

RISK		Increasing likelihood →			Level of Risk	Action	
		1	2	3			
severity	Inc.	1	1	2	3	1-2	Low risk: no further action
		2	2	4	6	3-4	Medium risk: action needed to address issue
		3	3	6	9	6-9	Risk unacceptable: urgent action needed to address issue

### DELIVERING THE NUTRIENT MANAGEMENT PLAN - RISK ASSESSMENT AND MITIGATION PLAN

Step 1 <i>List significant hazards and harm here</i>	Step 2 <i>Assess risk (likelihood x severity)</i>	Step 3 <i>Mitigation: List existing controls</i>	Step 4 <i>Residual risk (likelihood x severity)</i>	Step 5 <i>Further action needed (by whom and when)</i>
<b>1. Operational risk</b>				
Works not delivered within required window, resulting in significant loss of funding.	9 (3x3)	<ul style="list-style-type: none"> <li>Contractors ability to deliver works within in September and October 2019 will form part of the Selection Criteria. If a contractor cannot deliver the works in this period their tender must be rejected.</li> <li>Contractors must provide a 'Mobilisation and Construction Schedule' as part of the tendering process.</li> <li>If delays occur that were within the control of the Contractor, HWT may require the Contractor to pay liquidated damages at an appropriate rate.</li> </ul>	3 (1x3)	<ul style="list-style-type: none"> <li>If works are not completed because of reasons that are beyond the control of the Contractor, an extension to the period of works will be sought from the project funders.</li> </ul>
Potentially hazardous operations (large machinery moving around site, tree works, chemicals, fuel storage, fires, etc), resulting in death or injury of a member of staff/ the public.	6 (2x3)	<ul style="list-style-type: none"> <li>Contractors must be able to demonstrate they have the Health and Safety and CDM management systems in place as part of the tendering process.</li> <li>Contractors must provide a works-based risk assessment and be able to demonstrate that staff have the required level of skill and qualifications to conduct works in accordance with the risk assessment.</li> <li>A Method of Work and Environmental Risk assessment is provided as part of the tender documentation, if contractors would modify this document they must demonstrate additional safeguards they would put in place to meet the same outcomes.</li> </ul>	3 (1x3)	<ul style="list-style-type: none"> <li>If necessary HWT will close footpaths around the Lake, to restrict access to working areas.</li> <li>HWT will monitor compliance with the risk assessment.</li> </ul>



		<ul style="list-style-type: none"> <li>HWT will provide a site-based risk assessment and instruct contactors accordingly.</li> <li>HWT have a health and safety policy and will ensure that contractors adhere to the relevant sections.</li> <li>Incidents and near misses will be reported on HWTs health and safety system, Ellis Whittam, and any lessons learnt will be implemented.</li> <li>See financial section 5 for financial implications of death or injury of a member of staff/ the public.</li> </ul>		
Transportation of machinery to and from islands resulting in death or injury of a member of staff/ the public.	6 (2x3)	<ul style="list-style-type: none"> <li>Methods of transporting plant machinery to the islands must be assessed by contractors prior to works commencing, to ensure that they can bear the plant load. If machinery is driven across the bed of the lake, substrate stability should be tested.</li> <li>All plant movements should be directed by site supervisor or banksman.</li> <li>Work must cease in adverse weather to minimise risk of plant slipping.</li> </ul>	3 (1x3)	The sailing and triathlon club will be forewarned of the works being carried out and will not be in the Lake during work times.
Tree works confined to small spaces resulting in death or injury of a member of staff.	6 (2x3)	<ul style="list-style-type: none"> <li>Contractors must be able to demonstrate they have the staff expertise, Health and Safety and CDM management systems in place as part of the tendering process.</li> <li>Contractors will be advised keep the number of staff working in confined spaces, such as the islands, to a minimum to reduce the risk of injury from falling trees (whilst ensuring that no lone working is taking place.)</li> <li>Contractors must provide a works-based risk assessment including reference to evacuation plans for islands works.</li> </ul>	3 (1x3)	
Unexpected substrate conditions leading to delivery delays	3 (1x3)	<ul style="list-style-type: none"> <li>Core samples must be taken as part of the design works to assess the substrate of the islands prior to re-profiling.</li> <li>Substrate composition must be used to inform the design works.</li> </ul>	3 (1x3)	
Damage to grasslands ecological value	4 (2x2)	<ul style="list-style-type: none"> <li>Ground compaction must be minimised by use of tracked vehicles.</li> <li>Contractors will be advised to keep vehicle movements to a minimum to limit the impact on the grassland.</li> </ul>	2 (1x2)	<ul style="list-style-type: none"> <li>Before the works begin an access route around the Lake will be marked by HWT, to limit the area of grassland impacted.</li> </ul>
Works not delivered to specification	6 (2x3)	<ul style="list-style-type: none"> <li>Contractor selection will be based in part on their experience and ability to deliver similar projects to a high standard</li> </ul>	3 (1x3)	<ul style="list-style-type: none"> <li>HWT will meet with the contractors weekly to ensure that</li> </ul>



