



West Berkshire Council

Defect Management Review





West Berkshire Council

Defect Management Review

Type of document (version) Confidential

Project no. 70081824

Date: November 2023

WSP

Level 2

100 Wharfside Street

Birmingham




B1 1RT

Phone: +44 121 352 4700

WSP.com



Quality control

Issue/revision	First issue	Revision 1
Remarks		
Date	16 th Nov 2023	
Prepared by	M Lewis	
Signature		
Checked by	S Grindley	
Signature		
Authorised by	M Lugg	
Signature		
Project number	70081824	
Report number	001	
File reference	70081824	



Contents

	Executive Summary	1
	Recommendations	2
1	Overview	3
2	Context	4
2.1	Industry Best Practice Guidance	4
2.2	West Berkshire Approach	4
	Existing Practices Within West Berkshire Council	4
	The Highway Safety Inspection Procedure	4
	Defect and Enquiry Demand	4
	Right First Time	4
	Delivering Repairs	4
	Claims Data	4
	Communication	4
3	Industry Best Practice Guidance	5
4	West Berkshire Approach	6
4.1	Road Condition in West Berkshire	6
	Reported Road Condition	6
	Vaisala Road AI	7
4.2	Comparison with Neighbouring Authorities	8
4.3	The Highway Safety Inspection Procedure and Investigatory Levels	9
4.4	Defect and Enquiry Demand	11
4.5	Right First Time	12
4.6	Delivering Repairs	13
4.7	Claims Data	14
4.8	Communication	15
	Appendix 1 – Defect Data Analysis	16
	Appendix 2 – Member Presentation	20

Executive Summary

WSP have been commissioned to undertake a review of the way that West Berkshire Council undertakes carriageway defect management across the highway network. This followed the formation of a new administration who made commitments around the management of highway defects as part of their election manifesto.

The review considered a number of aspects of highway defect management and focussed on the following topics:

- Current best practice across the highway industry.
- Existing practices in West Berkshire Council.
- Existing West Berkshire Council Inspection Procedure.
- Explore the definition of 'right first time'.
- Information from claims made against West Berkshire Council.
- Establish how defects are considered as part of the wider highway infrastructure asset management system.

In developing the review, it became clear that the road condition in West Berkshire is in generally good condition, however an escalation in defects, both identified as enquiries to the service and being recorded as defects by inspectors had escalated. Alongside this there was a significant increase in the volume of claims being received by the service.

To understand a possible reason for this increase, the Highway Safety Inspection Procedure was reviewed, and it was noted that West Berkshire has a less onerous investigatory level than their neighbours. This may be contributing to a negative customer perception as road users believe that defects are severe enough to be repaired, but as the investigatory level is not reached. This is also partially evidenced by the fact that around half of the enquiries received were resulted in 'no further action'. The general review of the Highway Safety Inspection Procedure found it to be out of date and would benefit from a complete review.

The review established that the highway service operates a consistently high standard of repair, with a process to revisit the repairs that have been temporarily repaired with permanent repairs. However, this process is not particularly well defined and would benefit from being more clearly linked to the defect management system. As a result, these details could be communicated to assist in describing the service's performance.

As mentioned above, a point that could be improved is the general communication of current operating practices.

Recommendations

During the development of this review a number of recommendations were identified, these are set out as follows:

No.	Recommendation
1	Utilise Vaisala Road AI to establish not only condition bands but inform on potential future issues on the network and establish if it is feasible to deliver preventative interventions.
2	A review of the network hierarchy in order to ensure that the current inspection regime and wider asset management decisions are applied appropriately to the network and changes are captured.
3	Update the Highway Inspection Procedure to more reflect the guidance in Well Managed Highway Infrastructure: A Code of Practice. This will include a review of the Investigatory Levels set out in the documents.
4	Review the current defect response times across all defect types to ensure that the balance of keeping the network safe and that the delivery of repairs and interventions occur in an efficient and effect manner.
5	Explore the development of a method to link the follow up permanent repairs with initial temporary repairs.
6	Review the current repair methods and materials delivered on the network with a view to trialling and adopting a wider, more flexible suite of repair options.
7	Adopt the updated Highways Communication Plan and ensure its implementation to keep stakeholders informed of highways operations. This will include improved information and engagement for Councillors, the wider use of video and other direct communication channels and greater listening and feedback from the service.

Table 1: Table of Recommendations

1 Overview

West Berkshire Council as highway authority are responsible for the identification and repair of defects on the Council’s highway network to ensure that it remains safe for highway users and meet their duties to maintain the highway under the Highways Act (1980).

Following the local elections in May 2023 there was a change in leadership at the Council and a new administration formed. The pre-election manifesto, “A Fresh Start for West Berkshire” set out a number of commitments specifically relating to the condition of West Berkshires highway network. These were

- Maintaining the road network in good condition.
- Fixing potholes first time and dangerous ones within 72 hours. Enabling the reporting of potholes via a West Berkshire mobile app.
- Supporting building a bridge over the railway line in Thatcham.
- Establishing an out-of-hours traffic management response service.

To assist West Berkshire Council in the development of their approach to the management of these kinds of defects WSP have been requested to provide advice regarding the identification of highway defects and their repair. The development of this advice focusses on highway defect management processes to assist West Berkshire Council address the manifesto pledges relating to improving the way in which carriageway related defects are responded to.

This report summarises the activities undertaken to develop the recommendations which are designed to assist West Berkshire Council in delivering the service in a way which delivers the commitments of the new administration.



2 Context

In order to develop appropriate recommendations to improve the defect management process WSP have identified activities which have informed the development of the review's recommendations. These are:

2.1 Industry Best Practice Guidance

The current best practice is set out in Well Managed Highway Infrastructure, a Code of Practice (WMHI). This includes comparisons with surrounding and similar local authorities to understand how the delivery of this part of the service.

2.2 West Berkshire Approach

Existing Practices Within West Berkshire Council

An important part of the review will be based on understanding the current process for defect identification and reporting and the setting and delivery of response times and prioritisation. The delivery of repairs will also need to be understood, for example the material selection or specification, programming considerations and operational delivery. Finally, an important component is how quality is controlled.

The Highway Safety Inspection Procedure

The review of the document takes into account the requirements of the Well Managed Highway Infrastructure: A Code of Practice (WMHI) and will consider information obtained from other activities to inform the review.

Defect and Enquiry Demand

Review defects and enquiries over the last 3 years to understand trends and demands.

Right First Time

Explore the definition of "Right-first time" in the context of defect repairs. This will consider the residual service life of pavements and current repair methods.

Delivering Repairs

Establishing how defects inform the programme for planned maintenance is also part of the methodology. WMHI sets out a number of recommendations relating to how highway authorities should approach safety defect identification and repair, and how this approach is intertwined with the Council's approach to highway infrastructure asset management.

Claims Data

Review the submitted claims over the last 5 years. This will inform understanding about the performance of the highway safety inspection process and the demand being experienced by this part of the service.

Communication

Examine current channels of communication.

3 Industry Best Practice Guidance

As a Highway Authority West Berkshire Council has to fulfil a number of statutory duties, many of which are contained in the Highways Act, 1980. In addition, a number of other Acts impose duties and give additional powers and duties relating to the management of highways.

The publication of Well Managed Highway Infrastructure: A Code of Practice (WMHI) sets the principle that the maintenance and management of highway networks should follow an approach based on risk. Some of the principles which support the adoption of this kind of approach are addressed under other parts of this review, notably the principle of network hierarchy, however specific aspects related to the risk-based approach have been noted as part of this review.

