

Inglesham Lock Restoration Plan

Thames & Severn Canal



WRG-ING-001 V4 - DRAFT



Waterway Recovery Group
Inglesham Lock Restoration Plan

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1 Introduction

1.1 Project Organisations

1.1.1 Waterway Recovery Group

Waterway Recovery Group (WRG) is the national co-ordinating body for voluntary labour on the inland waterways of Britain and is part of the Inland Waterways Association (IWA).

To achieve its aims, and that of the IWA, WRG (and its regional groups) work with regional and local canal societies to run weekend working parties and week long work camps (Canal Camps) every year, helping to restore derelict canals in Britain.

1.1.2 The Inland Waterways Association

The Inland Waterways Association (IWA) was founded in 1946 and is a non-profit distributing company limited by guarantee, registered in England no 612245, and registered as a charity no 212342. The IWA advocates the conservation, use, maintenance, restoration and development of the inland waterways for public benefit.

IWA members' interests include boating, towpath walking, industrial archaeology, nature conservation and many other activities associated with the inland waterways.

1.1.3 Cotswold Canals Trust

The Cotswold Canals Trust (CCT) is working to restore the Stroudwater Navigation and Thames & Severn Canal for the benefit of the public. These canals run through Gloucestershire and part of Wiltshire traversing the Cotswold Hills. The Trust has an active volunteer force working on several restoration projects. Sections of the canal are now in water and the Trust runs a trip boat on some of them. The Trust is part of the Cotswold Canals Partnership which includes the local authorities.

The Aims of the Cotswold Canals Trust are:-

- To promote for the benefit of the community, the reopening of the Cotswold Canals.
- To promote the restoration of the two waterways to give a balance between the needs of navigation, development, recreation, heritage, landscape conservation, wildlife and natural habitats.
- To promote the use of the towpath as The Thames & Severn Way.
- To achieve restoration of the Cotswold Canals as a navigable route from Saul Junction to the River Thames.

1.2 Purpose of This Document

What does this document do and why should people read it?

This document has several purposes. It aims to:

- Outline the project and the organisations involved.
- Outline the general principles and practices that will be adopted throughout delivery.
- Define the roles identified in the Construction Design and Management (CDM) Regulations 2015, the responsibilities of each party involved in the project and identify the role holders.
- Identify the significant site specific hazards against which safeguards need to be developed in order to safely deliver the project work.

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- Define the Site Layout
- Outline the procedure to be followed in the event of an emergency and provide contact details for local health practices local to site.
- Define the breakdown of the work to be delivered by this project, and some of the potential future phases of work intended for delivery by Cotswold Canals Trust.
- Indicate where the proposed method statement(s) and initial risk assessment(s) for the planned works may be found.
- Act as a tool to support work party / canal camp leadership teams when read in conjunction with the IWA Practical Restoration Handbook and HSG150.

1.3 Inglesham Lock

The Thames & Severn Canal joined the River Thames at Inglesham Lock, half a mile upstream of Lechlade. The lock was the last to be built on the canal and the accommodation-bridge inscription date, 14 November 1789, is just five days before the first complete passage of the canal. After closure for repairs in 1903 to 1908 this section of canal was finally closed in 1927. The roundhouse (formerly occupied by the lock-keeper) and cottage (formerly a warehouse) are shown in the 1923 picture on p89 of 'The Thames & Severn Canal' that is reproduced below.



2 Health & Safety

Waterway Recovery Group is a voluntary organisation and takes the health and safety of its volunteers very seriously, as do all the partners and associated organizations supporting the restoration of the Cotswold Canals. WRG and all subcontractors and partners, will work to the standards outlined below and as described in the IWA Practical Restoration Handbook (PRH), as well as the Health and Safety Guidance 150 (HSG 150). If for any reason the text contained in this plan appears to contradict the text in either the PRH, or HSG 150, then the PRH and HSG 150 shall take precedence.

2.1 Health and Safety Policy

The Inland Waterways Association exists to promote a widely-appreciated and well-maintained network of inland waterways available for the benefit of all. This is achieved through a combination of advocacy, education and physical works. We aim to achieve this without adversely affecting anyone's health and safety or causing harm to the natural environment.

The Association is committed to protecting the health and safety, so far as is reasonably practicable, of its employees, volunteers, members and the wider public when engaged on activities managed or promoted by the Association and its subsidiary companies.

The Association is committed to achieving these specific health and safety aims:

- To prevent accidents and causes of work related ill-health, and to provide adequate control of health and safety risks arising from activities managed or promoted by the Association.
- To provide appropriate training, relevant instruction or supervision by a competent person to ensure employees, volunteers, and members of the Association are able to carry out activities safely.
- To promote and clearly communicate health and safety matters throughout the Association by engaging with employees, volunteers and members using various media including IWA's website, email, printed documentation and videos.
- To provide equal standards of protection to employees, volunteers and members of the Association.
- To maintain safe and healthy working conditions by making available appropriate safety equipment, and ensuring that all plant, vehicles, tools and equipment owned by the Association and subsidiary companies are in good working order.
- To collect, consult and analyse information on accidents, dangerous incidents and work related ill-health in order to review working practices and take action where practicable to prevent any recurrence.

Whilst engaged in any activity managed or promoted by the Association, employees, volunteers, members and visitors are urged, in their own interest and that of their colleagues, to take reasonable care of their own health & safety and observe the Association's health and safety procedures. Any matter which those participating in any activity consider may be hazardous to either health or safety must be brought to the notice of their line manager, leader or other responsible person at the earliest opportunity.

