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Water**

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Welcome

Thank you for attending today's information event about our proposals to upgrade the sewer along King's Inch Road.

We have information on: -

- Why we are doing the work
- What we will be doing
- Where work will take place
- The approximate duration of the work
- Road closure information
- Who is doing this work and any future bursts
- How you can keep in touch





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History

The existing sewer rising main along King's Inch Road has burst multiple times recently and requires to be upgraded by using a special relining technique.



Sewer burst incident on Kings Inch Road December 2023

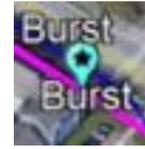
The sewer is a large trunk rising main sewer which is pressurised. When it has burst, the impact on the community has been significant given the size of the sewer and the pressure the waste water is under. We have therefore been working on a long term solution to drastically reduce the risk of bursts.



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Burst map



= Burst

The map shows the locations of the bursts



Burst pipe sections



Burst pipe sections



We need to replace one section of the rising main at a time. This project is focusing on the highest priority section first, where the majority of the bursts have occurred. It is not possible to upgrade the entire sewer at once. Future section upgrades will follow this work.



Showing Fracture along bottom of pipe



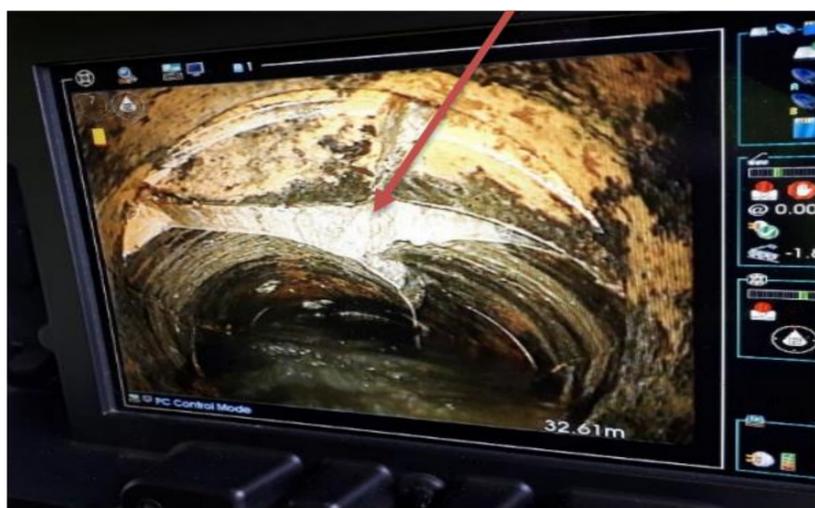
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Why are we doing it?

We have reviewed the number of bursts and identified an 840m section of the existing underground sewer rising main needs to be relined as a priority.

CCTV Survey image of the rising main



The allotments flooded in 2023



Burst incident on Kings Inch Road 2023



Burst in wooded area in 2023

We are starting this planned relining work now to avoid the risk of unplanned interruptions and pollution incidents. This £7.3 million investment will provide greater structural integrity to the waste water infrastructure for many years to come.



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When will the works start?

The works are expected to start at the end of January 2024 and be completed by October 2024.



To protect the environment, we will use a temporary over-land pipeline to pump the sewer flows while we work on the existing sewer. This will be located along the route of the existing sewer on King's Inch Road and be removed at the end of the project.



The work is being managed by our alliance partner Caledonia Water Alliance (CWA) and will be carried out by our contractor Environmental Techniques. Any future bursts will continue to be managed by Scottish Water's contractor for emergency/reactive contractor.

