

The Old Coach Road (U3132 & U2236)

Survey: February 2018

Completed by: S.Stout – Cumbria Trail Riders Fellowship (CTRF)

The 'Old Coach Road' is an unsurfaced Unclassified County Road in Northern Cumbria. It runs East to west from Matterdale End to St John's in the Vale, roughly parallel to the A66. It follows an ancient upland route linking the Eden Valley to the Keswick area.

This document works alongside the Repair Plan 2018 document and shows the current situation of the water and erosion in February 2018.

Alongside each of the numbered pictures is the grid reference and brief description of current issues. The survey was completed traversing West to East, (i.e. St John's in the Vale to Matterdale End).

Last known records of maintenance and repairs to this lane are recorded in minutes of a meeting of a meeting of the Hierarchy of Trails Working Party Group in 2003. It is believed the National Trust (NT) & Lake District National Park Authority (LDNPA) carried some works to the eastern section but this is as yet unverified. Since this time, the drainage gully that runs the length of the lane has become clogged with Sphagnum Moss and Juncus effusus, (soft rush) grass and in some places the bank of the gully has become eroded to allow water ingress to the road surface

At various distances along the length of the road, culverts have been installed under the road surface to take water from the gully to the downhill side of the hillside, these have become blocked by both the moss and the grasses but also by stone and debris washed through as well as fence debris from when the fence was last repaired. In some cases, these are now exposed and/or broken.

There are at least two long drainage channels running east/west above Hausewell Brow to run water off before it reaches the road gully. These are now overgrown and have virtually disappeared.

Hausewell Spring is situated at the top of Hausewell Brow and is a water source for houses and a farm lower down the hillside. The water pipe runs under the road surface from the spring. (Position to be identified). Running east to west there is an overflow drainage channel from the spring to Birkett Beck. (see picture 6)

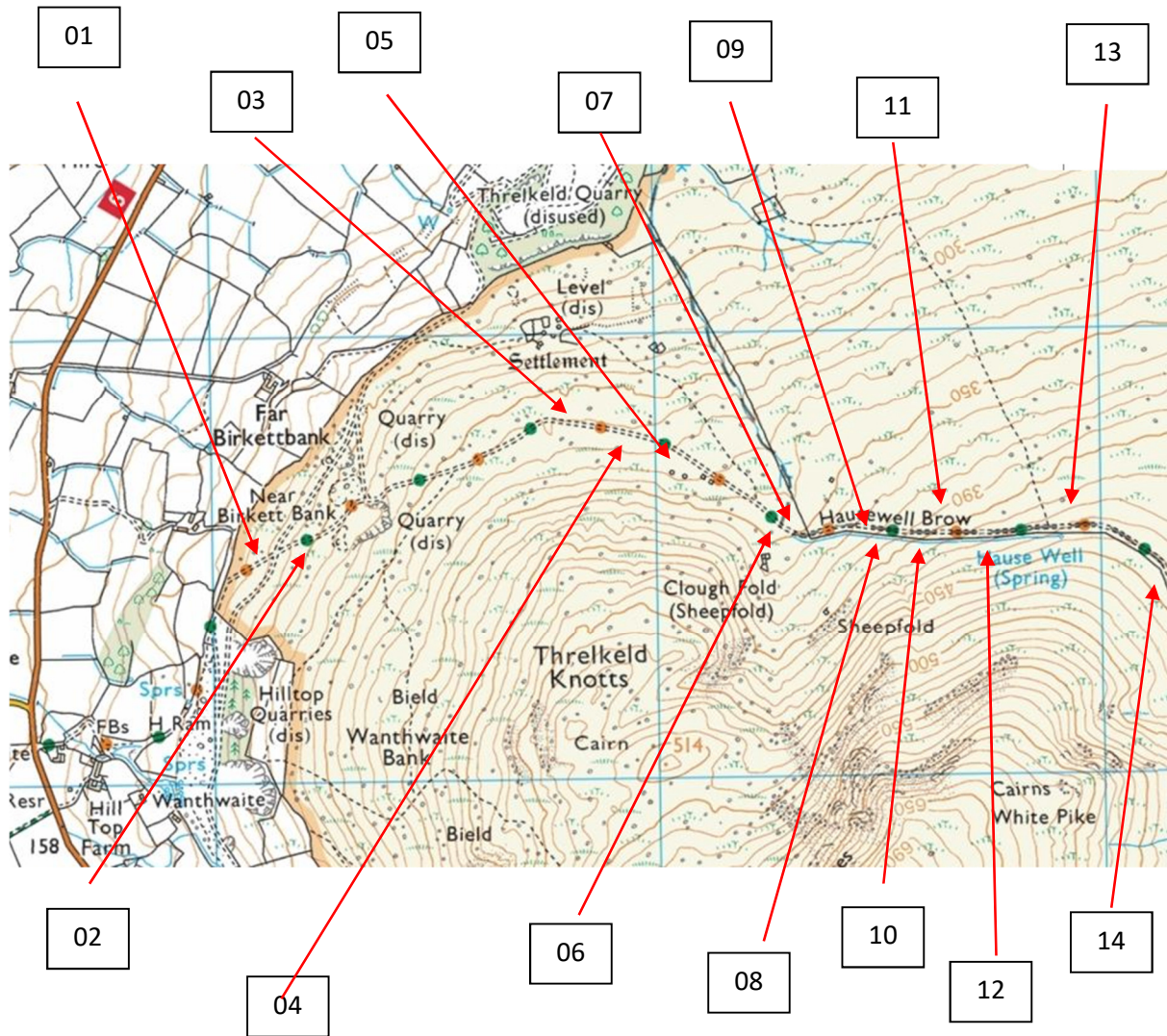
There are five wooden gates on the road, all have been replaced in the last two years. The first three at grid references: NY 312 237 / NY 313 239 / NY 336 233 have recently been replaced by persons unknown. The gate at Mariel Bridge has recently been donated and installed by Cumbria TRF. The final gate is at Lucy's Wood at end of the unsurfaced road.

