

# Welcome to the Restoration Work Stages!

Planning for the restoration or construction of a new waterway is complex. The process takes many years, involving many people and organisations. No two waterways will be the same or face the same challenges. However there are core tasks of feasibility, design and construction that need to be completed within any waterway restoration project.

The Canal & River Trust has worked with The Inland Waterway Association to set out these core tasks into key work stages - each with clear boundaries, and details the tasks and outputs required at each stage. The work stages are aligned with the RIBA Plan of Work (2013) to ensure compatibility with construction industry standards. It is a reference document for all those involved in planning the restoration or construction of waterways.

## Key Documents

Each work stage will link you to key documents from other waterway projects. These provide models of good practice and hopefully, inspiration.



# About the Plan

## Introduction to the work stages

Defining the project and the stages it is broken into is the first critical action. Each stage acts as a milestone for the projects development, ensuring that essential information is available at the appropriate time.

The work stages in this document suggest an order of work but we acknowledge that delivery of a full waterway restoration is not necessarily a straight forward sequential process. The content of each stage will certainly vary or overlap to suit your specific requirements of projects. Sections of a waterway will undoubtedly be completed in different phases and this inevitability requires repetition and refinement of some tasks. We have therefore divided the work stages into two phases.

## The work stages

The eight work stages are broadly aligned with the RIBA Plan of Work(2013), which in turn is agreed with a set of unified industry stages from the Construction Industry Council (CIC). This ensures compatibility between those involved in planning construction projects and also aligns with requirements of strategic funders. We have labelled our workstages with letters to avoid confusion with the RIBA eight work stages. The numbers in brackets correlate to the RIBA Plan of Work (2013). (<http://www.ribaplanofwork.com/Default.aspx>)

### Phase 1 Defining the project as a whole

It is envisaged that the initial work stages **A-C** are likely to be 'one off' stages which will allow the project to be developed to a point where it's possible to show a clear delivery strategy with phasing for the whole of the waterway. Stage D is about preparing for delivery.

### Phase 2: Delivery of project or project elements

Work stages **E-H** are likely to be repetitive as different sections of the waterway are brought forward for restoration. Ongoing strategic work will be required to ensure that focus on the unrestored elements is not lost and that there is continued support from all partners.

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### Phase 1 Defining the project as a whole

**A. Strategic Definition (0)** – The restoration is strategically appraised and designed. A vision of the future of the waterway is developed which sets out clear goals, makes a case for why the restoration should happen and outlines the desired route on a map.

**B. Scoping & Evaluation (1)** – Setting out what you have got to work with - where are the opportunities and what are the threats. Making sure that the line is safeguarded within the Local Authority's Local Plans.

**C. Concept Design (2)** – What are you working towards, providing the evidence and making the detailed case for restoration. A greater understanding is developed of what assets you are working with (built and natural environment, water resources) and how they could be managed including for financial sustainability. Outline engineering designs are produced (sufficient for initial costings for build and maintenance). Partnerships for developing and delivering the projects are initialised. Action is taken to begin to gain more public support for the project.

**D. Transitional Stage: Preparing for project delivery** – Review the information collected to date and prepare a strategic plan for the delivery of the whole project. This includes decision on phasing, allocation of work elements to volunteers or contractors and short, medium and long term funding goals. Partnerships for developing and delivering the projects are formalised.

### Phase 2 – Delivery of the project. Applies to each phase of delivery or every identifiable sub-project

**E. Developed Design (3)** – Developing the design of specific sections to gain the appropriate permissions. Preparation of information in sufficient detail to enable the project or project elements to commence.

**F. Detailed & Technical design (4)** – Finalise the build design and drawings to contract letting stage.

**G. Construction (5)** – Issuing of information to the contractor. Letting the building contract, appointing the contractor or volunteers. Administration of the construction contract to Practical Completion.

**H. Handover/use/aftercare (6 & 7)** – Administration of the construction contract after Practical Completion.

Design and Build  
Elements identified at Stage D appropriately delivered through Design and Build Contract will effectively combine Stages E, F & G

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## Task Bars

The tasks are sets of linked activities that are key to driving the project forward. Here we outline nine key recurring themes, this is not a conclusive list of all activities but sets out the key outputs required at each stage. These will vary from project to project depending on the specifics of the project; often requiring different focus at different times within the project development and delivery.

