found
- Potential to monitor distribution and scale of outbreak and subsequent re-emergence



- Range of online sources listed on www.ikt.institute

– Google translate makes them available in many languages

- Anyone can search online
- This provides a starting point



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LinerReport



Request for Quotation



CIPP liner test standards



International Roundup of advice on Coronavirus and Sewer Operation

Posted 13. March 2020 0 Comments

In view of the level of interest generated in Germany by reporting on the discussion on **Coronavirus** between 30 sewer network owners at a meeting of the [KomNetABWASSER](#) (Municipal Network Wastewater) at IKT, we are providing links here to **advice** in several countries.

In recent weeks, the question of whether Coronavirus is present in **faeces** and what the consequences are for **sewer and wastewater treatment operations** has been raised. Evidence was emerging that the virus had been identified in the faeces of some patients, and this has been **confirmed by the WHO** in its posting of 3rd March. Here comes our **linklist**:

(last update 24th March 2020, 15:12 h CET)

Advice in Germany

[DWA \(German Association for Water, Wastewater and Waste\)](#)

[Corona virus hazard – SARS-CoV-2 / COVID-19 when working in waste water systems](#)

[KomNetABWASSER](#)

English version: [Coronavirus in sewers? Don't panic! But be careful. – Report on meeting of sewer network owners](#) (6th March 2020)

German version: [Corona im Kanal? Keine Panik! Aher Vorsicht – Bericht über Treffen von Abwassernetzbetreibern](#) (6. März 2020)



We are keeping you updated with information concerning the effects of the Coronavirus on sewer and wastewater treatment operations.

Part 2 – Experience from the UK

**Tony Griffiths, Drainage and Strategy Planning Manager,
United Utilities**

<https://www.unitedutilities.com/>

COVID-19

A UK Water Company, Wastewater Network approach to the pandemic

Tony Griffiths – United Utilities, Drainage and Strategy Planning Manager

The early stages – prior to lockdown

March Weeks 1 and 2

Towards the end of the first week of March, as other European countries started to report increasingly high infection and death rates, United Utilities started to plan and prepare for the impacts the approaching pandemic could have across its operations (Water Treatment, Water Supply, Wastewater Network, Wastewater Treatment and Bioresources).

Initial preparations included;

- Identifying all available unused laptops (many UU office based staff normally use desktop PC's)
- Asking staff if they had a personal laptop or desktop at home that could be used to log onto UU's systems
- Ordering of additional laptops and smart phones that could be utilised to facilitate home working
- Staff availability over the next couple of months (leave etc.) and any flexibility
- Previous roles/careers of staff with a view to how, if necessary they could be re-deployed to front line service critical roles
- IT system improvements to support large numbers of staff being able to work from home
- Initial liaison with (stakeholder) local resilience forums

In week two the UK started to experience shortages of most goods in supermarkets. Some of the most notable sought after items were toilet paper, kitchen roll and wipes of various types. The shortages of such items caused concern across most UK Water and Sewerage Companies (WaSC's) in that should customers revert to using unsuitable alternatives to toilet paper that this had the potential to cause an increase in sewer blockages. To counter the risk most WaSC's reverted to social media awareness campaigns referring to what materials should not be flushed and highlighting the associated blockage risks. In addition most WaSC's managed to communicate the risks through various other media outlets (local/national press, radio and TV)

Towards the end of week two it became even more apparent that there would be widespread infection of the public and our workers, and that future restrictions on movement were likely as had already been the case in Italy and Spain. As a result our planning intensified and a central incident team was established.

The early stages – prior to lockdown

March Week 3

On the evening of 16 March the UK government asked residents and businesses to voluntarily limit activities, avoid large gatherings and to work from home wherever possible. In addition residents were asked to socially distance .

UU office based staff reported to work as normal on Tuesday 17th of March and were asked to prepare for working from home the following day. Other than previously issued laptops staff were not permitted to take IT equipment home (desktops, monitors, keyboards etc.) as the equipment may be needed to facilitate the relocation of key resources that needed to continue to be office (call/control centre staff, billing contact centre, central incident team, critical front line operational field staff etc.)

On 18 March over 2000 UU staff started working from home and were phased to start logging onto UU systems over two days. School closed across the country

In the North West of England UU manage 77000km of sewers, over 3000 pumping station facilities and in the order of 1800 Sewer Overflows, we serve 7.2 million people for water and wastewater services. Our assets are maintained by teams working 7 days a week over core hours between 08.00 and 22.00 – outside of these hours emergency standby call out teams support the operation. WE have 5625 employees committed to providing Water and Wastewater Services to the North West of England.