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Due to the diverse nature of the Association and its activities, each part of the organisation will put in place systems appropriate to the nature of the personnel and the complexity of the activities being carried out. Day to day responsibility for ensuring this policy's aims are achieved is outlined in the 'IWA Health & Safety – Roles and Responsibilities' document.

This policy will be reviewed on an annual basis to ensure that it remains effective in terms of the organisation's structure and activities.

2.2 Health & Safety Management

As stated above, IWA and WRG takes the Health and Safety of its volunteers very seriously, and with this in mind, WRG has a Health & Safety management regime that has evolved over many years and that we believe satisfies HSG 65.

All physical work undertaken by WRG on the Cotswold Canals will be subject to the planning processes outlined in the Construction (Design and Management) regulations 2015 (CDM2015).

The key elements to securing construction health and safety include:

- Managing the risks by applying the **general principles of prevention**.
- **Appointing** the right people and organisations at the right time.
- Making sure everyone has the **information, instruction, training and supervision** they need to carry out their jobs in a way that secures health and safety.
- Dutyholders **cooperating and communicating** with each other and **coordinating** their work.
- **Consulting workers and engaging** with them to promote and develop effective measures to secure health, safety and welfare.

The General Principles of Prevention set out the principles dutyholders should use in their approach to identifying the measures they should take to control the risks to health and safety in a particular project. The general principles of prevention are summarised as:

- (a) avoid risks where possible;
- (b) evaluate those risks that cannot be avoided; and
- (c) put in place proportionate measures that control them at source.

CDM 2015 requires designers, principal designers, principal contractors and contractors to take account of the principles in carrying out their duties.

2.2.1 Structure

WRG is the "operational" subsidiary of The Inland Waterways Association, a registered charity.

- IWA provides the H & S policy
- WRG implements the H&S Policy through the WRG Board
- All projects conducted by volunteers allied to WRG are required to be cognisant of the requirements, instructions and advice of WRG Board and Committee.

2.2.2 Planning

All WRG tasks undertaken on the Cotswold Canals will be subject to CDM2015, and as such, all activities on site will be planned to identify hazards and minimise or where possible eliminate them during the design on activity planning stage.

All activities will be subject to a Safe System of Work / Method Statement / Job Description, with supporting risk assessments.

2.2.3 Project Delivery

All WRG work on the Inglesham Lock project will be delivered by either Canal Camps with a Canal Camp Leadership team that is approved by the WRG Board, or, by groups from around the country who are led by Working Party Organisers. Canal Camp Leaders and Working Party Organisers will implement the requirements and measures stated in the Safe Systems of Work / Method Statements / Job Descriptions with supporting risk assessments. The Canal Camp Leader / Working Party Organiser will also be responsible for ensuring that volunteers on a WRG project (weekend or week camp) work safely and in accordance with WRG policy and implement the following:

- When a volunteer arrives on the project they will be given a Health and Safety Induction / talk before being allowed to work on the site. The talk will reinforce general site procedures and provide specific details for the site and project they will be working on.
- The talk will introduce the documentation for the site and the projects being undertaken. Such documentation will include the Safe System of Work, Method Statements / Job Description sheets and accompanying Risk Assessment. Other documents such as the "IWA Incident Report Form" will also be introduced during this brief.
- It is made clear to volunteers that as part of the Health and Safety at Work Act 1974, they have a legal responsibility in the Health and Safety operations of the project.
- All volunteers will be required to sign a register stating that they have received the site induction talk, and that they are willing to follow the project leaders directions at all times. The signed register will form part of the documentation pack to be taken onto the work site, and the signed register will be returned to IWA Head Office on completion of the project and will be kept on record.
- All relevant documentation (including a copy of the Practical restoration Handbook) will be taken on site every day.
- At all times during canal camps and working parties, the site leader / working party organiser will ensure that volunteers are given sufficient instruction and supervision to enable them to undertake any tasks requested of them in a safe manner. This will include frequent informal communication and utilisation of the Safe System of Work / Method Statements Task Sheets as a toolbox talk style briefing. Through regular communication the project leaders will check that volunteers understand the task in hand and help to ensure that Health and Safety is at the forefront of everyone's mind.
- In the event of an incident or near miss on site, leaders will complete the IWA Incident Report Form to inform IWA Head Office and the WRG Board. The WRG Board will seek to learn any lessons that result from the incident or near miss and where necessary, mandate changes to the Operating Procedures.

2.2.4 Project Leaders

Project Lead – [REDACTED] (WRG Volunteer & WRG board member).

Project Co-ordinator – [REDACTED] (IWA Head Office).

Canal Camp Leaders / Working Part Organisers – Appointed specifically for camps / work parties.

2.3 Personal Protective Equipment

The work site will be designated a hard hat site, and other Personal Protective Equipment (PPE) will be specified in the Safe System of Work / Method Statement / Job Description. The following equipment will be made available to volunteers on site if they do not already possess it and if it is required for the specific allocated task / identified in the risk assessment.

Safety Helmet to BS 5240

Eye Protection to BS 2092

Hearing Protection to BS 5108

Disposable Respiratory Protection to EN 149 *

Work gloves.

Hi-Vis waistcoat / vest

Safety Footwear including waders

Life Jackets

* Disposable Respiratory Protection to FFP3 will be provided for those using brick saws and for anyone who is in the vicinity of cutting activity.

