

27/07/2021

Forest Operations

Path Condition Assessment: Feb-Mar 2021



Introduction

Epping Forest has the management responsibility for 198 km of paths. 36 km of these paths are all-weather paths and have a hard surfacing of some form and the remainder of the paths have a natural surface. The Path Management: Planning and Development Note 2020 reviews the Forest path network in detail,

Visitor numbers across Epping Forest in 2020/21 were three to five times greater than the average year. The 162 km of natural surfaced paths have clearly suffered considerable adverse physical impacts due the high visitor use. In addition, this increased visitor use has seen many new paths created or previously low use desire paths become more intensely used leading to a widening of the path network and environmental damage to the Forest including increased compaction around the roots of many veteran trees. The wet weather of the winter of 2020/21 and the Spring of 2021 has further exacerbated the impact of the high visitor use.

During February and March 2012 Forest operations staff undertook a Red, Amber , Green (RAG) assessment of the condition of the managed path network across Epping Forest and the Buffer lands. The RAG assessment was based on the system used by the National Trust at Hatfield Forest with the RAG definitions as follows:

Red: - very poor, serious trampling impact, bare soil/mud, evidence of soil compaction, water retention on the surface, less than 25% vegetation cover down to zero vegetation present, serious damage and unlikely to recover.

Amber – poor, bare ground evident, between 25-75% of the path surface had no vegetation present.

Green – acceptable to good vegetation cover to the path, with over 75% vegetation cover.

Along each path three zones were RAG assessed, namely:

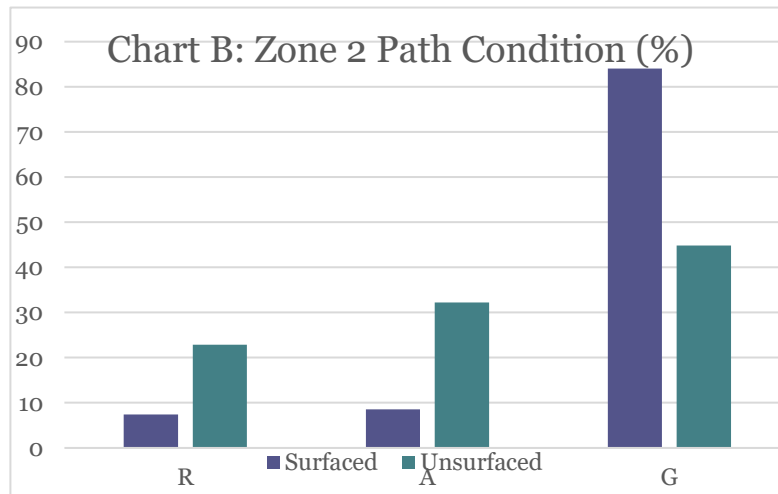
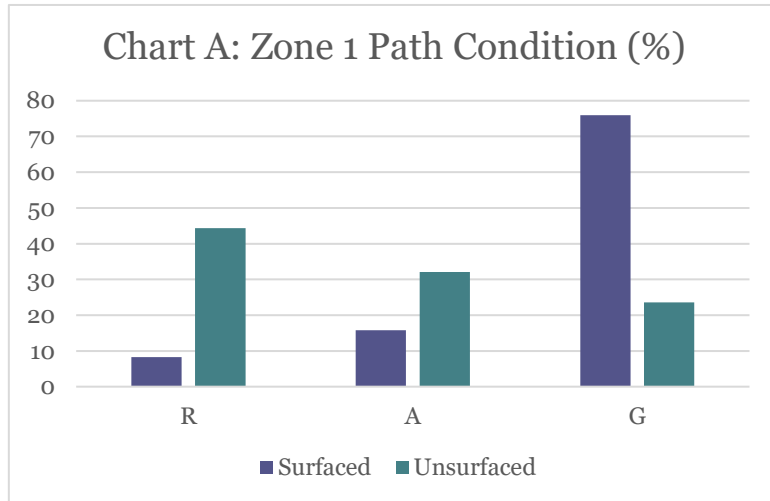
Zone 1 - the pathway which is typically up to 3m wide.

Zone 2 – path verge which is typically up to 4 from the path edge on both sides of the path.

Zone 3 – wider indeterminate accessible area beyond the immediate path verge of Zone 2.