**1. Headline Project Management.** These are the significant tasks for project development.

**2. Governance/Procurement.** Governance needs to be appropriate for raising funds, procuring the construction/delivery works and the ongoing sustainability of the waterway. The project will at time require differing governing structures and the governance model may be required to change throughout the life of the project.

**3. Land ownership.** Land ownership and securing access to land for restoration can be complex. Having landowners on side is essential and discussions need to start early in the process. However, it must be acknowledged that delivery may take several years and expectations will need to be managed.

**4. Water management.** Water resources (supply and demand) and also flood risk management needs to be thought about in the earliest stages of a project. It should not be assumed that adequate water supplies will be available via a connection to the existing inland waterway network.

### **5. Built Heritage and Natural Environment.**

This task sets out the complex actions required for protecting, conserving and enhancing the built and natural environment.

**6. Communication and Involvement.** A restoration cannot happen without the backing and involvement of key stakeholders including the local community. This broad category sets out project promotion goals such as when you need to engage key stakeholders, develop a dedicated programme for involvement of the wider community, as well as getting the word out.

**7. Fundraising.** Essential to progress but dependent on other key factors being in place i.e correct governance, evidence of all the strategic project planning and community, business and political support for the project.

**8. Planning Consents.** Negotiations to safeguard the line of the waterway need to happen early in the planning for restoration. Embedding the ambition to restore the waterway in Local Plans is crucial to safeguarding the line. It is acknowledged that there is some flexibility on when full planning applications will be made (between C-E).

## About the Plan



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		Work Stages
		<b>Defining the project as a whole</b>
<b>Tasks</b>	<b>A (0) Strategic Definition</b> Establishing a vision	
<b>Headline project management tasks</b>	Establish a <u>VISION</u> - a clear statement of what you want to do and justification of why it should be done Include in this what the benefits are to the wider community	
<b>Governance and appropriate procurement</b>	Local restoration group established Raise support - build credibility for your vision and for your organisation	
<b>Construction/ engineering</b>	Map line/points of interest Explore current risks, threats & opportunities including long term financial opportunities and commitments	
<b>Land ownership</b>	Establish land ownership Establish existing utility crossings and way leaves which may impact on plans	
<b>Water management</b>	Establish where the water supply might come from and likely water demands, plus main flood risks	
<b>Built heritage &amp; natural environment</b>	Compile a brief history of the built heritage of the waterway Compile a brief outline of the natural environment along the waterway	
<b>Communication and involvement - getting others involved</b>	Identify local and national groups who might have an interest	
<b>Fundraising</b>	Broad understanding of possible funding sources	
<b>Planning consents</b>	Ascertain if the route of the waterway is safeguarded within the local plan Understand ambitions of local plans	
<b>Documentation outputs</b>	<b>Vision statement</b> <b>Map of line - with key points of interest</b> <b>Outline of built and natural environment</b> <b>Line of the canal &amp; linking canals</b> <b>Register of land ownership</b>	

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Defining the project as a whole		Work Stages
Tasks	B (1) Scoping & Evaluation What you have to work with	
<b>Headline project management tasks</b>	Scope out the wider benefits- community/economic/environmental Scope income generation opportunities/ongoing maintenance liabilities Set up principles of restoration, design and delivery	B
<b>Governance and appropriate procurement</b>	Formalise restoration group as a trust or society Informal ad hoc partnership with key stakeholders	
<b>Construction/ engineering</b>	Engineering Feasibility - can it be done? Scoping study of how many miles of channel, how many locks, bridges, etc. along the proposed route, Complete Asset Register	
<b>Land ownership</b>	Seek out landowners. Hold preliminary discussions, identify if there are any opportunities for purchase or potential show stoppers (use traffic light system)	
<b>Water management</b>	Initial flood risk assessment Initial estimate, scoping of boat traffic and other demands on water	
<b>Built heritage &amp; natural environment</b>	Scoping assessment of historic environment - archaeology, history and heritage (listed buildings etc) Scoping assessment of natural environment (SSSI's, LNR etc.)	
<b>Communication and involvement - getting others involved</b>	Identify audiences and potential users of the waterway Develop a communication plan with named contact point and key messages Initial consultation with other interest groups and stakeholders	
<b>Fundraising</b>	Ensure <u>appropriate governance</u> for fundraising Fundraising for feasibility studies	
<b>Planning consents</b>	Informal discussion and enquiries regarding planning permissions Identify developments which may assist or impact on restoration	
<b>Documentation outputs</b>	<b>Project summary informed by a series of scoping studies including:</b> Social & economic benefit Natural environment management plan Archaeological & heritage management plans Water resources study & initial flood risk assessment Governance document Communication plan	