**CALEDONIA
WATER ALLIANCE**



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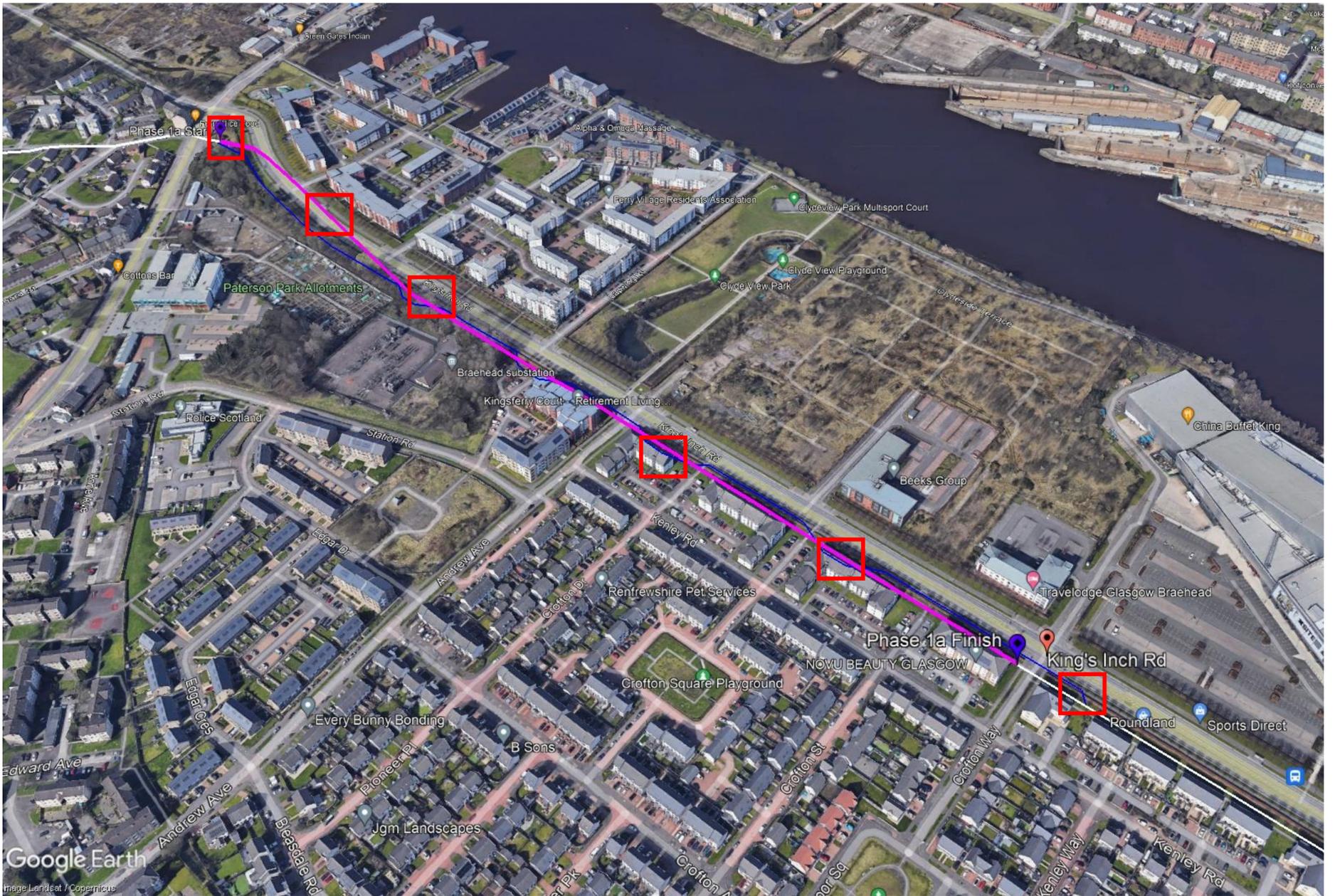
**environmental
TECHNIQUES**



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Overview of proposals



Key

-  = Section of rising main to be relined
-  = Proposed access pit location to insert liner

The above plan shows the section of rising main sewer to be relined. The temporary overland sewer will be set up next to the route of the existing sewer along King's Inch Road. The pipe will be secured by heras fences and sealed to prevent any odours.





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Relining Process

- To strengthen the existing pipe, we are using a special relining method of construction.



