

Southlake Moor reservoir improvement work

Frequently Asked Questions

A. Scheme Background

1. What is the Southlake Moor reservoir?

Southlake Moor reservoir is an area of low-lying farmland within the Somerset Levels and Moors, to the east of Burrowbridge, about 8km south-east of Bridgwater. It is on the flood plain of the Rivers Parrett and Sowey. Southlake Moor reservoir directly protects 12 properties around its banks and Burrowbridge village, along the A361 Taunton – Glastonbury trunk route.

2. Why was Southlake Moor classified as a reservoir?

Under the Reservoirs Act 1975, Southlake Moor was classified as a 'large-raised reservoir' because of the amount of water it can hold above the surrounding natural ground.

3. Who is doing the Southlake Moor reservoir improvement work?

The Environment Agency is doing the Southlake Moor reservoir improvement work. AtkinsRéalis is developing the design and Kier is responsible for the construction. The Environment Agency is investing tens of millions in maintaining the flood storage areas in the Somerset Levels and Moors.

4. Why are you doing the improvement work?

An engineer from the government's All Reservoirs Panel inspected the reservoir who found three locations that require improvement to ensure the safe operation of the reservoir. The Environment Agency is required to complete the work before specified deadlines as part of its legal obligation under the Reservoirs Act.

B. Construction

5. Where are you doing the improvement work?

We are doing improvement work at the following locations:

- Northern embankment
- Eastern embankment
- Southern embankment

6. What work has been completed so far on site?

We have completed the following work so far:

Location	Work completed
Southern embankment	We completed work at the Parrett Right Bank by raising low points along the embankment to ensure a consistent level. We also finished the Parrett Left Bank work. As part of this, we created a concrete capping beam to the existing sheet pile wall providing the appearance of a low wall. This will help to improve the stability of the embankment.
Eastern embankment	At the Sowy Left Bank, we completed filling and earthworks to raise any low points in the embankment. We also finished constructing a part of the Sowy Spillway which involved excavating and pouring concrete for the foundation of the crest beam of the spillway the core and top of the spillway.
Northern embankment	We cleared some trees and vegetation along the northern embankment in autumn 2023.

7. When is the main work happening?

The second phase of the main work will be from April 2024 to November 2024.

8. What will your working hours be?

Our working hours are likely to be from 7.30am to 6.00pm, Monday to Friday and may change as construction progresses. At times, we will have to work on weekends and bank holidays but will notify you of this closer to the time.

9. What will be done at the Northern embankment in 2024?

We will continue with enabling work in preparation for our main work at the Burrow Wall Isolation Bank. This will include diversion of overhead cables along the A361 for three weeks during spring 2024. This will be carried out by National Grid who will be in touch with affected landowners and residents closer to the time. We are temporarily moving water voles in the surrounding ditches to new homes with the supervision of water vole expert, under our organisational licence.

We will be raising and widening the northern embankment, which runs along the southern side of the Burrow Wall Rhyne.

There are several existing crossings across Burrow Wall Rhyne, providing access to the fields to the south, some of which will be replaced. Due to its poor condition, we will replace the bridge spanning across access 5. We will construct a new bank across the rhyne with a culverted structure passing through it, access will run along the top of the new bank and will be gravel surfaced.

We will modify access 6 by removing the existing bridge and penstock and replace them with new flow control structures – tilting weir and penstock. This will allow the Internal Drainage Board (IDB) to better manage water levels in the area. The structure will allow safe passage for eels within the rhyne. Access will be provided across the structure and will be gravel surfaced. All other accesses are expected to remain largely untouched with minor works to allow smooth transition onto and across Burrow Wall Isolation Bank. All new structures will be installed with appropriate telemetry.

The isolation sluice gate at the connecting bank will be installed with appropriate telemetry – the process of recording and transmitting readings of an instrument – to monitor its functionality and the water levels.

