



The Coal
Authority

Resolving the **impacts** of mining



Environment
Agency

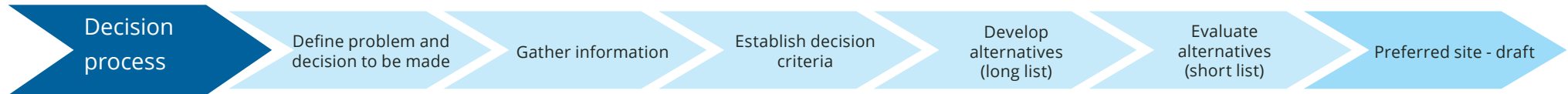
Proposed measures to clean up **the River Nent**

September **2017**

Engagement process

Consultation objective

To work with stakeholders to find an acceptable way of treating polluted mine water from the Haggs, Caplecleugh and Rampgill Levels, from concept through to operation.



Progress so far

- We've extended the search area (Page 5)
- We've applied the evaluation criteria (Page 4)
- We've identified potential areas that might be suitable for a mine water treatment scheme (Page 6)

Next steps

- Identify potential areas to take forward for further assessment.

This areas for further consideration will depend on:

- Scores from evaluation process
- Public Opinion
- Land Availability



Community input required at these points

Engagement **process**

April 2016: **Event 1**

We held an open community event where the initial proposal was presented. The proposal was withdrawn and a new engagement approach was developed.

October/November 2016: **Event 2**

We held 2 community events where open discussions took place about the new approach to finding alternative land areas. The site evaluation criteria identified. (P4 and P5)

November 2016/March 2017

- providing information - questions answered. Reports on Gov.uk
- developing site evaluation criteria
- wider mail outs, contacting business, contacting wildlife groups
- contacting landowners
- extended search area
- potential areas identified that might be suitable for a mine water treatment scheme

March 2017: **Event 3**

Discussion with stakeholders on new areas identified. A long list of possible sites drawn up. (P6)

July 2017: **Event 4**

A further public meeting looked at 3 possible sites for Nent Hags and Caplecleugh. A short list of possible sites discussed (P7 and P8).

September 2017: **Event 5**

Preferred site for Nent Hags and further investigation for Caplecleugh are shown at the September event.

What criteria did we consider?

Criteria

a) Access to the potential treatment site (closest boundary)

b) Closeness to housing and businesses (from site boundary to nearest building)

c) Distance from the mine water discharge point to the potential treatment area (closest boundary to discharge point)

d) Pumping costs and carbon footprint (average across elevation the whole area)

e) Site size

Caplecleugh and Rampgill

(flow: 30 litres per second – subject to change following further data collection)

Caplecleugh only

(flow : 20 litres per second – subject to change following further data collection)

Rampgill only

(flow: 10 litres per second- subject to change following further data collection)

Haggs

(flow: 15 litres per second – subject to change following further data collection)

f) Current and previous land use –ease of construction (average across the whole area)

g) Degree of slope (average across the whole area)

h) Ecological issues (average across the whole area)