The Wastewater Network part of the business created its own incident team, that reported into the central incident team, to focus on maintaining critical service levels to network customer. Leads for various aspects of our operational response were appointed as follows;

- Central incident team liaison
- Non powered assets
- Powered Assets
- Contractor Partners
- Production Planning and Delivery (Programmes of work)
- Health and Safety policy
- Daily and Weekly incident team reporting

The team continues to operate today and focuses on a range of daily and weekly activities;

- Identifying available resources across all teams, particularly in-house blockage response teams, powered asset maintenance teams, and the sewer cleaning/repair teams across our contractor partners.. This includes identifying those numbers in each team that are absent due to self-isolation, normal sickness, non-working days (shift workers), leave etc.
- Review of reactive and proactive work banks
- Securing ongoing supplies of construction materials, PPE and associated supplies
- Review of emerging WHO and UK Government advice in relation to infection risk, prevention, social distancing, essential construction activities, schooling provision for critical workers, lockdown etc.
- Planning ahead availability for emergency call out teams and forecast weather, staff availability over the next couple of months (leave etc) and any flexibility
- Reviewing and responding to FAQ's and concerns raised by staff and Trade Unions

The early stages – prior to lockdown

Our people – Physical and mental health/wellbeing

We realised that our home working people would no longer have the benefit of ergonomically protecting furniture, the correct Display Screen Equipment, keyboards etc. To mitigate adverse effects we issued a DSE home worker checklist to encourage and record that they had done everything possible to achieve the best possible working environment in the home. These forms have been reviewed by line managers and additional advice issued as appropriate. All staff have been told they can claim up to £50 towards the cost of making improvements to their home working situation. In cases where staff have physical conditions requiring extra help items such as chairs, desks and headsets have been funded by the company.

Regular briefing material has been issued to line managers so they can encourage staff to take regular breaks, interact with team members, even to do fun things like quizzes and contact each other for a chat!

The use of WhatsApp and other social media has been encourage teams to share experiences, novel home working ideas, jokes, interest items etc. to ensure a level of workplace social interaction continues.

Staff are being actively encouraged to take pre-booked leave or make new applications to take leave. This is again for their well being as working alone all day spending long periods on conference calls and webinars can be intense and tiring. We are also very aware that as restrictions on movement and travel are relaxed it will not be possible for everybody to go on holiday at the same period!

The closure of schools and home workers having to combine work with child care responsibility can be stressful. We issued key workers in our Company with letters of authorisation to show schools to avoid any challenges on the legitimacy of their children continuing to attend school.

Where our staff are not in key critical roles we have offered as much flexibility as possible around the hours/times that they work so they can also care for children no longer allowed to attend school. We have even told staff that they can access future years annual leave allocations to make things easier.

In the UK, no doubt like other countries we have experienced lots of fake news that has only served to increase the concerns of colleagues and families of the risks the pandemic poses to them through interacting with customers and from coming into contact with sewage. Even positive stories such as the Netherlands study showing that wastewater could be detected to show towns where the virus was present, but not presenting a contamination risk were twisted to mean something more risk threatening. There is an image later in the presentation showing some bizarre fake news.

Throughout we at UU have served to dispel some of these myths and allay concerns amongst our staff.

Lockdown

March Week 4 To Present

On the evening of Friday 20 March the UK government announced that bars, restaurants, stadia and other locations (schools) where large gatherings could take place were to close. Schools were to remain open only to the children of Key workers. This announcement was followed on Monday 23 March when the UK government formally instructed residents to stay at home and only go outside to exercise or visit supermarkets etc. (essential activities). All non essential businesses were instructed to close and it was announced that only key workers would be allowed to work as “normal”.

From this point, and to a degree previously, UU started to receive challenges from customers as to why we were still carrying out activities such as regular asset inspections, cleaning and meter reading. In addition we started to observe an increase in the number of concerns raised by customers when we needed to work in and around their homes. Such concerns started to become mirrored by our own operational front line staff in terms of their exposure to infection risk, both those visiting customers and those still having to attend office locations. These factors combined with emerging clearer Government and Public Health England (PHE) guidance resulted in us suspending the following work types;

- Low importance reactive works such as noise, odour, and pest issues
- Low criticality cyclic maintenance such as some sewer cleaning and powered asset inspections
- Programmes of work involving property entry
- Non-urgent manhole cover replacements and sewer repairs/rehabilitation works

In addition to these aspects we also reinforced 2m social distancing amongst all employees that were not working from home, all face to face meetings were stopped and all avoidable entry to property was suspended.