		<ul style="list-style-type: none"> <li>The final contract payment (3% of total contract value) will be withheld until work is completed to agreed specification, as outlined in the contract schedule of payments.</li> </ul>		the work is being delivered to the specification.
Pollution of the River Lugg SSSI and SAC	6 (2x3)	<ul style="list-style-type: none"> <li>Where possible there must be a 30m exclusion from the bank top of the River Lugg to prevent any materials from entering the river and causing potential harm to the aquatic ecosystem. Contaminated waste materials will be segregated and stored appropriately prior to disposal off site.</li> <li>Spill kits and an emergency spill response company must be on hand to offer immediate response to incidents.</li> <li>Natural silt wattles must be used to stop sediment from being moved in overland flow towards the River Lugg. The wattles will slow the water allowing silt to drop out and the wood element of the wattle will trap further sediments.</li> <li>The Environment Agency and Natural England are the regulatory authorities for the River Lugg, both agencies have fed into the design of the re-profile works, and had no objections to the application for planning permission.</li> </ul>	3 (1x3)	<ul style="list-style-type: none"> <li>All machinery must be checked for damage daily by contractors.</li> <li>In the case of an incident the environment agency hotline must be called.</li> <li>Silt wattles must be applied by the contractor based on the direct need observed on site.</li> </ul>
Delays due to inter dependencies with other contracts	3 (1x3)	<ul style="list-style-type: none"> <li>Re-profiling design, construction, and gravel spreading works have been amalgamated into one contract, to reduce the chances of delays with one contract impacting implementation of another.</li> </ul>	3 (1x3)	
Bankruptcy of contractor resulting in incomplete works, or delays to works	3 (1x3)	<ul style="list-style-type: none"> <li>To pass the selection criteria listed in the tender documents, contractors must have a minimum annual revenue of £200,000 and be able to provide 3 sets of end of year accounts to provide confidence that the company is financially robust.</li> </ul>	3 (1x3)	
Failure of reed to establish after re-profile works	6 (2x3)	<ul style="list-style-type: none"> <li>Contractors will be advised to follow the RSPB guidelines on reedbed creation, sections of which are used to form the works specification.</li> <li>To ensure that contractors have the required expertise to complete the work to the desired specification, the procurement documentation requests examples of similar work, and 3 references.</li> </ul>	3 (1x3)	<ul style="list-style-type: none"> <li>HWT will meet with contractors to ensure that works are being delivered to the required specification.</li> </ul>



<b>2. Environmental risk</b>				
Failure of ground nesting birds nesting due to incorrect ground levels		<ul style="list-style-type: none"> <li>The required heights of the islands are outlined in the specification and contractors will be required to provide previous experience of successfully delivering work of this nature.</li> <li>A variety of depths are outlined in the specification to maximise resilience of the islands to changes in water levels.</li> <li>The contractors will need to rectify errors in delivery of design in order to secure the retaining fee.</li> </ul>		
Flooding	6 (2x3)	<ul style="list-style-type: none"> <li>Contractors are advised that the work should start as early as possible in September, when ground water levels are low, and before rainfall levels start to increase.</li> <li>The contractor must monitor rainfall, and flood warnings, and use this information to inform their management of soils and storage of fuels and materials.</li> </ul>	3 (1x3)	
Delays due work due to discovery of protected species	3 (1x3)	<ul style="list-style-type: none"> <li>Herefordshire Wildlife Trust are carrying out the appropriate ecological surveys or appointing ecological consultants.</li> <li>The timing of the works has been selected to avoid bird and otter breeding seasons.</li> <li>Otter surveys show that the otter actively use the river corridor and the lake.</li> <li>Work will be restricted to daylight hours when otters are at their least active and the generator at the main compound will be on silent mode should energy be required in the hours of darkness.</li> <li>The trees being removed are primarily young alder and willow, which are typically unsuitable for bat roosting as there are few cracks and crevices in the bark.</li> </ul>	3(1x3)	Should an otter be seen during the day all work will cease until it has passed safely through the site.
<b>3. Compliance risk</b>				
Procurement correction fee	6 (2x3)	<ul style="list-style-type: none"> <li>Procurement will be carried out in accordance with the latest guidelines.</li> <li>Contracts will be advertised electronically on the Herefordshire Wildlife Trust website for a minimum of 35 days. The tender documents will be available as downloads from the web-site.</li> </ul>	3 (1x3)	