The NT are currently carrying out a Peat Regeneration Project on Matterdale Common between Mosedale Beck and Thorngill Beck. The heavy machinery has used the Coach Road for access and evidence of their passing is visible along the section of the road. (See Eastern Section picture 27)

There is currently no visible damage on the section between the B5322 and Point 1 on the map.

The Western Section

The map below shows the western section and references the information for each picture. The eastern section has its own part.



Picture 1:

Washed out area below tarmac link road between quarries. Old tarmac visible. (Possible stone pitched area as plenty of stone nearby). This section is 2.5m wide at it's lower end and 4.5m wide at the tarmac junction.



Picture 2:

Steep climb to quarries, surface is good and requires no real work. No water damage visible currently.



Picture 3: Puddle 1.

Drainage line from Clough Head. Long catchment channel blocked on uphill side allowing water to escape onto road surface. Clay pipe culvert, now broken and both entrance and exit overgrown. Cleared manually to restore flow and opened drainage line onto downhill side of puddle



Picture 4: Overgrown drainage channel, very narrow and almost disappeared. Minimal work required here.



Picture 5: Manmade drainage line, possibly linked to old ruins nearby.



Picture 6:

Hausewell Spring channel. This should follow a channel along the edge of the road surface heading west, then pass through two culverts under the road to the north and drain into Birkett Beck level with the house 'Newsham'.



Picture 7:

Clough Fold, bottom of water damage channel leading up to Hausewell Brow. This has flowed out on to the lower peat slopes leaving lots of fluvial waste covering the ground adjacent to the road.



Picture 8:

Heavy runoff after rainfall from White Pike & Hausewell Spring. This drops into the drainage gully above the culvert.

There is a drainage gully for the spring that is also choked and requires clearing running above the fence line.



Picture 9:

Damaged culvert below run off allows water to erode the road surface. This requires a full replacement with the culvert extended approx. 2 m past it's current finish to allow water to flow to the moorland below.



Picture 10:

Test works carried out on Hausewell Brow clearing the main drainage gully have shown a marked impact upon the water levels running along the lane surface.