Throughout lockdown UU has strived to get as many of its people working from home as possible, fast-tracking the introduction of new IT systems to support the remote working of billing teams and some work scheduling teams. As of 15/04 we had 2572 employees (just under 50%) working from home – it is our aspiration to move towards 75% of our people home working.

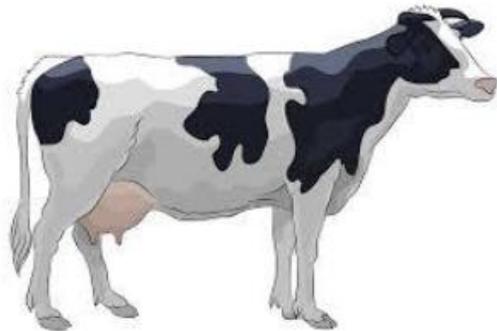
In some areas of the business, resources have been a challenge. As of 15/04 we have had 776 (around 15%) of our people impacted by COVID-19 in terms of actual infection or having to self isolate for various reasons.

After an initial uplift of blockage numbers work volumes slightly below normal. This is no doubt as a result of a combination of factors but changes to diurnal flow patterns, heavy rain throughout February and quite dry weather through March to date are key.

In the early part of April additional UK government information supported by PHE influenced us to provide additional Enhanced Personal Protective Equipment (PPE) where staff had occasion to enter customers properties (only where absolutely necessary) where individuals were COVID-19 symptomatic. This enhanced PPE consisted of overshoes, disposable coveralls and single use FFP3 face masks. We also made it clear to these teams that they had the licence to choose as to whether they entered a property or not – if there was a reluctance to enter the plan was to engage 3rd party contractors to carry out activity, that said we know that many of our teams are likely to put their personal fears to one side to serve our customers. To date we have not had occasion to enter any customers properties who are self isolating due to being symptomatic.

Fake News!

Dispelling some of the myths:



HM Government **NHS**

CORONAVIRUS: PUBLIC • **FAKE INFORMATION**

A strict ban of alcohol has been issued with immediate effect.

Simon Stevens, chief executive officer of the N.H.S has ordered a ban on consumption of alcohol after his team have discovered that the toxin lowers immunity.

This means that all sales have stopped from 29/03/2020. It falls under an emergency health legislation, which means that it is now illegal to purchase, sell and consume alcohol.

Anyone caught breaching the new law will be severely sanctioned to protect everyone against the battle of Covid-19.



Theory that Coronavirus Escaped from a Lab Lacks Evidence

The pathogen appears to have come from wild animals, virologists say, and there are no signs of genetic manipulation in the SARS-CoV-2 genome.

In Iran, False Belief a Poison Fights Virus Kills Hundreds

By The Associated Press

March 27, 2020



TEHRAN, Iran — Standing over the still body of an intubated 5-year-old boy wearing nothing but a plastic diaper, an Iranian health care worker in a hazmat suit and mask begged the public for just one thing: Stop drinking industrial alcohol over fears about the new coronavirus.

Incident Gallery - Social Media interaction



8 April at 11:39 · 🌐

Have you tried the wet wipe test? Check out Molly's experiment and have a go yourself. Don't forget to send us your videos and we'll share the best! In the meantime, please help by never flushing wipes, kitchen roll or tissue. #ThinkBeforeYouFlush #HomeSchooling



We are doing lots of customer awareness posts and videos on facebook. Here a colleagues daughter has made a video showing how wipes do not disintegrate/break up like toilet paper does

- 3 replies
- Hayley Wilson** Love this... ❤️
Thank you to all our Field and Op's staff too going out and doing an amazing job.. Keeping water flowing and taking waste away.. xx
Like Reply Message · 3d
- Paul Jeffery** Two of your amazing staff attended my home today due to a sewer blockage. Debbie Tyrer and her partner were professional, fast, courteous and polite. And sorted the issue with 45 minutes. Great service, great staff top job, well done United Utilities!!!
Like Reply Message · 1d

Appreciative tweets from our customers!