3 Construction (Design and Management) 2015

The Construction (Design and Management) Regulations 2015 (CDM 2015) cover the management of health, safety and welfare when carrying out construction projects. CDM 2015 replaces the Construction (Design and Management) Regulations 2007 (CDM 2007) from 6 April 2015. From this date, the Approved Code of Practice (ACOP) which provides supporting guidance on CDM 2007 is withdrawn.

The Construction (Design and Management) Regulations 2015 describes:

- a) the law that applies to the whole construction process on all construction projects, from concept to completion; and
- b) what each dutyholder must or should do to comply with the law to ensure projects are carried out in a way that secures health and safety.

The regulations are intended to focus attention on planning and management throughout construction projects, from design concept onwards. The aim is for Health and Safety considerations to be treated as an essential, but normal part of a project's development – not an after thought of bolt-on extra.

The CDM Regulations identify a number of roles that must be undertaken. Because of the expected duration of the Inglesham Lock Project, it has been assumed that the project is notifiable to the HSE (with a form F10) when identifying the duties of each party.

3.1 CDM Roles

CDM dutyholders:* Who are they?	Summary of role/main duties
<p>Clients are organisations or individuals for whom a construction project is carried out.</p>	<p>Make suitable arrangements for managing a project. This includes making sure:</p> <ul style="list-style-type: none"> • other dutyholders are appointed; • sufficient time and resources are allocated. <p>Make sure:</p> <ul style="list-style-type: none"> • relevant information is prepared and provided to other dutyholders; • the principal designer and principal contractor carry out their duties; • welfare facilities are provided. <p>See paragraphs 23–52 of Managing health and safety in Construction (Design and Management) Regulations 2015 for more guidance.</p>
<p>Domestic clients are people who have construction work carried out on their own home, or the home of a family member that is not done as part of a business, whether for profit or not.</p>	<p>Domestic clients are in scope of CDM 2015, but their duties as a client are normally transferred to:</p> <ul style="list-style-type: none"> • the contractor, on a single contractor project; or; • the principal contractor, on a project involving more than one contractor. <p>However, the domestic client can choose to have a written agreement with the principal designer to carry out the client duties.</p> <p>See paragraphs 53–56 of Managing health and safety in Construction (Design and Management) Regulations 2015 for more guidance.</p>
<p>Designers are those, who as part of a business, prepare or modify designs for a building, product or system relating to construction work.</p>	<p>When preparing or modifying designs, to eliminate, reduce or control foreseeable risks that may arise during:</p> <ul style="list-style-type: none"> • construction; and • the maintenance and use of a building once it is built. <p>Provide information to other members of the project team to help them fulfil their duties.</p> <p>See paragraphs 72–93 of Managing health and safety in Construction (Design and Management) Regulations 2015 for more guidance.</p>
<p>Principal designers** are designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.</p>	<p>Plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project. This includes:</p> <ul style="list-style-type: none"> • identifying, eliminating or controlling foreseeable risks; • ensuring designers carry out their duties. <p>Prepare and provide relevant information to other dutyholders.</p> <p>Provide relevant information to the principal contractor to help them plan, manage, monitor and coordinate health and safety in the construction phase.</p>

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	See paragraphs 94–115 of Managing health and safety in Construction (Design and Management) Regulations 2015 for more guidance.
Principal contractors are contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor.	<p>Plan, manage, monitor and coordinate health and safety in the construction phase of a project. This includes:</p> <ul style="list-style-type: none"> • liaising with the client and principal designer; • preparing the construction phase plan; • organising cooperation between contractors and coordinating their work. <p>Ensure:</p> <ul style="list-style-type: none"> • suitable site inductions are provided; • reasonable steps are taken to prevent unauthorised access; • workers are consulted and engaged in securing their health and safety; and • welfare facilities are provided. <p>See paragraphs 110–146 of Managing health and safety in Construction (Design and Management) Regulations 2015 for more guidance.</p>
Contractors are those who do the actual construction work and can be either an individual or a company.	<p>Plan, manage and monitor construction work under their control so that it is carried out without risks to health and safety.</p> <p>For projects involving more than one contractor, coordinate their activities with others in the project team – in particular, comply with directions given to them by the principal designer or principal contractor.</p> <p>For single-contractor projects, prepare a construction phase plan.</p> <p>See paragraphs 147–179 of Managing health and safety in Construction (Design and Management) Regulations 2015 for more guidance.</p>
Workers are the people who work for or under the control of contractors on a construction site.	<p>They must:</p> <ul style="list-style-type: none"> • be consulted about matters which affect their health, safety and welfare; • take care of their own health and safety and others who may be affected by their actions; • report anything they see which is likely to endanger either their own or others' health and safety; • cooperate with their employer, fellow workers, contractors and other dutyholders.

*Organisations or individuals can carry out the role of more than one dutyholder, provided they have the skills, knowledge, experience and (if an organisation) the organisational capability to carry out those roles in a way that secures health and safety.

** Principal designers are **not** a direct replacement for CDM co-ordinators. The range of duties they carry out is different to those undertaken by CDM co-ordinators under CDM 2007 (see paragraphs 181–186 for information about transitional arrangements).