Each path is numbered individually in each compartment and all the data was compiled on a spreadsheet for analysis with results given below. Overall, 172 km of Forest paths and 17 km of Buffer Land paths were surveyed. *The results following only cover the Forest paths with the Buffer Lands still to be processed*

Path Condition



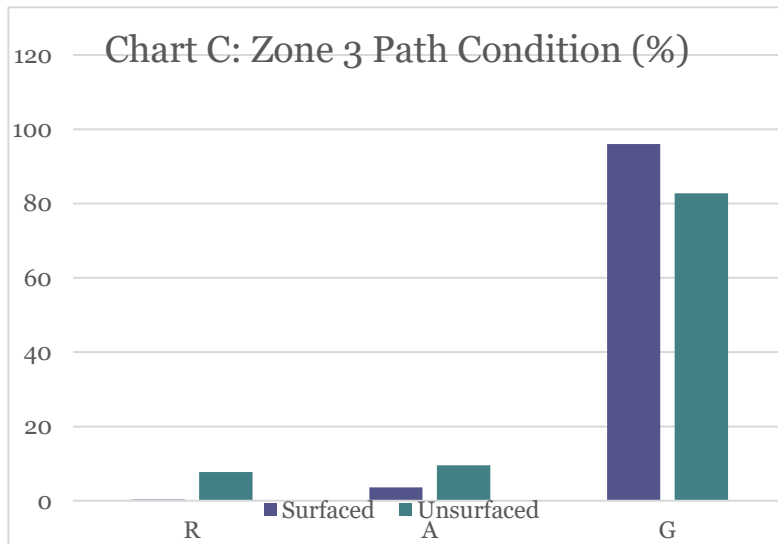
Charts A, B and C give RAG assessment for the three path zones. The length of path in each RAG category was converted to a percentage of the overall path distance assessed. Surfaced and unsurfaced path were summarised separately.

Zone 1: Pathway (Chart A)

8.2% of Zone 1 on surfaced paths was in the Red, or very poor category while for unsurfaced paths 44.4% of the paths were very poor. Overall, 24% of surfaced and 76% unsurfaced paths were either in the R or A categories in Zone 1.

Zone 2: Verge (Chart B)

7.4% of the Zone 2 on surfaced paths was in the Red category while for unsurfaced paths 22.9% of the verge were very poor. Overall, 16% of surfaced path verges and 55% of the unsurfaced path verges were in the R and A categories in Zone 2.



Zone 3: Wide verge area (Chart C)

There were effectively no surfaced paths with the wider verge zone in the R category however 9% of unsurfaced paths had their zone 3 in the R category. Overall, 4% of surfaced and 17% unsurfaced paths were either in the R or A categories in Zone 3.

It is clear that surfaced paths lead to a significant reduction in environmental damage to both the verge (Zone 2) and the wider verge area (Zone 3).

The unsurfaced path Zone 3 result is concerning as it shows that 17% (23.5 km) of these paths are experiencing a very wide area of environmental damage. The width of Zone 3 is widely variable however as a working figure of 5m width this represents an area of 23.6 ha of wider verge severely impacted.

At 75 km of Zone 2 unsurfaced paths in the R and A categories and a typical width of 4m this equates to an area of 60 ha severely impacted. In total permanent environmental damage to verges on unsurfaced paths is 83.5 ha. The equivalent figure for the surfaced paths is 9.7 ha. It is assumed the path surface (Zone1) is permanently 'damaged' in both path types.

Reducing the Environmental Impact of the 2020/21 Visitor Pressure Path Damage

In responding to the damaging environmental impact of the high visitor use on the Forest's path network two broad objectives have been identified:

- To reduce the visitor impact on zones 2 and 3, ie the verge areas
- To reduce the spread of visitors in high use areas to fewer paths able to cope with the use.

The 2020 Path Management PDN assesses each Forest and Buffer land compartment in terms of their visitor accessibility based on the BT Countryside for All criteria. Paths are then identified accordingly as Red+, Red, Amber and Green, with Red+ being the most important from a visitor access point of view and Green least so. Only Red + and Red paths have been considered when assessing the work required to reduce the impact and ongoing effects of the 2020/21 visitor pressure. This ensures a focus on the works most required in the areas most beneficial for users.