Water for the North West

In these challenging times, we're here to keep the North West's toilets flushing. Our people are still doing their jobs to provide an essential service, keeping around 77000km of sewers flowing and over 3000 pumping stations running.

From the 23rd March to 5th April, we have:



#KeyWorker #SmileForSewerWorkers #ThinkBeforeYouFlush

Infographics have been produced to promote the great work our teams are doing both internally and externally



31,126 followers
19h · Edited

Today we're putting £3.5 million into the United Utilities Trust Fund to help families across the North West facing financial difficulties: <https://bit.ly/2R3kRDT>



325 21 Comments

- Like Comment Share
- Grant Batty** Fantastic leadership shown 🙌
Like Reply | 1 Like 14h ...
- Tony Molloy** Absolutely brilliant, well done UU
Like Reply 16m ...
- See more comments

Earlier this month we announced a £3.5m donation to our customer trust fund. In the North West of England we have the biggest proportion of social deprivation.

Incident Gallery - Social Distancing in Practice



In the depot car park before the start of a shift



Attending a pump blockage



Attending a sewer blockage – note two person crew using separate vehicles



A team meeting at HQ

Copyright © United Utilities Water Limited 2019



In our laboratories



In our offices – note the empty desks between staff

Incident Gallery – Support for our Health Care workers

Similar to other European countries the public show their support for our healthcare workers by going outside their homes and loudly applauding every Thursday at 20.00. We at UU actively encourage this through internal communications, social media and on street vehicle advertising



#clapforourcarers

Please join in at 8pm tonight for a big applause to say
THANK YOU to the NHS and all key workers



#KeyWorker

#Community

Water for the North West



No space goes unused. We are even using sewer cleaning units to show our support!



We have even started to illuminate some of our large and visible key assets in the UK's "National Health Service blue colour" to show our support for the NHS and all other key workers, teachers, care workers, supermarket workers, food suppliers and , yes even our own front line staff. The first image to the left shows the two biogas holders at our largest treatment works , Davyhulme, which serves 2m people across Manchester and beyond. The image below shows the entrance to UU's headquarters.



Incident Gallery- Informing our customers and keeping our people safe

In response to customers questioning if we should be working and because when we are on site customers approach us to see what we are doing we developed new signage for roadworks and vehicle decals.

United Utilities
Key worker signage
1: Apology boards

Correx rounded apology boards.
Can be ordered for use on cone or barrier as below.



Order ref: 8656a-1cone
Order ref: 8656a-1barrier



Order ref: 8656a-2cone
Order ref: 8656a-2barrier



Use on 750mm cone



Use on low barrier

United Utilities
Key worker signage
2: Banner and cab cards



Social distancing vinyl banner
6m x 0.5m

Order ref: 8656b



Order ref: 8656c-A3



Order ref: 8656c-A4



Order ref: 8656c-A5



Order ref: 8656c-PDF

Key worker cab sign
Pre-printed and laminated

Key worker cab sign
For printing on site any size from A5-A3
Supplied as PDF

More use of the digital display boards on out contractor Partners vehicles to communicate



Incident Gallery- Informing our customers and keeping our people safe

In response to customers questioning if we should be working and because when we are on site customers approach us to see what we are doing we developed new signage for roadworks and vehicle decals. We also utilised the digital display boards on our contractor Partners vehicles to communicate – More images