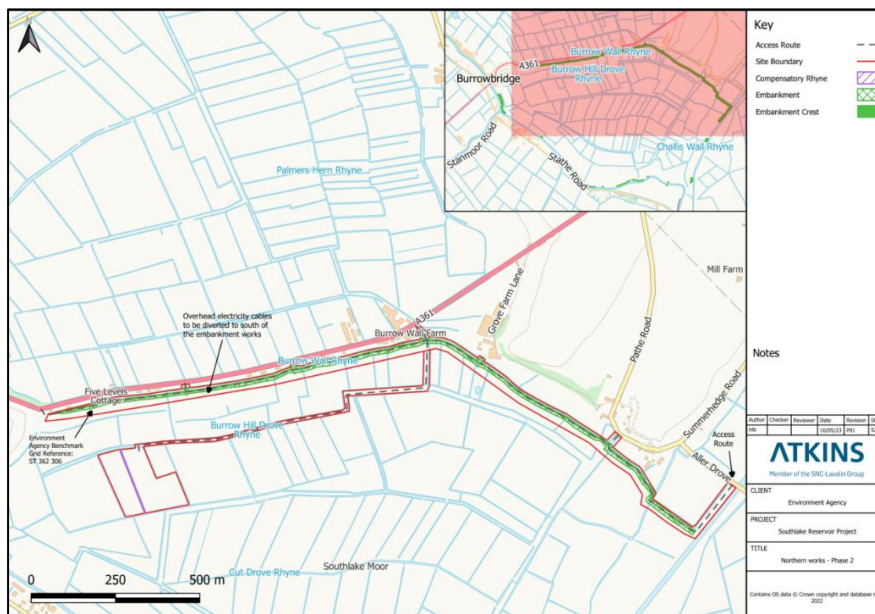


Access 6



Access 5

As part of the work on the embankment, we will be infilling sections of the rhyne network. To make up for the loss of rhyne, two compensation rhyes have been proposed in the centre of the reservoir. This will involve reinstatement of historic rhyes.



10. What will be done on the Eastern embankment in 2024?

We will be completing the remainder of the Sowy Spillway work in summer 2024. This will include earthworks at both ends of the spillway.

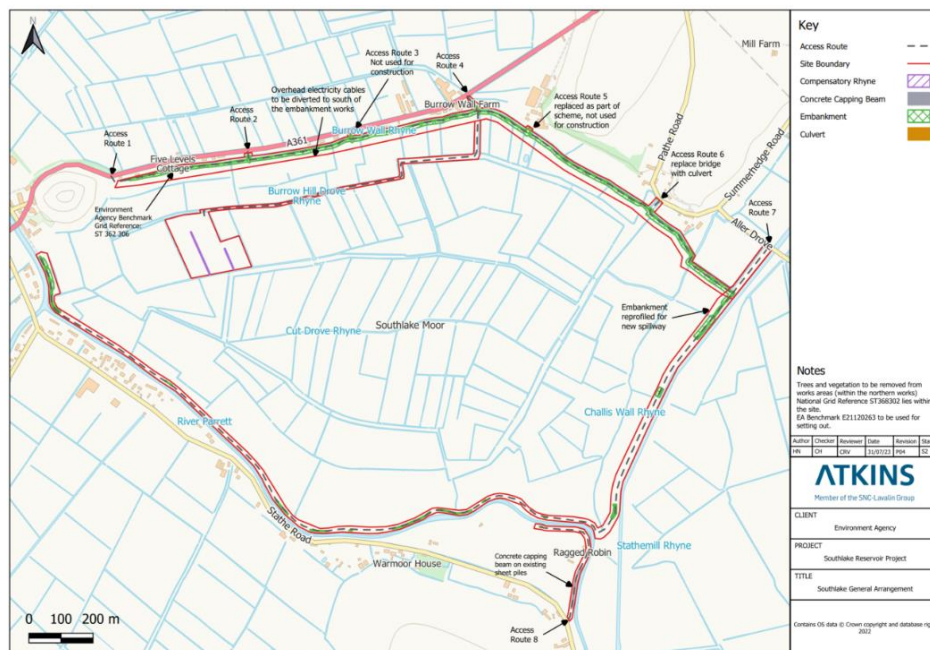


11. How will you access the site?

Construction vehicles will access all work areas via the A361 and Pathe Road with multiple access points in use. Below are details of these site access points.