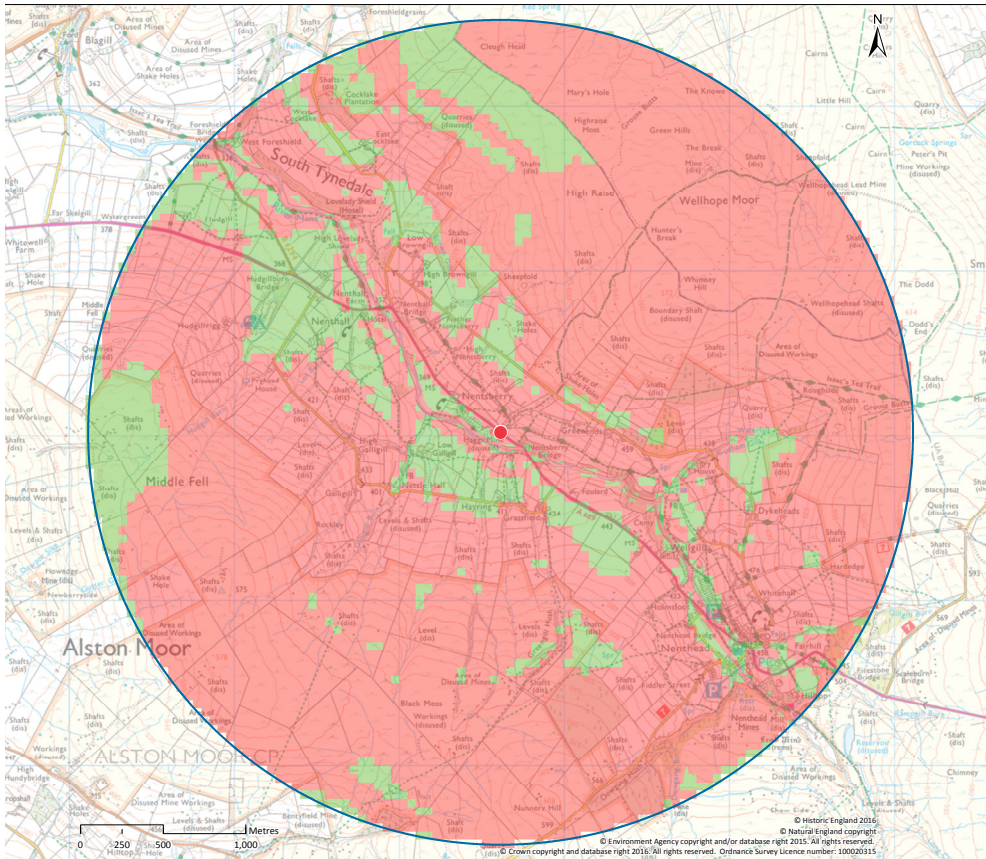
i) Flood risk - surface water flooding (average across the whole area)

j) Route of the pipeline to transfer the mine water to the potential treatment area and then from the potential treatment area to a nearby watercourse. (total pipe length)

