



National  
Trust



Murlough & Mourne

Slieve Donard Path Review Project

Draft for comment  
June 2018

2018 Condition (Amber) Survey

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This report is a brief appraisal of the condition of the main access path to Slieve Donard property. It should be regarded as. These survey results can be used to guide the planning and investment in the condition improvement of the main path along Slieve Donard property. Specialist costing and work details (e.g. specific path work contractor) will be required for this purpose.

The report is designed to detail the different section features and current condition of the main access along the property and to discuss options for their repairing, rebuilding and management.

The National Trust  
Murlough & Mourne  
The Stable Yard  
Keel Point  
Dundrum  
BT33 0NQ

## National Trust Condition (Amber) Survey

### Slieve Donard

Including: Part of Eastern Mourne ASSI  
Part of Eastern Mourne SAC

Date of survey: 6<sup>th</sup>, 9<sup>th</sup> and 19<sup>th</sup> June 2018

Time spent on condition (amber) survey: 3 days

Surveyor(s): M. Vinas (3 days) & P. Lynch (1 day)

Report compiled: June 2018

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Distribution list:

#### Important

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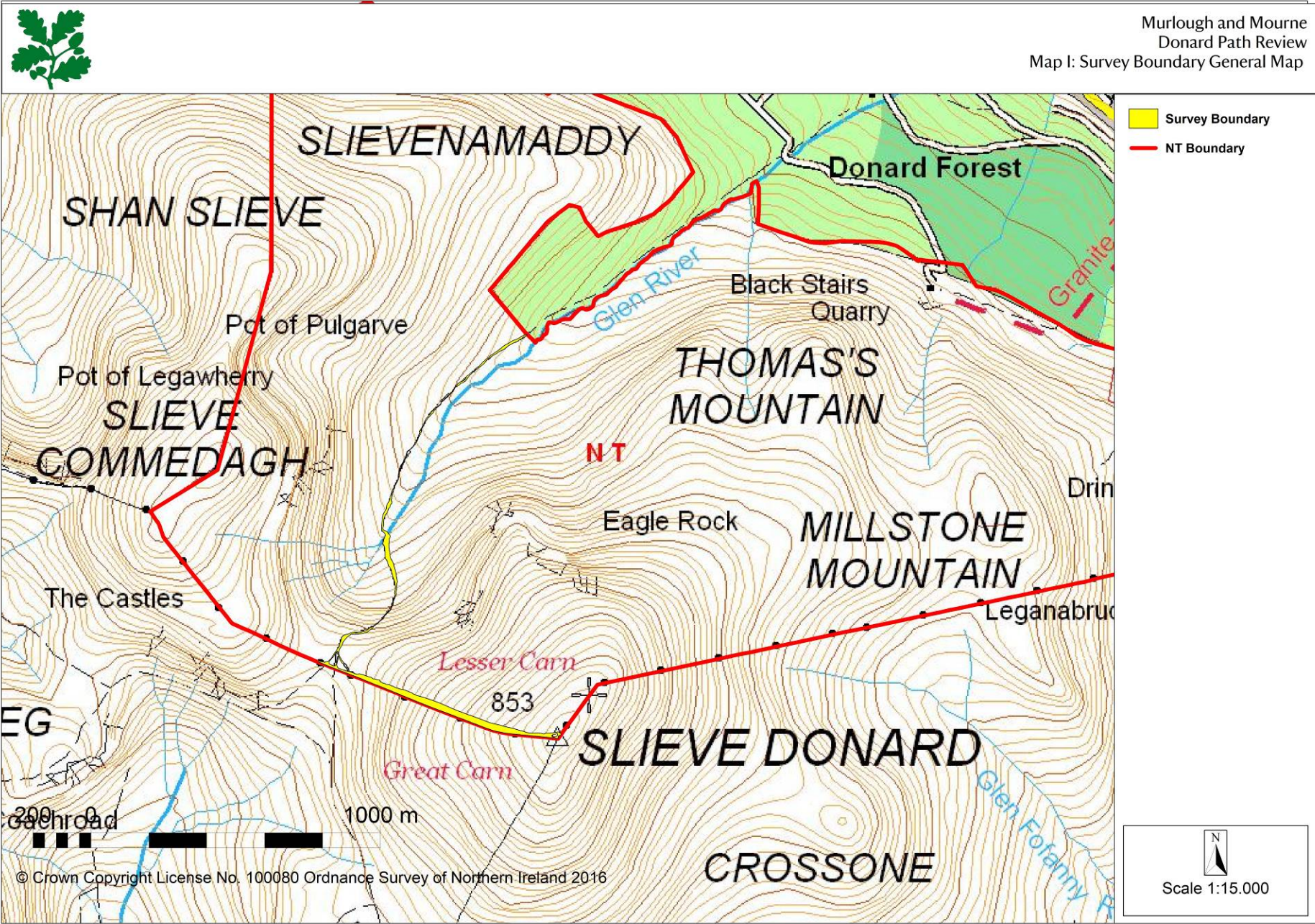


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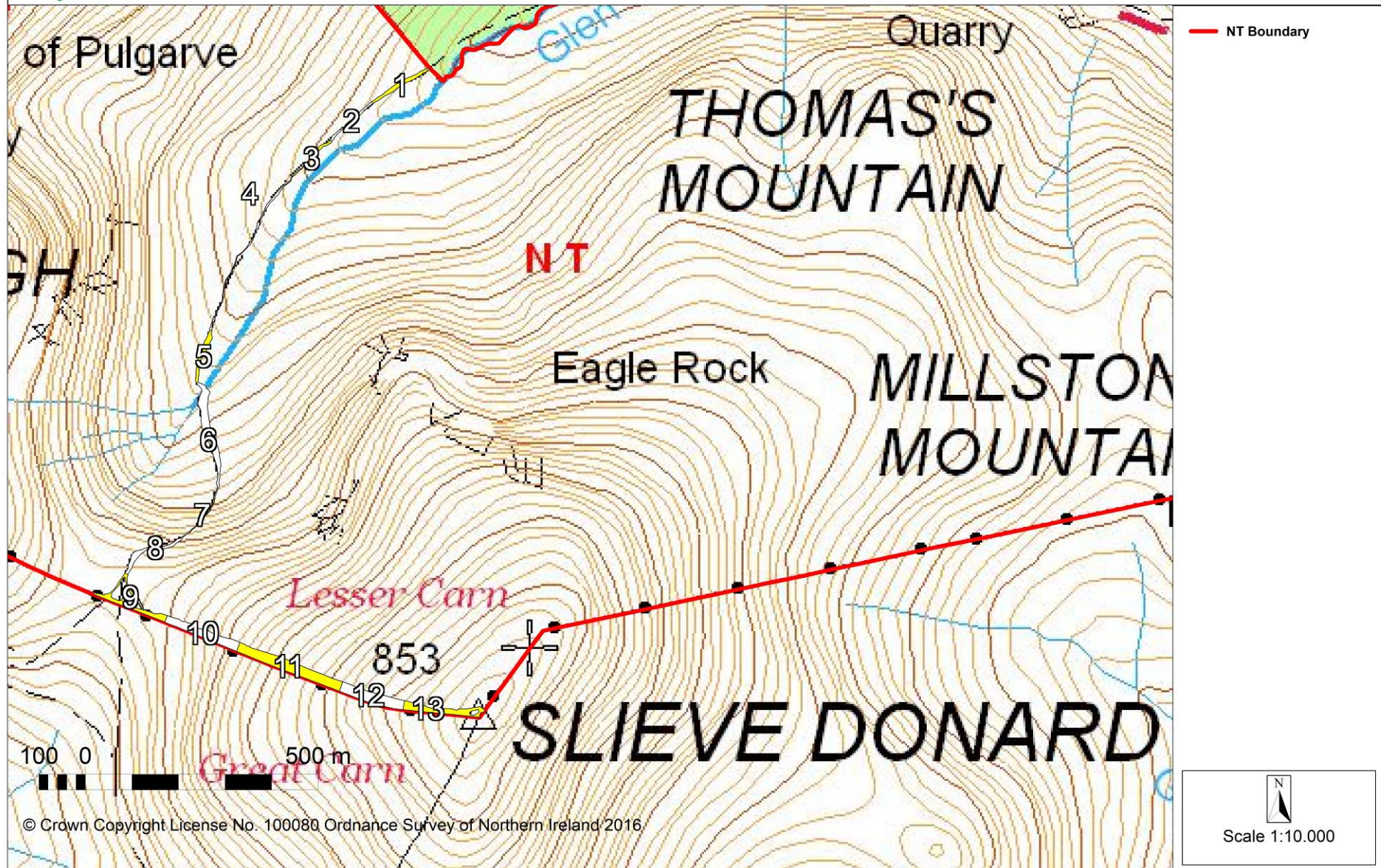