Picture 11:

Test works – Where water has seeped past the temporary remedial works, surface drains have been built to change the water flow direction. This shows marked impact on the lower sections of the road surface.



Picture 12:

Test works. One of two culverts cleared and water flow restored using hand tools only. This also showed a positive impact upon the water flow to lower sections of the road.



Picture 13:

Final approach to Hausewell Brow from the western side. A collection of water channels lie on the road surface and no drainage is obvious.



Picture 14:

Top of Hausewell Brow. Snow and water collects in eroded road surface, drainage insufficient as road surface now lower than existing channel. Manually opened out to allow excess water to flow downhill. (Showed a drop-in depth over twenty-four hours even with heavy rain).



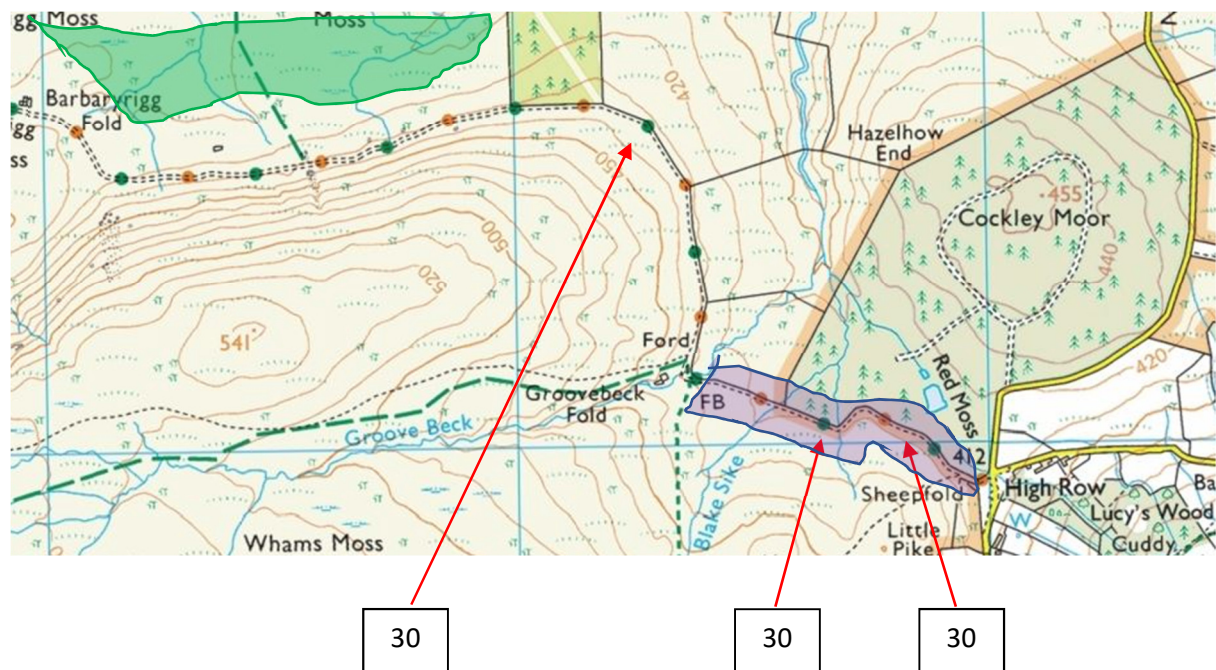
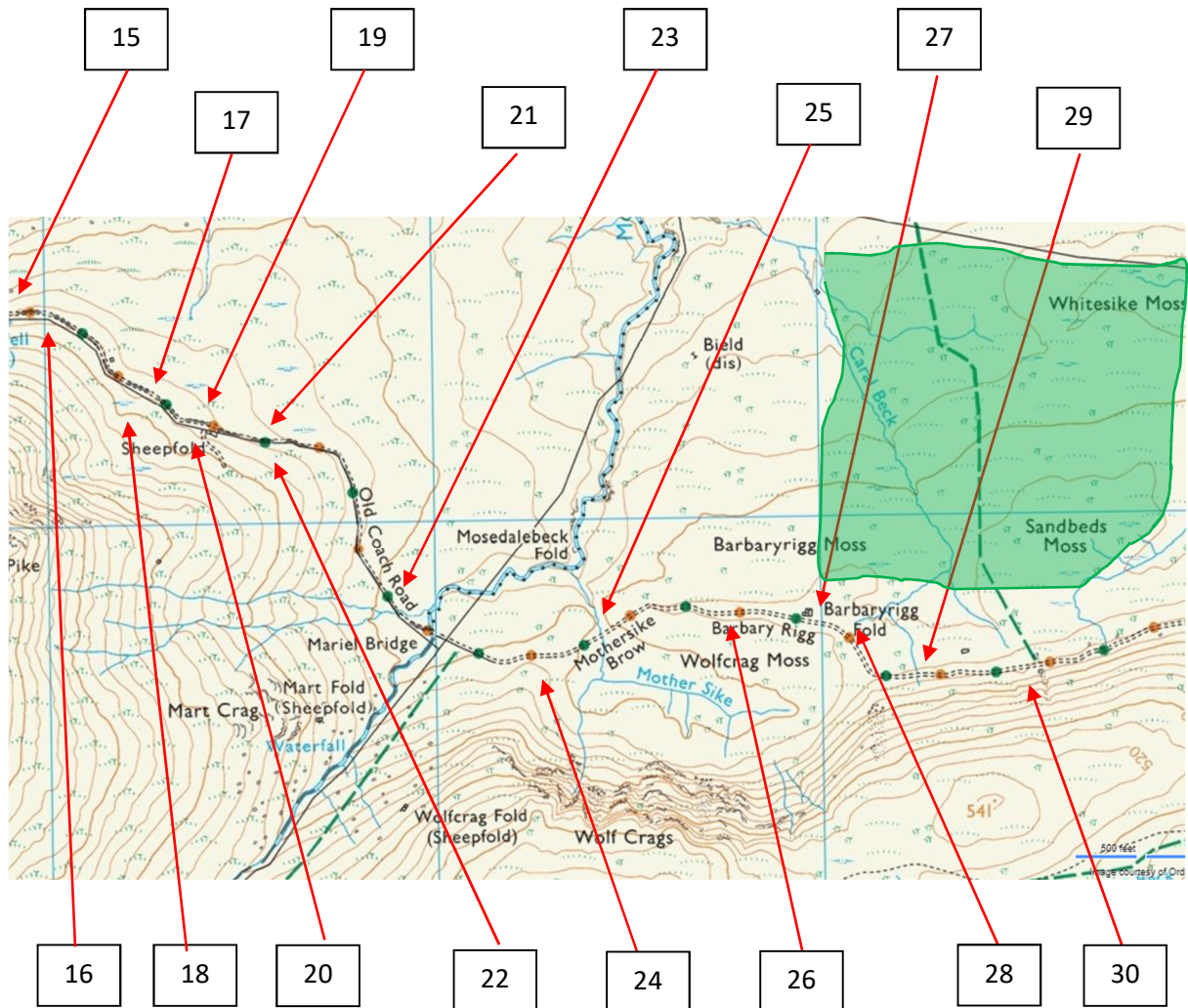
The Eastern Section