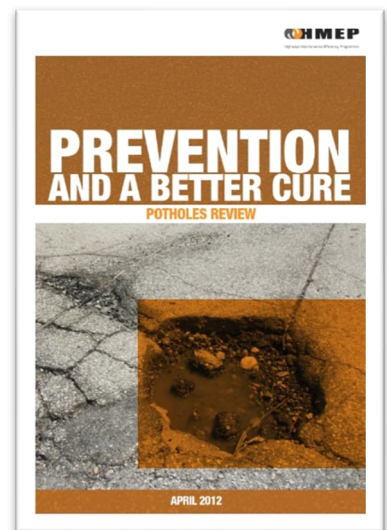
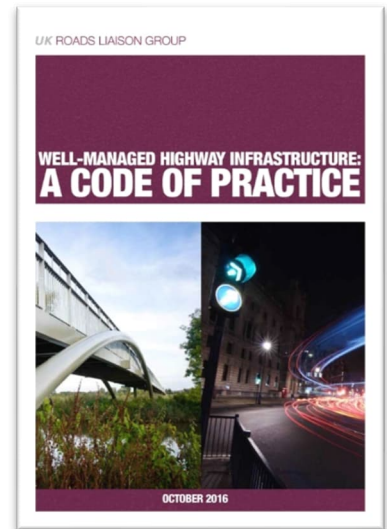
One of the overarching philosophies in WMHI is the principle of adopting a 'right first time' approach to delivering maintenance, as set out in the 2012 Potholes Review, Prevention and a Better Cure. The adoption of this principle not only reduces future maintenance need, reduces disruption to the travelling public, contributes to better perception of the service but also ensures that future risk is, as far as practicable, reduced.

This is in response to a national recognition that it is difficult for Local Highway Authorities to align their performance with the current or historic standards for highway safety inspection and repair as established in Codes of Practice. This is largely due the escalation in the demand as a consequence of a degrading national road network, a demand that will become increasingly unaffordable unless authorities can properly adopt asset management techniques and be allowed to invest the funds that they have available for highway maintenance in preventative repair techniques wherever possible.

To achieve this, the approach to the categorisation of highway defects should be developed using a risk-based approach which takes account of the likelihood and impact of injury or damage that would result from a highway user encountering that defect. The response times to highways defects can then be developed using a risk-based approach which takes into account the changes in likelihood of a defect actually being encountered on different hierarchy roads. The impact of this change allows the consideration of longer response times on infrequently used parts of the highway network, this with the expectation that the defect would be permanently repaired. The shift of resources to a preventative maintenance strategy will also see fewer potholes develop as more roads receive a surface treatment.

WMHI is guidance which supports legislation found in The Highways Act 1980. The two sections of this Act which are most relevant when considering a risk-based approach to response times to highway defects, they are Section 41 and Section 58.

- **Section 41** places an absolute duty on highways authorities and so gives no scope for interpretation in terms of a risk-based approach.
- **Section 58** is the special defence and is important when developing a risk-based approach to response times because it introduces the concept that it is a defence *"to prove that the authority had taken such care as in all the circumstances was reasonably required to secure that the part of the highway to which the action relates was not dangerous for traffic"*.



4 West Berkshire Approach

This review evaluated the current practices of West Berkshire Council for defect identification and reporting, response times, defect prioritisation, material selection and specification, programming (access to the network and road space booking), operational delivery and quality of repair.

This section summarises the key aspects of the assessments made in the development of the recommendations.

4.1 Road Condition in West Berkshire

A central component of this review is analysis of the data which is collected by West Berkshire Council relating to the overall condition of its carriageways. Specific road condition data from both the annual Surface Condition Assessment for the National Network of Roads (SCANNER) survey and the ongoing Vaisala Road AI trial have been reviewed to assist in the development of this review.

Reported Road Condition

West Berkshire reports its road condition to the DfT annually from its condition survey regime. The current trends for the road network are set out in the charts below:

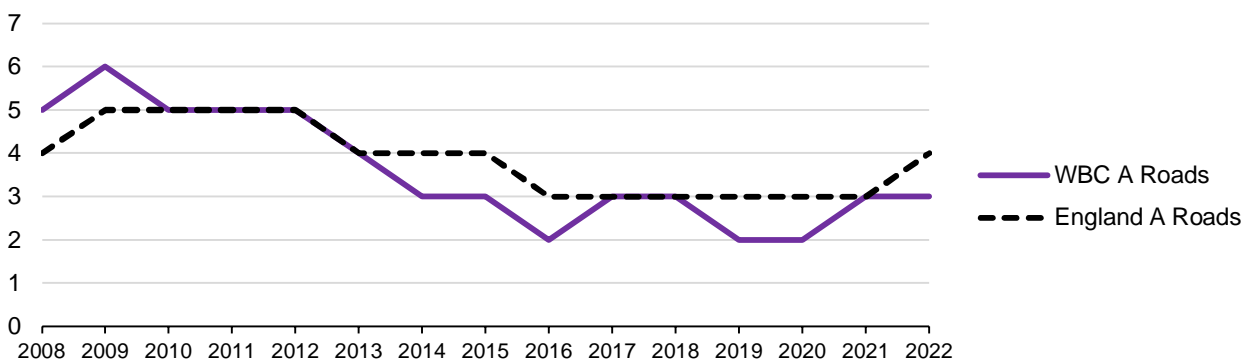


Figure 1: WBC A Roads 'Where Maintenance Should Be Considered'

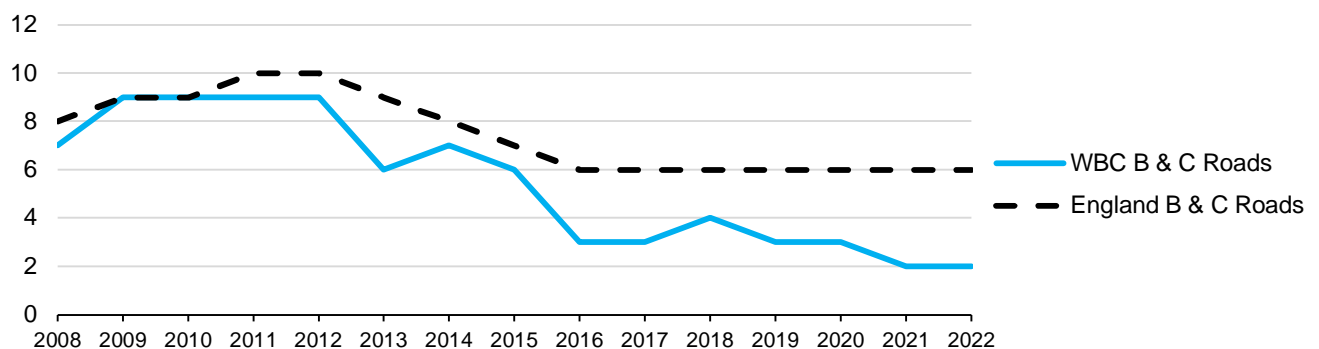


Figure 2: WBC B and C Roads 'Where Maintenance Should Be Considered'

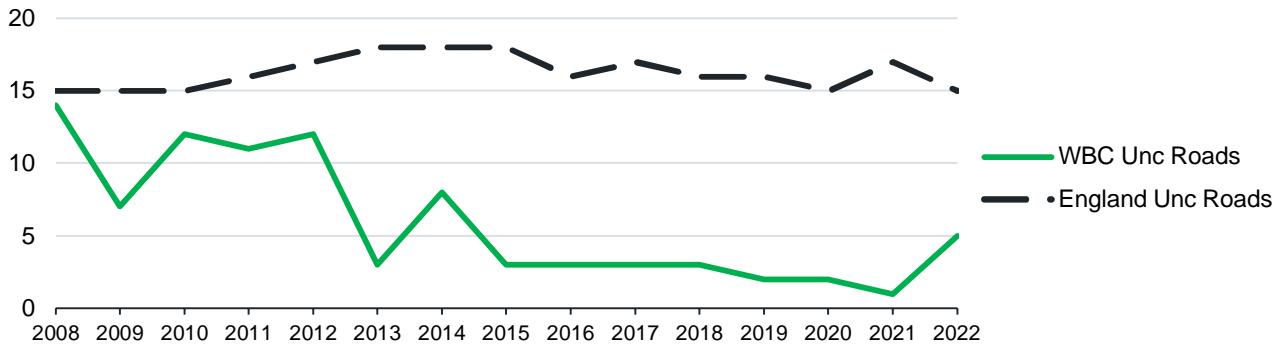


Figure 3: WBC Unclassified Roads 'Where Maintenance Should Be Considered'

These charts set out that the measured road condition in West Berkshire is consistently better than the national averages in England. This, compared to the defect numbers experienced on the network assist in concluding that the road network in West Berkshire is generally in good condition.