Map I – Survey boundary







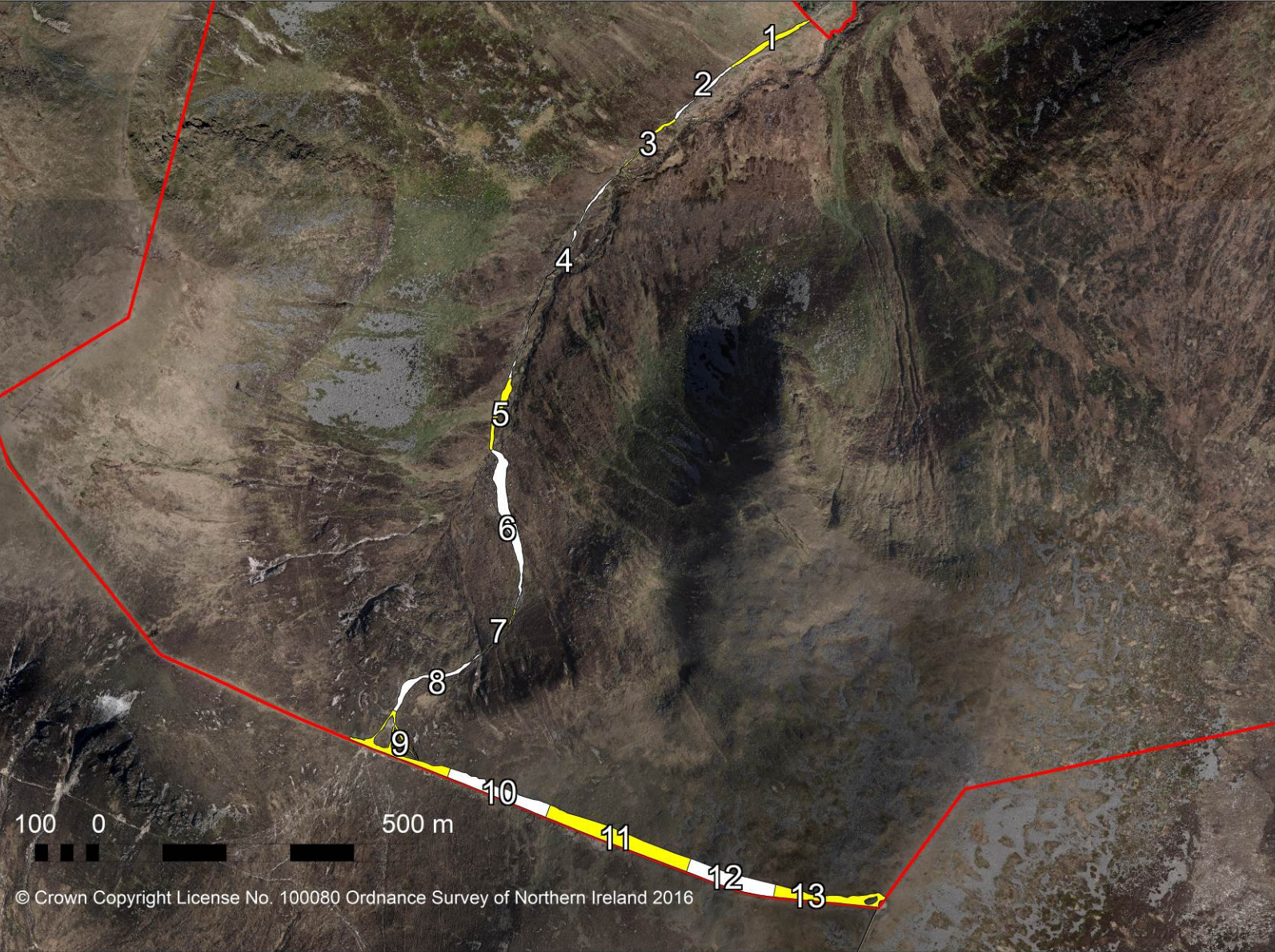




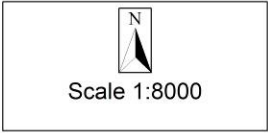
Map III - Path Sections Location (Aerial image)



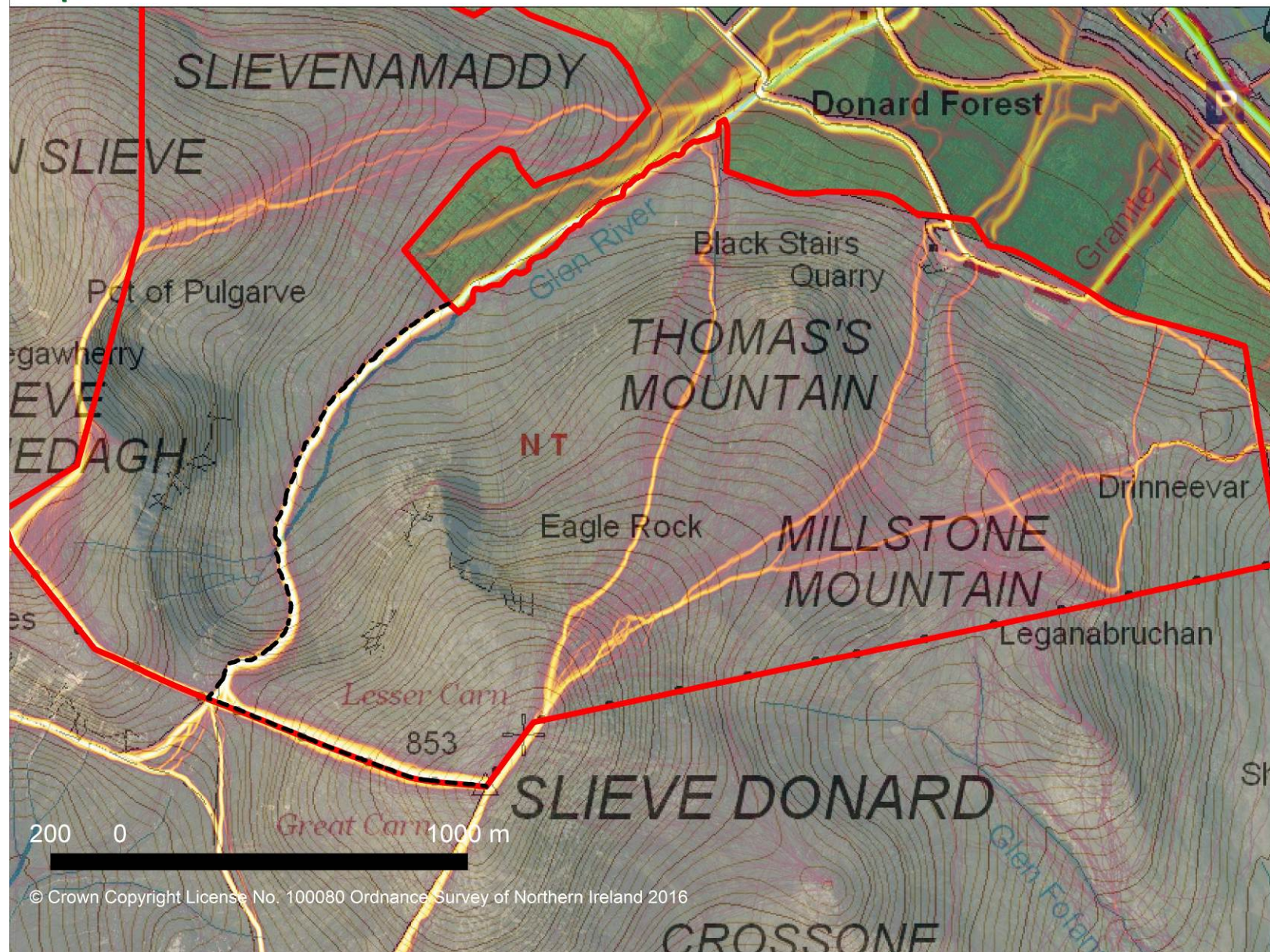
Murlough and Mourne  
Donard Path Review  
Map III: Sections Location General Map



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-- Main Path Line  
— NT Boundary



Scale 1:15,000





# 1 Summary

The aim of this review is to determine the scale of the path erosion problem within Slieve Donard main access corridor and provide an indicative estimate of the cost of repair works. The information provided can be used to undertake a strategic programme of works.