3.2 CDM Role Holders

For the purposes of CDM, the defined roles are being filled by:

Client	Inland Waterways Association (IWA)*
Domestic Client	N/A
Designer	IWA ([REDACTED] – Honorary Consulting Engineer) Waterway Recovery Group ([REDACTED], [REDACTED], [REDACTED])
Principle Designer	N/A
Principle Contractor	Waterway Recovery Group
Contractor	To be appointed for specific tasks where/if necessary.
Workers	Waterway Recovery Group volunteers

*Cotswold Canal Trust is the beneficiary / owner of the site.

4 Work Site

4.1 Location

Inglesham Lock is located close to Lechalade on Thames, Gloucestershire at the confluence of the River Thames and the river Coln. It is adjacent to Roundhouse Cottage and the Roundhouse, address below:

Inglesham Roundhouse and Cottage
Downington
Lechlade
Gloucestershire
GL7 3EE

Grid Ref. SO 204 987.

4.2 Finding the Site

Closest access is from Longdoles Lane off of A417 west of Lechlade.

From the East: Proceed along the the High Street (A417) out of Lechlade towards Fairford and take the 1st left after Moongate Rd on the right hand side approximately 400m before the roundabout. The road is signed "No Through Road".

From the west, take the 2nd turn on the right hand side after the roundabout, and before entering Lechlade. The road is signed "No Through Road".

The single track road extends approximately 500m from the main road and the road turns right at a sharp bend where a public footpath across the water meadows from Lechlade joins from the left. The road continues on to a local farm but immediately on the left is the field gate entrance to Roundhouse cottage and the Roundhouse.

This gate is padlocked and the combination will be made available while work is conducted on site, and will be recorded on the emergency sheets in the WRG vans or via the Canal Camp Leader / Working Party Organiser. Do not leave the gate unlocked.

The single track is a shared vehicular access gravel track and public footpath. Caution is required with walkers, dog owners and riders as well as vehicles visiting moorings, the site and the Roundhouse.

There are a number of culverts crossing under the track with headwalls very close to the edge of the track with sharp drops into the water courses below and there are two cattle grids part way along the track. All vehicles are to proceed slowly along the track, and not attempt to leave the defined track.

At the end of the track, the public footpath leaves the track, and a second locked field gate before the bridge over the River Coln. This gate is to remain locked to prevent public access to the Roundhouse property.

Proceed over the wooden decked bridge and the work site is ~100m along the track on the right hand side before the track starts to rise up to cross the lock bridge.

4.3 Access

Access to the site must be along the stone track and there is no parking or turning on the grassed areas between the two bridges. Vehicles may only turn or park in the confines of the site compound where a turning area has been created.

The River Coln vehicle bridge has a 3.5 tonne weight limit. The bridge has a wooden deck which becomes slippery when damp, wet, muddy and icy. Apart from a 20cm curb, the bridge has no edge protection / hand rails. Do not enter / exit vehicles when on the wooden bridge.

No vehicles or volunteers are to approach or cross the bridge over the tail of the lock to the Roundhouse without prior permission of the owner.

The Roundhouse and its environs are private property and are out of bounds unless owner invites personnel to visit.

The upstream, approx. 350m of, canal bed is CCT property but until the site boundaries are fully defined by marker these will remain out of bounds unless the Project or Canal Camp Leader / Work Party Organiser has defined the area to be accessed.

4.4 Weight Limits

The bridge over the Coln has been calculated to have a weight limit of ~ 7tonnes, however, the owner of the Roundhouse and cottage has requested that no vehicle in excess of 3.5T pass over the bridge. All works will be designed accordingly, and contractors supplying to site will be required to use appropriate vehicles.