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Defining the project as a whole		Work Stages
Tasks	C (2) Initial Design What are you working towards	
<b>Headline project management tasks</b>	Initial design concepts Initial <a href="#">Waterway sustainability plan</a>	
<b>Governance and appropriate procurement</b>	Review governance structure for the group to ensure it is fit for purpose Partnership further developed and agreement on project lead	C
<b>Construction/ engineering</b>	Outline engineering design with ECI. Consider implications of <a href="#">CDM</a> Develop initial risk register <a href="#">Steady state</a> (cyclical maintenance) costs calculated	
<b>Land ownership</b>	Initial land-take requirements - Clarify needs for land acquisition both for the line and for any access land, etc.	
<b>Water Management</b>	Undertake water resources study and full flood risk assessment	
<b>Built heritage &amp; natural environment</b>	Maintain existing built heritage and natural environment Initial built heritage management plans and natural heritage management plans	
<b>Communication and involvement - getting others involved</b>	Getting the word out - develop and implement a plan for <a href="#">meanwhile</a> uses of interpretation, volunteering and maintenance	
<b>Fundraising</b>	Seek small scale funding for start-up projects / ongoing maintenance, detail design etc.	
<b>Planning consents</b>	Initial design integration into locality (sense of place) / route protected within local plans Formal pre-application enquiries for key elements	
<b>Documentation outputs</b>	<a href="#">Waterway sustainability plan</a> <a href="#">Partnership agreement</a> <a href="#">Meanwhile use plans</a> <a href="#">Initial built heritage &amp; natural heritage plans</a> <a href="#">Communication and marketing plan</a>	

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# View the Plan of Work

	Transitional Stage	Work Stages
Tasks	<b>D Planning for Project Delivery</b> How you'll get there	
<b>Headline project management tasks</b>	Agree phasing for delivery Develop business plan for project or project element Establish long term maintenance requirements	<b>D</b>
<b>Governance and appropriate procurement</b>	Formalise partnership. Agree delivery arrangements and if necessary, set up legal delivery body Commence contract development If Design & Build Stage C output issued for tender	
<b>Construction/ engineering</b>	Draw up briefs for specialist design	
<b>Land ownership</b>	Agreement in principle for land transfer	
<b>Water management</b>	Secure approvals, agreements and licenses for water abstraction Discuss and agree flood mitigation works	
<b>Built heritage &amp; natural environment</b>	Update management plans as circumstances dictate Detailed consideration of long term maintenance requirements	
<b>Communication and involvement - getting others involved</b>	Ongoing maintenance of the line Meanwhile and communication uses continued Develop <a href="#">Activity Plan</a> including audience development plan	
<b>Fundraising</b>	Develop broad fundraising strategy and commence development of individual fundraising plan for major projects If applicable round 1 Heritage Lottery Fund or Big Lottery Fund application	
<b>Planning consents</b>	Prepare outline planning application for project as whole Prepare planning application and, if applicable, building consent application for first phases or project element	
<b>Documentation outputs</b>	<b>Restoration strategy for phased delivery</b> <b>Initial business plan for project or project element</b> <b>Fundraising plan &amp; funding bids</b> <b>Briefs for specialist works</b> <b>Wayleave agreement to lease /license</b>	





