



Task & Finish Group Report

**Review of highways maintenance
– pothole repairs**

March 2019

**Draft for consideration by General
Scrutiny Committee on 6 March
2019**



FOREWORD

1. Potholes generate considerable discussion locally and nationally.
2. The RAC recently reported that across 161 councils in England, Scotland and Wales, 512,270 potholes were reported by members of the public in 2017, up from 356,432 from 152 local authorities in 2015.
3. The Asphalt Industry Alliance (AIA), claim £8 billion is needed to carry out a one-time, thorough fix of potholes in England.
4. The House of Commons Transport Select Committee is conducting an enquiry into the funding and governance of local roads in England.
5. The Group's task was to consider the highway maintenance plan and seek to address concerns expressed within the community about the potential mismatch between policy and practice on pothole repairs.
6. All Parish and Town Councils were invited to comment on the matters identified within the scope of this review.
7. The first point that the Group would wish to acknowledge is the sheer scale of the task of maintaining the County's roads and the challenge it represents.
8. Herefordshire's highway network has evolved over time and consists of roads that were never designed to carry modern traffic and are not resilient to damage. This is due to its relative age, from increasing traffic, severe weather, and decades of underinvestment in its repair as well as normal 'wear and tear'. Many of the rural roads were not designed for the purpose they now serve and the weight of traffic in both volume and size.
9. Managing an asset of some 2,000 miles clearly requires a strategic approach basing decisions on the evidence provided by data.
10. Compromises are also needed because resources are finite. A balance has to be struck between preventative work (resurfacing/surface dressing) and reactive work (repairs of individual potholes or clusters of potholes). There has to be prioritisation of works. The Group has examined the strategic and operational approaches being deployed.
11. As part of its task the Group undertook a visit to observe reactive maintenance repairs being undertaken. The safety of all using the highway, and those who work on it is of paramount concern, we do not wish to see anyone injured, or worse, whilst working to improve our roads, or travelling upon them. As such the highway service and its delivery provider, Balfour Beatty Living Places (BBLP) take safety very seriously. The health and safety briefing and the personal protective equipment it was necessary to wear to go on site reinforced the fact that undertaking works on the highway is a serious business to which safety risks are attached. The Group would caution against unauthorised individuals seeking to undertake works to the highway themselves.
12. The Group was also informed that there had been incidents of control measures around sites being ignored by impatient motorists and staff being abused. The Group realises that the presence of roadworks creates disruption, but no level of inconvenience caused

by such works is worth the life of anybody, and the devastation that injury or loss will have on family and friends. It is completely unacceptable for the workforce to be treated in this way and their safety and wellbeing jeopardised.

13. The Group urges everyone to abide by all traffic control, signage and advice given by highway staff and help them keep the public and workforce safe.
14. In terms of perception the Group was also acutely aware that motorists passing through works on the day of the Group's visit would have observed 8 people on site (the Group) apparently doing nothing. This reinforces the point that things are not always as they seem.
15. Given the resources available, regrettably it is not possible to bring the condition of all roads in the county, or in any county, to a state of perfection. The Group hopes that this report will, however, provide readers with some context, dispel some myths associated with the issue and demonstrate, whether one agrees wholly with it or not, that there is a rationale behind the council's approach. That is not to say, however, that improvements cannot be made. The Group has made some recommendations which it hopes will help to address concerns expressed within the community about the potential mismatch between policy and practice on road surface maintenance and pothole repair.
16. I would like to thank all those who contributed to the review and to the officers who have supported the Group. I must also thank my fellow group members Cllr Bruce Baker, Cllr Ellie Chowns, Cllr Peter Jinman and Cllr Steve Williams for their excellent contributions.

Councillor Sebastian Bowen
Chairman of the Task and Finish Group

Executive summary

The Group's task was to consider the highway maintenance plan and seek to address concerns expressed within the community about the potential mismatch between policy and practice on pothole repairs.

All Parish and Town Councils were invited to comment on the matters identified within the scope of this review. The principal issues raised in responses were: repairs being carried out to some potholes in a cluster leaving others nearby unrepaired; quality of repairs and auditing of repairs including those carried out by statutory undertakers (utilities companies); speed of repair; value for money; working practices (numbers of employees/use of surplus materials); and action on pothole prevention.

The Group's report includes background on the asset management strategy and other relevant matters that have a bearing on the current approach to highway maintenance. It also seeks to explore and explain the policy and practice in the areas identified in response to concerns received on behalf of communities. The findings are based around the following four themes encapsulating these points: approach to repairs (strategy, prioritisation), audit/inspection of repair quality, communications and customer service, and strategic issues.

Managing an asset of some 2,000 miles clearly requires a strategic approach basing decisions on the evidence provided by data. The Group supports the continuation of a proactive asset management strategy. Preventative action is the most effective solution. This occasionally results in criticism as the council is seen to be treating a road that looks good. But if attention is not given to maintaining roads currently in good condition eventually they will all decline. Reactive repair regimes can be up to four times more costly.

The strategy also incorporates a risk based approach to repairs. Compromises are needed because resources are finite. There has to be prioritisation of repairs. This means that a large pothole in a place that causes few if any concerns may be categorised with a lower priority rating, and response time, than a smaller pothole that presents an immediate or imminent hazard to all.

By far the most common issue raised in the responses from Town and Parish Councils was frustration that repairs are carried out to some potholes in a cluster leaving others nearby unrepaired.

Current policy provides that wherever achievable, all defects within the extent of an area closed off for traffic management reasons should be repaired in a single visit. However, for a range of reasons, mainly relating to the pressure of demand and the need to respond to high risk defects across the network as a whole this policy is not being delivered to a desired level in practice. The Group has recommended that a cluster based strategy should be re-emphasised.

The Group considers the important contribution that the lengthsman can make should be recognised and parish councils encouraged to support lengthsman schemes, exploring scope for co-operation between parishes in doing so, In addition the Group considers that the council should review whether reinstating a financial contribution to the scheme would be prudent, for example via match funding. It considers the council should also provide assistance to parish councils in how to manage their contracts with lengthsman to ensure value for money.

The Group has also considered concerns about the quality of repairs. The Group was told that 15% of defective sections require more than 2 visits on average. The view was that the comparatively small proportion of defective sections of road that had required multiple visits

(three or more) was driving the wider perception that potholes were not being repaired correctly first time. The aim should be, where possible, 'fix first-time'.

The Group supports the adoption of a policy of making a different type of repair in certain locations where evidence shows a standard approach would not be effective in achieving the 'fix right first time approach', and adopt a performance measure of the effectiveness of this approach in reducing occasions where more than one visit is required to fix a defect.

The Group has also recommended strengthening inspection regimes, including inspections on making-good work carried out by utilities companies.

It has also made suggestions on how parish councils could work even more closely with locality stewards.

The Group has made a number of recommendations to improve communication. It is hoped that improved signage at worksites will provide greater clarity to the public. Marking repairs as temporary where this is the case should also remove one of the present areas of misunderstanding.

Improvements to the current systems for reporting potholes and the response residents receive have also been recommended.

Surface water is by far the largest factor in pothole formation that can be addressed. There are significant portions of the network that would benefit from an improvement in drainage maintenance ensuring that grips and gullies are clear. The Group has reiterated the importance of landowners being made aware of their responsibilities and the importance of carrying these out effectively and where necessary for the council to take enforcement action.