More detailed analysis can be found in Appendix 1.

Vaisala Road AI

During 2023 West Berkshire Council began a trial of Vaisala Road AI to conduct video surveys across the road network. This tool can identify a range of defects in the surface of carriageways and the overall condition of the network. This is done by the artificial intelligence component of the system which analyses the defects found.

The tool enables individual defects such as potholes, cracking or fretting to be identified, the presence of these defects contributes to a score for deterioration across the width of the carriageway. West Berkshire Council are currently evaluating the way in which this tool can be deployed to improve a range of asset management activities.

The trial of the video survey is ongoing, to date 52% (687 km) of the network has been surveyed. The results of this survey are summarised in the table below:

Band	Length (km)	%	Condition Band
Band 1	46.561	3.5%	Poor Condition
Band 2	32.721	2.5%	Defects Present
Band 3	60.852	4.6%	Serviceable
Band 4	130.409	9.9%	Generally Good Condition
Band 5	416.780	31.7%	Good to Excellent Condition
Not Yet Surveyed	523.408	39.8%	No Data Available
Total Network Length	1314.83		

Table 2: Vaisala Road AI Condition Bands for the West Berkshire Highway Network

As more data is available this information will be complementary to the other data held on the highway network.

In addition to the overall condition bands, it is possible to extract information on individual defect types. So far in 2023 there has been 3235 carriageway related enquiries, from the public and highway inspectors have raised 2586 defects. However, the Vaisala Road AI data is indicating that there are severe potholes on in excess of 4,500 10m sections which have been surveyed. These have been identified as part of the artificial intelligence processing of the survey video. Whilst the system lacks the capability of measuring the

depth of these defects, this does highlight that there are a significant number of defects which are likely to deteriorate and therefore contribute to future demand alongside diminished customer perception.

Recommendation 1

Utilise Vaisala Road AI to establish not only condition bands but inform on potential future issues on the network and establish if it is feasible to deliver preventative interventions.

4.2 Comparison with Neighbouring Authorities

A large number of the population of West Berkshire will be users of road networks which are in neighbouring authorities. Linked to this WMHI sets out recommendation 5 to develop consistency with other authorities to ensure that users of a route do not experience significant changes in levels of service as they cross boundaries.

To support the understanding of the defect profile, data from two other 'shire' authorities were compared. The data was distilled into a defect rate per km to 'normalise' the differences in network length. These authorities did experience a more significant peak at the same time as the escalation was noted in West Berkshire. However, the previous year's data show previous trends which would indicate that the 2022/23 peak was not exceptional. This is set out in the chart below.

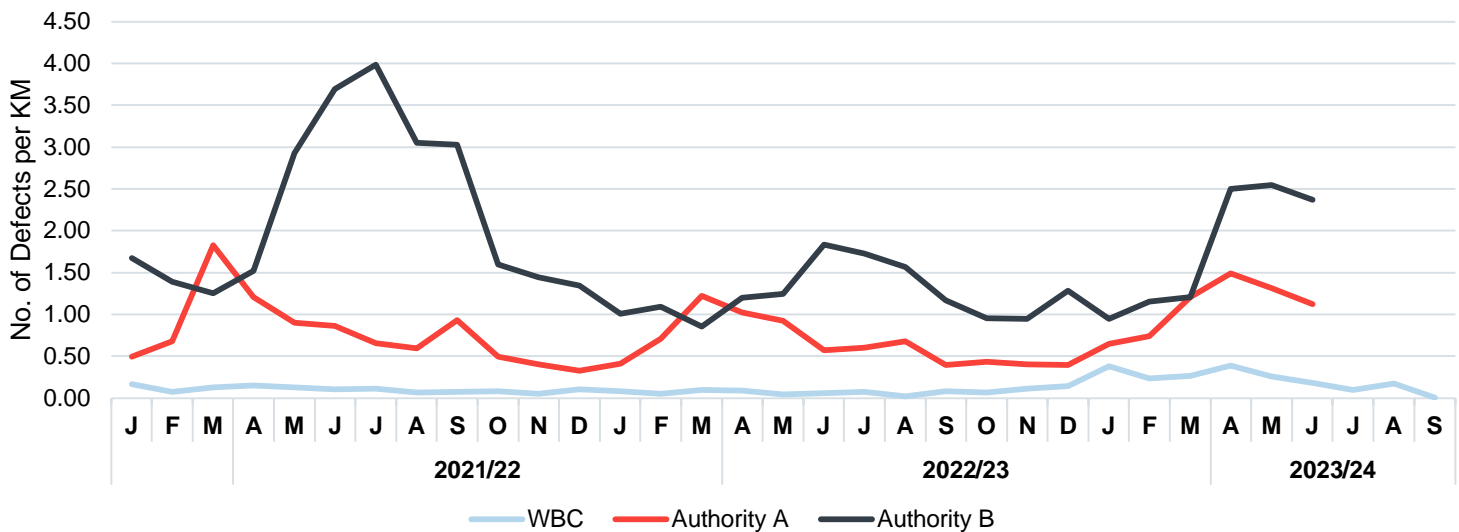


Figure 4: Emergency, Total Defect and Total Enquiry Demand

It should be noted that the volume of defect per km in West Berkshire are significantly less than the values in both Authority A and B. This would tend to suggest that the overall road condition across all part of the network is better in West Berkshire than in the comparison authorities.

4.3 The Highway Safety Inspection Procedure and Investigatory Levels

The current adopted document, Highway Safety Inspection Procedure is dated 2017. We understand that plans have been in place for several years to revise and update this document, a draft was developed in 2020 which has not yet been agreed. It is noted that the 2017 policy has numerous references to intervention level which may be an indicator the policy is founded on the previously adopted code of practice, Well Maintained Highways.

A key component of the development of policy designed to manage the safety of the highway network on a day-to-day basis is the alignment of the highway safety inspection document to the corporate objectives of West Berkshire Council. This ensures that the highway service can demonstrate a focus on both the meeting of the statutory duty of the authority and its current corporate objectives. The current policy does not include a 'line of sight' through the hierarchy of documents that guide the highway service, and this should be considered in a revision of the Highway Safety Inspection Procedure.

The inspection frequencies are founded on network hierarchy. This is set out for the carriageway and footway networks, but the network hierarchy is missing for the cycleway network. However, there is bespoke inspection frequency for cycleways so it may be an omission. The hierarchy appears derived from the example in WMHI but does not consider nuances of West Berkshire's highway network. Additionally, the network hierarchy should be reviewed to ensure that changes in the highway network through developments, transport strategy schemes and other improvement works are reflected.