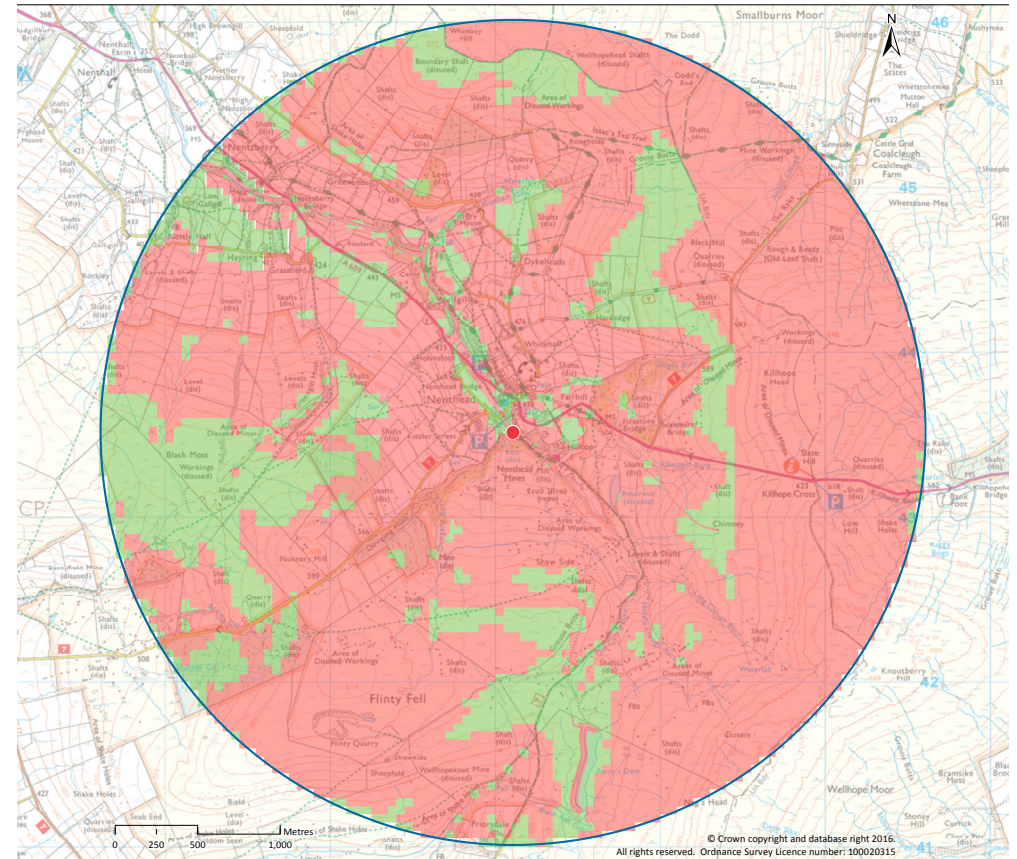
k) Visual impact

We've looked at a wide range of possibilities

Nent Hagsgs



Caplecleugh and Rampgill

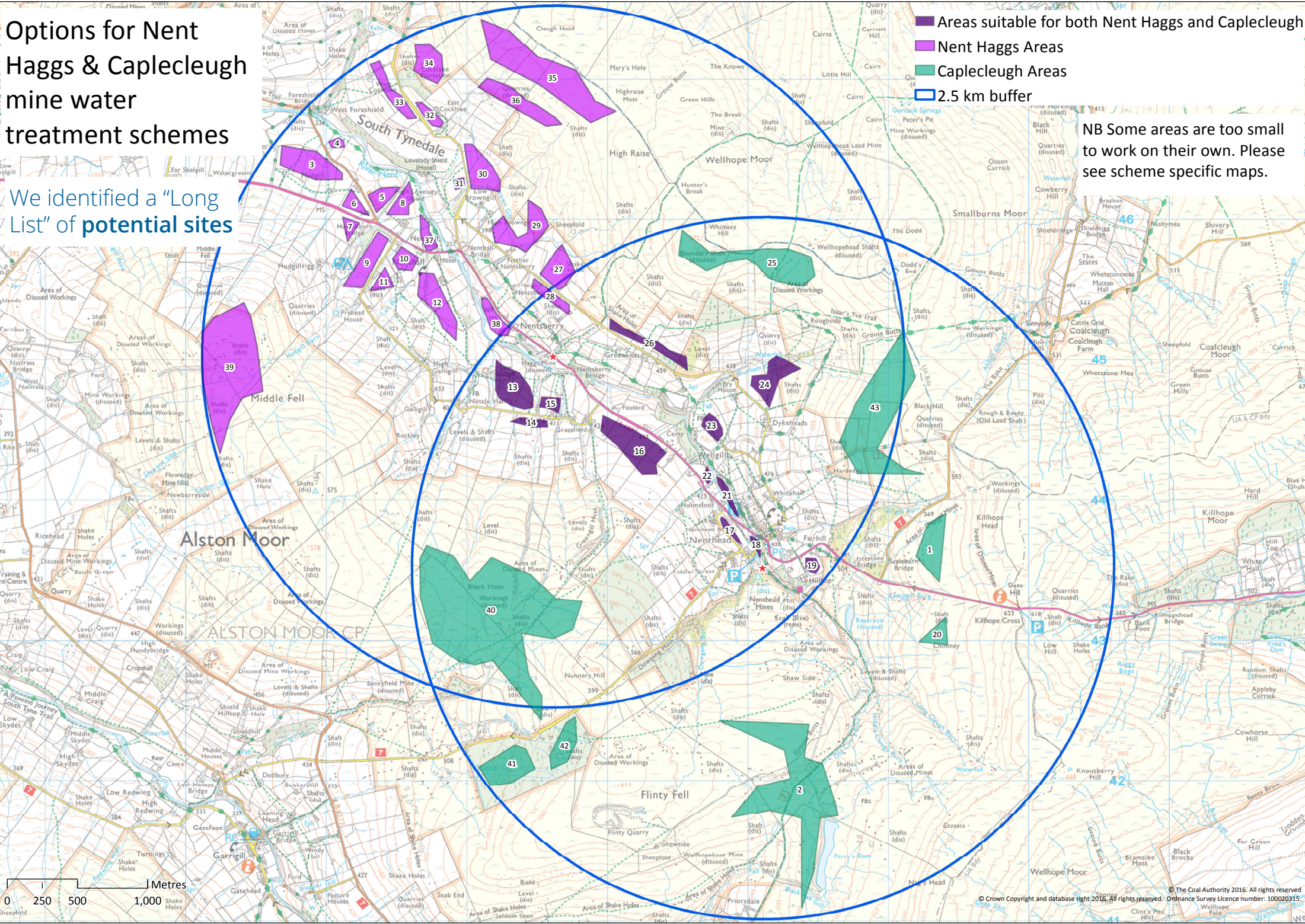


Options for Nent Hags & Caplecleugh mine water treatment schemes

We identified a "Long List" of potential sites

- Areas suitable for both Nent Hags and Caplecleugh
- Nent Hags Areas
- Caplecleugh Areas
- 2.5 km buffer

NB Some areas are too small to work on their own. Please see scheme specific maps.