United Utilities
Key worker signage
3: Digital van posters



Order ref: 8656d-1



Order ref: 8656d-5



Order ref: 8656d-2



Order ref: 8656d-6



Order ref: 865d-3



Order ref: 8656d-7



Order ref: 8656d-4



Order ref: 8656d-8

Digital van posters

Thank you

Tony Griffiths - Drainage and Strategy Planning Manager

tony.griffiths@uuplc.co.uk

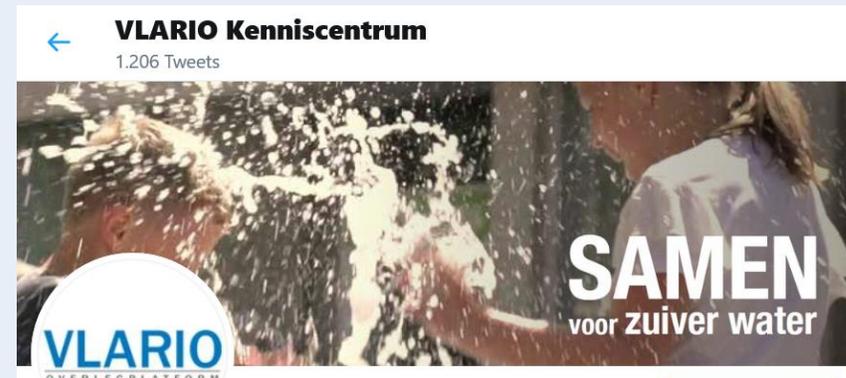
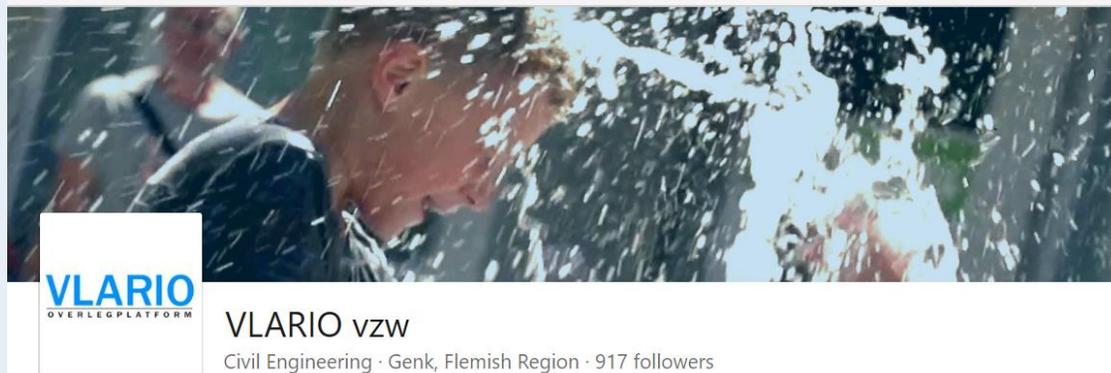
Part 3 – Experience from the Flemish Region, Belgium

Wendy Francken, Director, VLARIO

<https://www.vlario.be/>

VLARIO in a few words

- VLARIO is the consulting platform and the knowledge center for sewerage serving professionals in the area of water, sewerage and waste water treatment.
- VLARIO has 450 members (private & public)
- www.vlario.be



Impact Corona

- **Strict measures** have also been introduced in Belgium at federal level and in consultation with the various state governments. These came into force on Saturday 14 March 2020.
- In just a few days, a large part of the activities came to a **standstill**.

Impact Corona

Questionnaire for all sewer operators in Flanders

Hebben de rioleringswerken met aanleg wegeis plaatsgevonden zoals gepland?

- Ja
- Nee

Hebben de rioolrenovatieprojecten plaatsgevonden zoals gepland?

- Ja
- Nee

Worden er extra veiligheidsmaatregelen genomen voor werknemers rond Covid-19?

- Ja
- Nee

Welke activiteiten werden stop gezet?

- Onderhoud (regulier onderhoud, ruimen van grachten,...)
- Dringend onderhoud (interventies)
- Investerings (werven)
- Ontwerptaken

Ondervindt u problemen met aan te leveren materialen?

- Ja
- Nee

Komt u andere problemen tegen in het rioleringsstelsel dan normaal i.k.v. de corona-maatregelen?

- Ja
- Nee

Worden er extra maatregelen genomen rond Covid-19 voor de werking van het rioleringsstelsel?

- Ja
- Nee

Hoe gaat u om met de vooropgestelde uitvoeringstermijnen die niet gehaald zullen worden door de verstrengde

- **Sewage works did not take place as planned**
 - Most works were canceled (100%)
 - Works are starting to resume gradually as from April 2
 - depending on availability PPE's and social distancing
 - depending on the delay of other works (utility companies)
 - some works are postponed until after the building leave
- **Stopped:**
 - Regular maintenance
 - Investment works
- **Continued:**
 - Urgent maintenance
 - Design tasks

- All companies confirm they have taken **safety measures** for their workers
 - Government:
 - **Social distancing** (1.5m distance, 1 person per vehicle)
 - **PPE** (gloves, mouth mask, disinfection)
 - Extra measures:
 - detailed **safety instructions**
 - spread **working hours**
 - **no contacts** with clients
- Problems with **supply of materials**.

Municipal sewer managers

First results

- **No other problems** were identified in the sewer system.
- **No additional measures** were taken for the operation of the sewerage system.