The present document results provide data for the determination of priorities for repair work needed or to provide specifications and outline costings for work required on sections of path most needing repair.

# 2 Survey methodology

The following information has been extracted from “Upland Path Management: Standards for delivering path projects” by Upland Path Advisory Group, 2016.

In the context of upland path management, surveys form an integral part of project planning. They provide objective information about the physical resource and about the attitudes of users, which will be considered during various decision-making processes in conjunction with other factors. In particular they should be used to:

- assess current path condition;
- assess whether active path management will conserve path condition;
- identify paths in an unacceptable condition;
- prioritise work required;
- monitor path condition;
- estimate resources required to manage the path/network;
- assess the feasibility of path management;
- support funding applications;
- produce specifications and bills of quantity to manage path repair contracts.

Nowadays path management has moved on to a more structured approach, with three standardised methods have been developed depending on the level of detail required:

- Area (Green): initial path assessment.
- Condition (Amber): condition, management requirements and monitoring.
- Specification (Red): specification and bill of quantity.

It may be possible to amalgamate two or even three of these stages. The information collected usually, although not always, corresponds with various stages of a project as, and if, the project progresses. It is important to note that the overall size of a project also has a bearing on the information collected.

An **Area (Green) survey** is largely desk based and consists of analysing maps and photographic records and producing a written record. This assesses the type and use of the path, historical information, maps, designations within the path area, using information from path users and local land managers. There is a level of subjectivity involved in this process, but nevertheless this information is extremely useful at the initial stages of a project. If there is little support at this stage from key organisations and individuals, there may be little point in progressing.

If the conclusions drawn from the area survey are positive, a condition survey may follow, especially on larger-scale projects. On smaller-scale projects this stage is often omitted as a formal piece of work however the information is still gathered.

A **Condition (Amber) survey** is particularly useful when surveying a number of paths. It is about current and projected path condition and should also provide outline costs. It provides information about path management requirements, the costs of their implementation and the condition and physical setting of paths. It can also be used as baseline information for monitoring change over time. Information from a condition survey can be used to support funding applications and also to monitor the effectiveness of path management and influence maintenance regimes.

Condition surveys should communicate clearly and effectively an outline of the work that is required and the location of works, style of work, should describe the finished product, availability of materials, walk in times (noting any requirement for remote accommodation) and access to site information.

A **Specification (Red) survey** uses site sketches showing the required work referenced to a bill of quantities. Standards used in the bill of quantity also refer to those described in the Upland Pathwork: Construction Standards manual. Although there are other ways of specifying work, this is the method most often used and one which competent contractors are familiar with. This is the document which is used to tender work and therefore must be as clear as possible with no ambiguities. A site visit is used to clear up any uncertainties with contractors agreeing on site with the project manager/client quantities etc., this is then tendered against.

Path repair contractors tend to have little involvement with either Area or Condition surveys. Most, if not all, of their work will be based on Specification surveys. They are used during the tendering and construction phase and for post-contract appraisal.

### 3 Survey data

A condition (Amber) survey has been undertaken in the main access corridor of Donard within the property. Relevant data and features have been recorded along the main path covering a distance of 2,5 Km, and the survey area has been split in 13 sections (Fig.1) based on relevant changes on the path width, the gradient or other features (e.g. streams, built features, etc).

Condition surveys measure the condition of paths and path systems using a series of measurements. The measurements collected cover slope, width and other real figures, along with indices of path condition and assessment of factors such as drainage and dynamism.

Condition survey data are either numerical (e.g. metres of trampled vegetation) or coded, representing the type of vegetation or surface. All these data can be entered into a database, and this is particularly good at generating data for meaningful comparisons on the condition of the different path sections. These data have the potential to inform strategic programmes of path management and can be used to support funding applications and project monitoring. Some organisations have a full database of Condition surveys for all their upland paths (e.g. National Trust for Scotland who update them every 3 years).

Condition surveys provide:

- An assessment of the current path condition;
- An assessment of future management needs of the paths surveys;

- An indicative estimate of the cost of repair works;
- A baseline for monitoring long-term path condition and change.

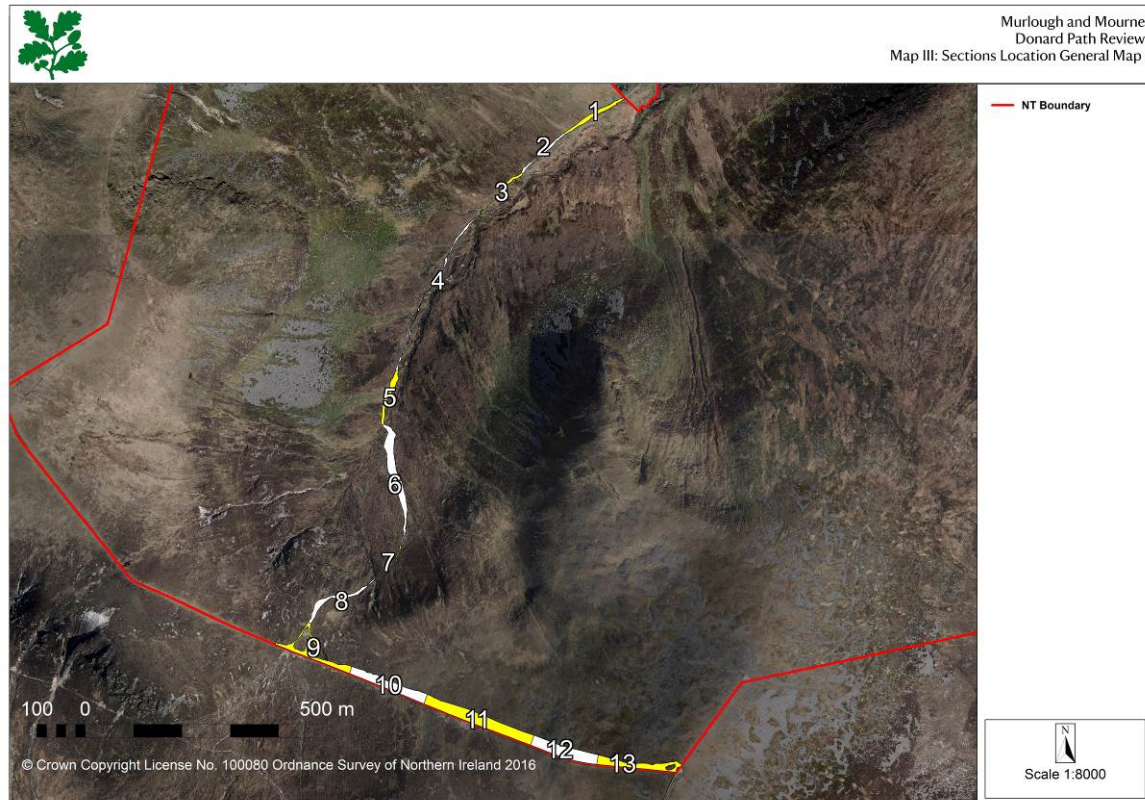


Fig.1 Condition (Amber) survey sections specification at Slieve Donard main access corridor.

The Condition survey provides four types of data:

- Descriptive data: a set of codes to describe path location, path type and vegetation.
- Physical measurements: path length, width, gradient, gully depth, number of braids.
- Assessment of path condition: indices describing the roughness, drainage, erosion, condition dynamism and work urgency.
- Prescription: codes and comments describing the type of path management required, comments about work required and comments about site conditions.