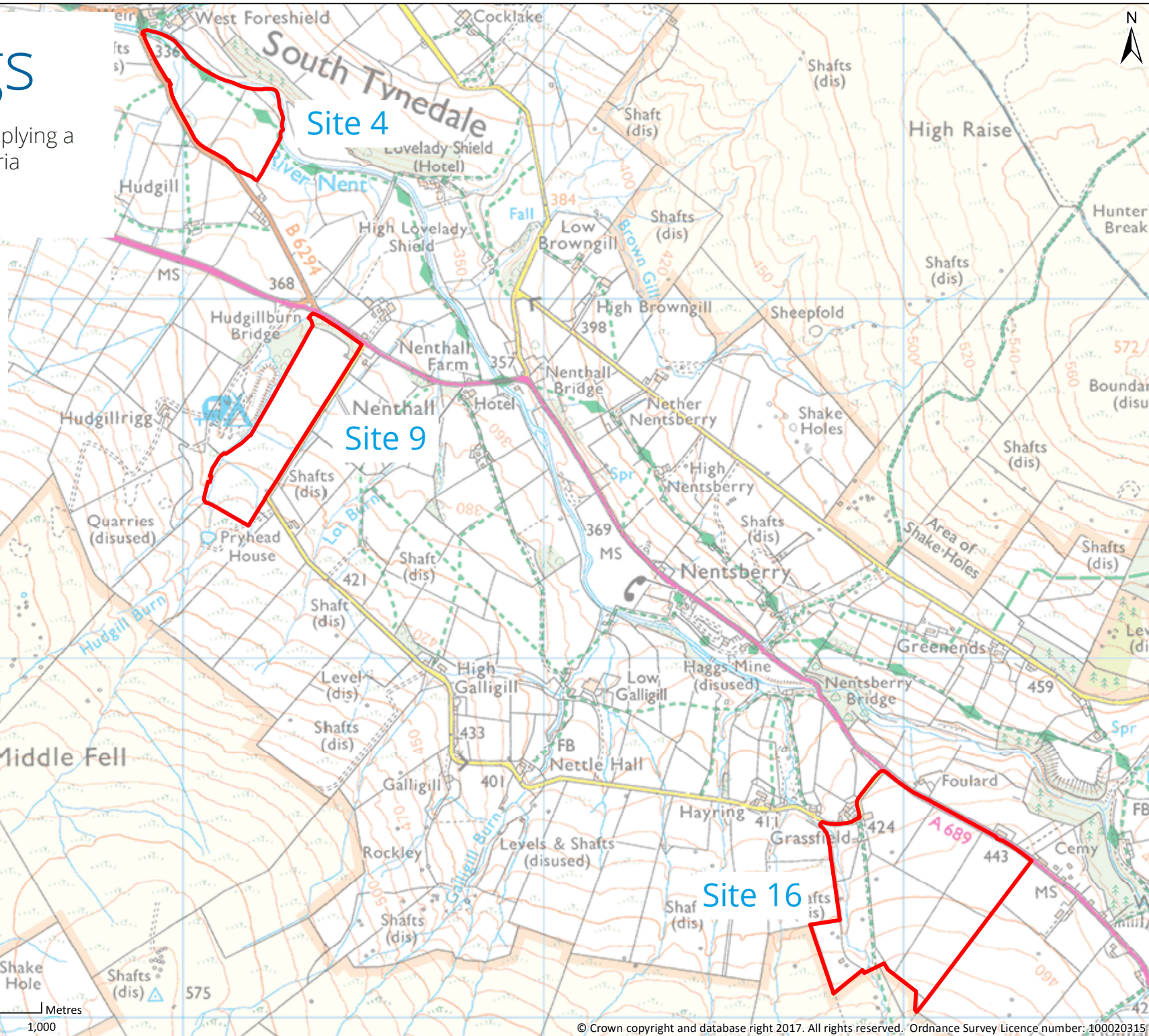


0 250 500 1,000 Metres

Nent Hagsgs

These sites were arrived at by applying a wide range of site selection