

## **Specification: Agglestone Mire Restoration – Year 3 project**

**Dorset Peat Partnership:** As part of the Dorset Peat Partnership project the National Trust is undertaking the restoration of Agglestone Mire, near Studland, to restore natural dynamic processes.

**Agglestone Mire:** The Dorset Peat Partnership has identified this site for restoration of hydrological and natural processes. The catchment area has, in places, been disconnected from the adjacent floodplain area through a combination of historic drainage, incision and entrenchment. Hydrological assessments have been completed for this system and have informed project design.

Works were completed in February and September 2024 to slow the flow within the mire and connecting drainage ditches, to reconnect the floodplain and to reduce dominant vegetation such as *Molinia* tussocks and sallow.

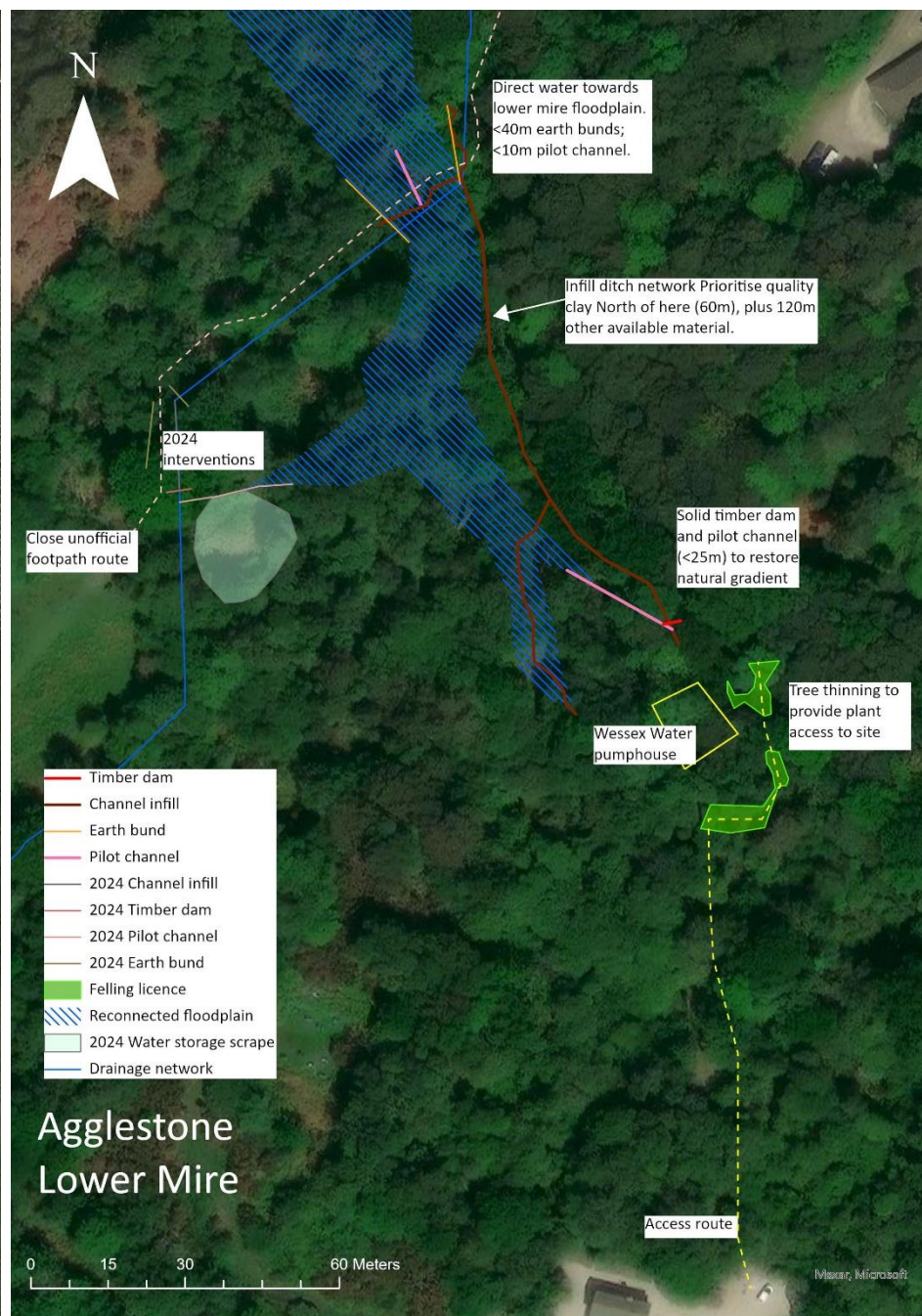
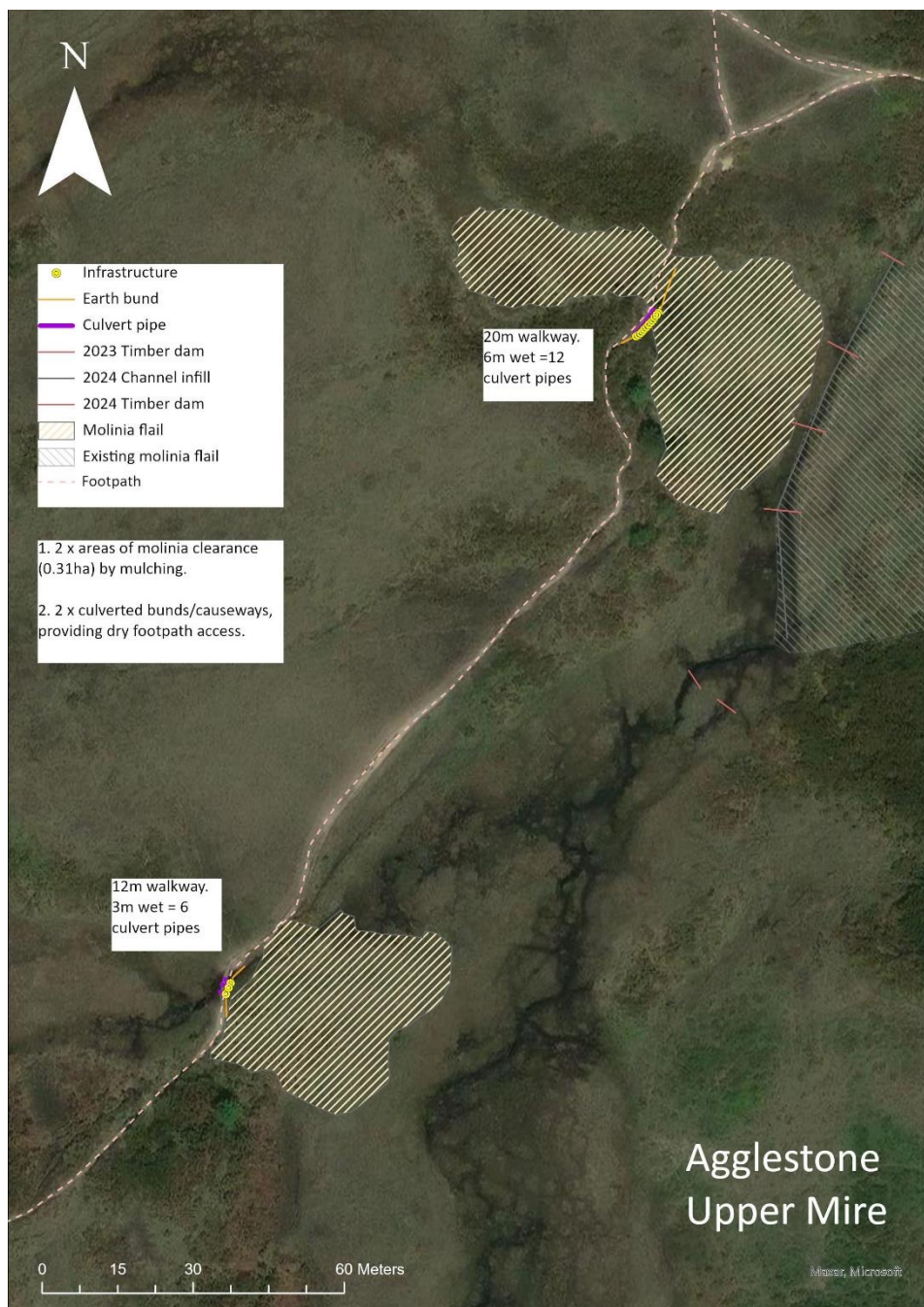
**The aim of the project:** To reconnect drained mire habitat, slow the flow and raise water levels across the mire all year round, which will favour growth and reinitiate peat formation; and to allow for sustainable access across rights of way adjacent to and across the mire.