Recommendation 2

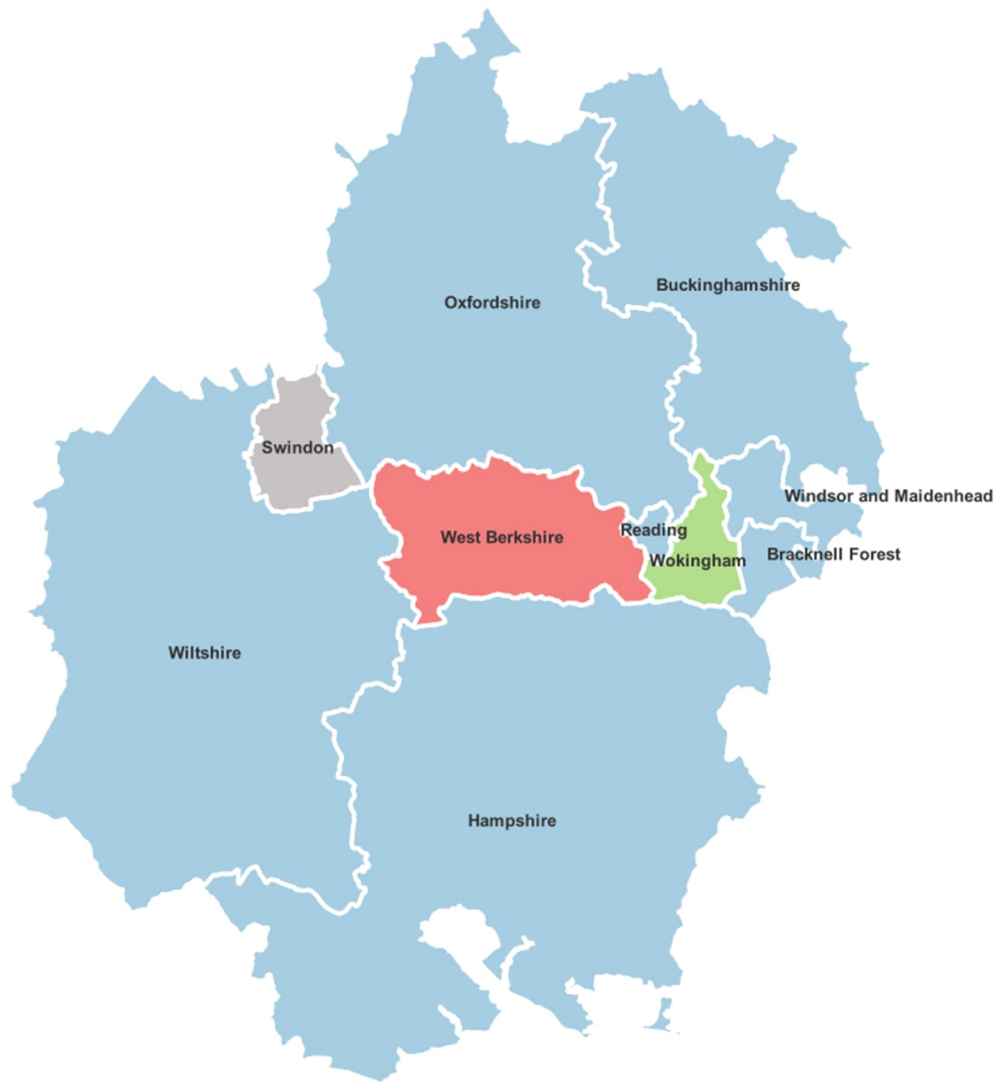
A review of the network hierarchy in order to ensure that the current inspection regime and wider asset management decisions are applied appropriately to the network and changes are captured.

There is reference in the current Highway Safety Inspection Procedure to the way that enquiries from members of the public and other stakeholders are managed, however this refers to Appendix A which sets out the parameters for what is considered a defect. It is not made clear how the reports will be processed and what is an acceptable time period for the inspection team to review the report to risk assess the defect. This may be partially included within Section 7.2, Reactive Inspections, but this is not clear.

Section 8 of the Highway Safety Inspection Procedure sets out the items which are inspected through reference to Appendix A. There are some items which appear to be omitted. For example, reference is made to damaged drainage features, but ponding is not addressed. There is no 'catch all' for highway inspectors to rely upon when occasional defects fall into the grey area between the definitions.

Appendix A of Highway Safety Inspection Procedure sets out the approach to developing Investigatory Levels for commonly found defects on the highway network. It is not clear how these have been established and how usage by all users has been considered in the development of these Investigatory Levels. This is a particularly important factor in establishing the attractiveness of active travel measures, particularly cycling as part of the local authority's objective to drive modal shift from private motor vehicles to more sustainable options. It is also a key consideration in the development of a risk-based approach.

The diagram below colour codes the neighbouring authorities by their currently established Investigatory Levels for carriageway pothole defects.



Investigatory Level Depth	
	50mm
	40mm
	30mm
	Dimensionless Approach

Figure 5: Neighbouring Authorities Investigatory Levels for Pothole Defects

Recommendation 3

Update the Highway Inspection Procedure to more reflect the guidance in Well Managed Highway Infrastructure: A Code of Practice. This will include a review of the Investigatory Levels set out in the documents.

Appendix A of the Highway Safety Inspection Procedure sets out the response times for dealing with defects found on the network. This is established via a risk matrix which appears to make a rigid assessment which essentially removes probability from the individual assessment of the defect, with probability being established based on the position of the route in the network hierarchy. This both requires an up-to-date application which is accurate to the usage of the route, this may be more challenging to establish in the lower rungs of the network hierarchy.

Response times to these defects fall into four categories, with two of those fitting into an ‘emergency’ designation which require response in either 2 or 24 hours. Beyond these the remaining two categories are 28 days or then fitted into a forward programme for future consideration. The current defect profile would benefit from review to ensure that another step after 28 days may be appropriate, particularly for those defects such as lining which may benefit from the additional time period to allow for more efficient programming.

Recommendation 4

Review the current defect response times across all defect types to ensure that the balance of keeping the network safe and that the delivery of repairs and interventions occur in an efficient and effect manner.

Finally, the Highway Safety Inspection Procedure does not manage expectation around defect rectification. There would be merit in considering how the principle of ‘right first time’ may be employed on the commonly identified defects. This may consider residual service life, the challenges of working on some parts of the network due to disruption and the process for following on temporary repairs with permanent repairs.

4.4 Defect and Enquiry Demand

During September 2022 there was a significant upgrade delivered to the system which undertakes defect management. The data developed since this upgrade is more detailed and allows more analysis.

There is a clear increase in demand in West Berkshire across the early 2023 winter period. This peak has been significantly greater than other recent winter periods and has extended further into the spring period. Whilst this is likely in part due to a shift to a more accurate method of recording defects, the accompanying enquiry demand indicates that road users across West Berkshire are reporting more defects than in previous years.