- Relining is a specialised technique which renews the existing sewer pipe with a new inner wall.
- This new lining is an innovative way of making the pipe 'like new' and prolonging the working life of the sewer. This proven technique was chosen as it avoids digging up the entire length of King's Inch Road, significantly reducing the disruption for the local community.
- We are able to carry out this technique from access pits (points to access the sewer) to feed the new liner in.



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What happens next



1) Site cabins are set up in vacant land off Station Road.



2) Large deliveries are made to site.



3) The working area of the road is fenced off.



4) The temporary overland pipe is laid out across the area.



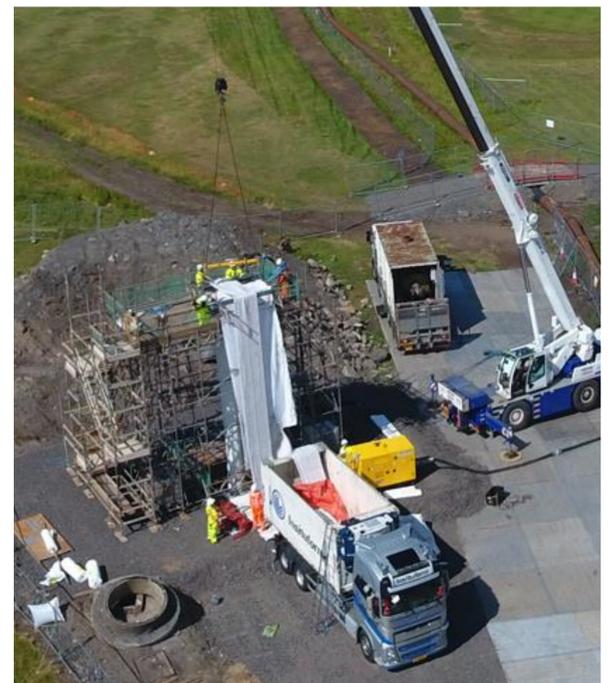
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What happens next



5) Access pits are required to feed the liner in. When we dig these pits, the ground is firstly secured by piling metal sheets into the ground. This phase can be noisy.



6) Once the sheet piling is installed, we then excavate out the trench. The existing pipe is exposed and cut open and made ready for lining. Upon completion of the lining works, a new section of pipework is installed back and area is backfilled and reinstated.



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Relining Stages

- Stage 1—A temporary overland bypass pipe is installed and flows are transferred.



- Stage 2—A pit is dug either side of the section to be lined to access the existing sewer.



- Stage 3— The new liner is fed into the existing sewer from a tall crane and the lining and curing process starts.





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Road closure dates

Road closures

- **Andrew Avenue at junction with Kings Inch Road - 4th March to Oct 2024**
- **Crofton Way at Junction with Kings Inch Road - 4th March to 2024. Diversion signs**

**ROAD
CLOSED**



We had looked at various methods to keep the road open, however, there are too many utilities in the road to sink the bypass pipe; it is too long to span a pipe bridge over and pipe ramps are not permitted to be used on the public roads.

Lane Closures

- **King's Inch Road - Lane closure 29th Jan to Oct 2024**

Buses - Buses services will still operate as normal on King's Inch Road however some bus stops may be required to be relocated.



