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WENDOVER
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METHOD STATEMENT

FOR

Still Test Between Bridge 4 and Bridge 4a

[Wendover Canal Bringing it to Life - Wendover Canal Trust](#)

Registered Charity No. 801190

Document Location

The editable version of this document is held by the Wendover Canal Trust Site Manager. It is available to all members of the Wendover Canal Trust and the public via the Wendover Canal Trust's website:

[Wendover Canal Bringing it to Life - Wendover Canal Trust](#)

Printed copies may be out-of-date. The latest version is held on the Wendover Arm Trust's website.

Revision History

Issue	Date	Author	Summary of changes
1	1 May 2024	A. Bardwell	First issue for comments
2	4 May 2024	A. Bardwell	Full issue

Description of work to be carried out:

This method statement covers the work of performing a Still test on the rewatered section of the canal between bridges 4 and 4a.

Hazards associated with task /work:

- Uneven ground.
- Working near water, Leptospirosis.
- Working at height near to the stop planks at bridge4
- Lone working

Risk assessments and other method statements / documents to be referred to:

Risk assessment WCTRA 02 and WCTRA S31(available on [Wendover Canal Bringing it to Life - Wendover Canal Trust](#)).

Methods to be undertaken:

During the task regular photographs will be taken for inclusion in the health and safety file.

The section of canal over the length of the still test is in water and has been for over a month. At the east end under bridge 4 stop planks have been installed and waterproofed by using a tarpaulin sheet. At the west end under bridge 4a the existing Bentomat faced bund has been modified to incorporate a concrete block “mini stop plank” arrangement that can control the flow of water from the previous canal section, which is in turn fed from the plastic bypass tube at the entrance to the pipeline at Drayton Bridge.

Access to the work area is along towpath and the “pocket park” on the offside of the canal. The pocket park is accessed by use of bridge 4, or via the public footpath on that side.

One water height gauge is to be fitted to Whitehouses structure wall. A second measuring point will be established at the mesh over the internal structure at Whitehouses which is shielded from wind generated ripples.

The length of the canal section will be measured using a surveyor’s wheel and the design drawings will be used to establish the canal channel width for the recorded water level.

To perform the still test the section under test will be filled to the maximum height by blocking the entrance to the pipeline (with permission with the local CRT water management). The mini stop planks at bridge 4a will be fitted and made watertight. At this time the water level on the Dayton side of bridge 4a can be lowered in conjunction with the local CRT water management as required.

During the still test the whole section under test will be examined to ensure that there are no leaks at the stop planks at both ends or the structure at Whitehouses. Further examinations will cover the surrounding land especially the fields on the towpath side of the canal.

During the still test various measurements will be taken daily. These will include the water height in the canal, the general weather, temperature, Relative humidity, wind speed and direction plus other measurements as agreed with CRT. This data will be recorded on spreadsheets and transmitted to CRT daily, or other time periods as agreed with CRT.

The still test may last for two weeks to provide enough data to prove the watertightness of the section or sooner if the leak rate proves to be very high.

Should there be a period of heavy rain that takes the test section water level to the top and over of the stop planks at either end, then the test must be halted. The test may restart once the correct water level is reached by various draining methods.

During the still test various factors such as rainfall and open water evaporation will be subtracted from the height data to determine the leakage rate through the lining system and structures. The declared CRT target for leakage is less than 5mm water height drop per day.

Discussion

During the still test the general collection of water height data from day to day will be straightforward and can be collected by a group of volunteers to cover availability. The two other factors, evaporation, and rainfall, need to be measured or estimated to arrive at the true leak rate of the section under test.

Rainfall can be obtained by using a weather station within a reasonable distance from the test section and there is one available at a volunteer's house which is 1.2 miles away.

Estimating evaporation can be performed in a number of ways and the underlying methods can be complex due to the number of contributing factors, the variability of the weather and the amount of direct sunlight. The underlying theories and calculation methods are complex and none of the methods are considered to be completely accurate.

CRT has recommended using an evaporation pan method where a pan of water is placed next to the section under test such that the pan will experience the same weather conditions as the canal section under test. Regular examination of the pan water level will produce a data set which can be used to estimate the evaporation in the test section.

For that method to be used between bridge 4 and 4a requires that the pan is paced in a suitable position that can be viewed easily by the data collector volunteer. Unfortunately, all of the towpath is open to the public as is most of the offside due to the "pocket park" being open to the public. Recent evidence shows that there are regular incidents of interference and vandalism in the area and the evaporation pan may suffer the same issues unless tucked away out of sight. In that case the pan will probably not be able to replicate the weather conditions along the test section and will also make it time consuming and inconvenient for the volunteer data collectors to visit.

It is proposed to use a different method for estimating evaporation thus: -

The weather station positioned 1.2 miles away is at the same elevation as the canal and would be reasonably expected to see the same weather as the test section. The weather station is capable of collecting the correct data to be able to use a computer-based calculator to arrive at the estimated evaporation amount per day. The calculator can be found online at this address: - [Evaporation Rate Calculator for Water \(omnicalculator.com\)](https://www.omnicalculator.com/evaporation). Data from this calculator will be provided to CRT each day and added to the spread sheet data base.

CRT staff are expected to visit the test site as and when they deem it to be necessary.

<p>PPE:</p>	<p>High visibility jackets to be worn at all times. Especially if the is only one person on site. Gloves and other appropriate clothing including suitable footwear should be worn.</p>
<p>PLANT AND EQUIPMENT:</p>	<p>Pens and writing paper</p>
<p>WELFARE FACILITIES:</p>	<p>Portaloo on site.</p>
<p>FIRST AID:</p>	<p>First aid cover by others will not be available at all times. (single person on site) First aid kit and defibrillator are stored in the site huts.</p>
<p>EMERGENCY CONTACTS:</p> <p>FIRE:</p> <p>AMBULANCE SERVICE:</p> <p>STOKE MADEVILLE HOSPITAL:</p> <p>HEMEL HEMPSTEAD HOSPITAL:</p> <p>LOCAL POLICE:</p> <p style="padding-left: 40px;">TRING:</p> <p style="padding-left: 40px;">HEMEL HEMPSTEAD:</p> <p style="padding-left: 40px;">AYLESBURY:</p>	<p>IN ANY EMERGENCY DIAL 999</p> <p>999</p> <p>01908 262422</p> <p>01296 315000</p> <p>01442 213141</p> <p>01442 827272</p> <p>01442 271000</p> <p>01296 396000 Note:</p> <p>If asked for location by emergency services, it is important that the exact location of the nearest ROAD ACCESS or BRIDGE is provided. Refer to EMERGENCY CALL OUT INFORMATION sheet.</p>