Municipal sewer managers

First results

- Dealing with **implementation deadlines** that will not be met by the stricter measures:
 - **Flexibility** is expected from/towards contractors
 - **Delay fines** will not be applied (if caused by the corona measures)
 - **Allow extension** of time (in consultation)
 - **Pragmatic solutions** need to be found
 - Financial and legal consequences
 - An **interruption or suspension** of the working days may be **allowed** due to unforeseen circumstances or force majeure.
 - **Postponment** of offers
 - **Review planning** (to consult with all parties)

Municipal sewer managers

First results

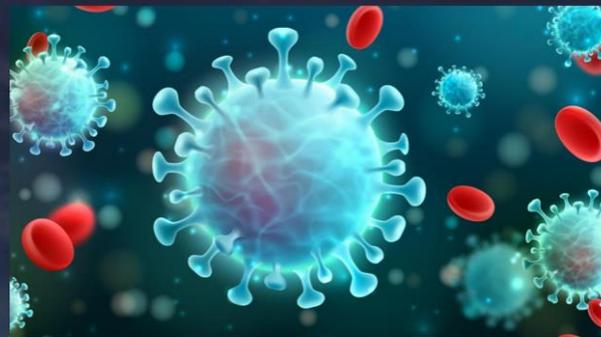
- **Financial impact:**
 - Not yet budgeted
 - Government aid not clear yet (sector-wide is eligible)
 - Already received many letters from contractors about this, but no clarity yet
- VLARIO has formulated a **statement about the financial implications** for our sector and calls for an increase in the investment rate
<https://www.vlario.be/financiele-implicaties-covid19/>

- **Absence:** very low absences
- **Purification process:** no extra blockages by fat or wet wipes
- **Third parties and deliveries:**
 - Everything continues normal, from transports of sludge, deliveries of PE, de-phosphating agents, C-sources to deliveries of PPE.
 - It was tight to meet stock of P3 masks, but BASF has helped. There now is sufficient stock of the other PPE. The suppliers ensured to deliver new orders.
- **Activities:**
 - Everything continues except what is not urgent (clearance works, suction and sprayworks). The operational employees prefer to avoid them because they release aerosols, which can contain RNA from COVID-19.
 - According to all studies to date, DNA residue is not pathogenic, but we are better safe than sorry.
- **Working sites:** Aquafin hopes to have 75% of all works back in operation this week → publication of guideline.



Werven starten weer op

Aquafin publiceert leidraad om werven op een veilige



Afvalwater en corona

Draag de beschermende PBM's tegen biologische



UPDATE corona maatregel - aanbestedingen en werven

VLARIO

O V E R L E G P L A T F O R M

Part 4 – Experience from the Netherlands

Hugo Gastkemper, Managing Director, STICHTING RIONED

<https://www.riool.net/home>

Coronavirus and sewer operation; the Dutch case

Hugo Gastkemper
Managing Director
Stichting RIONED

Webinar IKT
April 17th 2020

Stichting RIONED (Foundation)

- Umbrella organisation for urban drainage in The Netherlands
- All professional stakeholders: municipalities, waterboards, consultants, contractors, industries
- Focus on wastewater, stormwater, groundwater
- Knowledge provider
- Information to the public