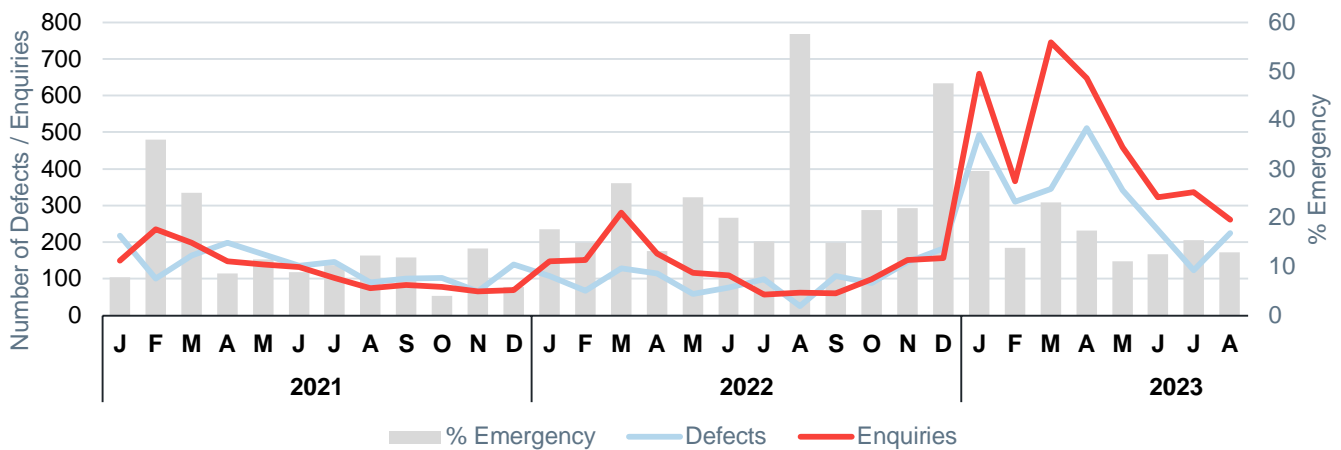


Figure 6: Emergency, Total Defect and Total Enquiry Demand

Circa 50% of the total numbers of enquiries received since the upgrade of the system were resulted as ‘No Further Action’ and this is likely partially linked to the Investigatory Level not being reached.

4.5 Right First Time

Whilst this topic is touched upon in the section which evaluates the current Highway Safety Inspection Manual this is a key part of the manifesto commitment and therefore has been the subject of specific review.

There is guidance on the methods of pothole repair for the industry, most notably:

- HMEP Pothole Review 2012 – Prevention and a better cure
- ADEPT Potholes - A Repair Guide
- TRL Road Note 44

These documents set out a range of options and propose service lives for various types of repairs. What is clear from these documents is that a 'prevention is better than cure' approach is favourable and to deliver these timely interventions are required.

The aspiration of local authorities is to maximise the proportion of right first-time repairs. But often there are factors that make doing a right first-time repair difficult, severe weather events can often lead to a significant number of rapidly appearing road defects which can mean that permanent repairs are simply not achievable.

As a highway authority West Berkshire has a duty to keep the network safe and to maintain safety it's often necessary and generally appropriate to do temporary repairs and then follow these up with a permanent repair. Keeping the network safe with temporary repairs as a short stop solution reduces the authority's liability and risk for claims.

The highway service in West Berkshire does follow on temporary repairs with a permanent solution. There is not currently a link that can be tracked in the defect management system but formalising these links should be explored to allow the conversion of temporary repairs to permanent solutions to be tracked.

Recommendation 5

Explore the development of a method to link the follow up permanent repairs with initial temporary repairs.

4.6 Delivering Repairs

To deliver 'right first time' permanent repairs, programming and planning are essential, there is a need to consider what else is happening on the network, coordination is vital as disruption to the network, however necessary, is detrimental to the residents' experience of travelling around the district. Thorough planning ensures that the workforce is protected, pothole repairs may require temporary traffic orders to be in place for road / lane closures or traffic signals before works can commence on site.

Whilst there isn't an industry standard or specification for the repair of potholes, the advice contained within the ADEPT document Potholes – A Repair Guide, may be adopted as good practice. The table below extracted from this document sets out some of the treatments that can be deployed to repair potholes.

What to use (i.e., treatment)	Where to use (i.e., location – rural / urban and local / national)	When to use (Temp / Perm) (Season)	Risks	Benefits
Patching with hot asphalt, mastic or bitumen-based material	Suitable for most locations and surfaces	Permanent, all-year round	No specific risks	Recognised and the preferred solution. Accepted by users
Thermal road repairs	Most effective on hot rolled asphalt surfaces	Permanent, all-year round	May not treat an underlying failure mechanism	Restores from early-stage cracking and fretting
In-situ / thermal recycling	Suitable for most locations and surfaces	Permanent, all-year round	Needs high volume of work to be a cost-effective solution	Avoids unnecessary material wastage
Spray injection patching	Most effective on rural evolved roads with low traffic flows	Mixed reports of service life and durability, particularly during autumn / winter	May not treat an underlying failure mechanism and creates surplus chippings	May be deployed on a find and fix basis
Cold applied instant material	Anywhere, however life expectancy reduces with increased traffic	Mainly temporary, however some products are fairly permanent. (but may adversely affect perimeter material)	Different products are required for different locations and / or weather. Lack of attention and cost of return visit and reputation	Speed of repair Some products are more durable. Makes the road safe again – for a period of time

Table 3: ADEPT Potholes – A Repair Guide, Treatment Options

Whatever repair process is used, it is important that the works must be done right and in accordance with the contract specification. The repair of potholes varies with the quality of workmanship and the durability of the repair materials chosen.

Preparation is the key to a good repair, particularly for permanent long-lasting durable repairs. The excavation should be clean, and debris free, a bond coat applied to the sides and base to prevent the ingress of water.

A preventative maintenance procedure is the best follow-up to any pothole repair type, this will then create a waterproofing seal to overlay the material joints around the repaired defect as well as preventing further defects forming.

The current process for evaluating schemes for planned maintenance includes information held of defects across the highway network.

Recommendation 6

Review the current repair methods and materials delivered on the network with a view to trialling and adopting a wider, more flexible suite of repair options.

4.7 Claims Data

West Berkshire Council has a proven track record of defending claims, with more than 90% repudiated in recent years. This is due to a robust method of inspecting the network and initiating repairs. The analysis of the claims data has highlighted a significant increase in the numbers of claims being handled by the authority in the claim period between 1st November 2022 and 31st October 2023.

This significant increase is set out in the chart below and indicates that there is an increase volume of road users who are experiencing damage or injury as a result of incidents involving defects on the network.

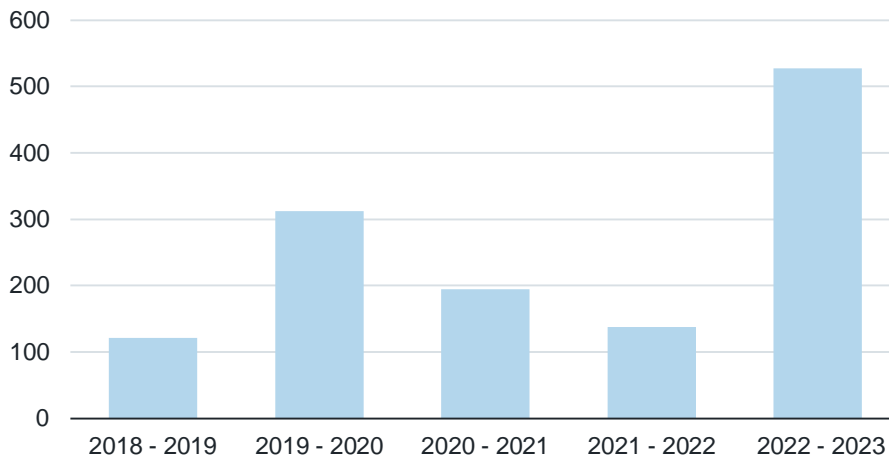


Figure 7: Claims Received By West Berkshire Council Up To End of August 2023

The increase in claims received will clearly place additional pressure on the claims handling team and increase the demand on the inspection teams to feed the process with information. This will then have the consequence of diverting resources away from those activities which maintain the strength of the defence.

4.8 Communication

West Berkshire Council have revised the highway defect reporting and management system and this update has improved the customer facing part of the system which allow the reporting of highway defects on the highway network.

Building on this improvement the development of the communication principles across the service was identified as being an important part of engagement with both councillors and road users. These principles can then be reflected in the emerging Highway Service Communication Strategy.