**The objectives are to:**

- Remove *Molinia* tussocks from the floodplain to ground level;
- Install new and more sustainable culverted crossings for rights of way;
- Excavate pilot channels and infill drainage ditches to redirect water onto natural flow pathways;

**Considerations:**

- Risk of unexploded ordnance (UXO) due to World War 2 training at Studland.
- Higher Tier Countryside Stewardship (LH1 – managing heathland)
- The extend of the project site falls within Godlingston Heath SSSI habitat designation.
- Open access land
- Protected species present, including reptiles, breeding birds, and invertebrates.
- Historic Environment features (tracks and enclosure boundaries) as mapped within the HEA.



Section	Tasks (To be discussed on site visit. Also see methodology and photos below)	Grid reference
I. Upper mire	(a) Molinia mulching (0.2 ha) (b) Molinia mulching (0.12 ha) (c) Culverted crossing - 20m (6m crossing, 12 pipes. Spec detailed below) (d) Culverted crossing - 12m (3m crossing, 6 pipes. Spec detailed below)	(a) Centred around SZ0260283096 (b) Centred around SZ0253082955 (c) From SZ0259983099 to SZ0258783087 (d) From SZ0251282961 to SZ0250982952
III. Wetwoodland & Lower mire	(a) Access clearance (0.01 Ha – individual trees as required within defined area) (b) Ditch infill - 60m priority area – using clay sourced during 2024 works. (c) Ditch infill – 120m non-priority area – using reprofiling earth works or other materials sourced onsite. (d) Solid timber dam (est 2m x 1m) to block ditch (e) Excavate pilot channel (<25m as required) to redirect water into natural flow pathway through the woods. Levels to be checked prior to digging. (f) Earth bund to contain water flow as it enters the lower mire area (<20m). (g) Earth bund to contain water flow as it enters the lower mire area (<20m). (h) Excavate shallow pilot channel / scrape (<10m as required) to redirect water into natural flow pathway towards the lower mire area. Levels to be checked prior to digging.	(a) Centred around SZ0298483168, SZ0299383177 and SZ0299083192. (b) Channel ends at SZ0291483282, SZ0292983306 and SZ0293883264. (c) From SZ0293883264 to SZ0297283201. (d) SZ0297283204 (e) From SZ0297283204 to SZ0295083216. (f) From SZ0292083279 to SZ0290883291. (g) From SZ0292983291 to SZ0292983306. (h) From SZ0292383285 to SZ0291783297.

#### Additional information

- Measurements are estimated. The chosen contractor will need to check measurements on site.
- Grid references mapped here: [Grid Reference Finder](#) [Yellow = Molinia mulching; Purple = culverted crossings; Red = Timber; Black = Channel infill; Pink ; Orange = earth bund; Pink = pilot channel; Green = tree clearance for access].
- Contractor to supply all materials.
- Please complete the attached Bill of Quantities.



### Suggested methods:

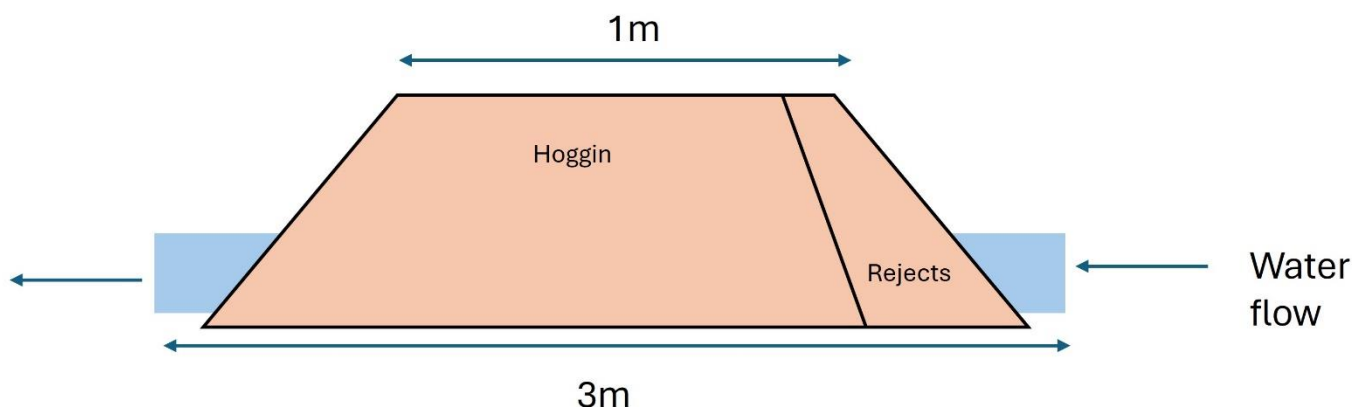
#### Molinia clearance / squashing tussocks:

- Areas identified for clearance will be clearly marked on site prior to commencement.
- The works are to be completed using an ultra-low ground pressure machine with mulching attachment and brushcutter, depending on access.
- All Molinia identified for removal must be cut to ground level as agreed with the site manager.
- All arisings are to be left in-situ.
- The identified area is to be carefully 'tracked in' using an ultra-low ground pressure machine with wide tracks (using bog mats if necessary due to ground conditions) in order to compress the tussocks together and slow the flow of water through this area.
- The machinery chosen by the contractor is to be approved by the site manager in advance of commencing this activity and will be carefully monitored during the work.

#### Culverted crossings

The footpath to Agglestone Rock (SE22/24) crosses two sections of the Agglestone mire system. As a right of way, there is a legal requirement to provide year-round public access. Currently there are two boardwalks crossing the mire, but the timber requires regular replacement and the current infrastructure is at the end of its life. To raise the level of the path to allow for rewetting activities and to provide more sustainable access, boardwalks are to be replaced with gravel causeways with a 1m wide top surface (slightly wider with sloped edges) and multiple small drainage pipes underneath to prevent channelisation of the water flow.

Causeways will need to be fronted by larger "rejects" to reduce the likelihood of erosion. Top surface width should be 1m to comply with footpath requirements, with sloping sides to support this. Approximately 1 tonne of hoggin and ½ tonne of rejects are estimated per meter of causeway, which are neutral/slightly acidic materials as used on other parts of the heath. 2 x 3m pipes should be used per metre to avoid a single large pipe channelling the water, and to ensure the pipe ends have a lower risk of being buried over time as the gravel settles.



#### Sawn timber dams:

- Timber dams are to be constructed from sawn untreated larch boards or similar agreed timber. Contractors are responsible for assessing the exact requirements on site at each location, but suggested board dimensions are typically <3m long, with a recommended minimum thickness of 100mm unless otherwise agreed with the site managers.

- The boards are to be placed across the channel at right angles to the flow and must extend at least 1m either side into the channel bank and be dug into the channel bed by at least 400mm. This is to prevent undercutting and erosion to the dam edges.
- The boards must be at least 200mm proud of the channel edges to encourage water out and away from the channel.
- Boards are to be placed edge to edge, horizontally level, and secured with vertical larch posts at 1m spacings and secured with M10 coach bolts to the vertical boards. Posts should be pointed and driven into the channel until submission. Where maintenance is likely to be more difficult or risk is higher, solid timber dams should use 100mm hardwood/oak beams with threaded bars connecting the planks. Bogmats as pictured are suitable for this purpose.



#### Tree and low scrub clearance:

- Areas identified for clearance will be clearly marked on site prior to commencement.
- The works are to be completed using motor-manual techniques i.e. chainsaws and brush-cutters fixed with appropriate blades.
- All trees and scrub identified for removal must be cleanly cut as low to its base as possible and below any side growth.
- Where the stem is protruding from a tussock or mossy tump the stem must be exposed as close to its base as possible by pushing the moss down or pushing the tussock aside to permit cutting at its base.
- Tree trunks can be used to create leaky woody debris dams. Brash to be removed from the wet mire habitat (to minimise nutrient inputs) and stacked on higher ground, as identified by site managers.. Tops to be mulched to reduce volume.

#### Earth bunds:

- Earth bunds to be created by an excavator using material sourced on site.
- The bund would be dug in by 500mm to create an underground seal and extend above ground by 500mm.

### Site photos:

Photographs have been provided in reference to the distinct areas of work as described. A site visit is strongly recommended in order to support the provided information.



*1. Upper mire: locations proposed for culverted crossings and Molinia clearance*



*2. Lower mire: channel to be infilled*