Funding is clearly a critical aspect. Without appropriate funding, both revenue and capital, and careful management of that funding the roads will inevitably deteriorate. The Group has recommended that the Council should pursue all available 'invest to save' opportunities, consider prudential borrowing for such investments, and lobby for much more consistent central government funding for highways.

Innovation is to be encouraged and it is recommended that there be continuous appraisal of new techniques, processes and materials that can deliver repairs more efficiently.

The Group reiterates that the safety of all using the highway, and those who work on it, is of paramount concern. It was noted that the highway service and its delivery provider, Balfour Beatty Living Places (BBLP) take safety very seriously. The Group recommends that BBLP should continue to give safety a high priority, both in terms of a) worker and public safety during repair operations, including worker health and safety, and b) continuing a risk-based approach to prioritising works.

The Group was greatly saddened by reports of inconsiderate and downright dangerous behaviours by a few road users when approaching or passing through road closures or other areas where work was being undertaken and wholeheartedly support the public reporting and engagement with the police in following up on such incidents.

Recommendations.

(The Group does not have decision making powers and, subject to approval by the general scrutiny committee, these recommendations will be submitted to the council's executive who will determine what action to take in response.)

Approach to repairs (strategy, prioritisation)

- 1) **The council should continue to take a risk-based approach to prioritising repairs as part of a proactive asset management strategy.**
- 2) **The council should always aim to 'fix right first time' making a sound repair; when this is not possible, residents should be told why, and told when a permanent repair will be made.**
- 3) **BBLP should reinforce, emphasise and implement a 'cluster-based' strategy to fixing potholes i.e. to fix all defects within an appropriate length of road at the same time, unless essential emergency work needs to be done elsewhere.**
- 4) **The service should explore whether there was a point at which a complete replacement of a strip of highway containing a cluster of potholes would represent a more cost effective long term repair.**
- 5) **The service should consult with Parish Councils about the proposed Rural Routes Maintenance Hierarchy, and involve them in any decisions about which roads to prioritise.**
- 6) **The council should consult on and set a threshold for shifting resources to a more reactive approach when the number of defects reaches a certain point, involving undertaking rapid 'make safe' repairs, following up with 'permanent' repairs in time and making arrangements for this change in approach to be communicated so that the public are aware of this temporary change.**
- 7) **The important contribution that the lengthsman can make should be recognised and parish councils encouraged to support lengthsman schemes, exploring scope for co-operation between parishes in doing so, and the council should review whether reinstating a financial contribution to the scheme would be prudent, for example, via match funding.**
- 8) **The council should develop criteria to assist parish councils in managing their contracts with lengthsman to ensure value for money.**

Audit/inspection of repair quality

- 9) **The council should invest further in independent inspection of repair quality, including inspection of 'making-good' work done by utilities companies.**
- 10) **The council should adopt a policy of making a different type of repair in certain locations where evidence shows a standard approach would not be effective in achieving the 'fix right first time approach', and adopt a performance measure of the effectiveness of this approach in reducing occasions where more than one visit is required to fix a defect;**
- 11) **Parish Councils should have a designated person to scrutinise highways work in the parish.**
- 12) **BBLP should be asked to facilitate increased liaison between the locality stewards and parish councils including exploring arrangements for locality stewards to attend PC evening meetings if an issue of particular concern has been raised, inspection tours as appropriate and engagement with lengthsman.**

- 13) Parish Council clerks should publish on their websites the Locality Steward's weekly list of repairs done in the area.

Communications and customer service

- 14) BBLP should improve signage at worksites, including notification of: gang identification number; gang working hours; what the work is for; and a contact number in case of any problems with the site.
- 15) BBLP should mark temporary repairs in a simple fashion e.g. by spraying with a white T, and should communicate to residents why the repair is only temporary, and when a permanent repair will be made.
- 16) BBLP should consult with Parish Councils on the timing of planned works, especially any that will involve significant disruption.
- 17) BBLP should improve the reporting system so that when a resident reports a road defect they are told through an automated system when it has been inspected, what priority it has been given, and the deadline for repair.
- 18) BBLP should improve the system for those reporting potholes by telephone to make it much more user friendly.
- 19) The council should improve communication with landowners regarding their responsibility on drainage; including the need for ditches to be more regularly and effectively maintained.
- 20) The council should develop a brief frequently asked question sheet on the approach to pothole repairs for publication on the website.

Strategic Issues

- 21) Funding: the Council should a) pursue all available 'invest to save' opportunities, b) consider prudential borrowing for such investments, and c) lobby for much more consistent and less ad hoc central government funding for highways.
- 22) Innovation: BBLP should be encouraged to continuously appraise new techniques, processes and materials that can deliver repairs more efficiently.
- 23) The council highways strategy should continue to consider climate change,
- 24) BBLP should continue to give safety a high priority, both in terms of a) worker and public safety during repair operations, including worker health and safety, and b) continuing risk-based approach to prioritising works.

Background

1. The Council is responsible for maintaining an asset of some 2,000 miles as set out in the table below. It is the most significant physical asset in the council's management.

Road type	Length KM	Length miles
Locally Maintained 'A'	378.7	253.3
Locally Maintained 'B'	317.5	197.3
Locally Maintained 'C' and 'U/C'	2578.7	1602.3
Total	3274.9	2306.2

2. In addition there are 4.7 miles of Motorway and 42.6m miles of Trunk Road maintained by Highways England.
3. The Council has a public realm contract with Balfour Beatty Living Places (BBLP) through which highway and other services are delivered.
4. Information on the council's legal obligations are set out in appendix 1
5. The highway network in Herefordshire is an aging asset. An asphalt road surface has a limited lifespan (some c30 years) so there is a constant need for repair and renewal over time usage has increased as have public expectations. (Detail on the overall condition of the carriageway asset showing the proportion rated green amber or red is set out at appendix 2.)
6. Potholes are a highly visible symptom of the underlying condition of the road network. They are a cause of dissatisfaction for all road users and can present a serious safety hazard. In an ideal world with limitless resources repairs would be immediate. However, in the real world the council has to consider the repair of any single pothole in the context of the need to manage their impact across the entire length of the public highway that is maintainable at the public expense for which the council is responsible. This requires a strategic approach that has regard to available funding and actual performance data. This is known as asset management.

7. The Group visited BBLP offices and received a briefing on and observed the asset management software and systems used to manage the road network. This clearly explained the context within which the service operated and reinforced the importance of a proactive asset management strategy,
8. A number of national guidelines exist for the provision of highway maintenance. The current guidance is contained in 'Well-managed Highway Infrastructure'. This includes the recommendation (Recommendation 7) that: *"A risk based approach should be adopted for all aspects of highway infrastructure maintenance, including setting levels of service, inspections, responses, resilience, priorities and programmes."*
9. Herefordshire's asset management policy and strategy is included as part of the Local Transport Plan, This is available via the following link

https://www.herefordshire.gov.uk/info/200136/travel_and_transport/220/local_transport_plan
10. The highway maintenance plan is available here

https://www.herefordshire.gov.uk/info/200196/roads/236/highway_asset_management_and_maintenance/3
11. The council is a member of the Midlands Service Improvement Group (and other best practice groups such as the West Midlands Highways Alliance and the Association of Directors of Environment, Economy, Planning and Transport (ADEPT). This group was formed to deal with matters concerning best value and performance management, specifically within the highways and road safety disciplines of local authorities. The Group comprises Cheshire East and Cheshire West, Cumbria, Derbyshire, Herefordshire, Lancashire, Leicestershire, Lincolnshire, Northamptonshire, Nottinghamshire, Rutland, Sandwell, Shropshire, Staffordshire, Warwickshire and Worcestershire, City Unitary Authorities of Coventry City, Derby City, Leicester City, Nottingham City, Stoke on Trent and Telford & Wrekin. This provides an opportunity to benchmark and ensure that the council can compare its performance and benefit from best practice.

