

North Brook Stage Zero Restoration - Outline Method Statement

Summary of key works and proposed works sequencing

1. Excavate area downstream of the paleochannel
2. Excavate area upstream of the paleochannel
3. Block the current channel directly downstream of the upstream lowering area
4. Block a ditch to the east of the wetland area
5. Place a small number of the trees removed for access into the wetland area

Pre-construction & construction procedure

Construction of site compounds, lay-down areas, delivery of machinery and any other initial preparatory works to be undertaken in-line with specific site work activity. All works on site will be carried out in accordance with the appropriate British Standards and industry Codes of Practice. A qualified and experienced geomorphologist will be contracted by the Sherbourne Valley Project Project Officer (SVPPPO) and will be present during the initial on-site meeting and at key points during the works.

Biosecurity measures outlined in the GB Non-Native Species Secretariat's Check, Clean Dry procedures should be followed by all personnel and machinery on site. Details can be found here: <https://www.nonnativespecies.org/what-can-i-do/check-clean-dry/#maincontent>

Construction period

The construction period is expected to take approximately 1 week, ensuring cost effective delivery and minimal environmental disturbance as a result of the work on site. However, it is possible that adverse weather conditions such as periods of high rainfall (and associated river level rise), will lead to temporary cessation of some construction. Timing of delivery within the driest period of the delivery window is, therefore, imperative.

Public Access during the works

During the construction period, public access to the immediate site area should be restricted and fenced off, and/or footpaths suitably diverted. The contractor will ensure appropriate signage and fencing off of the construction compound area and work area, and it is the responsibility of the contractor to ensure safe access for the workforce and appropriate restriction of access to the public.

Archaeological observation

The project works fall within an archaeological constraint area. A Written Scheme of Investigation (WSI) has been requested by Coventry City Council, which will be delivered by Archaeology Warwickshire. This will involve examination of the lowering areas during excavation and will require the temporary holding back of water from the brook to enable observation. It is hoped that this will be possible by retaining a section of the bank at the stream side to prevent the ingress of water to the paleochannel for the period of observation, however the feasibility of this method will be determined at the initial on site meeting and a decision made on the easiest and safest way to meet this requirement.

Timing of vegetation clearance and temporary disturbance to river bed

It is unlikely significant numbers of trees or ground vegetation will require clearing as part of the works however some works may be required for access purposes to deliver the project. This should be decided by the contractor, client and supervising geomorphologist at the on-site meeting. The contractor will use track mats for river banks when entering and exiting the channels dependent on ground conditions at the time of construction and in line with landowner request. Please be aware of the following ecologically sensitive seasons and refer to the Environmental Risk Assessment for mitigation measures put place to minimise disturbance:

- Bird nesting - March to August
- Bat roosting - April to September
- Spring salmonid run (migration) – approx. March to May (depending on local run timing)
- Salmon spawning season – 1st October to 15th June
- Crayfish rescue should avoid late May and June when females may be carrying newly hatched young

Note: There may be some changes to the outlined method statement as more knowledge of site conditions are gained in the pre-construction and construction phases of the project to be determined by the contractor.

Method Statement 1- Excavation of downstream and then upstream lowering areas to reconnect paleochannel

Risks: Overturning of plant machinery, crush injuries, collapse of earth banks, falling trees and branches, collision with other plant machines, pollution to watercourse, machine strike to persons, machine strike of services, insect bites and allergic reactions, snake bites, leptospirosis, manual handling, drowning.

Proposed working method overview

- Machinery to access site as agreed by the landowner and client. Track mats should be used as appropriate dependent on landowner requests and ground conditions at time of construction. Pollarding and vegetation clearance may be required to facilitate /access the works areas

- Silt control measures to be in place downstream during works and inspected daily (replace/repair as necessary).
- The lowering areas should be surveyed on site by the contractor and supervising geomorphologist prior to excavation using coordinates provided within the design drawings
- Banks to be monitored during the works. No personnel to be in the channel or excavated area during works.
- The two inset berm areas should be surveyed on site prior to excavation commencing using coordinates provided with the design drawings, this should be undertaken with supervision from the geomorphologist as required
- Excavate the downstream lowering area following levels/excavation depth and width information provided within the design drawings and under supervision of the geomorphologist. Create level variability across the downstream lowering area to provide micro-habitat. Side slopes for this feature can vary within a range as shown in the design drawings.
- Stockpile material temporarily outside of the floodplain for creation of channel and ditch blocking features
- Remove any tracks into watercourse and across the working area and make good any damage. Utilise bog mats along track routes if ground becomes wet.
- Seed exposed floodplain and top of bank areas with suitable seed mix at 5g/m² spreading rate, do not re-turf.