4.5 Site Access Notes

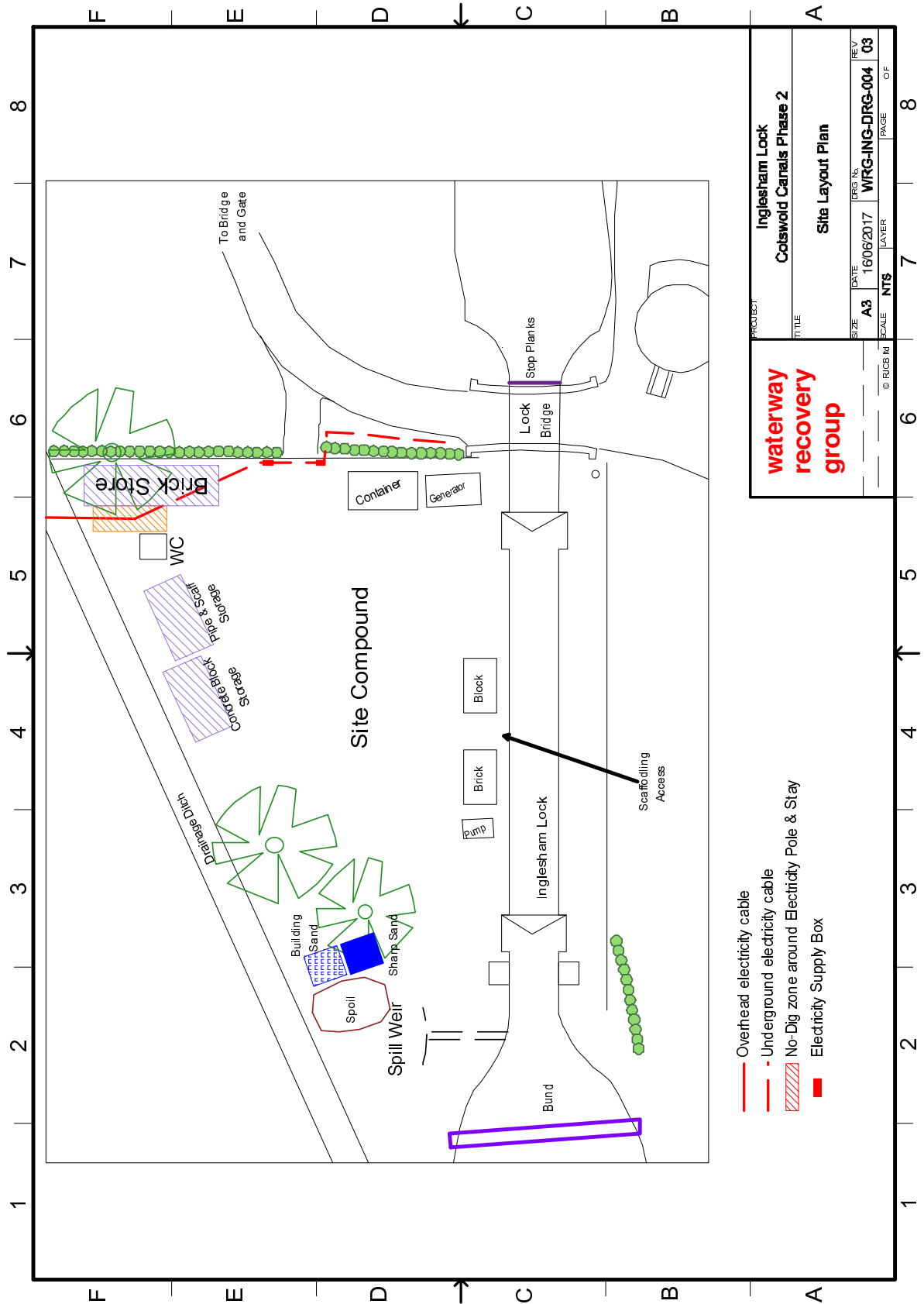
The Roundhouse and cottage, the access track, the accommodation bridges over the R.Colne, and the tail of the lock (down to coping stone level and parcels of land either side of the track between the R.Colne and the canal together with land surrounding the property have been sold to a private owner.

Access is permitted to the site via the track, but access over the surrounding land has to be prior approval of the Roundhouse owner. Trafficing over the accommodation bridge over the tail of the lock is only for maintenance purposes and not for re-construction access.

The following rules are to be observed:

- **Contact (text message) the Roundhouse owner before starting up the access track and once you have left the site in the evening.**
- **Do not leave the gates open or unlocked.**
- **Drive slowly along the track.**
- **Pedestrians on the track are to be given right of way.**
- **Do not pull off to the sides of the track.**
- **Do not cur corners on the track as the edge of culverts are close to the edge of the track.**
- **Do not enter / exit vehicles when on the wooden bridge.**
- **Do not leave the track or turn vehicles on the grass between the bridges.**
- **Do not cross the bridge to the Roundhouse (over the tail of the lock) without prior permission of the owner.**

4.6 Site Layout Diagram



5 Site Specific Hazards

5.1 Falls into Deep Water and Drainage Channels

Access to the site is along an un-metalled causeway track which crosses over unfenced culverts and a bridge with no hand rails / barriers over the River Coln. The River Coln may be fast flowing and deep water in flood conditions. The wooden deck of the bridge near to the Roundhouse may be slippery.

River Thames is of navigable depth and is subject to fluctuating water levels and flows. Access to the area adjacent the R. Thames will be restricted to specific work tasks, but the water level in the Thames will be checked each day prior to starting work.

The site compound is edged with a boundary ditch contains water, the level of which varies dependent on the water level in the River Coln and Thames. The ditch contains a deep silt layer and steep slope.

5.2 Uneven Ground

The work site and surrounding areas include areas of uneven ground. Working areas have been levelled as much as practicable, and steps inserted where necessary. An access track (crushed masonry over Geotextile fabric) has been made into the site.

The areas surrounding the work site at the lock however are likely to include areas of broken / uneven ground and animal burrows.

The access track to site has two cattle grids located along it and the one nearest the site has to be traversed to open/close the field gate to the work site / Roundhouse Property. Care is required when crossing over the grid especially in wet / damp conditions.

5.3 Unfirm / Waterlogged Ground / Flooded Chamber

Unless the weather is inclement, or the chamber has been pumped down, the bed of the canal above the bund at the head of the lock is generally dry due resulting from leaks in the canal bed. Some surface water does gather in the bottom of the canal following continued wet weather, and when the chamber has been pumped down. The area above the bund and in the bed of the canal above the site fence is temporarily filled with silt removed from the lock chamber.

The Forebay of the lock between the lock and the bund across the canal is solid, however it can become wet when the lock chamber is pumped down and water seeps under the bund.

The main lock chamber and short length of canal connecting the lock to the River Thames has a water level that fluctuates with the rise and fall of the main river. The canal cut from the bridge to the Thames has silted up to a level below the normal water level.

The lock chamber has been cleared of silt, but there is some residual brick / masonry rubble in the bottom of the lock resulting from the deconstruction activity. Such material should be borne in mind when inspecting the scaffolding, but is visible when the chamber has been pumped down.

The site compound is edged with a boundary ditch contains water, the level of which varies dependent on the water level in the River Coln and Thames. The ditch contains a deep silt layer and steep slope.