Funding

12. Funding for the maintenance of the highway asset comes in two forms: revenue and capital. Revenue funds are typically those generated by the council itself through council tax, central government grant (decreasing annually and soon to be stopped completely in 2020/21) and other income generating activities. Capital funds are typically provided to the council through central government grants for roads or via council borrowing or from capital receipts. The Council can fund capital expenditure from the revenue budget but not vice versa. Given the demand upon the revenue budget scope for this is extremely limited.
13. More information on funding sources is in Appendix 3.
14. In 2017/18 the revenue budget assigned to BBLP for the management of the entire Public Realm was £6.132 million. The Capital Budget was £13.027 million, a total of £19.159 million. An overview of the plan for the delivery of this expenditure can be seen at

http://councillors.herefordshire.gov.uk/documents/s50045949/Appendix%20Service%20Overview_%20Annual%20Plan%2017-18.pdf
15. In 2017/18 the revenue budget assigned to BBLP for the management of the public realm was £6.559 million. The capital budget was £21.42 million, a total of £27.979 million. An overview of the plan for the delivery of this expenditure can be seen at

16. Herefordshire is a rural county, the fourth least densely populated county in England. Access to many areas of the county can only be gained via the C and Unclassified road network. Whilst traffic volumes may be comparatively low on many of these roads, they form the network on which communities rely.
17. The contrast between low population and an extensive highway asset means that the contribution that can be made to the maintenance of the highway asset from the council's revenue budgets (as generated by council tax) is low when considered on a per mile basis. The same is true of many rural areas. Capital investment and receipt of capital grants is welcome but it is essential that this is supported by ongoing revenue funding. Certainty of funding over a set period is important to support forward planning.
18. Analysis by the council following the 2015/16 financial year of the combined revenue and capital budgets as published for all 152 highway authorities showed that the county has the lowest spend per km of all highway authorities (bar the Isles of Scilly, which is a special case). Yet in terms of per head investment per mile only 12 authorities invest more than Herefordshire.
19. Repairs carried out as part of the planned programme to manage the highway asset can be classified as capital expenditure "enhancing the life of the asset". Reactive work is classified as revenue expenditure. There is considerable pressure on the council's revenue budget as a whole because of all the service demands it has to meet.

Perception and Reality

20. All Parish and Town Councils were invited to comment on the matters identified within the scope of this review The full responses are attached at appendix 4.
21. Views were also sought on other aspects of the Public Realm contract with BBLP to inform future scrutiny work as appropriate. Whilst this does not form part of this review it is included in the appendix for completeness.
22. The principal areas of reported concern were: repairs being carried out to some potholes in a cluster leaving others nearby unrepaired; quality of repairs and auditing of repairs including those carried out by statutory undertakers (utilities companies); speed of repair; value for money; working practices (numbers of employees/use of surplus materials); and pothole prevention. Whilst recognising that members of Herefordshire Council would have input through and in consultation with local councils within their wards Members were also invited for comment to see if they had identified any additional concerns. No additional areas of major concern were identified.
23. The Group's report is based around the following four themes encapsulating these points:
 - Approach to repairs (strategy, prioritisation)
 - Audit/inspection of repair quality
 - Communications and customer service
 - Strategic issues

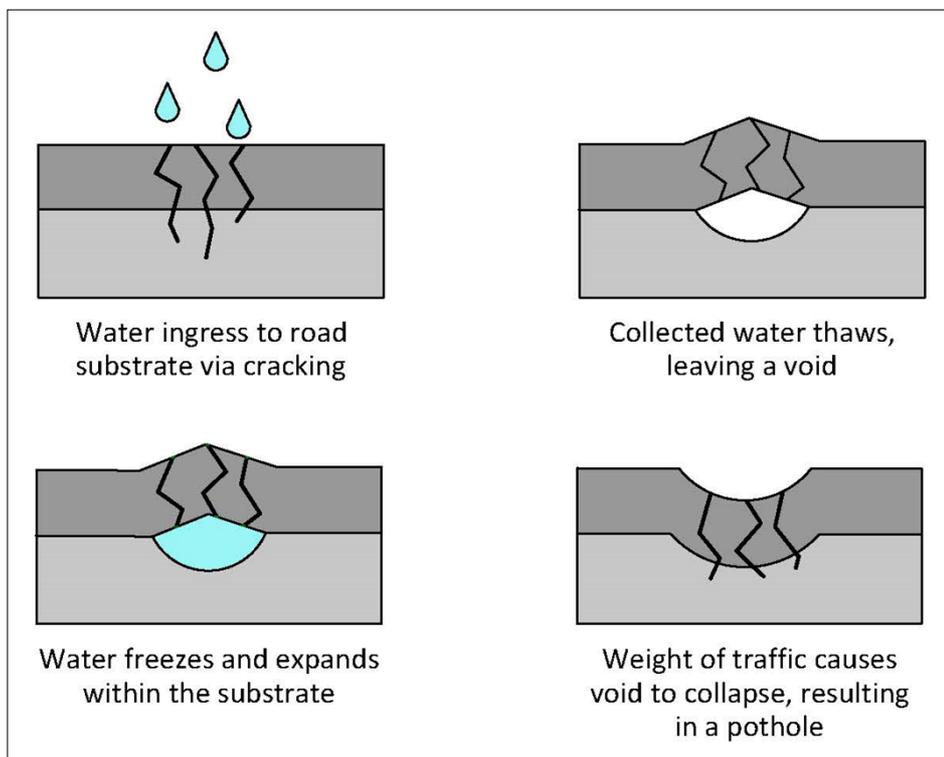
A: Approach to repairs (strategy, prioritisation)