The following points were identified as specific options:

- Develop better information for Councillors related to highway service activities in their wards.
- Develop the wider use of video and blogs to communicate the details and reasons behind highway works.
- Develop increased engagement with councillors.
- Improve the way that the service listens and provides feedback to those who make contact.

Recommendation 7

Adopt the updated Highways Communication Plan and ensure its implementation to keep stakeholders informed of highways operations. This will include improved information and engagement for Councillors, the wider use of video and other direct communication channels and greater listening and feedback from the service.

Appendix 1 – Defect Data Analysis

The tables below summarise the analysis of the data obtained on surface related defects to support the development of the understanding of the current Defect Management demand in West Berkshire.

Reported Road Condition

	FYE 2018			FYE 2019			FYE 2020			FYE 2021			FYE 2022		
	G	A	R	G	A	R	G	A	R	G	A	R	G	A	R
Road Condition Indicator (RCI) scores for surveyed local A roads and motorways,	69	28	3	72	26	2	74	24	2	70	27	3	71	26	3
Road Condition Indicator (RCI) scores for surveyed B and C Roads							75	22	3	77	21	2	77	21	2

Table A1:1 – Road Condition Bands for West Berkshire

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Percentage of local A roads and motorways where maintenance should be considered	5	6	5	5	5	4	3	3	2	3	3	2	2	3	3
Percentage of B and C classified roads where maintenance should be considered	7	9	9	9	9	6	7	6	3	3	4	3	3	2	2
Percentage of unclassified roads where maintenance should be considered	14	7	12	11	12	3	8	3	3	3	3	2	2	1	5

Table A1:2 – Percentage of Local Roads in West Berkshire where maintenance should be considered

Defect Data

	21		22		23		Total	
	Emergency	Reactive and Cyclical	Emergency	Reactive and Cyclical	Emergency	Reactive and Cyclical	Emergency	Reactive and Cyclical
January	17	200	19	89	146	348	182	637
February	36	64	10	57	43	267	89	388
March	41	122	35	94	80	266	156	482
April	17	182	15	99	89	424	121	705
May	19	147	14	44	38	304	71	495
June	12	123	15	60	29	204	56	387
July	15	131	15	84	19	104	49	319
August	11	79	15	11	29	196	55	286
September	12	89	16	92	1	8	29	189
October	4	98	19	69			23	167
November	9	57	32	114			41	171
December	8	131	87	96			95	227
Total	201	1423	292	909	473	2113	967	4453

Table A1:3 – Numbers of Recorded Defects by Month and Type

Type	21	22	23
Ironworks	66	64	82
Kerbs/Setts/Edge/Channels	121	95	70
Slabs, Flags & Blocks	91	65	86
Surface Defects	1346	977	2357
Total	1624	1201	2595

Table A1:4 – Defects by Surface Types

Detail	21	22	23
Cracking/Crazing	1	4	7
Damaged	101	79	85
Depression	1	1	1
Edge Defect	159	158	111
Missing	13	11	9
Perm C'Way Repair (PCR>1m2)	734	267	1249
Perm C'Way Repair-ROAD CLOSURE(PCR>1m2)	43	119	319
Perm F'Way Repair	129	89	85
Perm Pothole Repair (PPR<1m2)	4	2	7
Pot Hole	242	308	556
Raised	65	69	79
Rocking	50	33	32
Sunken	2	29	30
Slippery	38	1	0
Other	42	31	25
Total	1624	1201	2595

Table A1:5 – Defects by Surface Damage Detail

Response Time	2021	2022	2023*
2 Hours (Temporary repair or make safe)		142	444
24 Hours (Temporary repair or make safe)		55	140
28 Days (Permanent repair)		313	1989
> 28 Days (Review / Programmed works)		14	13
Total	0	524	2586
2 Hours (Temporary repair or make safe)			17.17
24 Hours (Temporary repair or make safe)			5.414
28 Days (Permanent repair)			76.91
> 28 Days (Review / Programmed works)			0.503

Table A1:6 – Defects by Response Time

(* Septemebr Data Removed as Incomplete)

Enquiry Data

	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
2020/21	71	97	107	98	99	98	111	89	110	149	235	199	1463
2021/22	148	139	132	102	74	82	77	65	68	147	151	280	1465
2022/23	168	116	109	58	62	57	90	139	146	643	347	699	2634
2023/24	600	372	204	214	156								1546

Table A1:7 – Enquiries by Month and Year

		April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
22/23	Valid						27	41	59	65	215	92	202
	Already Reported						0	0	0	1	55	108	322
	N and O Notice						0	0	0	0	0	0	0
	Action Not Selected						0	0	0	0	0	0	1
	NFA						33	57	92	91	390	166	221
	Total						60	98	151	157	660	366	746
	% NFA						55.0	58.2	60.9	58.0	59.1	45.4	29.6

Table A1:8 – 2022/23 Enquiries by Action

(NFA : No Further Action)

		April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
23/24	Valid	145	100	85	71	80	3						
	Already Reported	242	145	120	52	21	1						
	N and O Notice	0	0	0	3	3	0						
	Action Not Selected	0	0	2	4	38	21						
	NFA	260	213	115	206	120	0						
	Total	647	458	322	336	262	25						
	% NFA	40.19	46.51	35.71	61.31	45.8	0						

Table A1:9 – 2023/24 Enquiries by Action

		April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
22/23	Below IL						14	14	31	25	120	67	105
	Passed to Others						7	7	18	10	29	2	17
	Other						12	36	43	56	241	97	99
	Total						33	57	92	91	390	166	221

Table A1:10 – 2022/23 Enquiries - Reasons for No Further Action

		April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
23/24	Below IL	117	66	46	87	52	0						
	Passed to Others	14	20	15	19	10	0						
	Other	129	126	54	100	58	0						
	Total	260	212	115	206	120	0						

Table A1:11 – 2023/24 Enquiries - Reasons for No Further Action

	2020/21												2021/22											
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Enquiries	71	97	107	98	99	98	111	89	110	149	235	199	148	139	132	102	74	82	77	65	68	147	151	280
Defects										217	100	163	199	166	135	146	90	101	102	66	139	108	67	129
Diff										68	-135	-36	51	27	3	44	16	19	25	1	71	-39	-84	-151

	2022/23												2023/24											
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Enquiries	168	116	109	58	62	60	98	151	157	660	366	746	647	458	322	336	262	25						
Defects	114	58	75	99	26	108	88	146	183	494	310	346	513	342	233	123	225	9	0	0	0			
Diff	-54	-58	-34	41	-36	48	-10	-5	26	-166	-56	-400	-134	-116	-89	-213	-37							

Table A1:12 – Enquiries and Defects by Year

Claims Data

Highways Claims Received By Policy Year - 1 November - 31 October						
	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	
No of Claims Received	121	312	195	138	527	
No of Claims Open	0	1	1	4	386	NOTE
No of Claims Settled	10	37	19	10	22	
No of Claims Closed No Payment	111	274	175	124	119	
Repudiation Rate	92%	88%	90%	90%	23%	
NOTE			Includes 79 Open claims and 297 repudiated			

Table A1:13 – Highway Claims Received by Policy Year

Highways Claims Made By Policy Year - 1 November - 31 October					
	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023
No of Claims Made	14	31	13	15	15
No of Claims Open	0	1	1	5	8
No of Claims Settled	14	30	12	10	7
Amount Claimed	22,712.03	57,823.70	24,539.84	33,683.35	71,032.60
Amount Recovered	-21,982.43	-46,669.00	-21,107.40	-15,823.31	-8,550.12

Table A1:14 – Highway Claims Made by Policy Year

Appendix 2 – Member Presentation

The slides below are taken from a presentation made to members on the 26th of October 2023 at West Berkshire Council's Offices in Newbury.