In general

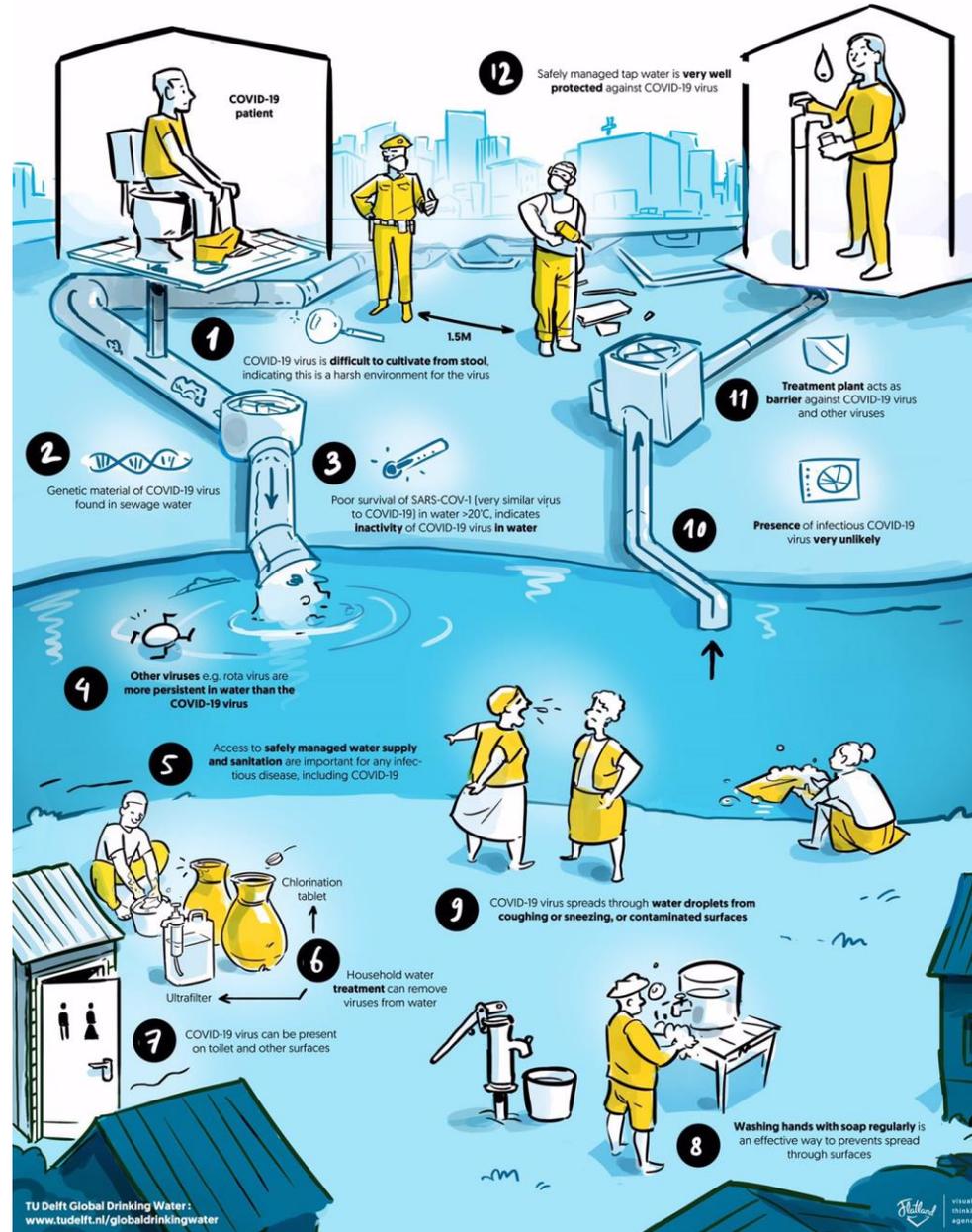
- After lock down: **transition** to a '1.5' meter society'
- Transport and industries are **working normally**, as far as possible.
- In general **sewer operation continues as well**: construction, renovation and even cleaning and inspection

Covid 19 and wastewater

- Virus present in stool of some patients
- Poor survival in water
- No cases of transmission via the fecal-oral route have been reported
- Covid 19 caused by venting of sewers is very unlikely

12 FACTS ABOUT COVID-19 VIRUS IN WATER

The importance of water access and hygiene in times of crisis



TU Delft Global Drinking Water:
www.tudelft.nl/globaldrinkingwater

Fluoridation
virtual
drinking
quality

TU Delft Global Drinking Water
www.tudelft.nl/globaldrinkingwater

Message to the public

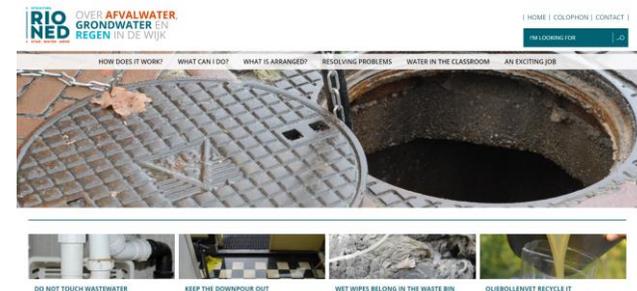
- In The Netherlands **some public concern** due to research findings of genetic material.
- **Message to the public:**
 - You get corona from each other through the air or through contaminated surfaces.
 - Keep distance. Wash your hands.
- **To wastewater workers: Use PPE's.**

Lack of face masks

- FFTP3 face masks should be used
- Among protection measures the face mask is the least used
- Practice finds its own way

Blockages

- Signs of **increasing numbers**
- Wet wipes, disinfecting wipes, kitchen roll, face masks
- The sector is **concerned about promotion of face masks**
- Ongoing campaigns:
 - www.riool.info
 - Niet in het riool ('not in the sewer')



Sewerage as critical infrastructure?!