24. The RAC Foundation in publishing its recent report "Potholes What is a pothole? A look at Local Highways Authorities road maintenance policy", stated that its analysis showed that local highway authorities across the country are increasingly adopting the 'risk-based' approach to fixing road defects. Based on data received from 190 of the 207 local highway authorities in Britain 75% (142) had already moved to a risk-based approach by Autumn 2018, by when a further 15 (8%) said they were about to move to the new system or were reviewing their existing practices.
25. A risk-based approach takes account of the likelihood and impact (risk) of the injury or damage that would result from a highway user encountering a defect. In Herefordshire the response times to highways defects have then been developed taking into account the changes in likelihood of a defect actually being encountered on different hierarchy roads. This means, for example, that not only will the size – width and depth – of a pothole be taken into account but also the type of road where it is, the volume of traffic that road carries and the mix of road users. A large pothole in a place that causes few if any concerns may be categorised with a lower priority rating, and response time, than a smaller pothole that presents an immediate or imminent hazard to all.
26. Herefordshire Council was one of the very first highway authorities to adopt the risk based approach, having done so upon publication of the code of practice 'Well Managed Highway Infrastructure'. That code also advocates the use of asset management. Asset management promotes a more structured and business-like way to undertaking highway maintenance. The core of the principle is to make the best use of available resources to deliver efficient and effective highway maintenance, thereby keeping the asset in the best achievable condition. These principles encourage a long-term approach to highways maintenance, focused on performance and outcomes that ensure public funds are spent on maintenance operations that in time will reduce the demand for expensive short-term repairs. Not only does this reduce the 'whole life cost' of maintaining the asset but keeps it in as safe a state as can be achieved, reducing risk.
27. Good asset management should not just focus on the expenditure of existing funds but should also produce a clear and justifiable data set to highlight the need for future investment.
28. The Department for Transport has indicated that around 20% of funding for local highways authorities will be reliant on an ability to demonstrate an engrained approach to asset management and the pursuit of the efficiency agenda. This includes a move away from reactive to proactive maintenance. The 'Incentive Fund' encourages the application of asset management principles rewarding authorities which adopt and improve these principles with additional funding. Herefordshire has currently attained the highest banding in this fund which is a testament to the authority's commitment to improve.
29. The principle "prevention is better than cure" in determining the balance between structural, preventative and reactive maintenance activities is embraced and has shaped the review of asset management policies and strategies. For example, the timely application of a surface treatment such as dressing can prevent the potholes forming. This philosophy should improve the resilience of the highway network and minimise the occurrence of potholes in the future, informing the risk-based approach to response times in a move to "first-time fixes" for highway defects.

30. Research has shown that reactive repair regimes can be up to four times more costly than adopting preventative treatment strategies.
31. The effect of a risk-based approach is to give longer response times on infrequently used parts of the highway network, but with an expectation that the defect will 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.
32. Another aspect of this approach is that by taking preventative action each year authorities should gradually 'get on top of the problem' and slow down deterioration. The overall condition of each part of the carriageway asset is given a rating: green amber, or red. If attention is not given to roads currently in the green category eventually they will all decline to amber condition and then to red.
33. This occasionally results in criticism as the council is seen to be treating a road that looks good. If asset management principles are not followed through, the maintenance strategy reverts to a short term, reactive approach. This is less efficient, results in ever increasing quantities of defects and is more costly to manage and deliver in the longer term.

What are potholes? How do they form?

34. There is no national definition of a 'pothole'. However, a pothole can be considered to be a depression or hollow in a road surface caused by wear or subsidence.
35. Defects generally start life as small cracks in the structure of the road, allowing the ingress of water. Over time water damages the binder material that holds the road together and the material fractures, allowing the aggregate to loosen. Freezing conditions accelerate this process. Drainage system maintenance is key to slowing down the process and preventative treatments such as surface dressing, which seals surfaces are a vital tool in preventing potholes from developing.



36. Much of the research on potholes, notably work done by the Highways Maintenance Efficiency Programme (HMEP) state that ‘prevention is better than a cure’ for potholes

<http://www.highwaysefficiency.org.uk/efficiency-resources/asset-management/the-potholes-review.html>

37. This places an importance on drainage and general maintenance functions such as vegetation clearance to reduce the circumstances that aid pothole formation. The knock-on benefit of this is that flooding instances that are not directly attributed to a watercourse reduce and road maintenance capacity is released, therefore enabling the delivery of higher quality repairs.
38. Herefordshire Council is currently reviewing the Highways Maintenance Plan to see how it can improve the quality of the repair works and better match the levels of service achieved to the maintenance hierarchy.

How are repairs classified and prioritised?

39. When a defect is found it is triaged by an authorised person into one of 5 categories based on risk:

Category 1a & 1b – Priority reactive works

Category 2a & 2b – Routine works

Category 2c – aim to cover in planned works

40. The categorisation is based on the code of practice and informed by the work done by Herefordshire with the Midlands Service Improvement Group (MSIG). This was created with input from all member authorities and ensures an appropriate consistency in the approach taken across the whole area covered by the MSIG membership.

- 41. Key to the pothole repair strategy is the identification and deployment of techniques that deliver a right first-time repair. This is so that the level of risk that highway users are exposed to is managed down.
- 42. The analysis shows that between 8-10% of the network has had a pothole identified in it in the last two years.

Repairs being carried out to some potholes in a cluster leaving others nearby unrepaired

“The public are bewildered by some potholes being left while others are filled on the same stretch of road”-.

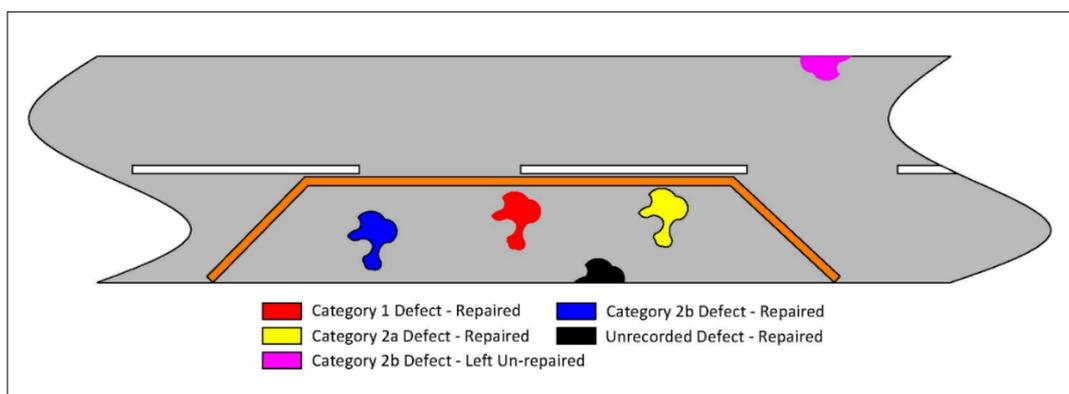
- 43. This is by far the most common issue raised in the responses from Town and Parish Councils.
- 44. A pothole repair of 1 square metre takes about 10 minutes to complete but clearly the time taken does depend on many factors such as the actual location of the pothole, the traffic management required, and weather conditions. Setting up traffic management safely can take 20 minutes. It should be noted that this repair time does not include travel time between potholes

(<https://www.midsussextimes.co.uk/news/politics/video-how-long-does-it-take-to-fill-a-pothole-1-8409773>)

- 45. The Asphalt Industry Alliance Alarm Survey identifies that the cost of filling a single pothole is £52 when part of a planned operation and £75 when undertaken as reactive works.

<http://www.asphaltuk.org/wp-content/uploads/alarm-survey-2018-key-findings-for-website.pdf>

- 46. By contrast planned maintenance such as surface dressing can cost as little as £2 per square metre (see <https://www.rsta-uk.org/news/>) and resurfacing c£15 to £20 per square metre, all depending on the treatment options.
- 47. The Group noted that the Highways Maintenance Plan sought a right first-time approach and fixing the place not just the reported incident. There were a range of considerations in “fixing the place”. It could be that drainage issues causing the holes needed to be fixed rather than it simply being a case of filling in holes.
- 48. In essence and in principle, in all cases BBLP have been instructed to, wherever achievable, address all carriageway defects within the extents of the traffic management in a single visit. Generally this results in the most efficient method of pothole repair in a time when a ‘find and fix’ method is not deliverable due to service demands.