The eastern section of the Coach Road, for the purposes of this survey is the longer section. Running from Hausewell Brow to Lucy's Wood Car Park. The water damage here is less than on the western end, mainly due to ground that has a shallower gradient. That said, the section between Hausewell Brow and Mariel Bridge has a long and shallow trough running for most of its length now and all of the drainage and culverts are overgrown. In some sections the water has broken through the gully walls and is overflowing onto the road itself.

The NT are currently carrying out a Peat Regeneration Project between Threlkeld Common and Cockley Moor Woodland using heavy machinery, they have accessed their work site via the Coach Road and there is evidence of their passing visible along this section of the road from Lucy's Wood. (On the map image 1 below, this area is shaded green and is estimated in size based upon the works visible on the ground)

On map image 2, the January 2018 CTRF volunteer work party area is shaded in purple. This shows a much drier road surface after nearly a month since the works were completed. The cleared culverts are flowing well. One culvert has been broken in the last week and the road surface has been damaged and now requires remedial works.

Continuing on, this survey runs west to east and starts at Hausewell Brown



Picture 15:

Overgrown and blocked culvert creating overflow on to road surface.



Picture 16:

Road surface eroded below current drainage channel. (opened out in test phase but required heavier tools to complete).



Picture 17:

Blocked drainage gully over spilling side walls



Picture 18:

Hillside drainage on to road surface as upper drainage channels are also choked.



Picture 19:

Culvert still running, but water overflowing on to road suggesting a blockage. This is a large drainage area from the fellside above feeding in to a bowl and then exiting via the culvert.



Picture 20:

Culvert still running, but water overflowing on to road suggesting a blockage.



Picture 21:

Drainage gully virtually disappeared leading to issues identified in Picture 22.



Picture 22:

Water eroded trough. The drainage gully is on the left bank of this picture and is completely blocked at this point allowing the water to run over and onto the road surface.



Picture 23:

A secondary beck runs off the fells from White Pike and above Mosedale Beck. This is the culvert that runs under the road at this point. The road gully above is choked as per the rest of the gully.



Picture 24:

On the northern side of the lane there is a secondary drainage channel running east/west. This is also choked with moss and soft grass. A culvert may run under the lane at this point. It is unclear in current conditions.



Picture 24:

Between Mariel Bridge and Mothersike Brow, there are two drainage gullies, one on either side of the road. Both are deeper than the western ones and thus require less remedial work. However, both are becoming choked and in one steeper section, the gully walls have broken and water is now flowing on to the road surface. The road surface here requires some maintenance to repair damage to soft sections. (see red circle in picture 25)



Picture 25:

Water is collecting at the bridge at the bottom of Mothersike Brow. The drainage in this section needs looking at when conditions allow.



Picture 26:

Surface drainage – the road surface has been eroded away leaving the drainage exit point higher than the water levels.



Picture 27:

Surface drainage - NT machinery has 'squared off' the edges of the larger puddles and made them noticeably deeper. The drainage here is suffering from the same issues of eroded road surface leaving the drain exit above the current water levels.



Picture 28:

At GR NY 366 222, the drainage on the uphill side has two channels, one dug west and into the moorland with presumed drainage into Wolfcrag Moss, the other runs along the edge of the lane nw/se for approx. 100m to a dead end. This may hold a culvert, to be determined in better conditions.



Picture 29:

Between GR NY 366 222 and NY 372 224 the drainage channel is choked. The road surface is generally in good repair with some large puddles of standing water. One in particular is approx. 1m deep. This has caused problems for the local farmers accessing their livestock and needs remedial works asap. The culverts are all running but need some clearances



Picture 30:

Drainage choked, road surface condition acceptable.



Picture 31:

Broken concrete culvert at GR 371 221. This has collapsed in on itself, possibly due to heavy vehicles passing over it recently. The culvert was cleared by CTRF in January 2018 and is running well but needs immediate remedial work.



Picture 32:

This photo is a week after the initial survey, the damage is greater and the culvert is now blocked by debris from the road surface and parts of the broken culvert body. Cumbria Wildlife Trust are to repair and replace this culvert at the end of their Peat Restoration Project. As of 30/04/18 this repair has not been completed.



Picture 33:

Repair day image. Gully clearing between Grove Beck and Lucy's Wood. This area is largely dry now with little water retained on the road surface. From the gate at Lucy's Wood for approx. 200m some surface water is still there as the surface of the road is below the drainage exit points.



Drainage GPS Co-Ordinates

These co ordinates run west to east and were taken on a Garmin Montana 600 using OS1:50 000 mapping software.