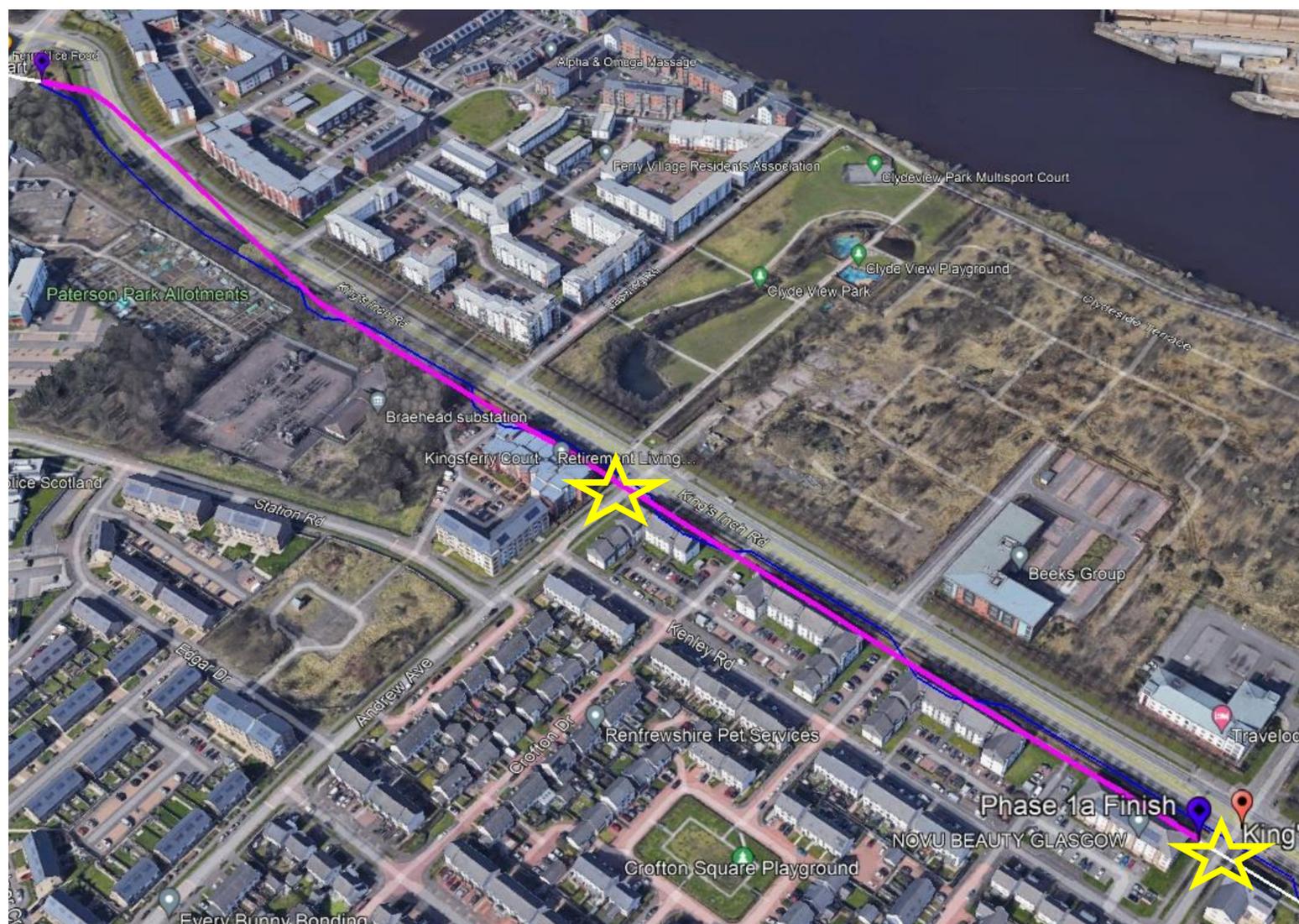


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Pedestrian Routes

- Pedestrian routes over the temporary pipe bridge.
- The temporary overland pipe will be laid along King's Inch Road. To safely cross over this, we will create temporary walkways as show on the map below at the yellow stars. ★



The temporary walkway bridges will look something similar to the drawing on the left.