49. This approach minimises the overall travel time between defects, it is ideal to reduce travel times by removing the necessity to revisit the site, although this must always be balanced against a network level view of demand.
50. However, the Group was advised that the ideal repair strategy for potholes at any given location has to be adjusted to ensure that the risk to the travelling public across the entire highway asset is managed.
51. If there is sufficient resource available to fill a stretch of potholes in one go this makes sense – but often in order to complete the repair of all high risk defects within timescale targets BBLP are not able to achieve the cluster repair objective in all instances. Teams have job orders to complete. They have some discretion. But if they stop to fill in something not on the list the risk was is they could then fail to complete the list and deal with some high risk category 1 defects in time.
52. In addition there were a number of scenarios in which the preferred approach cannot be followed.

(i) Inclement Weather

Bituminous materials are less effective in a repair during low temperatures - generally where the road surface is around freezing and in very wet conditions. In these situations it may be preferable to undertake a temporary repair on the high risk defect to manage the immediate risk to the travelling public effectively. This scenario assumes that the defects in the vicinity are still within the timescale for response set by the Highway Maintenance Plan and a more effective repair can be programmed within the available defect response window.

(ii) Out of Hours Response

Category 1 defects that are identified 'out of hours' and require rectification prior to normal working times will be treated in isolation to ensure that the risk to the travelling public is properly managed. Examples of where this is particularly likely is weekend and bank holiday periods.

53. These defects represent a very small proportion of the total defects raised and treated.

(iii) Defect Demand Pressure

During periods of very high demand, such as in the weeks following a severe weather event it might be the case that the service struggles to meet its requirements to make defects safe in time. In order to limit the exposure to risk, a more 'reactive' or 'firefighting' type of approach may be required.

In this situation temporary repairs allow additional defects to be cleared within the available defect response window. The safety of the travelling public is of paramount importance so leaving lower risk defects unrepaired enables the service to respond to all high risk defects and manage the overall risk.

(iv) Temporary Repairs

There are cases where a defect could be identified that requires repair more immediately because of the extreme risk posed by its physical size or location. In these cases a temporary repair using some cold lay tarmac or similar might be used in place of signage to make safe. When the locality steward deems this the best approach it is reasonable to focus efforts on the temporary repair, allowing the other gangs to reinstate properly and fill adjacent holes at a more opportune, and considered time.

(v) The Impact of the Performance Indicator

Inevitably, from a commercial stand point BBLP will prioritise their approach on meeting and exceeding performance indicator thresholds. BBLP have a performance indicator that relates to clearing defects within the determined time scales set out in the highway maintenance plan.

If BBLP are at risk of failing to meet timescale targets and be 'timed out' on a number of defects, these defects will, understandably, be prioritised over defects that may be in the vicinity but not yet picked up by inspection. This is because those defects, which have not entered the system yet, can have no bearing on the way that operational performance is measured.

The Council acknowledges that careful consideration needs to be given to the setting of performance indicators. Developing maintenance strategies and performance indicators that assist in reducing the instances where defects are treated in isolation is vital for driving down the demand on the pothole repair operation.

Conclusion

54. The conclusion is that there are scenarios where singular defects may sensibly be repaired and surrounding defects left. Preventing potholes from occurring in the first place is the most effective way to drive efficiency in this area of maintenance work.
55. The Group did understand how from a practical standpoint the approach to repairing clusters of potholes could be seen as reasonable. However, it considered that it was a question of judgment and that there was a balance to be struck. There did appear to be scope for greater flexibility and use of discretion by those tasked with carrying out the work on the ground, subject to appropriate managerial controls. The use of technology could also be explored further to enable a local situation to be balanced against the wider need to manage the network as a whole. The Group considered that BBLP should reinforce and emphasise a 'cluster-based' strategy to fixing potholes i.e. to fix all defects within an appropriate section of road, having regard to relevant traffic management considerations, at the same time, unless emergency work needs to be done elsewhere.
56. In addition it was suggested that there was scope to explore whether there was a point at which a complete replacement of a strip of highway containing a cluster of potholes would represent a more cost effective long term repair to the public satisfaction.

Rural Routes

57. The Group was informed that there was scope in determining the maintenance regime to explore the legal provision relating to the character and usage of a highway. On all routes it was important to ensure that the maintenance strategy was in keeping with the general character of the route. On very rural lanes, that character was not that of a metalled road and such lanes may serve their purpose very well even when in a 'very rough' state.
58. Historically, many roads in the county and across the country had been constructed hastily to a basic specification and were now being used to an extent and in a way that had never been envisaged or intended, carrying extremely large and heavy agricultural vehicles. It was suggested to the Group that consideration might usefully be given to considering whether, rather than having an objective that all roads should be in pristine condition, it should be accepted that on parts of the network roads would be potholed, and could only be driven on slowly in appropriate vehicles.

59. Criteria under consideration included traffic flow and type, route links (what is served by the route and does it link to another route), collision history, whether the route was used as a diversion route, for example in times of flood.
60. The Group acknowledged there may be some merit in this approach. It was recognised that it would allow the limited resources available to be focused on those parts of the network that matter most to the majority of highway users, and present the greatest risk to them on a day to day basis.
61. However, the Group emphasised that particular consideration needed to be given to the frequency, nature and need of use of routes it was proposed to include in this category. Some routes could be very important and indeed crucial in the local context. It was essential that if the matter were to be pursued the highway service should regularly consult with Parish Councils about the proposed Rural Routes Maintenance Hierarchy and involve them in any decisions about which roads to prioritise.

Threshold before shift to emergency repairs

62. The 2017/18 winter led to a peak in demand for pothole repairs. As a consequence of higher volumes, the service had to adapt its delivery to a more reactive approach, otherwise it would not have been able to respond to all high-risk defects in an appropriate time with available resources. In principle there are three approaches that might be taken when faced with an increase in pothole volumes: increase resources, this can be done, but, even if funded, resources cannot typically be scaled up instantly; relax response times, this will inevitably lead to highway users being exposed to risk for longer; undertake rapid 'make safe' repairs, following up with 'permanent' repairs in time.
63. In order to manage risk well and to avoid resources being moved away from operations such as resurfacing, which will ultimately improve the overall quality of the asset, it is most appropriate to revert to a pothole strategy that utilises rapid 'make safe' repairs in such circumstances. However, it is vital that such an approach is not allowed to perpetuate beyond the genuine peak in demand. This is because ultimately, right first-time fixes will ensure that the highway user is presented with least risk in the longer term.
64. Work had been carried out to identify the threshold above which rapid 'make safe' repairs would be deployed as the norm, and below which 'right first time' repairs will be deployed as the norm. It was suggested to the Group that analysis of data had arrived at a threshold of 3,000 defects.
65. The Group considers that it is worth exploring this idea. It recommends that the service should consult on and set a threshold for shifting resources to a more reactive approach when the number of defects reaches a certain point, involving undertaking rapid 'make safe' repairs, following up with 'permanent' repairs in time and making arrangements for this change in approach to be communicated so that the public are aware of this temporary change. Any such threshold should be reviewed on a regular basis, at least annually and adjusted accordingly. It is essential to ensure that such an approach is indeed temporary.

Lengthsman scheme?