Culvert GPS ID No.	Culvert Co ordinates	Other Id No.	Other Co ordinates
Culvert 00	NY 32822 23780	Pitched Stone	NY 32022 23435
Culvert 01	NY 33187 23622	Surface Drain 00	NY 33773 23539
Culvert 02	NY 33470 23556	Surface Drain001	NY 33870 23545
Culvert 03	NY 33540 23545	Crossdrain temp	NY 33925 23545
Culvert 04	NY 33598 23539	Surface drain 002	NY 34418 23253
Culvert 05	NY 33733 23537	Surface Drain 003	NY 34808 22978
Culvert 06	NY 34164 23398	Surface drain 004	NY 35821 22749
Culvert 07	NY 34223 23358	Surface drain 005	NY 35867 22746
Culvert 08	NY 34248 23344	Surface drain 006	NY 35886 22742
Culvert 09	NY 34319 23288	Surface drain 007	NY 35903 22741
Culvert 10	NY 34338 23263	Surface drain 008	NY 35994 22718
Culvert 11	NY 34404 23256	Surface drain 009	NY 37319 22624
Culvert 12	NY 34459 23230	Hausewell Spring	NY 33953 23518
Culvert 13	NY 34533 23208		
Culvert 14	NY 34665 23188		
Culvert 15	NY 34752 23166		
Culvert 16	NY 34802 22926		
Culvert 17	NY 34803 22924		
Culvert 18	NY 36241 22578		
Culvert 19	NY 36352 22582		
Culvert 20	NY 36454 22586		
Culvert 21 – deep hole	NY 36506 22591		
Culvert 22	NY 36556 22600		
Culvert 23	NY 36573 22604		
Culvert 24	NY 36705 22631		
Twin culverts 25 + 26	NY 36739 22638		
Culvert 27	NY 36787 22661		
Culvert 28	NY 36859 22692		
Culvert 29	NY 36970 22708		
Culvert 30	NY 37065 22716		
Culvert 31	NY 37279 22680		
Culvert 32	NY 37321 22619		
Culvert 33	NY 37365 22551		
Culvert 34	NY 37376 22447		
Culvert 35	NY 37387 22398		
Culvert 36	NY 37400 22298		
Twin culverts 37 + 38	NY 37557 22074		
Culvert 39	NY 37652 22031		
Culvert 40 - Broken	NY 37679 22023		
Culvert 41	NY 37867 22005		

Utilities List

Below is the list of utilities contacted and their responses.

Utility Company	Date	Yes	No
PLANCAST Plant	16/02/2018		x
Verizon	16/02/2018		x
Energetics UK	16/02/2018		x
McNicholas Group	16/02/2018		x
Utility Assets	16/02/2018		x
Northern Gas Works	20/02/2018		x
Vodafone	20/02/2018		x
City Fibre	20/02/2018		x
BT Open Reach	20/02/2018		x
SKT Communications	16/02/2018		x
Instalcom Ltd	16/02/2018		x
United Utilities	21/02/2018		x
Sota Gas Lines	21/02/2018		x
CA Telecom	27/02/2018		x

Summary

This survey has been completed over four days in February 2018. Both the weather and the ground conditions were challenging, thus there are some questions relating to approximately four culverts where excessive soft grass and snow completely covered any culvert exits. These will require further investigation once the conditions improve.

Overall the eastern section of the road after Mosedale Beck & Mariel Bridge is in much better condition, requiring some remedial works as ongoing maintenance. Most of the culverts are flowing and one has been very recently damaged and is requiring immediate replacement.

The western section down to below the quarry above Birkett Bank requires a more targeted set of repairs and investment to bring the road back to a suitable standard for all user groups. The final part between the old tarmac quarry road and St John's in the Vale is generally in good condition requiring little intervention at this time.

The majority of the works can be completed by a contractor in a short period of time. It is envisaged that several parties of volunteers will be on hand to move stone and generally provide man power and vehicle power as required. This has been agreed within the user groups and requires a date and suitable ground and weather conditions.

April 2018 Update

Further survey work and clearance works have been carried out during March and April 2018. The drainage gully from Hausewell spring has been surveyed and is blocked in several areas. Volunteers will be sought to re-open this drainage line over the rest of the summer.

Advice needs to be sought as to the best option for installing the pitched sections of stone as the final part of the repairs.

CCC have been asked to provide a temporary TRO for 3 months once the final parts of the works are complete to allow the repairs to bed in. Dates to be confirmed.

CTRF have requested road works signage from CCC for use during the repairs.