- Access 1 – Located in Burrow Mump public car park
- Access 2 – Located through double gates off the A361
- Access 3 – Located by a sharp left turn onto a ramp off the A361
- Access 4 – Located on a bend off the A361
- Access 5 – Located via a private track off a steep hill on the A361
- Access 6 – Located off Pathe Road
- Access 7 – Located via Pathe Road and Aller

Each access point will be controlled by a trained traffic marshal. Small construction compounds will be set up at each work area with a stone track from the access point.



12. How will you manage construction traffic passing through the Burrow Mump car park owned by National Trust?

Along with having a traffic marshall in place, we will also separate works from the public to avoid disturbance. We have engaged with National Trust and agreed that 4 parking spaces will be maintained for the public whilst we carry out our work.

13. How will you ensure smooth flow of construction traffic?

We have reduced the speed limit from 30mph to 20mph near Othery school during its start and closing times. During working hours, a temporary traffic light system will be in place on the A361.

14. How many construction vehicles will be entering the site daily?

There will be approximately 50 deliveries to the site each day via tractor and trailer or heavy goods vehicle (HGV).

15. Is there a possibility of construction vehicles causing vibration impacts to properties?

Our deliveries are being made via tractors and trailers and hence there won't be any vibrations impact. Our construction traffic management plan has tested that construction vehicles can safely enter and exit the site. We'd like to assure you that vibrations will not go over the set limits. We are also undertaking structural surveys of properties along our construction traffic route.

16. Have you diverted any public right of ways?

We are planning to temporarily divert a public right of way between Pathe Bridge and Stathe, following the south side of the Challis Wall Rhyne. This is needed to enable main work at the northern embankment. Once this is finalised, we will provide more information.

C. Local Impacts

17. What environmental mitigation measures have been put in place during construction?

We have an environmental action plan in place which includes the mitigation measures needed to ensure protection of local environment and ecology.

We have a certified ecologist working full time on site to survey and monitor the construction work area for presence of nesting birds and other animals.

18. Will there be any noise and air quality impacts?

There will be no long-term changes to air quality but there might be increased dust during construction. If required, we'll use mitigation measures such as spraying water to restrict airborne dust particles. Construction work will inevitably make some noise, which we'll reduce as far as reasonably possible. If required, we will monitor sound and vibration levels.

D. Miscellaneous Questions

19. Will the scheme change the working of the reservoir?

We do not expect a significant change to the function and operation of the reservoir. The reservoir will work in the exact same way as it does currently with the same water level management in place.

The frequency at which the reservoir is flooded with water, and the volume and depth of water within the reservoir during these periods will not change after construction. Management of land within the reservoir will also not change after work is completed.

20. How will people be able to raise issues with the construction team?

Any member of the public may visit the site office on official business. We have also displayed our contact details around the site. You can get in touch with Kier's Public Liaison Officer, Claire Deacon via email at Claire.Deacon@kier.co.uk or by calling 07714 683609.

21. How will you keep the community informed about what is going on?

We will keep the community up to date with any relevant information by sending out letters, newsletters and hosting public drop-in events as required. You can also contact Sam Carter via email at southlakereservoir@environment-agency.gov.uk or by calling 03708 506 506 if you have any questions or would like to sign up to receive scheme updates.

For any technical queries about general flood protection in the area, please contact our Wessex Team via email at wessexenquiries@environment-agency.gov.uk.

E. Appendix

Glossary of technical terms related to Southlake Moor reservoir

Word	Meaning
moor	The low-lying basin into which the rivers overflow and flood
reservoir	An artificial water body where flood water is temporarily stored and then released slowly at a safe rate after the floods
embankment	A wall or bank of earth or stone built to prevent a river flooding an area
spillway	A structure used to control water flow to and from a reservoir if the reservoir is filled with flood water
rhyne	A drainage ditch or canal used to turn areas of wetland close to sea level into useful pasture
crest beam	a horizontal structural element that can withstand vertical loads
capping beam	A structural element made of steel and concrete used in construction
inlet and outlet structures	Water control structures that allow water to flow into or out of the reservoir and help control its flow
tilting weir	A movable gate that opens and closes to control the flow of water out of the reservoir
penstock	A gate that controls water flow
telemetry	The process of recording and transmitting readings of an instrument