More information on condition (Amber) survey can be gathered on “Upland Path Management: Standards for delivering path projects” by Upland Path Advisory Group, 2016 – Section 2. Upland path surveys (available online).

### 3.1 Section 1

Widely trampled section dominated by raised stones and boulders and frequent braid lines, with a main path line very hard to tell. The section starts with a stone pitch surface that rapidly disappears. A few stone cross-drains still remain but are functioning far to capacity. This section is likely to continue to widen, especially on the upper (right side) slope where new peat braiding is occurring. A good amount of materials will be needed to define the line, plenty of material is available on site and due to the scale of the damage is anticipated that machinery works will be required.



### **3.2 Section 2**

Flatter section with more vegetated edges (dry heath) with a discontinuous path edge. The roughness level of the path (raised stones and boulders) pushes walkers out of the main path line producing peat braiding lines especially along the upper vegetated slope. Stone and boulder material is available on site and probably enough according to the scale of repairing works required.

### **3.3 Section 3**

Stone pitching path with general good condition (taking into account that was built in the 90's, slightly trampled on the sides and occasional peat trampled areas in the surroundings of boulder steps. Built features need attention especially on the final part of the section, and on site materials are abundant and enough along the whole section.

### **3.4 Section 4**

Stone pitching path in good condition surface and surroundings with general good functioning built features, only occasionally needing attention. Some braid lines on the sides of the stone pitching surface becoming deep in some areas combined with the effect of washing out of the water.

### **3.5 Section 5**

Stone paved path severely braid in both sides of the main path line, especially at the beginning of the section and at the final area beside Glen river. Generally lack of materials available along the section for the repairing works required. Machinery is anticipated to be needed in some of the more damaged areas, where the gully depth has increased notably in recent years.

### **3.6 Section 6**

Stone and boulder pitching steep path, presenting health and safety issues on the surroundings of Glen river, with a wide trampled area with raised stones and boulders which brings confusion to walkers navigation. On site material is plenty available along the section for the works required to repair and define the existing path line.

### **3.7 Section 7**

Slab-pitched section with braiding lines along both sides of the hard main line surface. Presence of loose materials demonstrate the drainage problems along this section, with occasional deep gullies in locally more disturbed areas.

### **3.8 Section 8**

Path surface badly eroded with deep trampling scars. There's a wide deep gully area in the center of this section with exposed soil and loose fine materials, actively eroding. The area is especially affected during winter, when the area, due to the bad drainage conditions, becomes temporarily icy. The scale and the location (close to

the saddle area) of the repairing intervention here, will involve the lift of non site material and machinery. At the end of this section, the stone pitching surface has been hugely deteriorating on recent years, with deep gully scars that are developing along both sides of the main path line.

### **3.9 Section 9**

Very disturbed path surface widely and deeply eroded around the saddle cairn. The path line beside the Mourne Wall presents deep trampling scars with vegetation encroachment and loose material, with raised stones giving roughness to the path surface. It is anticipated on that section major machinery intervention works and the lift of big quantity of stone materials for the building of path features.

### **3.10 Section 10**

Stone pitching steps path in relatively good condition especially on the first third of the section. Wide braid parallel area along the grassy side of the corridor, producing some deep scars.

### **3.11 Section 11**

Stone pitching steps path with increased stipiness in bad condition, with dramatically disturbed areas with wide bare soil gullies, ramp stone sections and fine loose material, producing serious health and safety issues. Built features badly damaged, and unsuitable gradient in most of the section. The trampling is also threatening the structure of the Mourne Wall by undermining it.

### **3.12 Section 12**

Section without built features along a big stone scree patch. Rough path surface and loose material due to water washout. A lot of onsite materials available around to define the path line on that section.

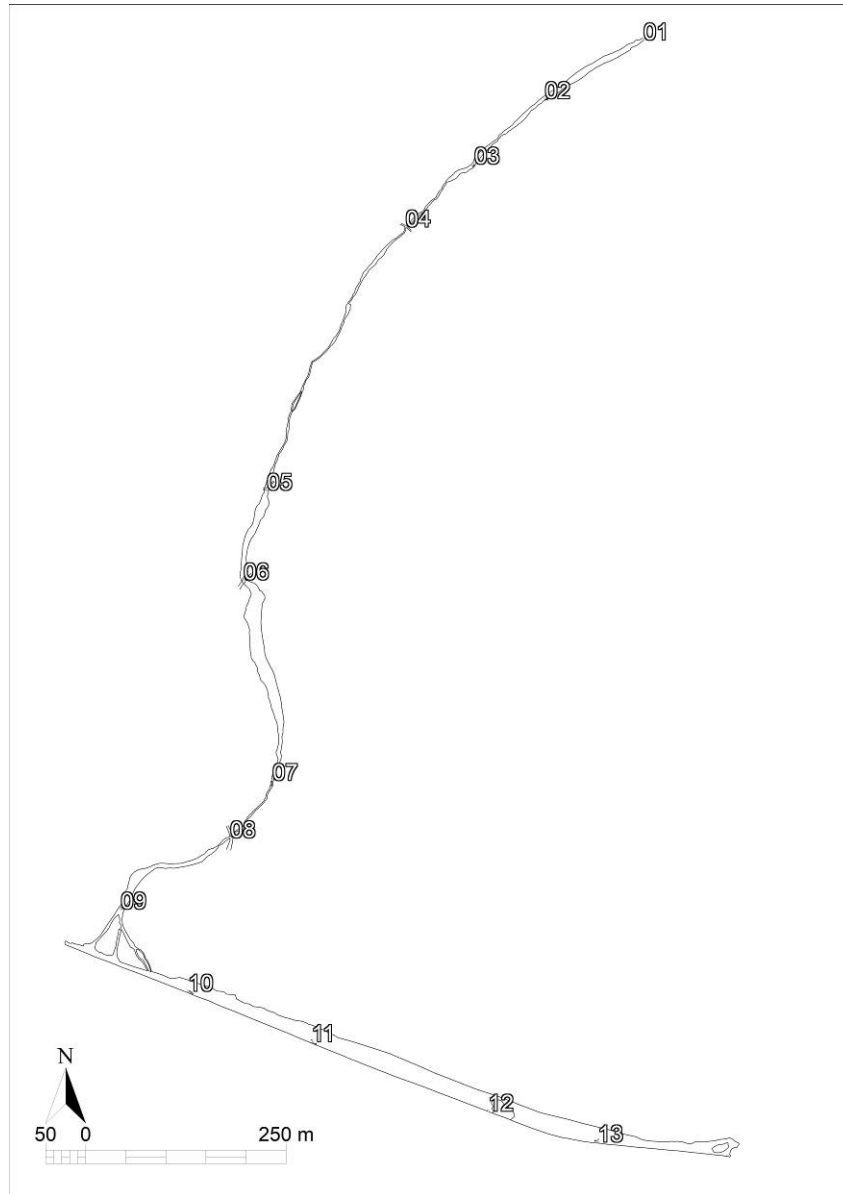
### **3.13 Section 13**

Final relatively flatter bit till the summit of Donard. It consists in a wide grassy corridor where trampling is affecting the montane heath habitat. The surface becomes rougher in the last part, where the soil loss is increasing because of the combined effect of trampling and water washout.