5.4 Chamber Water

A temporary dam supplied by On-Site was installed across the canal cut prior to repairs to the bridge and stop planks with full certification and inspection regimes provided by On-Site. Stop planks have been installed across the canal with an impermeable membrane placed over the front, and behind a secondary sand bag dam has been installed for additional protection.

The majority of work remaining in the lock chamber is above the normal water level of the empty lock. Where work is required at a lower level, the chamber will be pumped down and the stop planks / sandbag dam inspected to confirm that the condition has not deteriorated and that water seepage is minimal.

5.5 Loose Masonry / Falling Objects

The lock chamber has been disused for many years and has been damaged by tree roots and weathering. During this time, the majority masonry has become loose / disturbed and may be loose. The coping stones have been removed from the lock chamber walls, numbered and stacked. The stones are not to be climbed on.

The panels of unstable brickwork have been removed, however, it is possible that some smaller pieces of loose masonry / bricks could be dislodged as the failed chamber walls are taken down prior to re-build. This will be taken into account in the design of works to remove the failed walls, and scaffolding will need to be re-inspected following such falls and corrective action undertaken as necessary.

5.6 Deep Mud / Debris

The site compound is edged with a boundary ditch contains water, the level of which varies dependent on the water level in the River Coln and Thames. The ditch contains a deep silt layer and steep slope.

When the lock and channel below the bridge are de-watered, mud and debris will be exposed, prior to removal by hand. During clearance of the lock chamber, silt and masonry were separated. Silt was deposited in the bed of the canal above the lock and beyond the bund and will be used for landscaping on completion of the restoration works.

5.7 Access

The single track is a shared vehicular access gravel track and public footpath so extreme caution is required with walkers, dog owners and riders as well as vehicles visiting moorings, the site and the Roundhouse.

There are a number of culverts crossing under the track with headwalls very near to the track edges and sharp drops into the watercourses below. Extreme care is required when traveling along the track.

Two cattle grids are located along the track which should only be crossed at low speed due to their loose construction.

The bridge over the River Coln has a wooden deck, which becomes slippery when damp, wet, muddy and icy. Apart from a 20cm curb, the bridge has no edge protection / handrails.

5.8 Overhead / Buried Electricity Cables

An overhead electricity cable runs down the side of the access track, and crosses over the access track ~ 50m before the gate into the private grounds surrounding the Round House.

An overhead electricity supply enters the work site in the north corner to a pole and stay, and has been run underground from the vicinity of the pole, running across the boundary of the site, under the access gate to a pair of termination boxes on the boundary of the site near the storage container. Personnel on site are to be warned of presence of the overhead and underground cables. All long objects that could be raised under the cables are to be carried by two persons (one at each end) and all plant / vehicle movements under the cables will require a banksman. Nothing is to be driven into the ground, or holes excavated near the electricity supply pole and stay and near the site boundary / electricity termination boxes.

5.9 Underground Water Mains

Two water mains have been identified underground on the site footprint:

- Water supply to the Roundhouse and cottage - This water main would only potentially be affected during the installation of the landing stage (excluded from current work scope).
- 250mm major distribution watermain entering the site in the NW corner from the identification plate but line across site has not been identified by the Water authority / undertaker. A washout valve has been identified adjacent the track close to the access track to the the Roundhouse halfway between the Coln bridge and site entrance.

With the exception of plant operating on the track and potentially in the vicinity of the NW side of the bridge during clearance of the area under the bridge, all access to site for WRG vehicles and those vehicles necessary for delivery, installation, servicing and removal of plant, equipment or materials will be along the defined track.

5.10 Members of the Public (Pedestrians and Road Users)

There is public footpath running along the access track upto the River Coln bridge which a popular route for pedestrians, dog walkers and cyclists. No site operation / access is permitted along the track without the supervision of banksmen to control the flow of pedestrians / cyclists / volunteers in order to prevent accidents.

There is NO public access to the Roundhouse and Cottage or the work site. The gate (Location B on the site plan) located just before the wooden bridge over the river Coln is to be kept locked shut and only opened when vehicles are waiting to enter / leave site.

The Roundhouse and Cottage are occupied so the track is to be kept open for vehicular access unless specific tasks require closure with prior agreement of the Roundhouse owner.

6 Site Welfare

For the duration of the restoration works on site, facilities will be made freely available for the use and welfare of the volunteers and contractors working on the site. Facilities will include:

- Potable cold water supply (supplied in water containers)
- Hot water supply (gas fired water boiler)
- Hand washing facilities
- A portable / site toilet will be provided on site.
- Solar Showers

Further washing facilities and toilets can be found at the accommodation being occupied by WRG for the duration of the camps.

Permanent toilets can also be found located in Lechlade high street and at the Lechlade Garden Center.

The Cotswold Canals Trust Eastern End Depot at Alex Farm also has welfare facilities for those conducting support activities at the farm, and those collecting materials that have been stored there.

7 Emergencies

In all cases of **EMERGENCY** ring **999**

The Leader (or nominated person) will carry a whistle. In the event of the whistle being blown, all volunteers are to stop what they are doing, make their work place safe and return to the Site Compound and await further instruction.

If the emergency requires the presence of the emergency services, the Canal Camp Leader, deputy or nominated person will call 999

The address of the site is:

**Inglesham Roundhouse and Cottage
Downington
Lechlade
Gloucestershire
GL7 3EE
Grid Ref. SO 204 987**

Gate Code Numbers

7675

At the start of the track

4910

Gate nearest work site

The Leader will dispatch pairs of volunteers to unlock the two gates and to open the gates to allow the emergency services to pass.