Fixing Potholes

FIXING POTHoles

Introductions

Matthew Lugg OBE - Director of Local Transport WSP UK

- 40 years' experience in the highways industry working in local and central government and private sector.
- Led the 2012 Pot-Hole Review (Prevention and a Better Cure) whilst seconded to the Department of Transport for Transport Minister Norman Baker.
- Led the development of much of the national Local Roads Highways Asset Management Guidance.
- International expert in highway maintenance and asset management, presented in USA, China, Australia & the Middle East.
- Former President CIHT, ADEPT and Chair of the UK Roads Board.
- Numerous accolades including OBE for services to Local Government.

wsp

FIXING POTHoles

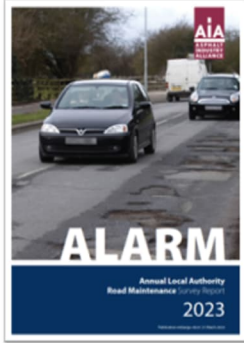
Agenda

- Setting the context
- Local road condition in West Berkshire
- Manifesto commitments
- Best Practice
- WBC Current Practice
 - Comparison with surrounding Authorities
 - Investigatory Levels
 - Defect and Enquiry Demand
 - Right First Time
 - Delivering Repairs
 - Claims
 - Communication
- Recommendations

wsp

FIXING POTHoles

Annual Local Authority Road Maintenance (ALARM) Survey 2023



Adverse weather

Adverse weather conditions, particularly wetter winters with more intense downpours and storms and hotter, drier summers, coupled with increased traffic volumes and the age of the network can result in accelerated deterioration and unpredicted failures.



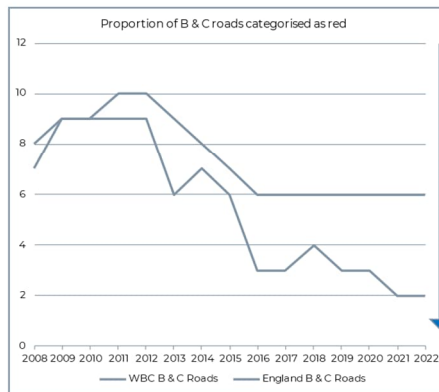
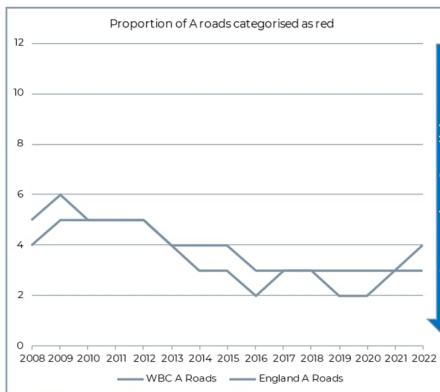
The combined impacts are more acute on evolved and often less well maintained – and therefore less resilient – roads, where water can penetrate existing cracks or defects, leading to the formation of potholes and, in time, undermine the entire structure of the road.

→ The average shortfall in the 2021/22 carriageway budget has leapt nearly 50% to £6.4 million per authority, with the total shortfall in the year exceeding £1 billion.

Carriageway budget shortfall up to **£1.30bn**

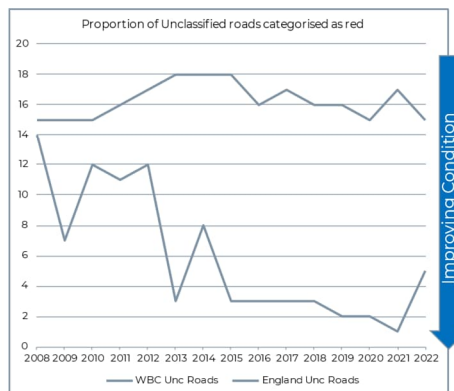
FIXING POTHoles

Road Condition West Berkshire – Classified Network



FIXING POTHoles

Road Condition West Berkshire – Unclassified Network



FIXING POTHOLES

Hotspots

Sept 2022 Onward Mappable Data



B4494 Nr Leckhampstead
Recorded in 9 Separate Months in Period.



B4000 Ermin Street, Nr Woodland St Mary
Recorded in December 22, February, March and May 23



Northbrook St, Newbury
Recorded in 9 Separate Months in Period.

FIXING POTHOLES

West Berkshire Liberal Democrats Manifesto May 2023

Maintaining the road network and improving traffic flows

1. Maintaining the road network in good condition.
2. Fixing potholes first time and fixing dangerous ones within 72 hours. Enabling the reporting of potholes via a West Berkshire mobile app.



FIXING POTHOLES

Best Practice Guidance



Local authorities should adopt the principle that prevention is a better cure to improve the resilience of the highway network and minimise the occurrence of potholes.



A Code of Practice designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment.



Reflects on the Winter of 2017 / 18 and sets out advice for what can be done. Whilst there are no simple solutions, steps can be taken to prevent the situation being any worse than it really needs to be.



FIXING POTHOLES

Current Practice – areas of focus

- Defect identification and reporting
 - Moderation
 - Feedback
- Response times / prioritisation
- Temporary / Permanent Repairs
- Repair techniques
- Material selection / specification
- Programming (access / road space booking)
- Operational delivery
 - Quality of repair



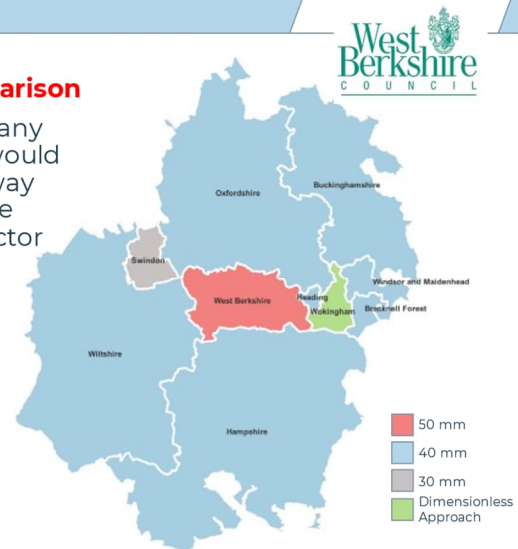
FIXING POTHOLES

Neighbouring Authorities Comparison

Investigatory Level is defined as any defect that a reasonable person would recognise as a defect in the highway asset when travelling via the mode being used by the highway inspector at the time of inspection.

Response times the time taken to repair defects, are in line with neighbouring authorities