## 4 Donard Amber Survey Results

Section	Length	Surface	Habitat	Braids	Bare width	Tramp width	Gully depth	Roughness	Drainage	Erosion	Dynamism	Edge	Condition	Priority	Built Features
1	145,7	exposed soil / block stone	Grassland / Wet heath	6	7	13	0,3	1	2	2	1	2	1	2	SP / D
2	121,2	exposed soil / block stone	Dry heath	3	4	6	0,3	1	1	2	3	3	2	2	Not present
3	119,6	block stone	Dry heath / Wet heath	2	1	4	0,1	4	3	3	4	4	3	4	SP / D
4	382,5	block stone	Dry heath / Wet heath	2	0	3	0,2	5	4	4	4	5	3	5	SP / D
5	119,7	exposed soil / block stone	Dry heath / Wet heath	3	5	11	0,4	2	3	2	1	3	2	3	SP / D
6	266,9	block stone	Dry heath / Wet heath	2	0	3	0,1	3	4	3	3	4	3	4	SS / D / SP
7	91,4	block stone	Dry heath	2	0	3	0,2	4	3	4	3	4	3	4	SS / D / SP
8	181,8	block stone	Dry heath	4	5	6	0,5	2	2	2	1	3	1	2	SS / D
9	203,6	exposed soil	Dry heath	7	9	11	1	1	1	1	1	1	1	1	Not present
10	172,6	block stone	Grassland / Dry heath	4	0	15	0,2	2	2	3	3	3	3	3	SS / D / SP
11	239,6	block stone	Grassland	4	5	7	0,5	1	1	1	1	3	1	2	SS / D / SP
12	142,9	exposed soil / block stone	Grassland / scree	4	4	20	0,2	1	1	1	2	2	2	2	Not present
13	166,1	exposed soil / block stone / grass	Grassland / Montane heath	5	4	10	0,2	1	1	2	2	1	2	2	Not present





Section	Grid reference	Initial feature
1	J 35660 29072	Old forestry fence
2	J 35541 29000	Boulder pile – change of width
3	J 35456 28928	Start of stone pitch
4	J 35365 28839	Stream
5	J 35191 28515	Stream
6	J 35164 28398	Glen river
7	J 35200 28141	Cross bar drain - steeper
8	J 35147 28078	Stream
9	J 35021 27998	Saddle – End of stone pitch
10	J 35099 27885	Start of stone pitch - steeper
11	J 35242 27828	Cross bar drain - steeper
12	J 35466 27741	End stone pitch - scree
13	J 35569 27705	Peat step - flatter

<b>Surface</b>	Exposed peat
	Aggregate
	Block stone
	Exposed soil

<b>Roughness</b>	1	Boulders or sub base exposed on long sections
	2	Occasional exposures of sub base across path width
	3	Pot holes across part of path – not continuous
	4	Occasional potholes or uneven surface
	5	Smooth surface appropriate to materials used

<b>Drainage</b>	1	High flow, deep standing water and/or saturated surface material
	2	Some standing puddles and waterlogged sections, drains inadequate or poor condition
	3	Small puddles, boggy sections, drains functioning but close to capacity
	4	Drains functioning but needing attention
	5	Dry with no standing puddles and no flow of water

<b>Erosion</b>	1	Current highly active and large movement of material
	2	Gullies through to sub base, partial surface removal, actively changing
	3	Scouring of surface, no sub base showing, loose material present
	4	Slight scouring of surface, little sign of active change
	5	Stable, no change

<b>Dynamism</b>	1	Path will show major deterioration within a year
	2	Path will show some deterioration within a year
	3	Path will deteriorate in 1 to 3 years
	4	Path will deteriorate in 4 to 6 years
	5	Path is stable

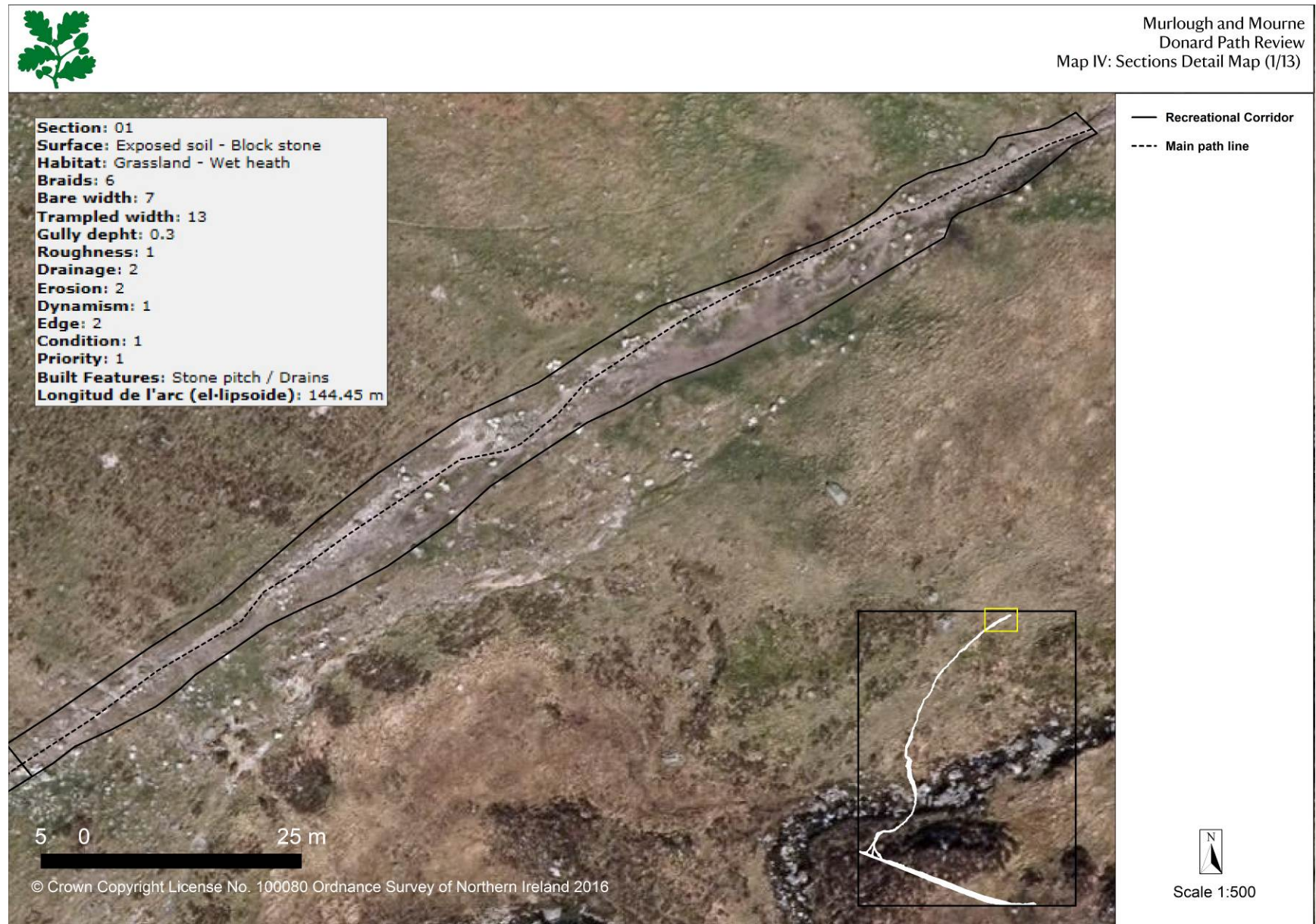
<b>Edge</b>	1	Line of path very hard to tell
	2	Path edge hard to distinguish
	3	Path edges discontinuous
	4	Path edges continuous, or nearly so, and well-defined
	5	Path edges continuous and well-defined

<b>Condition</b>	1	Constructed features broken, sub base exposed, overgrown
	2	Path surface badly worn, broken in places, sub base partially exposed
	3	Signs of wear on surface and features, some vegetation encroachment
	4	Very little signs of problems
	5	Path can be used by all intended users

<b>Health and Safety</b>	1	Low risk
	2	Medium risk
	3	High risk

<b>Priority</b>		
	NT	Low
		Medium
		Maximum

Map V – Section Maps









Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (2/13)

**Section: 02**  
**Surface:** Exposed soil - Block stone  
**Habitat:** Dry heath  
**Braids:** 3  
**Bare width:** 4  
**Trampled width:** 6  
**Gully depth:** 0.3  
**Roughness:** 1  
**Drainage:** 1  
**Erosion:** 2  
**Dynamism:** 3  
**Edge:** 3  
**Condition:** 2  
**Priority:** 2  
**Built Features:** Not present  
**Longitud de l'arc (el-lipsoide):** 121.25 m

— Recreational Corridor  
- - - Main path line

5 0 25 m

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Scale 1:500







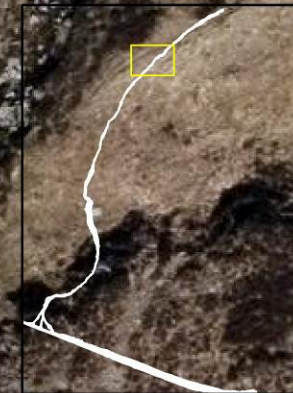
Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (3/13)