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Programme of works

Task Name	Duration	Start	Finish
Planned Start	0 days	Wed 17/01/24	Wed 17/01/24
Planned Completion	0 days	Fri 18/10/24	Fri 18/10/24
▷ Pre Construction	35 days	Fri 24/11/23	Wed 24/01/24
▷ Construction - Temporary Works for Bypass	56 days	Thu 18/01/24	Thu 04/04/24
◀ Construction - Permanent Works	155 days	Mon 04/03/24	Fri 04/10/24
▷ Works for Pits 0-7, inc excavation and TW	48 days	Mon 04/03/24	Wed 08/05/24
▷ Cleaning	21 days	Wed 17/04/24	Wed 15/05/24
▷ CIP Joint	8 days	Tue 07/05/24	Thu 16/05/24
▷ Liner install	29 days	Thu 09/05/24	Tue 18/06/24
▷ Pressure testing	31 days	Tue 21/05/24	Tue 02/07/24
▷ Valves and Piepwork	33 days	Mon 27/05/24	Wed 10/07/24
Turn of flows to Permanent Rising Main	1 day	Thu 11/07/24	Thu 11/07/24
▷ Backfill	28 days	Fri 12/07/24	Tue 20/08/24
Dismantle and remove bypass pipework incl cleaning of bypass	12 days	Wed 21/08/24	Thu 05/09/24
Remove Road Closures	1 day	Fri 27/09/24	Fri 27/09/24
▷ Reinstatement	28 days	Wed 21/08/24	Fri 27/09/24
Remove Site compound	5 days	Mon 30/09/24	Fri 04/10/24
Complete Handover, As Builts and O&M	10 days	Mon 07/10/24	Fri 18/10/24

The relining work will be split into short phases to help minimise the impact on the community meaning that a small number of access pits will be open at one time

The above programme dates are approximate dates and may be subject to change, depending on weather and working around existing services. We will write to residents near each access pit two weeks before starting work.

Keep up to date at www.scottishwater.co.uk/kingsinchroad



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Tankering for sewer drain-down

- We require to drain down the existing sewer for one whole day in April 2024 in order to make connections into the existing pipeline. This means there will be an increase in tankers running to the pumping station at North Lodge for a period of 24 hours. There will also be an increase in construction traffic to and from the pumping station for the duration of the project.



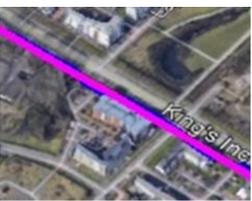
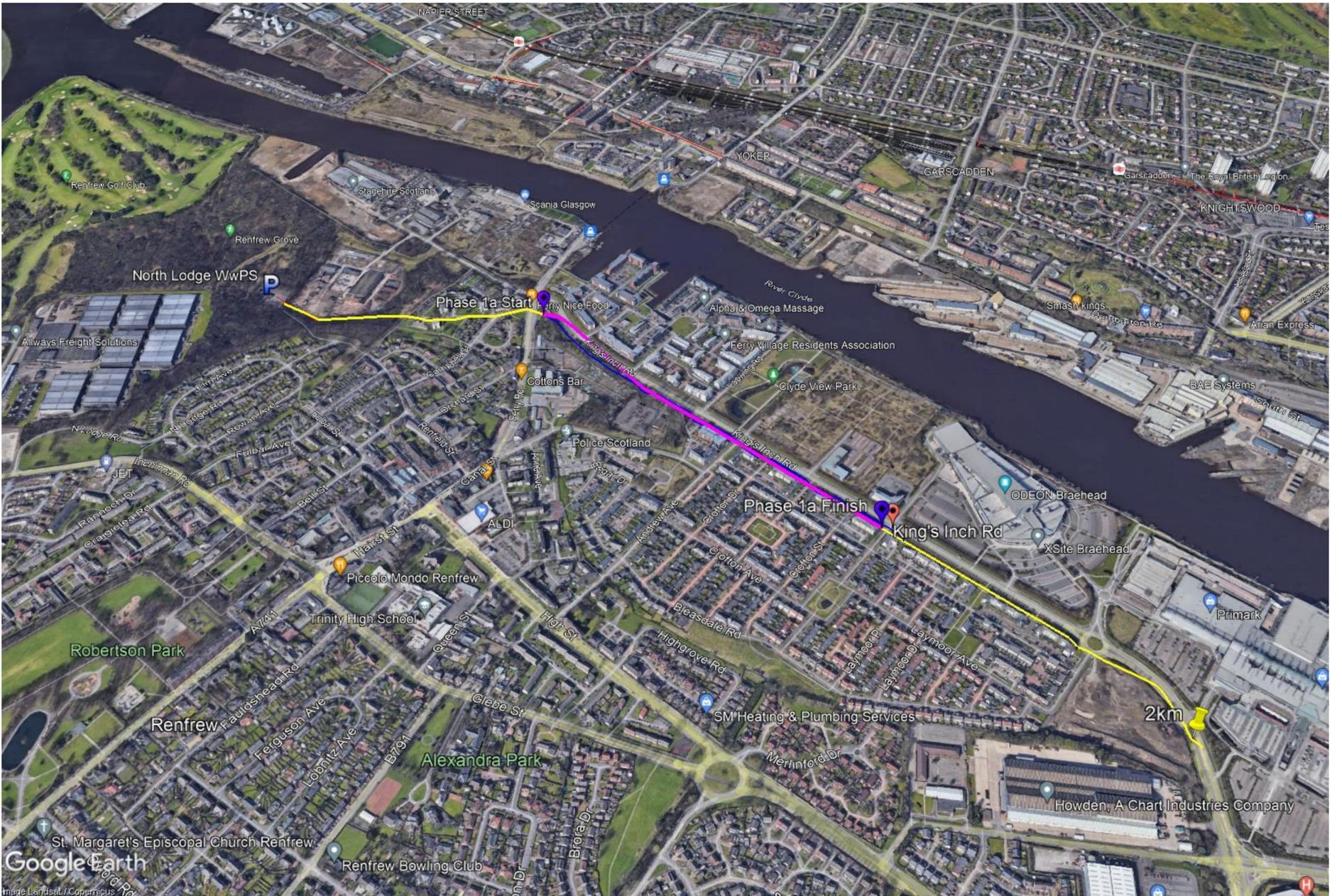
- You may see additional lighting near the pumping station during night working. We will of course endeavor to keep this to a minimum and direct lighting away from properties.