General Method of Work

- Client and Principal Contractor to reconfirm area of works and mark up extent of site works.
- Check line of works for any trees to be removed, branches to be cut back, vegetation clearance etc. to ensure safe passage for machinery. Where mature trees are encountered during excavation, avoid where possible and adjust line of excavated features if this is possible with agreement with the geomorphologist. Any limbs/trees removed will be stored outside of the floodplain.
- Erect temporary fencing to restrict public access to the site
- Install appropriate fine sediment control measures downstream of works area e.g. coir logs/straw bales, fine sediment control mats when in-channel features are being created, floodplain features are being excavated etc and when machinery accesses the bank top or channel to prevent silt/fine sediment-run off from exposed banksides and from disturbed fine sediment when working in the channel.

Method Statement 2- Blocking of current main channel and ditch

Risks: Overturning of plant machinery, crush injuries, collapse of earth banks, falling trees and branches, collision with other plant machines, pollution to watercourse, machine strike to persons, machine strike of services, insect bites and allergic reactions, snake bites, leptospirosis, manual handling, drowning.

Proposed working method overview

- Machinery to access site as agreed by the landowner and client. Track mats should be used as appropriate dependent on landowner requests and ground conditions at time of construction. Pollarding and vegetation clearance may be required to facilitate /access the works areas.
- Silt control measures to be in place downstream during works and inspected daily (replace / repair as necessary).
- Blocking locations on the current main channel and ditch should be surveyed on site by the contractor and supervising geomorphologist prior to excavation using coordinates provided within the design drawings
- Banks to be monitored during the works. No personnel to be in the channel or excavated area during works.
- Using excavated cohesive material from generated spoils from other works across the site, fill the blocking locations to surrounding floodplain / bank level. Create the features in 200-300mm layers and compact each layer suitably with the back of the digger bucket to ensure adequate compaction. Upstream and downstream slopes can vary within a range, as shown in the accompanying design drawings.
- Remove any tracks into watercourse and across the working area and make good any damage. Utilise bog mats along track routes if ground becomes wet.
- Seed exposed floodplain, excavated areas and top of bank areas with suitable seed mix at 5g/m² spreading rate, do not re-turf.

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Control Measures or Modifications

- No smoking in works area.
- No works to be undertaken during the hours of darkness.
- Ensure staff are aware of risk of drowning associated with working in or near water and the health and safety requirements (as detailed in the site risk assessment by the contractor).
- All re-fuelling will take place at least 20m away from the watercourse, next to the fuel bowser
- Be vigilant for members of public / pets / stock / wild animals entering works area
- Be aware of the risk of Leptospirosis in and around the watercourse.
- Ensure bucket is lowered to the ground when machine is not in use.
- When visitors are on site, stop work & lower bucket to ground if they enter the works safety area.
- If working with a Banksman, ensure that they are in a position where you can see them.
- Beware of machine blind spots when slewing and turning, especially with regard to tree branches.
- Be aware of any taped off areas/sites that will be of conservation, archaeological or other special interest. Do not enter these areas with any machinery.
- Any track mats used within the floodplain must be removed upon receipt of a flood alert (contractor and SVPO to be signed up)
- As a minimum use straw bales to filter coarse sediments at the downstream end of the works.
- All operators to be competent and certificated on the machines they operate.
- All incidents relating to safety or pollution of any kind are to be reported as soon as it is safe to do so.
- All staff and visitors to undertake induction and wear the appropriate PPE for the site conditions they encounter.

General mitigation of construction impacts on habitats / species

A site Operational Management plan shall be developed by the contractor with reference to the following elements:	
Water quality	Control of silt run-off and potential for machinery pollution source
Machinery interaction with water	Control of disturbance, contamination, silt release, noise, vibration, debris, flooding
Noise and dust	Timing of works; selection of plant