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Applies to every identifiable sub-project or phase of delivery		Work Stages
Tasks	<b>E (3) Developed Design</b> What you will build and how	
<b>Headline project management tasks</b>	Design developed to a point where planning applications can be sought Undertake detailed <u>QS</u> estimates Finalise full business plan for project or project element	
<b>Governance and appropriate procurement</b>	Delivery body becomes responsible body for project and appoints Project Manager(s) if not already in post <u>Traditional</u> route tender procurement procedures commence	
<b>Construction/ engineering</b>	Detailed design of key elements or structures to improve costings and to enable works if opportunity arises	<b>E</b>
<b>Land ownership</b>	Wayleaves, leases, licences developed	
<b>Water management</b>	Outline technical design and specification of all water supply, schemes, water control structures and any flood mitigation works Functional design specification agreed for any monitoring and automation of water control & measurement	
<b>Built heritage &amp; natural environment</b>	Environmental Impact Assessment and such studies are required for developing the Conservation Management Plan (CMP) Consultation with stakeholders on built, natural and heritage plans	
<b>Communication and involvement - getting others involved</b>	Ongoing maintenance of the line Meanwhile and communication uses continued Develop Activity Plan including audience development plan	
<b>Fundraising</b>	Commence match funding search and submit major funding bids for delivery specific phases	
<b>Planning consents</b>	Prepare Outline Planning Application for project as whole Prepare planning application for first phases or project element	
<b>Documentation outputs</b>	<b>Final business plan for the project or project element</b> <b>Detail engineering drawings</b> <b>Conservation Management Plan</b> <b>Design Access Statement</b> <b>Funding bids</b>	

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Tasks	Applies to every identifiable sub-project or phase of delivery	Work Stages
	<b>F (4) Detailed Technical Design &amp; Major Funding</b>	
<b>Headline project management tasks</b>	Build drawings, QS and contract specifications	
<b>Governance and appropriate procurement</b>	Preparation for project delivery: Preparation of briefs for letting of contracts for the project, individual elements or phase	
<b>Construction/engineering</b>	Finalise design to building drawing (contract letting) stage Undertaking final detail QS estimates	
<b>Land ownership</b>	Purchase of land or agreement of way leaves/leases/licenses completed	<b>F</b>
<b>Water management</b>	Detailed technical/engineering design of all water supply schemes, water control structures and any flood mitigation works	
<b>Built heritage &amp; natural environment</b>	Management plans finalised and formally adopted by partners	
<b>Communication and involvement - getting others involved</b>	Ongoing maintenance of the line Meanwhile and communication uses continued Develop Activity Plan including audience development plan	
<b>Fundraising</b>	Secure match funding and or individual project sponsorship Legacy implementation plan	
<b>Planning consents</b>	Submit planning application	
<b>Documentation outputs</b>	Technical drawings QS estimates Contract specifications Planning application & supporting documentation	

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Applies to every identifiable sub-project or phase of delivery		Work Stages
Tasks	G (5) Construction	
<b>Headline project management tasks</b>	Commence phased construction work	G
<b>Governance and appropriate procurement</b>	Project Delivery. Administration of volunteer led projects or building contracts Project management of individual elements of phases	
<b>Construction/engineering</b>	Letting and administration of contracts for individual phases or elements Offsite manufacturing of portable elements (e.g. lock gates)	
<b>Land ownership</b>	Close liaison with landowners under lease or license	
<b>Water management</b>	Phases to include consideration of flood risk to and from sites during construction (e.g. temporary abstractions, flood risk to works)	
<b>Built heritage &amp; natural environment</b>	Protection and monitoring of the environment	
<b>Communication and involvement - getting others involved</b>	Ensure continuous volunteer engagement Activity Plan implemented for construction phase	
<b>Fundraising</b>	Funding secured, spend monitored	
<b>Planning consents</b>	Discharge of planning conditions	
<b>Documentation outputs</b>	<b>Build &amp; site drawings &amp; specification</b> <b>Project delivery programme with associated risk assessment, method statements, health &amp; safety plan</b>	