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Future investment



= Planned upgrade
phase starting late
January 2024



= Future phases

We are planning to deliver future improvements on the rising main and these are subject to Scottish Water's Governance approval process.

Keep up to date at [www.scottishwater.co.uk/
kingsinchroad](http://www.scottishwater.co.uk/kingsinchroad)



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Emergency Work



The previous bursts on the rising main have been managed by Scottish Water's contractor for emergency/reactive incidents. They will continue to manage any future bursts and any claims from damage caused by the bursts.



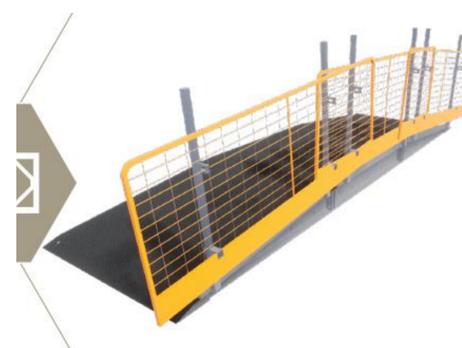
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Minimising the impact of the works

We have planned in various measures to help reduce the impact of the works, these include: -

- **Dust** - We will encapsulate the scaffolding for the lining work—this will help reduce noise and dust.
- **Noise** - Echo barriers will be placed around the generators and boilers to help reduce the noise impact.
- **Pedestrian Access** - Pedestrian access ramps will be used to ensure pedestrians can still access over the temporary pipe onto King's Inch Road.
- **Trees** - We require to temporarily remove approx. 20 trees along King's Inch Road. We will maintain the trees and reinstate them at the end of the project.
- **Legacy** - The allotments damaged by a previous burst will be reinstated and Scottish Water has plans to work with Paterson Allotments to leave a positive legacy.
- **Site compound** - We have located this away from houses to reduce the impact on residents. The site compound will have 24 hour security on and may require generators to be run for lighting.
- **Working hours**—Our normal working hours will be between 8am-6pm Monday to Friday. We will require to work additional hours during the lining and tankering operations. We will write to the residents affected before we start these works.