**Section: 03**  
**Surface:** Block stone  
**Habitat:** Dry heath - Wet heath  
**Braids:** 2  
**Bare width:** 1  
**Trampled width:** 4  
**Gully depth:** 0.1  
**Roughness:** 4  
**Drainage:** 3  
**Erosion:** 3  
**Dynamism:** 4  
**Edge:** 4  
**Condition:** 3  
**Priority:** 3  
**Built Features:** Stone pitch / Drains  
**Longitud de l'arc (el-lipsoide):** 119.57 m

— Recreational Corridor  
 ---- Main path line

5 0 25 m

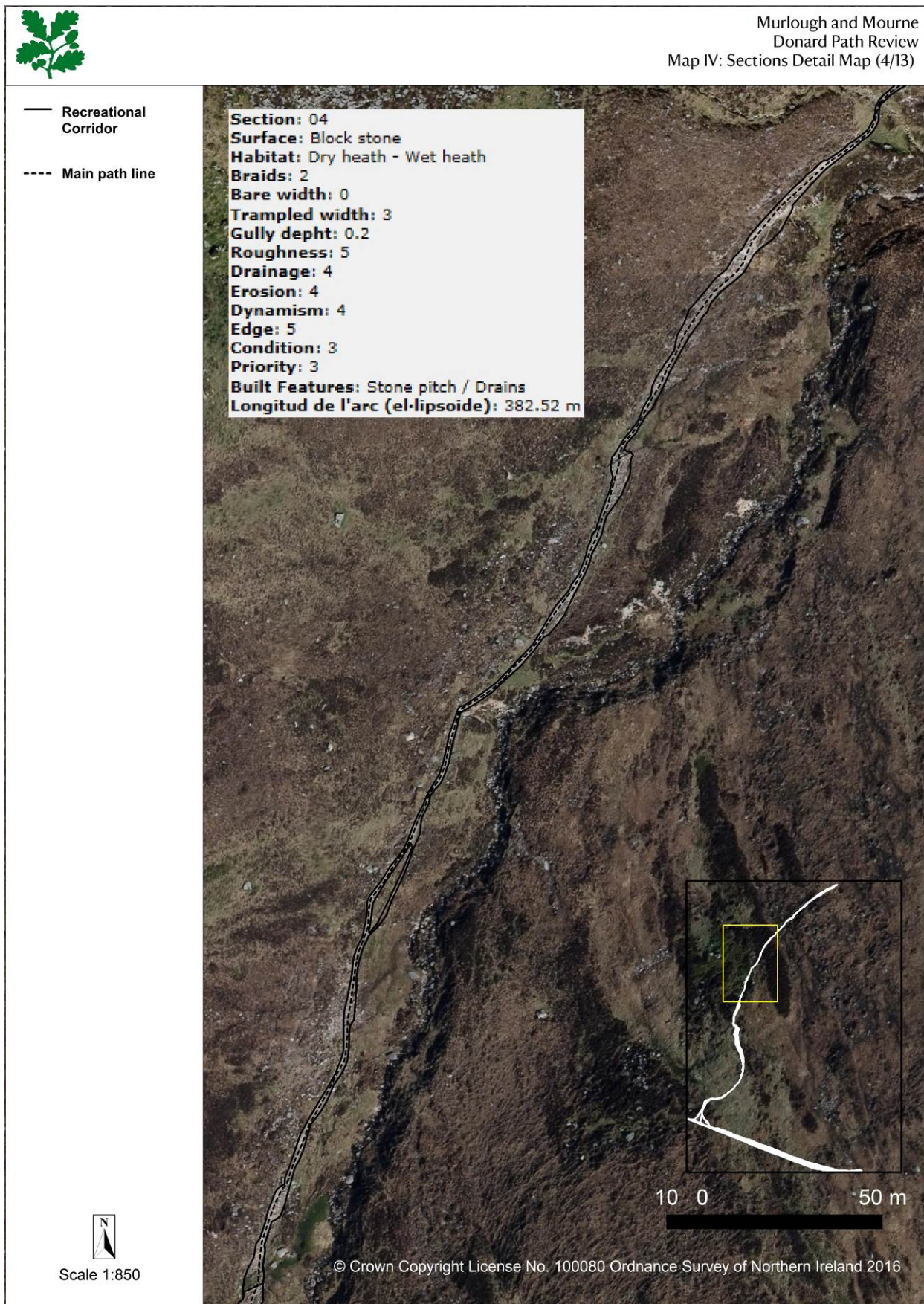
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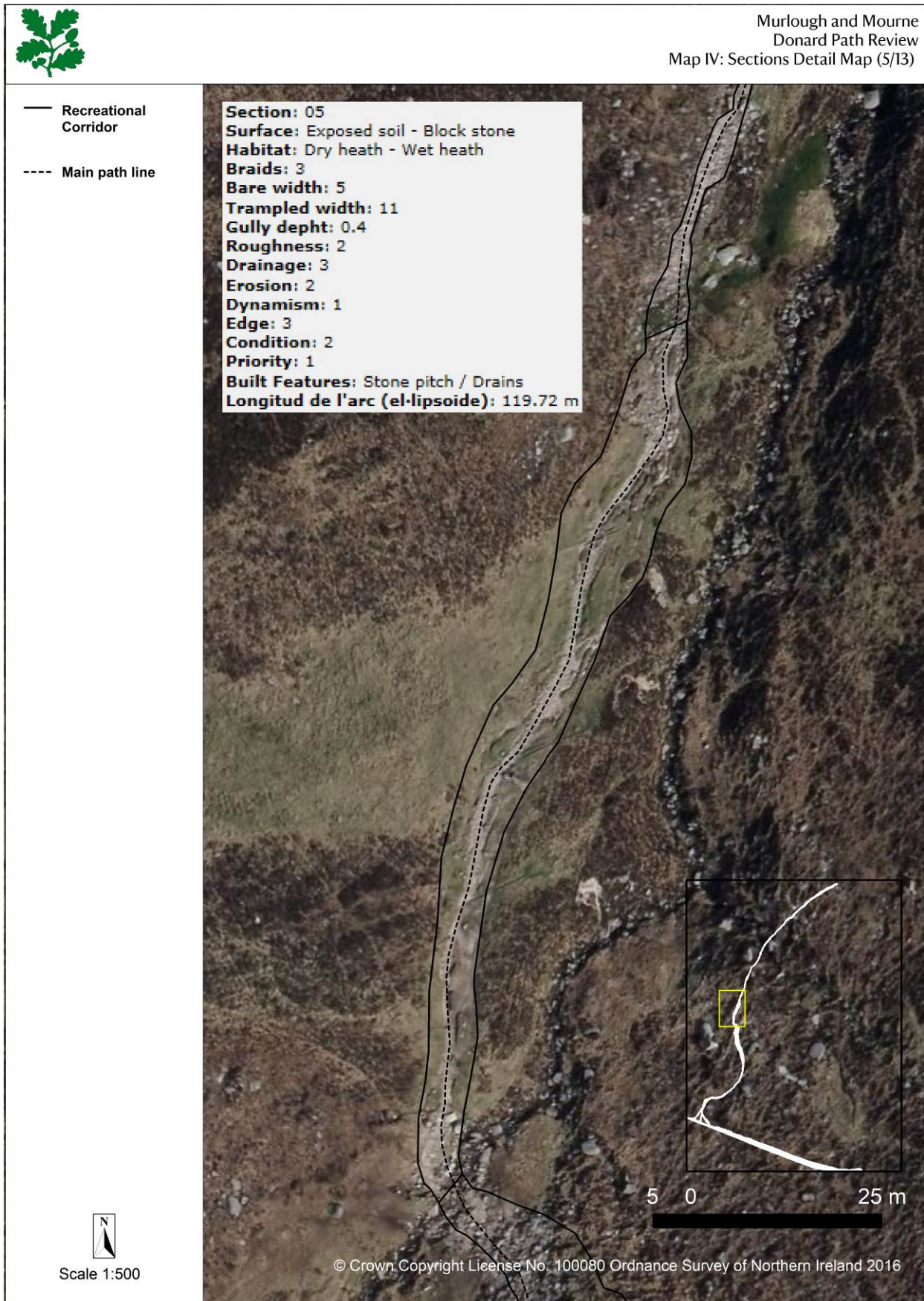
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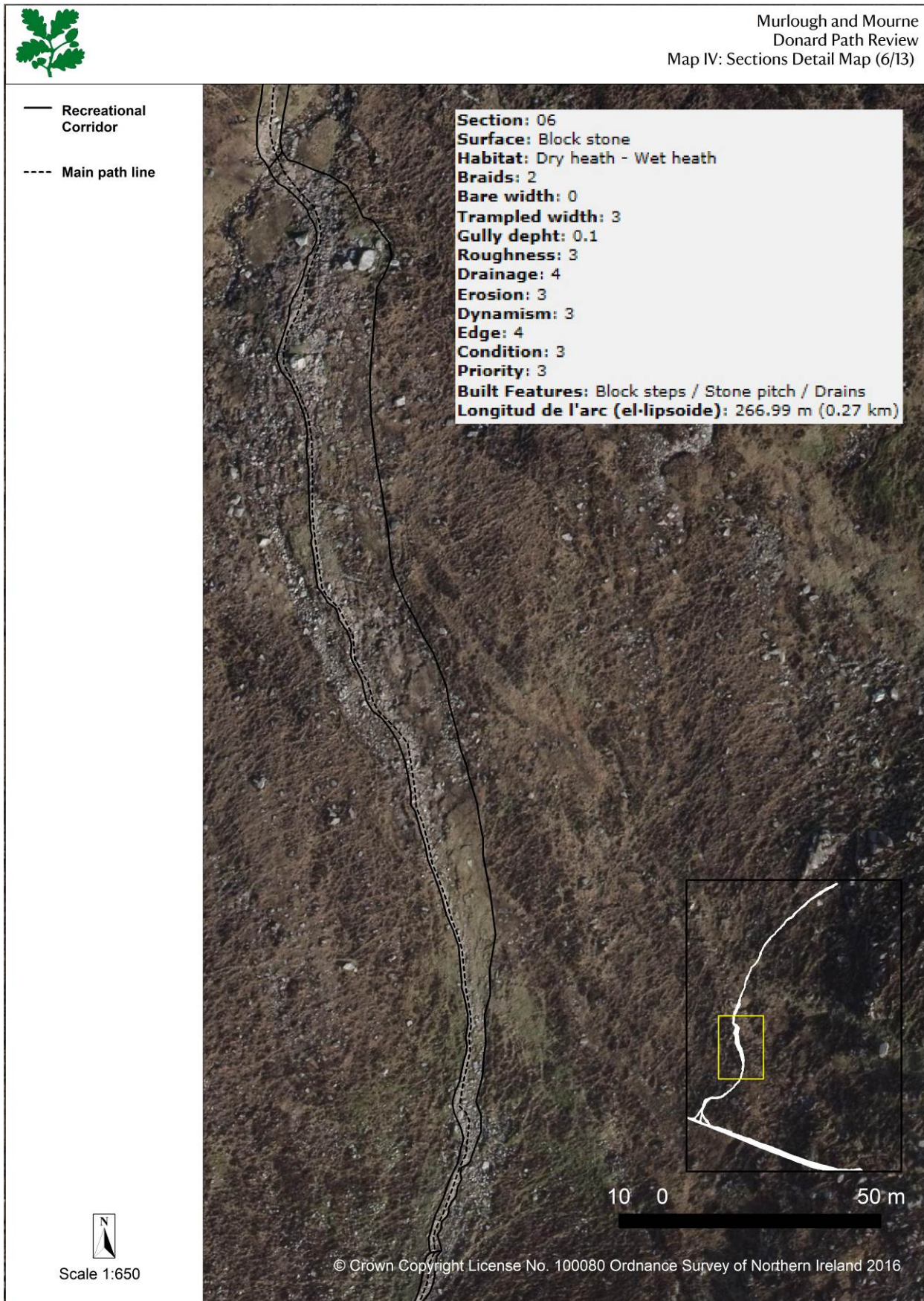


















Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (7/13)

Section: 07  
Surface: Block stone  
Habitat: Dry heath  
Braids: 2  
Bare width: 0  
Trampled width: 3  
Gully depth: 0.2  
Roughness: 4  
Drainage: 3  
Erosion: 4  
Dynamism: 3  
Edge: 4  
Condition: 3  
Priority: 3  
Built Features: Block steps / Stone pitch / Drains  
Longitud de l'arc (el-lipsoide): 91.45 m (0.09 km)

— Recreational Corridor  
--- Main path line

5 0 25 m

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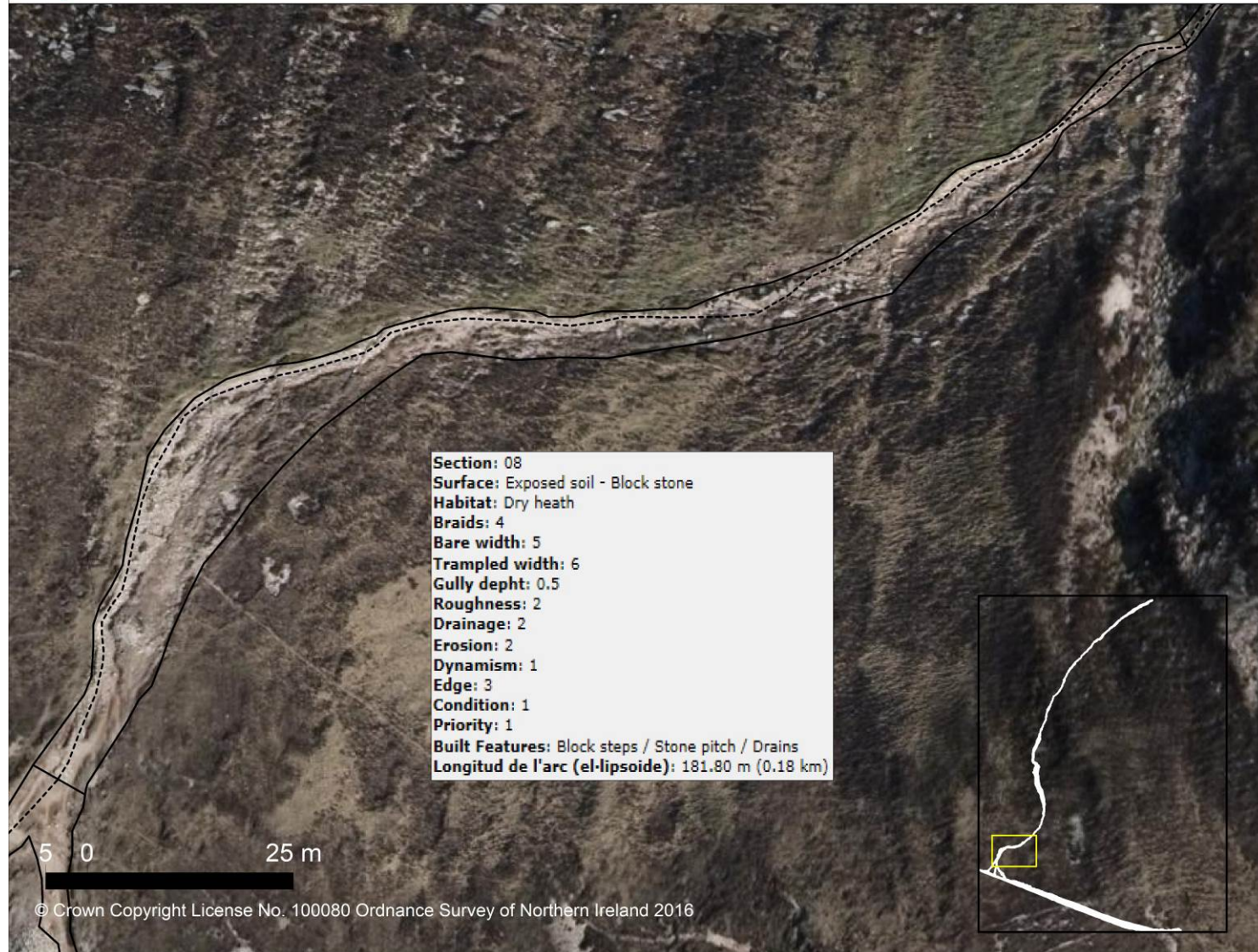