- Directive 2008/114 - **Identification and designation of European critical infrastructures**
- NL decided **wastewater infrastructure is not critical** within the meaning of the directive.
- **De facto sewerage is critical.** We must be able to wash our hands!

Thank you

- More information (in Dutch):
<https://www.riool.net/nieuws>

Part 5 – Experience from Germany

Bert Bosseler, Scientific Director, IKT/KomNetAbwasser

**Sebastian Beck, Operations Manager, Eigenbetrieb Abwasser –
City of Rheda-Wiedenbruch**

[https://www.rheda-wiedenbrueck.de/umwelt-bauen-
verkehr/abwasser/](https://www.rheda-wiedenbrueck.de/umwelt-bauen-verkehr/abwasser/)

KomNet Actions following first meeting on Corona in February

- 1. Further development of plans**
- 2. Follow-up web meeting held on 12th March**
 - **Planning for sewer operation, health and safety rules etc.**
- 3. Decision to open up KomNet to other sewer network owners**
- 4. Web meeting for wider German audience on 18th March**
- 5. Ongoing updating of KomNet webpages**
 - **Sharing** of information and documentation
- 6. Creation of an IKT hotline for sewer network owners**
- 7. Web meeting in English on 25th March to widen awareness / engagement**

KomNet Abwasser is providing for its members and for other sewer network owners:

- **The opportunity** to share questions, answers and experience
- **Online tools**
 - Including sharing a 5 point plan for sewer operation by Sebastian Beck of Eigenbetrieb Abwasser, who will explain his experience applying it.
- **Links** to relevant online information
- **Web meetings**
- **Helpline**

- **The common opinion in the the waste water industry** is that the RNA/DNA of the coronavirus found in waste water is **not believed to be viable**, so not particularly dangerous, compared with the main routes of infection between humans
- Germany has been experiencing a **4 week drought**: so less operational demands on municipality staff for flooding events, so **more operational staff available** for sewer operation.
- Large water associations report **wet wipes problems causing** blockages, but, a public information campaign on all channels seems to be helping

- **Seperation rules between internal/external staff** can be difficult to implement, whenever there are strong interactions. Some contractor staff live closer to sewer assets than the municipal staff
- Wastewater is considered critical infrastructure in Germany, however, there are **no privileges when it comes to testing staff for the virus** by local health authorities
- **Testing of sewage for surveillance of Coronavirus**, like the Dutch model, is becoming a topic of interest for the German wastewater industry, some testing has begun in Germany (Leipzig), also in Austria

5 point plan - for the wastewater operations of **Eigenbetrieb Abwasser** in the City of Rheda-Wiedenbruch

1. The **treatment plant** must remain in an efficient state
2. **Sewer operation** must be guaranteed
3. Use of **working from home** and reduction of staff at HQ
4. Making staff available to help other departments in the city deal with **other emergencies**
5. Continuation of **construction projects**, as far as possible

What next

Preparing for the pandemic – mostly in place

- Planning response - staff protection, identifying essential operations and key assets, developing communication strategy

Responding to the pandemic – the present

- Executing plans, keeping staff healthy, undertaking essential operations, maintaining assets, maintaining communications with all stakeholders, recording what happens.

Recovering from the pandemic – sometime in the future

- Updating customers, working with suppliers, identifying lessons learned, revising finances, revising asset management plans, preparing for the next pandemic

KomNet Abwasser

- **Will be continuing** to discuss the response to corona virus, share work aids and hold online meetings
- We want to **extend engagement** with sewer network owners to beyond the membership in Germany and internationally in the KomNet Abwasser/ComNet WasteWater for Corona Virus and Sewer Operation
- **Online resources** are available at www.komnetabwasser.de
- **Contacts in German and English**

New hotline for network operators

In addition, KomNet has set up a hotline which is available immediately. You can reach us at any time on the number **+49 177 2801198**. Ask us all your questions or give us tasks on all topics that concern you – even outside of Corona.

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New hotline: KomNet director Marco Schlüter is providing all the support he can in this crisis.

www.komnetabwasser.de (German)

www.ikt.de (German)

www.ikt.institute (English)

Questions