"The loss of funding from this scheme has, and will continue to have, a detrimental effect on the ongoing maintenance of these roads, and increase the pressure on Herefordshire Council to meet the inevitable additional works. The investment made through town and parish councils to oversee this work, and to deliver local maintenance through a local Lengthsman, ensures that local needs are met and reacted to speedily."

66. The lengthsman scheme allows parishes to undertake low risk maintenance works, for example to verges, ditches, village greens or C and U roads. The importance of proper road drainage to ensure water damage to road surfaces is minimised has been highlighted earlier in this report. A lengthsman can play a key role in effecting minor clearances or identifying and highlighting more significant and impending problems.
67. The scheme enables parishes to identify areas where works are required and address these directly, either through local contractors, volunteers, or community groups, encouraging the community to work together. It is recognised that where Herefordshire Council work to a risk based approach, this may not allocate the same level of priority to a job that the local community would, therefore the community are able to undertake such work sooner than the council would be able to do. Funding is generated from the parish precept, however community groups can come together to collaborate towards community maintenance on a voluntary basis, either identifying and reporting where council works are required, or carrying out low risk maintenance tasks themselves, within limited parameters defined by the council.
68. The fifth key component of the council's highways asset management strategy states: "Provide the support that enables routine maintenance work to be delivered locally so that defects on the road can be responded to locally when they are recognised as an issue by local people. This means that more defects can be fixed before they become a hazard to road users. Through our approach to locality working we will ensure that this local delivery complements our countywide programme of works."
69. The Group considered that the important contribution that the lengthsman can make should be recognised and parish councils encouraged to support lengthsman schemes. The council should review whether reinstating a financial contribution to the scheme would be prudent, for example via match funding.
70. It was observed that there was scope for parishes to work together rather than each seeking to employ its own lengthsman.
71. The Group also considered that it would be constructive if the council provided assistance to parish councils in how to manage their contracts with lengthsman to ensure value for money. and supplied opportunities for further training.
72. The Group did discuss Devon County Council's Road Warden Scheme that allows communities, under a formal agreement, to organise/carry out minor works either on or off the live carriageway. This includes pothole repairs (when they do not meet the council's intervention criteria).

<https://new.devon.gov.uk/communities/opportunities/road-warden-scheme>

73. The Group considered that development of the lengthsman scheme would be a preferable course.

Recommendations: Approach to repairs (strategy, prioritisation)

- 1) The council should continue to take a risk-based approach to prioritising repairs as part of a proactive asset management strategy.**
- 2) The council should always aim to 'fix right first time' making a sound repair; when this is not possible, residents should be told why, and told when a permanent repair will be made.**

- 3) **BBLP should reinforce, emphasise and implement a ‘cluster-based’ strategy to fixing potholes i.e. to fix all defects within an appropriate length of road at the same time, unless essential emergency work needs to be done elsewhere.**
- 4) **The service should explore whether there was a point at which a complete replacement of a strip of highway containing a cluster of potholes would represent a more cost effective long term repair.**
- 5) **The service should consult with Parish Councils about the proposed Rural Routes Maintenance Hierarchy, and involve them in any decisions about which roads to prioritise.**
- 6) **The council should consult on and set a threshold for shifting resources to a more reactive approach when the number of defects reaches a certain point, involving undertaking rapid ‘make safe’ repairs, following up with ‘permanent’ repairs in time and making arrangements for this change in approach to be communicated so that the public are aware of this temporary change.**
- 7) **The important contribution that the lengthsman can make should be recognised and parish councils encouraged to support lengthsman schemes, exploring scope for co-operation between parishes in doing so, and the council should review whether reinstating a financial contribution to the scheme would be prudent, for example, via match funding.**
- 8) **The Council should provide assistance to parish councils in how to manage their contracts with lengthsman to ensure value for money and supply opportunities for further training.**

B: Audit/inspection of repair quality

“There is concern about the quality of workmanship in repairs to potholes carried out and if the repairs carried out will last. The same potholes seem to be re-occurring.”

“The poor standard of work experienced recently was fed back to BBLP, but there is no evidence that there was any quality assurance by them of the works carried out or any follow-up to the negative feedback provided.”

74. The Group was advised that the council’s expectation was that BBLP would itself check work. When the council received complaints these were followed up; the council audited a sample of work and undertook inspections.
75. The council did not have a hands-on day to day supervisory role. It had entered into a contract for a service and it was for the contractor to manage the service delivery. The council’s contract management resource had been strengthened.
76. BBLP don’t currently undertake self-audit of reactive maintenance, but they do undertake a gang meeting four times a month that addresses health and safety issues and equipment checks.
77. Daily briefings outline to the gangs the gang make up for the day, the area of work and the repair standards required.
78. Productivity is then measured and gang performance is discussed with the gangs.

79. The Group considers that the council should invest further in independent inspection of repair quality. It notes that the use of photographic, GPS and time based recording will all help to ensure the quality of cost effective repairs.
80. The Group considered a briefing note (23/11) on a review of pothole repair quality and a separate audit from April to June 2017.
81. The briefing note had been produced in response to a significant influx of complaints relating to the quality of pothole repairs. It reviewed the approach taken to repairs and examined the main causes of complaints and considered customer perception issues.
82. The briefing note observed that: a large number of the complaints seemed to be relating more to customer perception rather than specifically poor practices. There appeared to be a theme in the complaints and these were: defect repairs were not sealed; the use of a sealant was linked to quality; edge repairs fail quickly because they are not supported; - gangs repair some potholes in an area, but leave others. The recommendations included that BBLP Self Audit Procedures should be considered to assist with responding to complaints.
83. The briefing note also commented that it was important to remember that often the complaints are the worst (or perceived worst) of the defects repaired and represented a small percentage of the overall repairs completed
84. The second report the Group received concluded Category 1, Cat 2 and emergency repairs are being completed within the required timescales and the quality of repair works carried out is considered good. The service is economic and equitable, but requires improvement to the measurement of how effective or efficient it is.
85. Recommendations included that there should be a review of how current productivity levels can be improved and an agreed method for assessing and measuring value established.
86. The Group also received a briefing note from officers that amongst other things commented on the issue of repeat repairs.
87. This reported that on average 65% of defects were single visit occurrences within the two year period. Of the sections with a defect, 65% required one visit within a two year period and if that was up to up two visits in the same period 85% would be included. 15% of defective sections required more than 2 visits on average.
88. It was considered that it was the comparatively small proportion of defective sections of road that had required multiple visits (three or more) that was driving the wider perception that potholes are not being repaired right first time.
89. The Group was advised that consideration was being given to whether a different (probably more expensive) type of repair needed to be undertaken in certain locations and whether that would be more cost effective. The Group supported the view that the council should adopt a policy of making a different type of repair in certain locations where evidence shows a standard approach would not be effective in achieving the 'fix right first time approach' and adopt a performance measure of the effectiveness of this approach in reducing occasions where more than one visit is required to fix a defect.
90. The Group noted that on occasion, for sound reasons, a crew may intentionally carry out a temporary repair and then return to carry out a more substantial repair within a short

space of time. It was considered that public perception would be improved if BBLP marked temporary repairs, e.g. by spraying with a white T, and communicated to residents why the repair is only temporary, and when a permanent repair will be made.