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Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (8/13)



— Recreational Corridor  
 ---- Main path line



Scale 1:500





Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (9/13)



— Recreational Corridor  
 ---- Main path line

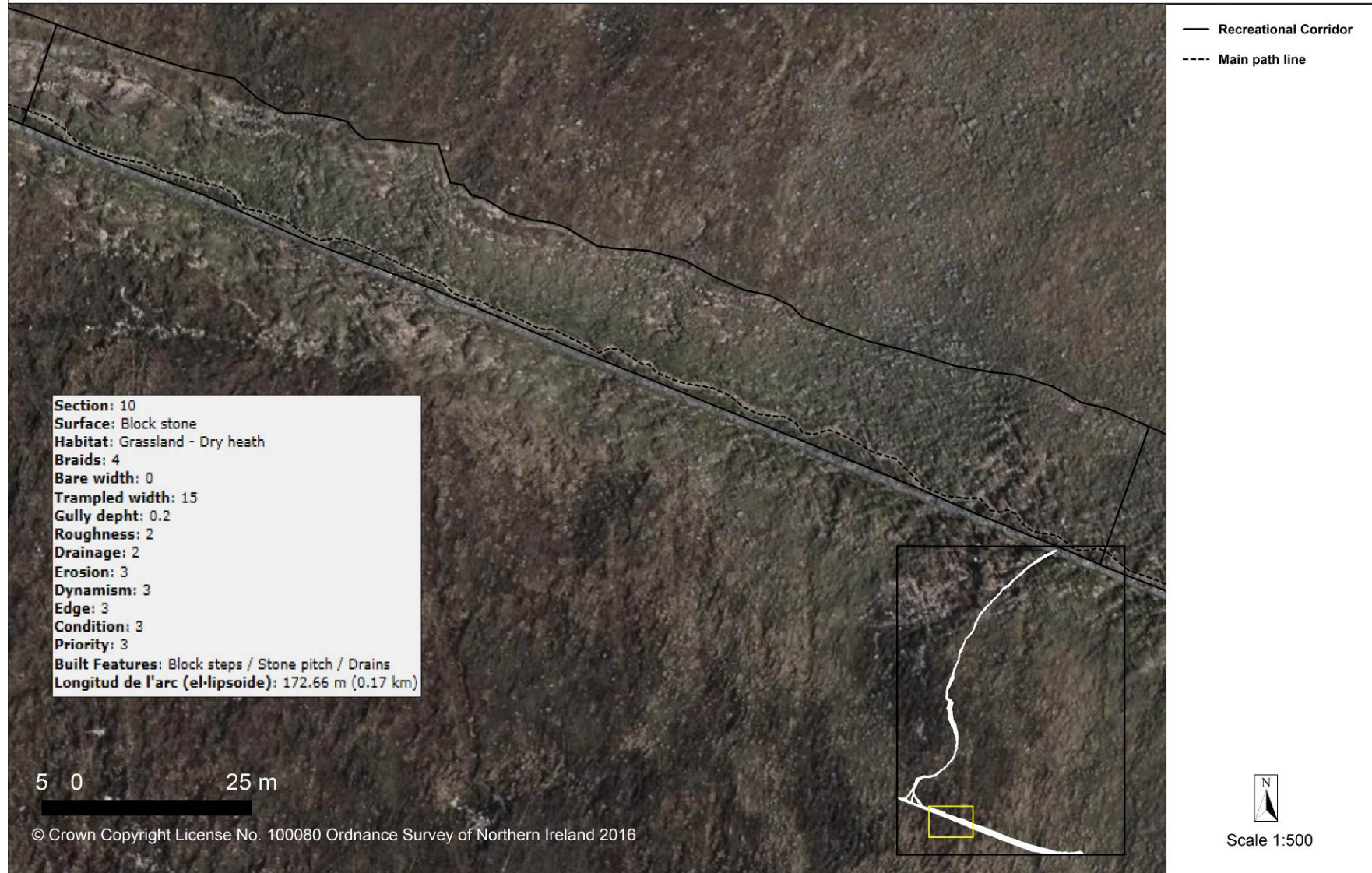


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Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (10/13)







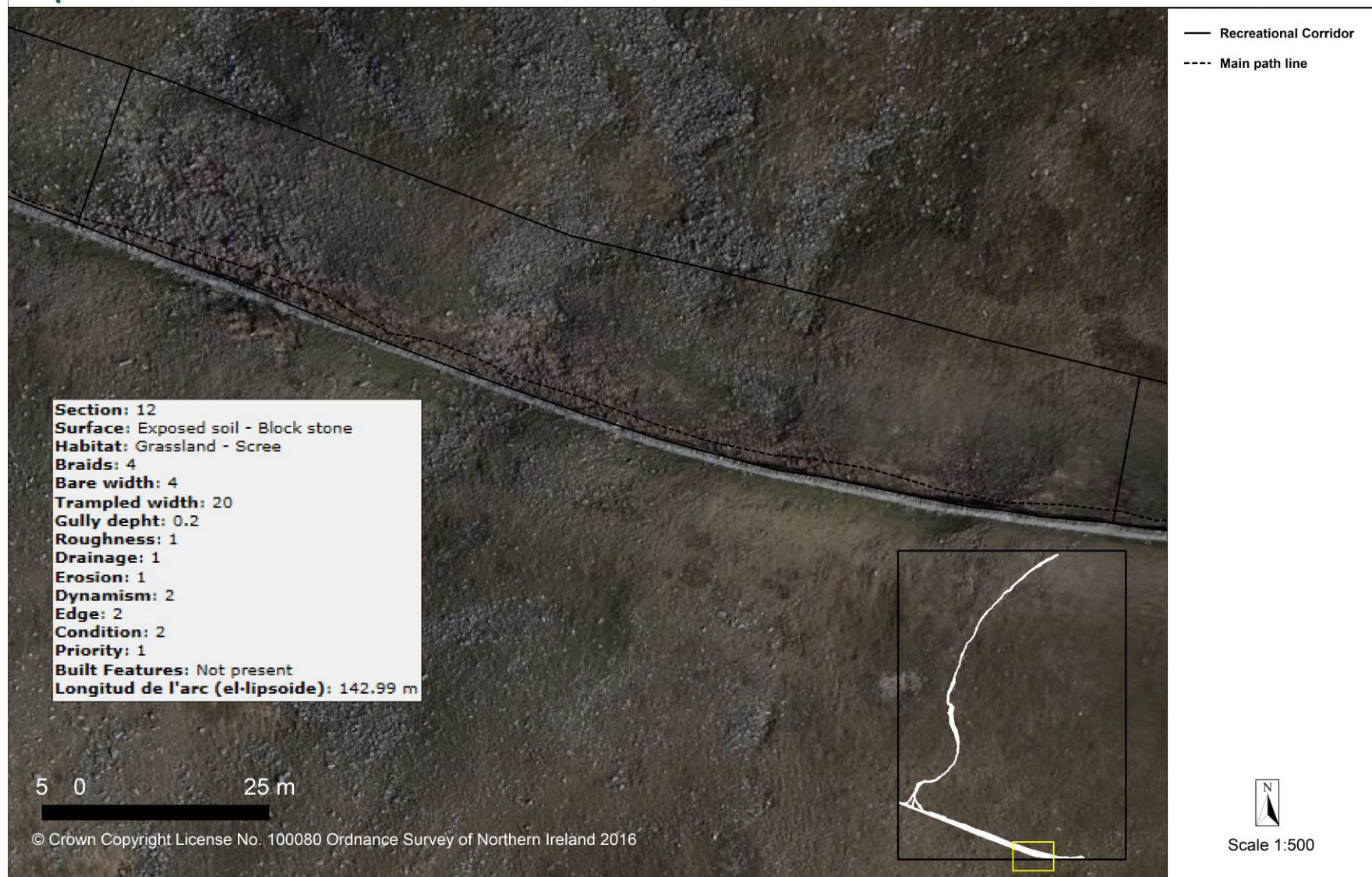
Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (11/13)







Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (12/13)







Murlough and Mourne  
Donard Path Review  
Map IV: Sections Detail Map (13/13)