criteria discussed with the partners and the community.

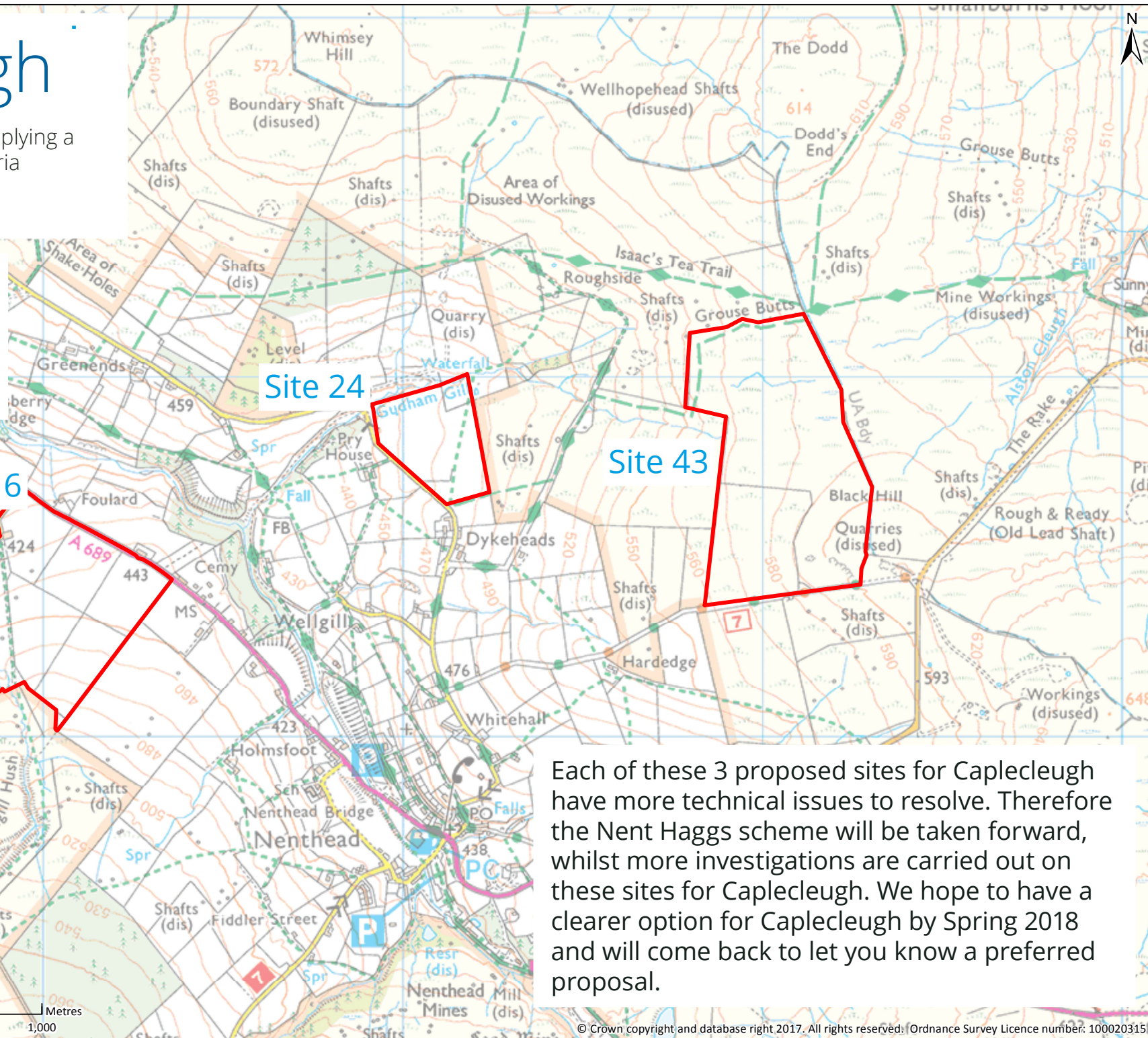
We reduced the options to a **“Short” list.**