7.1 NHS 111

You can call 111 when you need medical help fast but when it's not a 999 emergency.

NHS 111 is available 24 hours a day, 365 days a year.

Calls are free from landlines and mobile phones.

Call **111** if:

- you need medical help fast but it's not a 999 emergency
- you think you need to go to A&E or need another NHS urgent care service
- you don't know who to call or you don't have a GP to call
- you need health information or reassurance about what to do next

7.2 Hospital

The nearest Accident & Emergency Unit is located at:


Great Western Hospital
Marlborough Road,
Swindon,
Wiltshire,
SN3 6BB

Tel: 01793 604020

Directions:

From the Work Site, turn right along A417 into Lechlade, turn right at the town center traffic lights onto A361 / Thames Street.

Pass through 5 roundabouts, remaining on A361, at final roundabout take 2nd exit onto slip road to A419 in direction of M4 Junction 15 (Marlborough)

Join the A419 south following signs for the M4. This is the Stratton St Margaret by-pass. Take the fourth exit right at the Commonhead roundabout into Marlborough Road A4259. Follow signs to  and Hospital. The entrance to the Hospital is 300 metres on the left.

Direction maps and information sheets for the Great Western Hospital will be each van.

7.3 First Aid Facilities

Injuries and First Aid will be dealt with in accordance with the PRH.

A First Aider(s) will be nominated at the start of the week and will be made known to all volunteers.

A First Aid kit suitable for at least 20 persons will be available on site will be clearly signed and the location made known to all volunteers. All accidents (however trivial) will be recorded in a standard HSE Accident Book (Form B1510) and will be located in the first aid kit

7.4 Doctors and Pharmacists

There are a number of Doctors surgeries in the towns and villages surrounding the site and accommodation. Due to the concentration / proximity of Doctors surgeries, Pharmacists and parking, selected services detailed below are concentrated on Lechlade which is approx. 1.5 miles from site or the town of Fairford which is the closest to the accommodation.

7.4.1 Lechlade Medical Center

Oak Street,

Lechlade

Gloucestershire

GL7 3RY

Hours; Monday to Friday 08.30am – 06.30pm

Phone: 01367 252264 (Emergencies if phone not manned -01367 252954)

Out of hours; 08454 220220

7.4.2 Hilary Cottage Surgery

Keble Lawns

Fairford

Gloucestershire

GL7 4BQ

Hours; Monday to Friday 8.30am - 1.30pm and 2.00pm – 6.00pm

Phone: 01285 712377 (Emergencies if phone not manned - 01285 712377)

Out of hours; 08454 220220

7.4.3 Pharmacies

Small Pharmacy located in the Center of Lechlade, but there is a larger pharmacist on the High Street in Fairford. Details as follows:

Leclade pharmacy offers a full dispensing service 6 days a week.

Opening hours: Monday-Thursday 09.00am -06.00pm
 Friday 09.00am -01.00pm and 02.00pm-06.00pm
 Saturday 09.00am -01.00pm

Phone: 01367 252285

Boots Chemist
Market Place
Fairford
Gloucestershire GL7 4AB
Phone: 01285 712350

7.5 Dentists

A private dental practice can be found in Lechlade and there is another dental practice located in Fairford.

Lechlade Dental Practice
7 Burford Street,
Lechlade
Gloucestershire, GL7 3AP
Opening hours;
Monday – Thursday 08.45am – 5.30pm
Friday 09.00am –1.00pm
Phone: 01367 252080

White Cottage Dental Practice
London Road
Fairford
GLOS GL7 4AQ
Phone: 01285 713993

8 Work Breakdown Description

To help explain the work and split the project into smaller more manageable tasks, the project work has been broken down into 12 work areas and Enabling Works. Each of the work areas has been included in Annexes A-M in this document where they are further broken down into project tasks.

The project work breakdown areas are:

- A Enabling Works & Generic Methods
- B Lock Bridge
- C Lower Wing Walls / Revetment Walls
- D Lock NW Side
- E Lock SE Side
- F Chamber Invert and Cill
- G Upper Wing Walls
- H Gates and Quadrants
- I Spill Weir
- J Site Landscaping
- K River Coln Bridge and Access Track
- L Landing Stage
- M Back Pumping

Annexe A Enabling Works & General Methods

Sub Zone	Sub Zone Description
A0	Safety Talk Site Specific Items
A1	Site Safety Fences
A2	Temporary Access Steps
A3	Logging of Felled tree
A4	Installation and Inspection of Ground Anchors
A5	Tidy up of site
A6	Scaffolding Design and Access
A7	Scaffolding Inspection
A8	Cast Stone – General Method
A9	Backfill – General Method
A10	Stone Repair – General Method
A11	

Waterway Recovery Group
Inglesham Lock Restoration Plan

Annexe B Lock Bridge

Sub Zone	Sub Zone Description	Completed
B1	Install Temporary Dam/stop plank	2014
B2	Fish Rescue	2014
B3	De-water Lock Chamber	2014
B4	Inspection & Maintenance of Temporary Dam	2014
B5	Remove Silt and Debris under bridge / in front of revetment walls / lower wing walls	2014
B6	Cleaning and Stabilisation of Brickwork	2014
B7	Repairs to Stop Plank Groove	2014
B8	Re-point wall under bridge – NW side	2014
B9	Re-build and repair wall under bridge – NW side	2014
B10	Re-point wall under bridge – SE side	2014
B11	Re-build and repair wall under bridge – SE side	2014
B12	Repairs to Stop Plank Cill / Seat Area	2014
B13	Installation of Stop Planks and face with Polythene Sheet	2014
B14	Filling of Sand Bags	2014
B15	Installation of Sandbag Dam	2014
B16		
B17		
B18		
B19		
B20		