Overall, 59 paths (Appendix One) were identified from the high visitor access compartments as requiring works, out of 435 paths managed across the Forest representing a total length of 27,680 m or 14% of the total path network. Each path was assessed for the work required to reduce the environmental impact of the high visitor use and this fell into four activities:

- Surfacing of a path to provide a robust surface to ensure users do not impact path verges and to deter them from forming nearby desire lines
- Path works to repair damage and to improve the accessibility of paths to deter users from damaging path verges
 - Pothole repairs
 - Improvements to wet path sections to provide a dry pathway
 - Drainage works to promote a dry path surface

Table One summarises the work requirements identified for the high visitor use compartments. See Appendix One for the individual path details.

Table One: Summary works costs for path repairs

Works Required	Length (m)	Cost (£)
New surfacing of paths	4,510	270,600
Patching of damaged, worn and impassable path sections (Length of the paths concerned)	3,230	38,760
Repairs to potholes in surfaced paths. (Length of the paths concerned)	10,167	35,502
Improvements to drainage to improved accessibility of the path surface. (Length of the paths concerned)	20,941	32,502
	TOTAL	377,364

Conclusion

Following a path condition assessment completed in March 2021 110km of path verge was found to be in a poor to very poor environmental condition due to high visitor use over the COVID 19 pandemic period. This is the equivalent of 93.2 ha of Forest land.

The cost of providing 4,510 m of more robust permanent paths in high access area to make good the environmental impact of the visitor damage on the Forest is £270,600

To make good environmental damage to paths and to reduce users need to create new paths, repairs to 23,170 m of paths is required at a total cost of £106,764

Appendix One: Individual Path Details and Costs

Comp	Path No.	Ride Name	Length	Works Required	Surfacing	New Path	Pot holes	Patches	Drainage	Cost
9	G9-2	Honey Lane Plain	585	Zone1 and 2 R, Grass section ok. Hill very wet & boggy	Natural				1	£1,170
10	C10-1	Up and Down Ride	323	Ditches not functioning/blocked	All Weather				1	£646
11	C11-1b (C16-1)	Green Ride	1100	Ditches: Restricted flow: Overflowing	All Weather				1	£2,200
18	C18-1	Up and down Ride	956	Ditches not functioning/blocked	All Weather				1	£1,912
19	C19-3	Green Ride	1183	Ditches not functioning/blocked	All Weather				1	£2,366
19	C19-3	Green Ride	1183	Path surface: Occasional patches of the sub base exposed and verge drainage issues, rill erosion on path	All Weather		1		1	£9,464
21	C21-1b	Hill Wood	370	Ditches not functioning/blocked	All Weather				1	£740
21	C21-1a	Green Ride	798	Path surface issues: Potholes both under and over 40mm deep, Occasional patches of the sub base exposed, rill erosion on path	All Weather		1			£4,788
22	C22-4b	Almshouse Plain	69	Ditches not functioning/blocked	All Weather				1	£138
22	G22-7	Whitehouse Plain	467	Zone 1 and 2 R Very wet/compacted. Lots of horse prints despite no open riding?	Natural	1				£28,020
22	C22-4a	Almshouse Plain	686	Path surface issues: Potholes both under and over 40mm deep, Occasional patches of the sub base exposed, rill erosion on path. Ditches not functioning/blocked	All Weather		1			£4,116

22	C22-3c	Fairmead out to Epping New Road	183	Path surface: Potholes under 40mm deep, and verge drainage issues, rill erosion on path	Natural		1			£1,098
23	G23-2	Taylors Ride	804	Ditches not functioning/blocked	Natural				1	£1,608
23	C23-2a	Gas Ride	610	Ditches not functioning/blocked	Natural				1	£1,220
23	G23-3	Strawberry Hill Ponds	479	Ditches not functioning/blocked	All Weather				1	£958
23	C23-1	Strawberry Hill Ponds	271	Ditches not functioning/blocked	All Weather				1	£542
23	G23-1a	Lincolns Lane	276	Zone 1 and 2 R Very poor/wet/uneven/standing water	Natural				1	£552
23	G23-1b	Conservators Pond	494	Zone 1 and 2 R Very poor/wet/uneven/standing water	Natural				1	£988
24	C24-1a	Boundary Ride	510	Ditches not functioning/blocked	All Weather				1	£1,020
24	C24-5a	Grimston's Oak Ride	564	Ditches not functioning/blocked	All Weather				1	£1,128
24	C24-1b	Boundary Ride	621	Path surface: Potholes both under and over 40mm deep rill erosion on path	All Weather		1		1	£4,968
24	C24-6	Green ride	865	Path surface: Potholes both under 40mm deep, rill erosion on path and requent exposure of sub base	All Weather		1		1	£6,920
25	R25-1a	Bury Road Path	170	Zone 1 and 2 R Badly flooded in places	Natural				1	£340
26	G26-3a	Chingford Plain	720	Ditches: Restricted flow: Overflowing	Natural				1	£1,440
26	G26-1a	Chingford Plain	635	Path surfacing	Natural	1				£38,100
26	S26-4	Dannets Hill		Path surfacing	Natural	1				£0
26	C26-6	Bury Wood	202	Zone 1 and 2 R Very wet and high use	Natural					£0