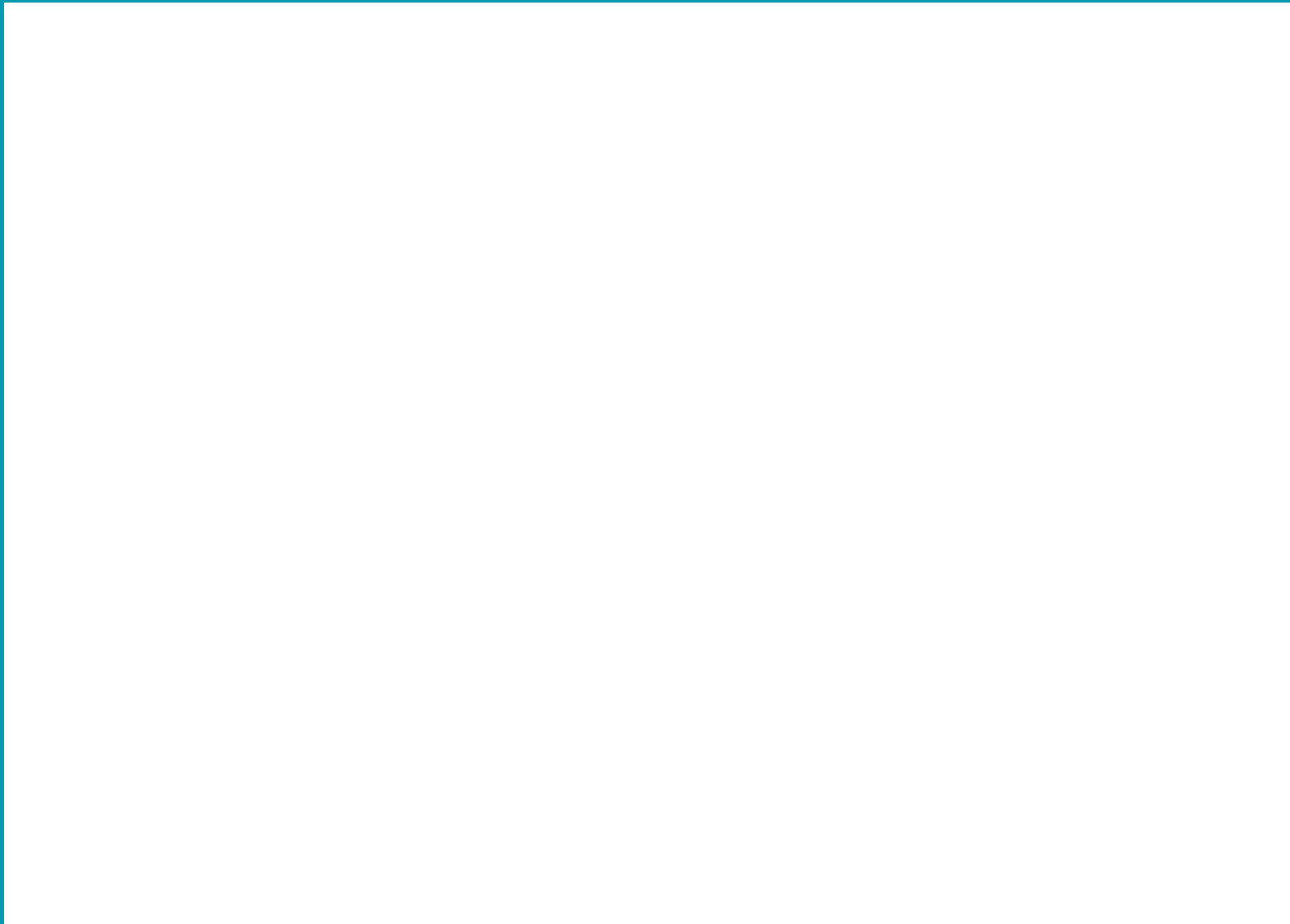
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Applies to every identifiable sub-project or phase of delivery		Work Stages
Tasks	H (6&7) Hand over/Use/After care	
<b>Headline project management tasks</b>	Conclude administration of volunteer led project of building contract Maintenance and monitoring commence Economic and social Impact assessment	H
<b>Governance and appropriate procurement</b>	Maintenance and monitoring commence Economic and social impact evaluation	
<b>Construction/ engineering</b>	Snagging and practical completion	
<b>Land ownership</b>	Temporary access or wayleaves restoration conditions discharged	
<b>Water management</b>	Production of Water Control Manuals (operational guides) for routine and flood/drought control Establish and maintain procedures for compliance & reporting against any abstraction licences	
<b>Built heritage &amp; natural environment</b>	Review management plans	
<b>Communication and involvement - getting others involved</b>	Continued community involvement Activity Plan for active use phase implemented	
<b>Fundraising</b>	Complete reports to funders	
<b>Planning consents</b>	Completion and sign off as required	
<b>Documentation outputs</b>	<b>As built drawings and surveys of all relevant structures/assets</b> <b>Water Control Manuals</b>	



# Download the plan

Please click on the plan below to download and print



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# Contact

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