91. The Group considered that in terms of reactive maintenance works in general perception would be improved by BBLP improving signage at worksites, including notification of: gang identification number; gang working hours; what the work is for; and a contact number in case of any problems with the site. It was recognised that care would be needed to ensure the signage was not a distraction to drivers.
92. These issues relate to both quality of repair and communication. Each work site is an opportunity to communicate with the public and inform them about improvements being made to local infrastructure.) The recommendations flowing from the above two paragraphs are therefore included with the recommendations on communications and customer service in the next section of this report.

Work undertaken by Utilities Companies (Statutory undertakers)

“When any work is carried out on the highway (eg by utilities) what check is carried out on the work and subsequent follow up to ensure there are no unnecessary costs to Herefordshire Residents?”

93. There is a perception that utilities companies do not restore roads properly after works.
94. There are nationally agreed specifications for reinstatements by statutory undertakers. If the reinstatements meet the national standard there is no further action that can be taken.
95. Companies have the right to give 3 months’ notice of major works and then undertake them.
96. There was an issue for the council in terms of resource needed/deployed to monitor works.
97. The Group considers that the recommended increase in inspection of repair quality should extend to making-good work done by utilities companies. Inspectors must insist on the quality of reinstatements by utility companies and appropriate action should be taken to ensure any substandard work is remedied.

Locality Stewards

“The Locality Stewards are an integral part of ensuring that issues and concerns are raised and dealt with. The direct communication between the parishes and the Locality Steward keeps things simple and easy. The continued investment in the Locality Stewards will help towards further development of the response to local issues.”

98. The Group noted the appreciation expressed by the Parish Councils for the locality stewards. It also recognised that parishes currently had a range of working arrangements with their locality stewards.
99. There are currently 13 locality stewards in the county The Group was mindful of the number of parish councils in the county (Herefordshire has 133 *parish councils*, five town

councils and one city council) . Proposals for increased regular engagement at Parish Council meetings even on an annual basis could place significant and overly onerous burden upon the locality stewards. However the Group did think that it would be reasonable for BBLP to ask locality stewards to attend PC evening meetings if an issue of particular concern has been raised.

100. The Group also considered that there would be benefit in regular liaison between the parish council and locality stewards and local ward member including inspection tours as appropriate and engagement with lengthsman. The Group also considered that relationships between parishes and locality stewards could be strengthened following the example of some parishes nominating a designated person, not necessarily a parish councillor, to scrutinise highways work in the parish. In addition parish council clerks should publish on their websites the locality steward's weekly list of repairs done in the area.

Recommendations: Audit/Inspection of Repair Quality

- 9) The council should invest further in independent inspection of repair quality, including inspection of 'making-good' work done by utilities companies.**
- 10) The Council should adopt a policy of making a different type of repair in certain locations where evidence shows a standard approach would not be effective in achieving the 'fix right first-time approach', and adopt a performance measure of the effectiveness of this approach in reducing occasions where more than one visit is required to fix a defect.**
- 11) Parish Councils should have a designated person to scrutinise highways work in the parish.**
- 12) BBLP should be asked to facilitate increased liaison between the locality stewards and parish councils including exploring arrangements for locality stewards to attend PC evening meetings if an issue of particular concern has been raised, inspection tours as appropriate and engagement with lengthsman.**
- 13) Parish Council clerks should publish on their websites the locality steward's weekly list of repairs done in the area.**

C: Communication and customer service

Speed of Repair

"The repair to potholes takes too long to be completed when reported. The white marker paint has usually worn off before the pothole gets filled."

101. When a defect is found it is triaged into one of 5 categories based on risk

Category 1a & 1b – Priority reactive works

Category 2a & 2b – Routine works

Category 2c – aim to cover in planned works

Priority	Deadline
1a	End of next day
1b	7 days
2a	28 days
2b	2 months
2c	Forward programme

102. It should be noted that all response times set a window within which action should be taken. As such the response time for category 1a means that a defect should be repaired by the end of the next working day. This does not preclude any defect from being repaired or made safe sooner and this can be done. This particularly if the defect is considered to be of critical importance to safety. The timescales set are designed to, wherever practicable, to enable works to be efficiently delivered through a planned approach. Through adopting the timescales set out above the overall risk to the travelling public from defects across the highway network will be reduced, this by comparison with a system of work that attempt to react to all defects in a short period of time. Such reactive systems of work tend to lead to higher numbers of temporary repairs and lower quality solutions being delivered.

Working Practices

103. The repair of individual potholes or clusters is classed as reactive maintenance.

104. The process is:

- Incident reported
- Locality steward inspects to risk assess
- Photographs of defect sent in (showing defect itself and longer shot to show location) and logged
- Job scheduled

- Photo sent in of completed repair

105. There are four gangs (5 Men each) assigned to this task (2 gangs at Kingsland depot 2 at Hereford). The gangs are assigned to different parts of the County but resources are used flexibly and directed to need.

106. The gangs are issued with a daily schedule of works. If an emergency arises they can be diverted to deal with that.

107. The working day is 7 am – 4pm adjusted during winter hours – to allow work to be carried out in daylight

108. In contrast to the high-tech approach to asset maintenance this task remains a low tech task. The Gang sets up road management, digs out the pothole, puts in hot asphalt, compacts it, seals it and moves on to the next.

109. Spray injection patching can be used in the spring/summer on the rural roads in the county that carry lower volumes of traffic and this is to be increased.
110. Views are sometimes expressed that there were too many operatives “standing about doing nothing” and also suggestions that when a gang arrives “the first thing they did was have a drink and eat.”
111. In terms of supervision the starting point must be that most people want to do a good job and take satisfaction in their work. Equally no one works to full capacity all the time. It is important to note that repairs carried out are logged. There is live data on performance and tracking devices on vehicles.
112. It should be borne in mind that for health and safety reasons there is a need for some operatives to be deployed to observe what is going on and direct vehicle movement on or around site. In addition there are limitations on the amount of time that operatives can operate certain equipment for health and safety reasons to avoid industrial injury triggered by continuous use of vibrating hand-held machinery.
113. In terms of perception, it was noted that some reports from the public were received stating a pothole had not been fixed when the report from the gang said that it had been. As mentioned above photographs of completed repairs are sent to BBLP and logged. The view was that it was sometimes possible that the gang had repaired a pothole but not the one to which the report/complaint had related. It was in no one’s interest to misrepresent the truth. Mistakes do happen and miscommunication is the commonest reason for this.
114. The Group undertook a visit to observe reactive maintenance repairs being undertaken. The health and safety briefing and the personal protective equipment it was necessary to wear to go on site (hard hat, ear plugs, safety glasses, reflective jacket, reflective trousers, gloves and steel capped boots) reinforced the fact that undertaking works on the highway is a serious business to which safety risks are attached. It is a hard physical task.
115. The Group would caution against unauthorised individuals seeking to undertake works to the highway themselves, mindful of the health and safety risks.
116. The Group was also informed that there had been incidents of control measures around sites being ignored by impatient motorists and staff being abused. It is completely unacceptable for the workforce to be treated in this way and their safety and wellbeing jeopardised.
117. The Group did discuss whether the resource available for reactive repair work was sufficient. It acknowledges once again the balance that has to be struck, the importance of the proactive asset management strategy, the higher cost of reactive work compared with planned maintenance and the proposed introduction of a threshold for shifting resources to a more reactive approach when the number of defects reaches a certain point,

Material left over at the end of the working day

“It appears that in the afternoon when the time arrives for the gangs to return to base in Hereford, surplus tarmac is just used up filling farm gateways rather than spending the extra hour and using up the tarmac on potholes.”