- 2 hours
- 24 hours
- 28 days
- Review / Programmed works



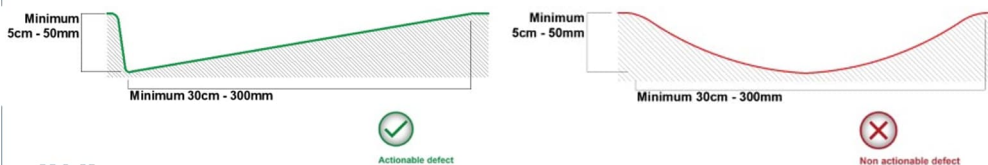
FIXING POTHOLES

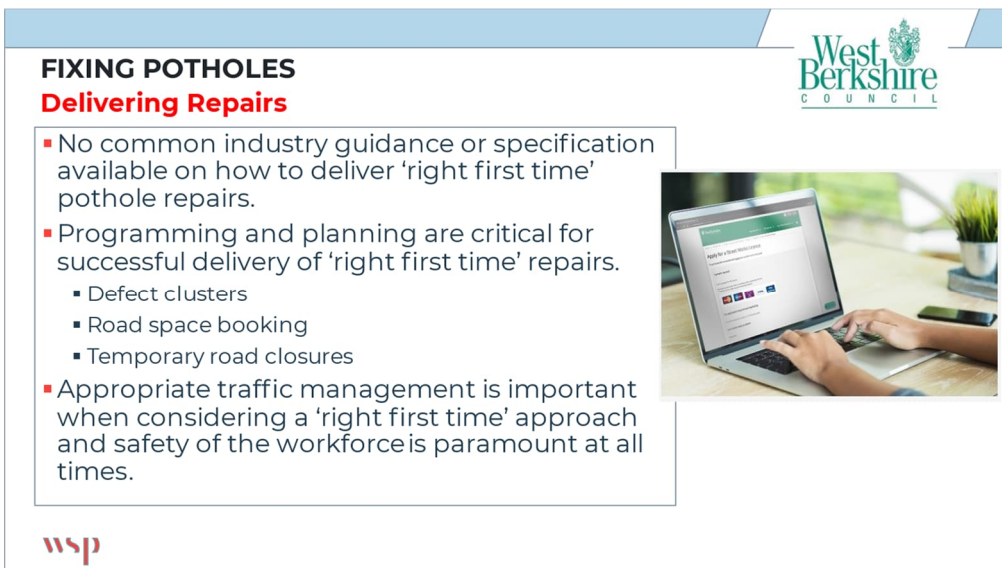
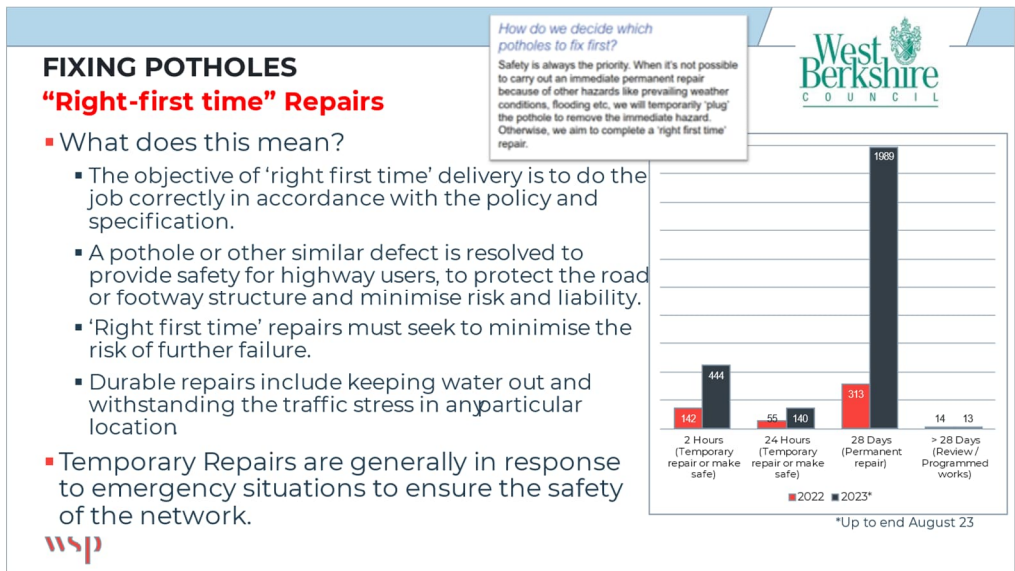
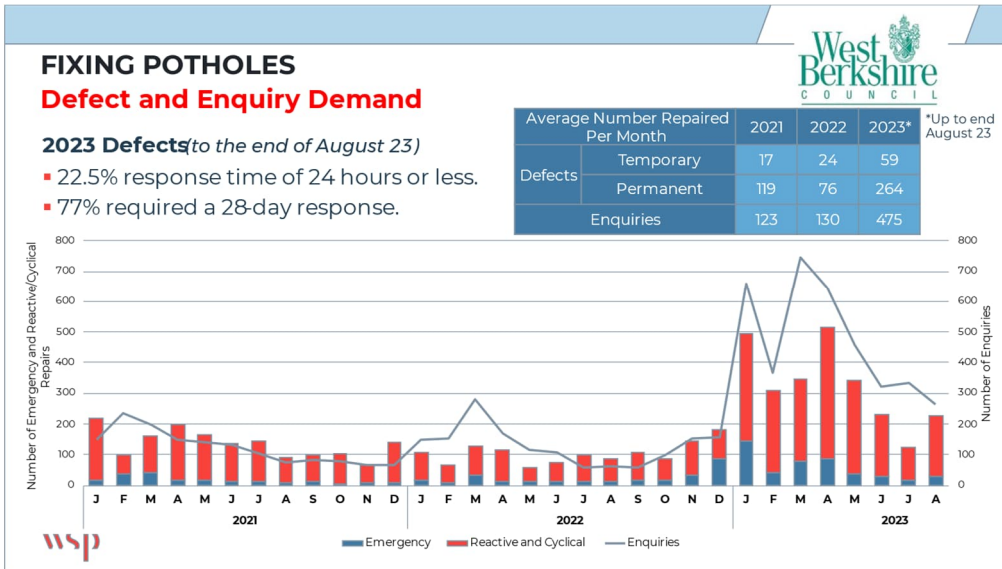
Investigatory Levels

- No nationally agreed definition of a pothole



- Investigatory Level also depends on the shape of the defect

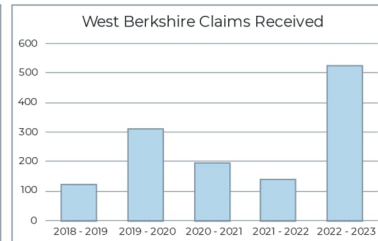
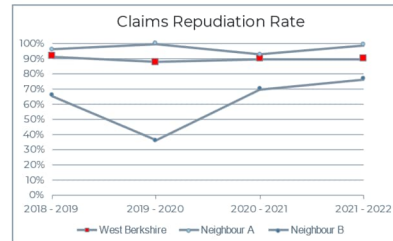




FIXING POTHOLES

Claims

- The repudiation rate is strong.
- Total number of claims received jumped significantly in 2022 - 23.
- Increased enquiries and defects for the current year may place pressure on teams and increase the costs of defending claims.



Pothole-related claims

% of road user compensation claims in England and Wales (average per authority)



72%

Up to end August 23

FIXING POTHOLES

Communication

- New problem reporting system and feedback in place.
- Develop and deliver a refreshed communication and engagement plan.
- Better information for councillors related to highways activity in their wards.
- Wider use of video and Blogs – to explain highways work.
- More engagement with councillors.
- Improve listening and feedback.



Home > Services > Roads, Transport and Parking > Roads > Roadworks and Maintenance

Report a Problem on a Road or Pavement

Report a variety of problems relating to roads including potholes, streetlights and grass or trees that need cutting.

West Berkshire Council

Track a fault Report other faults

- Drainage
- Furniture
- Surface Defects
- Street Light
- LA Sign
- Lamp Post
- Bin
- Play Area/Open Spaces
- Grass
- Green Hedges/Structs
- Buildings
- Trees
- Car Parks
- Parking on the Highway
- Electric Vehicle Charging Point
- Obstruction
- Street Nameplate
- Road Signs And Markings
- Roadworks
- Streetlights
- Traffic Signals
- Road Safety
- WILCO
- Winter Services
- Binbats

FIXING POTHOLES

Recommendations

- Change Investigatory Levels - increases the number of actionable defects
- Review Repair Techniques / Specification
- Improve Data Collection – this means exploring new technology
- Improve Communication – would help improve customer satisfaction







Level 2
100 Wharfside Street
Birmingham
B1 1RT

wsp.com

WSP UK Limited makes no warranties or guarantees, actual or implied, in relation to this report, or the ultimate commercial, technical, economic, or financial effect on the project to which it relates, and bears no responsibility or liability related to its use other than as set out in the contract under which it was supplied.