Caplecleugh

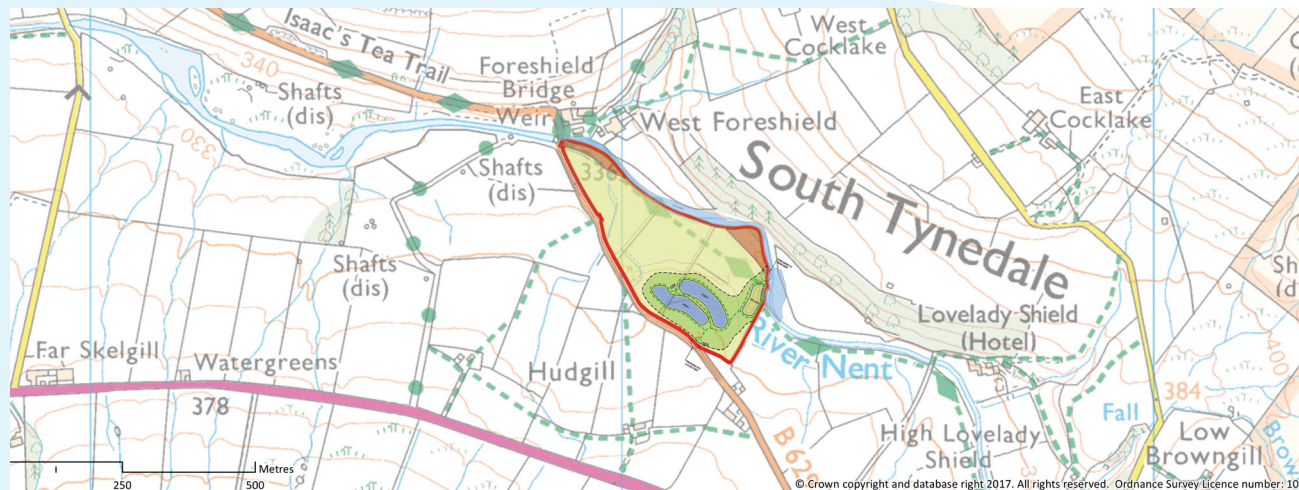
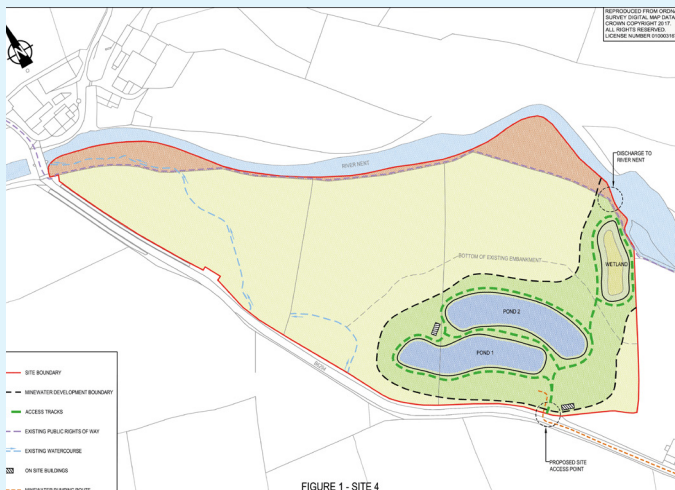
These sites were arrived at by applying a wide range of site selection criteria discussed with the partners and the community.