Annexe C Lower Wing Walls / Revetment Walls

Sub Zone	Sub Zone Description	Completed
C1	Survey of Revetment Walls	2014
C2	Re-point revetment wall brickwork – SE Side	2014
C3	Re-point revetment wall brickwork – NW Side	2014
C4	Expose, Repair and Re-point stone revetment walls – SE	2014
C5	Expose, Repair and Re-point stone revetment walls – NW	2014
C6	Repair Re-point stone revetment wall and replace coping stones	2015
C7		
C8		
C9		
C10		

Annexe D Lock NW Side

Sub Zone	Sub Zone Description	Completed
D1	Re-point walls at bottom of lock chamber - NW Side	2016
D2	Repair patch to brick wall on Compound side - NW	2016
D3	Remove Coping Stones	2016
D4	Removal of Loose Brickwork & Brickwork Panels	2016
D5	Creation of Lock Ladder Recess	
D5	Excavate backfill material and stockpile	
D6	Re-build lock chamber wall to profile boards	
D7	Creation of Lock Ladder Recess	
D8	Dismantle and re-build lower gate recess walls	
D9	Removal and repair of square quoin (lower gate recess)	
D10	Repair hollow quoin (lower gate recess)	
D11	Repair to hollow quoin (upper gate recess)	
D12	Replacement of Coping Stones	
D13	Repairs to retaining wall between lock chamber / bridge	

Annexe E Lock SE Side

Sub Zone	Sub Zone Description	Completed
E1	Re-point walls at bottom of lock chamber - SE Side	2016
E2	Removal of Soil Overburden	2016
E3	Remove Coping Stones	2016
E4	Removal of Loose Brickwork & Brickwork Panels	2016
E5	Excavate backfill material and stockpile	
E6	Re-build lock chamber wall to profile boards	
E7	Creation of Lock Ladder Recess	
E8	Dismantle and re-build lower gate recess walls	
E9	Removal and repair of square quoin (lower gate recess)	
E10	Repair hollow quoin (lower gate recess)	
E11	Repair to hollow quoin (upper gate recess)	
E12	Replacement of Coping Stones	
E13	Repairs to retaining wall between lock chamber / bridge	

Annexe F Chamber Invert & Cill

The invert was examined during the survey immediately following clearance in September 2015. While there is some leakage through the invert (2 minor springs with arisings), it has been judged that when the lock water level is equal to that of the River Thames, the flow is likely to be minimal, and that as a result, trying to plug the springs in this case is likely to result in further damage to the invert.

Annexe G Upper Wing Walls / Revetment Walls

Scope to be confirmed

Sub Zone	Sub Zone Description	Completed
G1	Stop Plank Groove repairs & liners installed	
G2	Paddle Pit repairs SE	
G3	Paddle Pit repairs NW	
G4	Upper Gate Recess Repairs SE	
G5	Upper Gate Recess Repairs NW	
G6	Spill-weir culvert mouth (NW Side)	
G7	Stop Plank cill repair / replacement	
G8	Upper Wing Wall deconstruction - SE	
G9	Upper Wing Wall deconstruction - NW	
G10	Upper Wing Wall re-build - SE	
G11	Upper Wing Wall re-build - NW	
G12	Upper Wing Wall coping stones - SE	
G13	Upper Wing Wall coping stones - NW	

Annexe H Gates & Mitres

Out of Scope

Annexe I Spill Weir

Scope to be confirmed

Sub Zone	Sub Zone Description	Completed
I1	Removal of Willow Stump (base of Spill Weir)	2015
I2	Remove brick by-wash culvert and face wall	
I3	Pour concrete foundation for new face wall	
I4	Install plastic services ducts and access chambers	
I5	Install plastic culvert pipe	
I6	Re-build Brick Face Wall	
I7	Re-build Stone Face Walls	

Annexe J General Site Landscaping and Features

Scope to be confirmed

Sub Zone	Sub Zone Description	Completed
J1	Landscaping – General specification	
J2	Bollard Installation	
J3	Stop Plank house	
J4		
J5		

Annexe K River Coln Bridge & Access Track

Out of Scope

Annexe L Landing Stage

Out of Scope

Annexe M Back Pumping

Make allowance for provision of (2off) 600mm inlet pipes, one in the back of each of the upper paddle culverts / paddle pits.

All other back pumping works - Out of Scope

Waterway Recovery Group
Inglesham Lock Restoration Plan

Annexe N List of Suppliers

No.	Suppliers	Address	Telephone	Contact / Notes
1	Travis Perkins	<u>Faringdon</u> UNIT 1 PIONEER ROAD FARINGDON OXFORDSHIRE SN7 7BU <u>Swindon</u> DUNBEATH ROAD, SWINDON WILTSHIRE SN2 8EA <u>Cirencester</u> 2 LOVE LANE CIRENCESTER GLOUCESTERSHIRE GL7 1WW	01367 243221 01793 532433 01285 652157	WRG Account In the name of Inland Waterways Association All branches include Tool Hire
2	Ab Fab Loos	Piglets Corner Lambourn Woodlands Hungerford Berks RG17 7TP	01793 820383	Due to service toilet each week