		<ul style="list-style-type: none"> <li>• Preparation of the specification will include consultation with users and other stakeholders.</li> <li>• Selection and award criteria will be kept distinct in the procurement documentation.</li> <li>• A draft of the contract will be attached to the tender documents so that all tenderers are tendering on the same basis.</li> <li>• The contract will be fair and balanced in terms of risk sharing.</li> <li>• The specification will not include any terms that are discriminatory, particularly against tenderers from another country or requiring goods that only one supplier can deliver.</li> <li>• After publication, only minor changes within the main selection criteria can be made, such as changes in the wording or the address for submission of application.</li> <li>• Each member of the Evaluation Committee will sign a conflict of interest Declaration Form.</li> <li>• Communication with a tenderer before submission of the tender will only be in writing, with the same information sent to all tenderers.</li> <li>• If the decision is to extend the tender submission date then all tenderers will be immediately informed in writing.</li> <li>• HWT have defined what it calls an “abnormally low tender” before the contract was advertised (&lt;£100.000).</li> <li>• When HWT has decided to whom the contract should be awarded all tenderers will be informed of the result.</li> <li>• After the standstill period (see below) and assuming no complaint has been filed the contract can be signed.</li> <li>• Within 48 days of the contract signature HWT will send a contract award notice.</li> <li>• Contract modifications will require a new procurement procedure.</li> </ul>		
Unable to secure a contractor	6 (2x3)	<ul style="list-style-type: none"> <li>• An open procurement procedure is being used, to allow more organisations to submit tender documents.</li> <li>• The contract will be advertised widely in a range of press releases, articles and websites.</li> </ul>	3 (1x3)	
4. Political risk				



Vexatious individuals causing delays to works	2 (2x1)	<ul style="list-style-type: none"> <li>The local community have been consulted as part of the planning permission process.</li> <li>HWT have run community events to address any queries the public have</li> <li>The work is part of a wider community project at the Lake, which has the support of many local residents.</li> <li>HWT have responded to queries raised as part of the planning permission process.</li> <li>Vexatious individuals will be highlighted to the police and government agencies.</li> </ul>	1 (1x1)	<ul style="list-style-type: none"> <li>HWT will be on site for the start of the work to answer any queries the public have. After this point the contractor should refer complains to HWT staff.</li> </ul>
Negative publicity	3 (1x3)	<ul style="list-style-type: none"> <li>Interpretation and signage will be installed on site to explain the positive impact the works will have on biodiversity.</li> <li>HWT have published information on our website, in our e-news, and in our quarterly magazine.</li> <li>Local media are informed of the works, and have already published several positive news stories.</li> <li>HWT will address all negative publicity.</li> </ul>	3 (1x3)	<ul style="list-style-type: none"> <li>HWT will be on site for the start of the work to answer any queries the public have. After this point the contractor should refer complains to HWT staff.</li> </ul>
<b>5. Financial risk</b>				
Bankruptcy (of HWT)	3 (1x3)	<ul style="list-style-type: none"> <li>HWT produce monthly management accounts to monitor spend.</li> <li>HWT finances are overseen by a finance committee and board of 12 trustees.</li> <li>HWT has substantial financial assets that could be drawn on in case of financial difficulty.</li> <li>Herefordshire Wildlife Trust have public liability insurance of up to £10 million.</li> <li>The appointed contractor would be required to have public liability insurance of over £10 million.</li> </ul>	3 (1x3)	
Cashflow	6 (2x3)	<ul style="list-style-type: none"> <li>The cost of the work is in HWTs budget, which the finance department use to manage cash flow.</li> </ul>	3(1x3)	
Grant recipient failure	6 (2x3)	<ul style="list-style-type: none"> <li>Project partners HWT and the Wye and Usk Foundation have produced an agreement outlining their working relationship, including responsibilities and control measures to prevent grant recipient failure.</li> <li>Potential risks and mitigation measures are identified on this risk register.</li> </ul>	3(1x3)	



Unforeseen project costs	6 (2x3)	<ul style="list-style-type: none"> <li>The works will be agreed at a fixed price during the procurement process.</li> <li>Ongoing costs of the project will be monitored closely.</li> </ul>	3(1x3)	If essential HWT would extend their public fundraising appeal and apply for additional funding from grant bodies and charitable Trusts and conservation organisations.
<b>6. Governance risk</b>				
Lack of capacity of HWT staff	2 (1x2)	<ul style="list-style-type: none"> <li>Project staff will not commit to other project works during key delivery months, to ensure that they have the capacity to deliver.</li> <li>HWT have planned out project activities in advance in a gantt chart.</li> </ul>	2 (1x2)	
Key staff changes (leave organisation or incapacitated)	2 (1x2)	<ul style="list-style-type: none"> <li>HWT have a 1-month notice period, to reduce the period in which a job is vacant.</li> <li>HWT regularly share information between DNMP project staff in informal and minuted meetings. Shared knowledge of the project would make the handover of a role from remaining staff to new staff easier.</li> <li>HWT have logical filing systems which would be easy for new members of staff to adopt.</li> </ul>	2 (1x2)	
HCC/New leaf partnership dissolved	1 (1x1)	<ul style="list-style-type: none"> <li>HWT and New Leaf lease Bodenham Lake in partnership, however HWT are appointed to carry out site management works, such as this re-profiling project.</li> <li>HWT have monthly operational meetings with New Leaf to relay information of works at Bodenham Lake.</li> </ul>	1 (1x1)	