We reduced the options to a **"Short" list.**



Each of these 3 proposed sites for Caplecleugh have more technical issues to resolve. Therefore the Nent Hags scheme will be taken forward, whilst more investigations are carried out on these sites for Caplecleugh. We hope to have a clearer option for Caplecleugh by Spring 2018 and will come back to let you know a preferred proposal.

After the July public meeting a single preferred site emerged



How big will the mine water treatment scheme be?

The site area is approximately 2 hectares (5 acres). Each of the 2 treatment ponds will be about 2,500 square metres (sqm), and the wetland will be about 1,250 sqm. Therefore the ponds plus the wetland will have an area of 6,250 sqm. A typical football pitch is about 6,500 sqm.

What will the scheme look like?

The treatment ponds will be open water with the water level a little below the existing ground level. They will be surrounded by grassed or gravel tracks with grass or planted areas in between. The ponds and wetland will be shaped to look as natural and un-engineered as possible. The wetland will be a reedbed. There will be two single storey stone buildings on site designed to look like farm buildings. The site will be secured with posts and wire fencing or in keeping with field boundaries in the area. The access will be through a timber field gate adjacent to the road.

What will be the visual impact on the area?

The site is overlooked by properties at Foreshield, the nearby roads and footpaths. The layout and landscaping will be designed to make the scheme look as natural as possible. Additional tree planting may be possible although it will take some years for trees to fully grow.

How will the construction traffic reach the site?

Traffic will arrive along the existing highway network from the A689 and B6294.

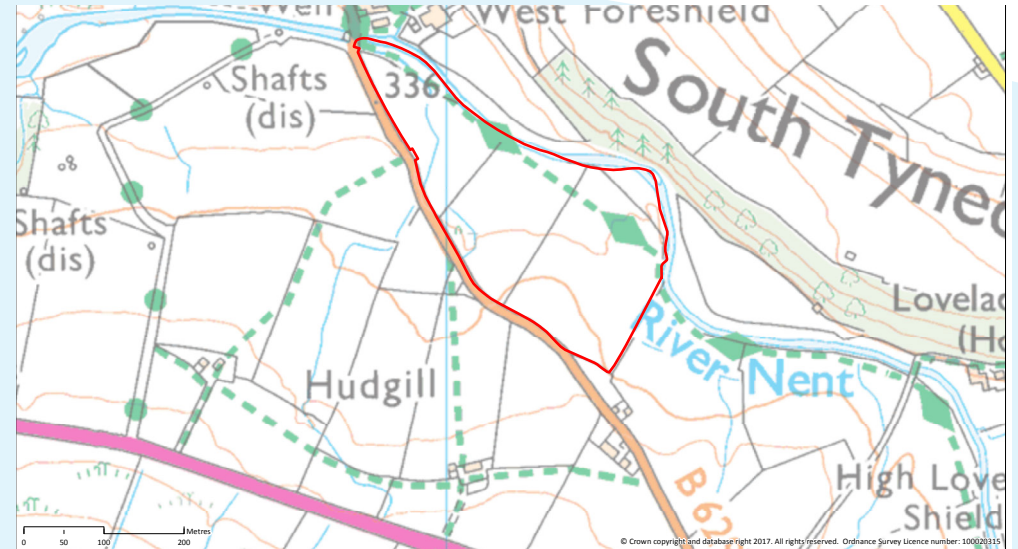
Will there be any other works associated with the scheme?

There will be a new pumping station constructed near to the adit to pump water to the site (possibly on site 38). It will need a small building to house control equipment.

How much say do I have?