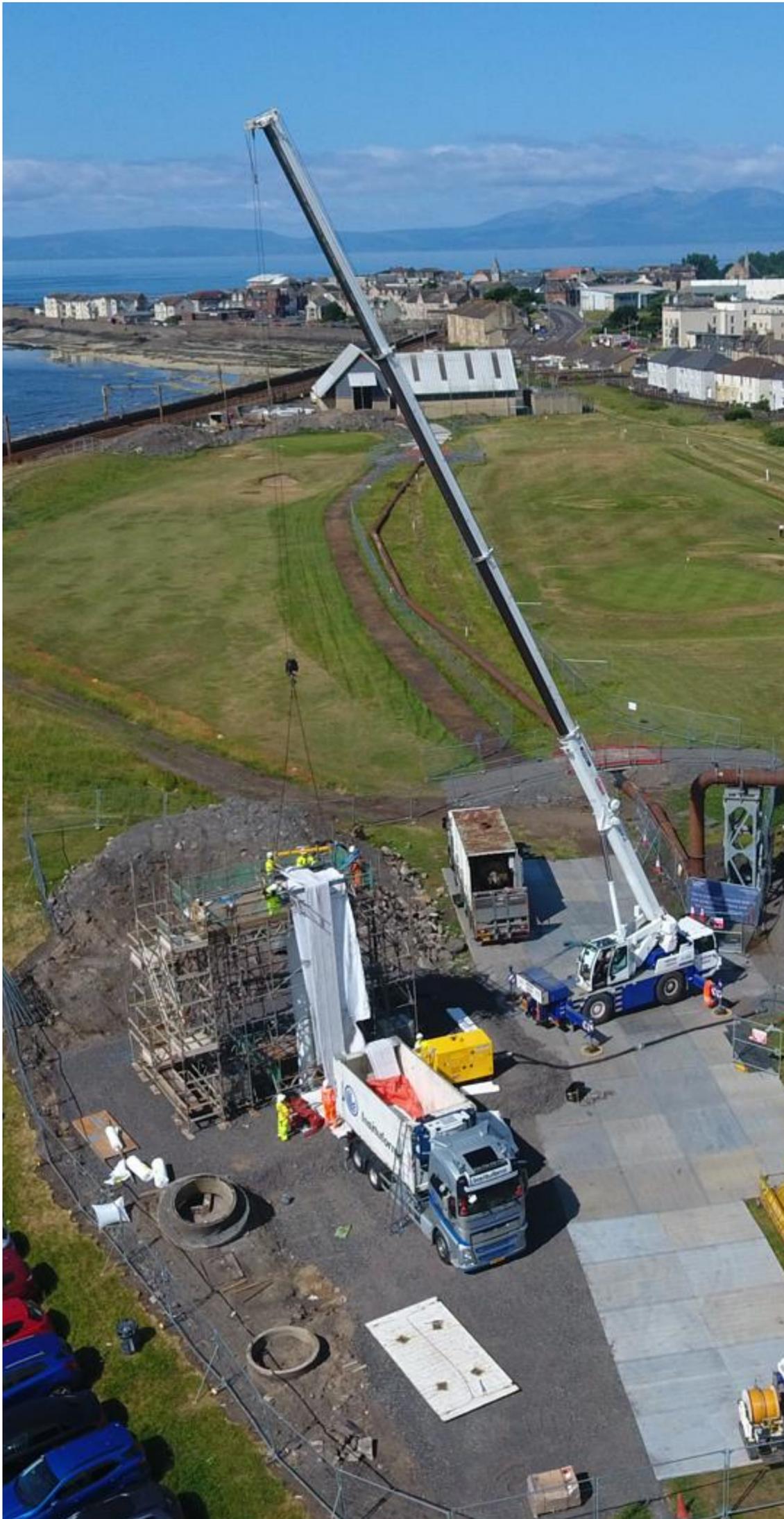




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Next steps



- We will write to you two weeks before we start the work.
- Residents living adjacent to the access pits will be offered a free property survey, before and after the works to provide peace of mind.
- We will keep in touch as our project progresses and will post regular updates on our dedicated webpage: -
[www.scottishwater.co.uk
/kingsinchroad](http://www.scottishwater.co.uk/kingsinchroad)