26	G26-1b	Chingford Plain	620	Zone 1 and 2 R Very bad, multiple paths to avoid flooding	Natural					£0
26	G26-4a	Chingford Plain	338	Zone 1 and 2 R	Natural	1				£20,280
26	G26-4b	Dannet's Hill	355	Zone 1 and 2 R Heavy compaction /flooding damage	Natural	1				£21,300
26	R26-3	Dannet's Hill	180	Zone 1 and 2 R Heavy compaction /flooding damage	Natural	1				£10,800
27	R27-2	Connaght Waters Path	938	Path surface: Potholes under 40mm deep, and verge drainage issues, rill erosion on path	All Weather		1		1	£7,504
28	W28-1	Powells Forest	416	Ditches not functioning/blocked	All Weather				1	£832
29	G29-9a	Warren Wood	242	Ditches not functioning/blocked	Natural				1	£484
29	A29-10	Barn Hoppitt	450	Ditches not functioning/blocked	Natural				1	£900
29	G29-2	Barn Hoppitt	650	Ditches not functioning/blocked	Natural				1	£1,300
29	G29-4a	Whitehall Plain	400	Ditches not functioning/blocked	Natural				1	£800
29	G29-4b	Whitehall Plain	50	Ditches not functioning/blocked	Natural				1	£100
29	G29-3	Barn Hoppit	370	Ditches not functioning/blocked	Natural	1				£22,200
29	G29-1	Tuttlebee Lane	100	Ditches not functioning/blocked	Natural				1	£200
29	G29-5		209	Ditches not functioning/blocked	Natural				1	£418
29	G29-9b	Warren Wood Slopes	440	Ditches: Restricted flow: Overflowing	Natural				1	£880
29	G29-6	Whitehall Plain	400	Zone 1 and 2 R Very wet grass, multi desire lines to avoid poor conditions	Natural	1				£24,000

30	C30-6	Hatch Forest	370	Zone 1 and 2 R Recently opened up, very wet and muddy, overall poor condition	Natural	1				£22,200
30	A30-15a	Hatch Forest	720	Zone 1 and 2 R Recently opened up, very wet and muddy, overall poor condition	Natural	1				£43,200
30	A30-15f	Hatch Forest	450	Zone 1 and 2 R Generally poor condition, very wet sections	Natural			1		£5,400
30	A30-15c	Hatch Plain	250	Zone 1 and 2 R	Natural			1		£3,000
30	A30-15b	The Lops	200	Zone 1 and 2 R	Natural	1				£12,000
31	C31-1	Lords bushes	643	Path surface: Potholes over 40mm deep, frequent exposure of sub base and verge drainage issue, rill erosion on path	All Weather		1		1	£5,144
32	G32-4	Lords Bushes	500	Zone 1 and 2 R	Natural			1		£6,000
32	G32-1	Lords Bushes	255	Zone 1 and 2 R	Natural			1		£3,060
34	G34-5a	Walthamstow Forest	450	Zone 1 and 2 R	Natural			1		£5,400
34	G34-3c	Walthamstow Forest	350	Zone 1 and 2 R	Natural			1		£4,200
36	G36-1c	Leyton Flats	260	Zone 1 and 2 R	Natural					£0
37	A37-5a	Wanstead Park	475	Zone 1 and 2 R	Natural	1				£28,500
38	R38-7a	Bush Wood	200	Zone 1 and 2 R	Natural					£0
38	A38-19a	Bush Wood	400	Zone 1 and 2 R	Natural			1		£4,800
38	R38-7b	Bush Wood	300	Zone 1 and 2 R	Natural					£0
38	A38-20a	Bush Wood	300	Zone 1 and 2 R	Natural			1		£3,600

38	W38-1	Bush Wood	275	Zone 1 and 2 R	Natural			1		£3,300
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Appendix two: Path works location maps