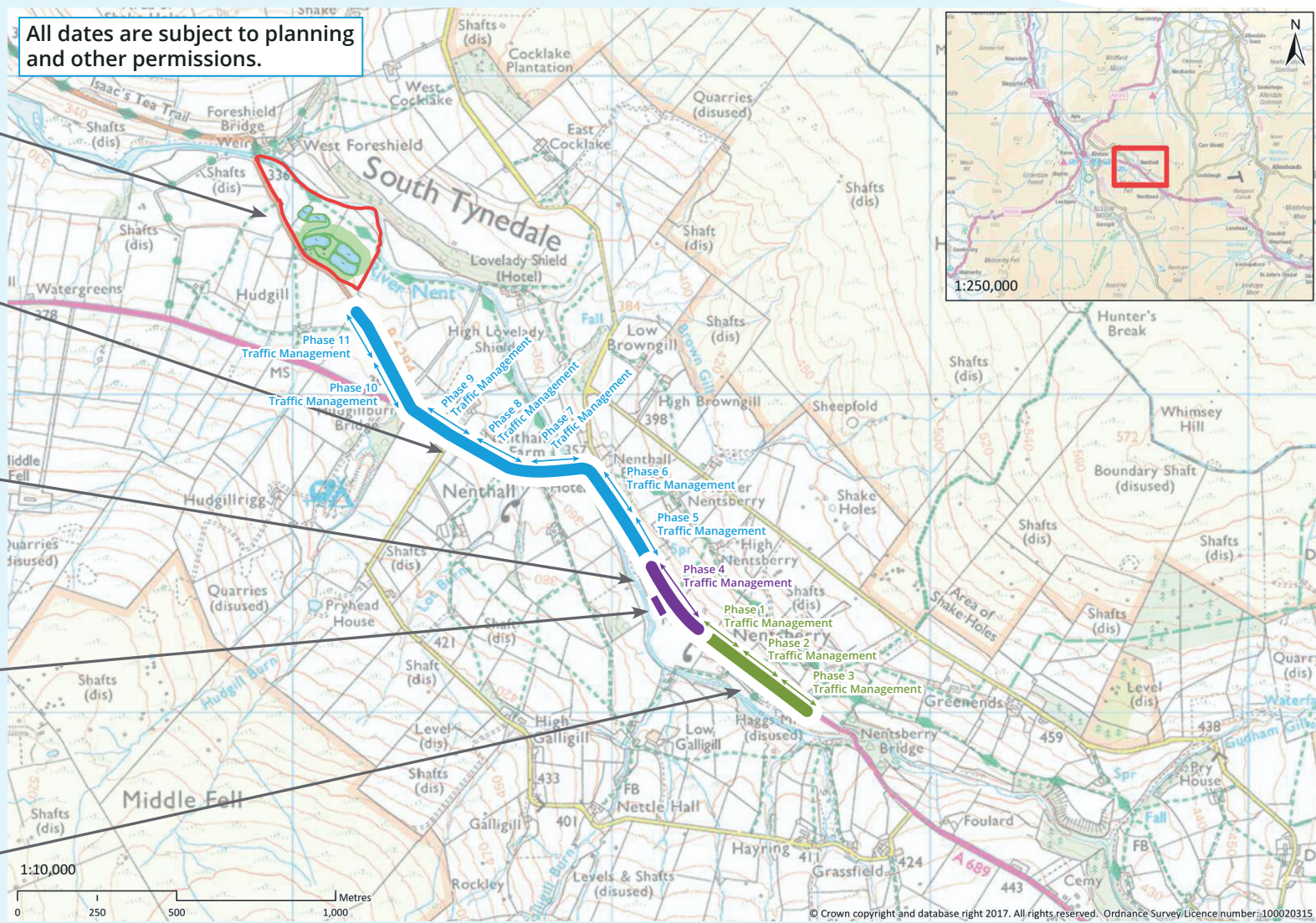
The site we have chosen, with your help, has very limited room for variation from the plan now shown as the preferred site. (P10)

Nent Hagsgs preferred site Site 4



Nent Haggs preferred site Headline construction information

- Area 4**
Main treatment pond works (Site 4)
Start: July 2018
Finish: November 2019
- Area 3**
Pump rising main pipeline
Start: March 2019
Finish: November 2019
- Area 2**
Pump Station and rising main pipeline
Start: September 2018
Finish: November 2018
- Site compound/Storage area for pipeline installation**
Start: September 2018
Finish: November 2018
- Area 1**
Gravity Drain pipeline
Start: July 2018
Finish: October 2018



Progress on Checkweirs and Nenthead

New build - **Nentsberry**



Dredging - **Nenthead**



Both schemes are progressing well and should be near completion by the end of September.