118. There have been a small number of complaints relating to gangs wasting material. It is likely that the frustration that the public see is potholes remaining unfilled in areas where the gang is deployed, and then a small patch of bituminous material laid in a gateway or off the carriageway somewhere.
119. The Group was advised that this is not a widespread issue, and BBLP have confirmed that the gangs are encouraged to take material back for reuse. However, in some situations the material is no longer suitable because it ages prior to laying.
120. Whilst seeking to minimise waste of materials, any work has to be undertaken to a satisfactory standard or that in itself can lead to a poor perception of work undertaken.

Communication

121. The Group had some criticism of the reporting map on the Herefordshire Website. There was also a view that whilst the new Mobile Reporting App is a bit 'clunky', it is a good mechanism for reporting on the go rather than having to wait until getting home. Some comment was received that the online reporting system works well, though the agreed response time is far too long – leading to the situation of some potholes on a stretch of road being repaired while others are left until near the end of the response time
122. There was also comment that the 24 hour assistance line for the most severe pot holes was positive and had resulted in an improved service delivery. However, the Group expressed dissatisfaction with the current system in place for those reporting potholes by telephone. There is long preamble before being put through to BBLP. There would be benefit in pruning the preamble and making the system much more user friendly.
123. The Group's overall view was that the current system did not provide effective communication with residents. There should be better feedback for residents enabling them to understand when a repair might be made and when it had been carried out. This would be in keeping with other customer satisfaction measures across the council.
124. The Group considered that BBLP should improve the reporting system so that when a resident reports a road defect they are told through an automated system when it has been inspected, what priority it has been given, and the deadline for repair.

Consultation on works

125. The Group discussed instances known to them from their wards where proactive consultation with the community would have been of benefit before works by BBLP were commenced.
126. The Group was reminded again of the mix of programmed maintenance and reactive works – again highlighting the complexity of managing the whole of the network given the scale of activity – making it difficult to accommodate everyone's wishes. Under the current approach account was taken of local intelligence on local events. A notice was posted of planned closures. It was accepted that this was not an especially effective means of communication.
127. The Group acknowledged there was a balance to be struck between the requirement to plan maintenance and responsiveness to community requests. However, they considered that there was room for improvement in the current processes. In particular

there was scope for proactive communication and improved tailored notification to Parish Councillors and Ward Councillors.

Pothole prevention

“More preventative work should be undertaken ie ditch and culvert clearance so that problems aren’t created through lack of routine maintenance.”

128. The influence of surface water is by far the largest factor in pothole formation that can be addressed. There are significant portions of the network that would benefit from an improvement in drainage maintenance. The Group was advised that it is important that the drainage maintenance is linked to the maintenance of carriageways in accordance with the intentions laid out in the lifecycle plans for drainage and carriageways.
129. Understanding how the functions of managing the highway network work together is important for reducing the instances of pothole formation and extending service life of both repairs and replacement surfaces.
130. The Group noted that the local flood risk management plan recognises this issue. However, it wishes to reinforce the points that better communication is required with land owners on their responsibilities for maintaining effective drainage and where necessary further action is taken to ensure landowner compliance. Ditches need to be more regularly maintained. ditching works need to be better prioritised, and an inventory of gullies should be progressed. Greater investment in keeping drains and gullies clear and grips open will reduce damage to the highways. This has already been referenced in the earlier section on the lengthsman scheme.

Public Information

131. The aim of this review was to address concerns expressed within the community about the potential mismatch between policy and practice on pothole repairs.
132. The Group notes that some authorities publish frequently asked questions sheets on the approach to pothole repairs on their website. It considers that it would be helpful if such a document could be produced for Herefordshire.

Recommendations: Communications and customer service

- 14) BBLP should improve signage at worksites, including notification of: gang identification number; gang working hours; what the work is for; and a contact number in case of any problems with the site.**
- 15) BBLP should mark temporary repairs in a simple fashion e.g. by spraying with a white T, and should communicate to residents why the repair is only temporary, and when a permanent repair will be made.**
- 16) BBLP should consult with Parish Councils on the timing of planned works, especially any that will involve significant disruption.**
- 17) BBLP should improve the reporting system so that when a resident reports a road defect they are told through an automated system when it has been inspected, what priority it has been given, and the deadline for repair.**
- 18) BBLP should improve the system for those reporting potholes by telephone to make it much more user friendly.**

19) The council should improve communication with landowners regarding their responsibility on drainage; including the need for ditches to be more regularly and effectively maintained.

20) The council should develop a brief frequently asked question sheet on the approach to pothole repairs for publication on the website.

D: Strategic issues

133. Without appropriate funding, both revenue and capital, and careful management of that funding the roads will inevitably deteriorate. The section on funding earlier in this report commented that capital investment and receipt of capital grants is welcome but it is essential that this is supported by ongoing revenue funding. Certainty of funding over a set period is also important to support forward planning.

134. In recent years Government has announced one-off funding allocations at short notice. In 2018 funding it was announced in the budget at the end of October 2018 that the Council's had been granted an additional £5.1m for highway maintenance to be spent before the end of the financial year. This puts pressure on the ability of the supply chain to deliver across the country. The Group noted that the council intended to roll forward c£2m of council capital to deploy as part of planned expenditure in accordance with the asset management plan.

135. The Group considered that invest to save opportunities and prudential borrowing should continue to be explored and there should be lobbying for more consistent central government funding.

Innovation/ New Technology

136. The Group noted that one of the audit reports did observe that, "BBLP's repair options are currently limited and would benefit from reviewing previously used methods and exploring new options, to establish if/what improvement could be achieved".

137. The Group was advised that there is a continuous appraisal of new introductions to the sector that can deliver repairs more efficiently. Herefordshire has, for some time, utilised innovative repair techniques, such as Velocity Patcher/ Jetpatcher, and a Jetpatcher is being purchased (this will be demountable, so the chassis can be utilised during winter months as a gritter). This will allow for spray injection patching to be routinely delivered on the rural roads in the county that carry lower volumes of traffic which has the advantage of not only filling the pothole, but also sealing the cracks adjacent. Whilst this repair isn't appropriate for use on faster, more heavily trafficked routes due to the properties of the repair, it should help to manage the demand placed on the current resource and drive a higher quality and volume of repair.

138. The Group considers BBLP should continuously appraise new introductions to the sector that can deliver repairs more efficiently.

Climate Change

139. Climate change can have a direct impact on the performance of the transportation infrastructure both in terms of adaptation (i.e. taking measures to reduce risks relating to increased frequency and severity of extreme weather, such as ensuring bridges are flood-proof, and ensuring road surface materials do not melt in heatwaves) and mitigation (i.e. taking measures to reduce the climate impact of highways operations, such as reducing fuel use, and increasing materials efficiency).

140. It was suggested that while advised that some account is being taken of this issue there was more scope to consider both adaptation to and mitigation of climate change. The Group considers that the Council highways strategy should explicitly consider climate change,

Safety

141. In the section on working practices this report refers to the Group's site visit to observe reactive maintenance repairs being undertaken. The health and safety briefing and the personal protective equipment it was necessary to wear to go on site reinforced the fact that undertaking works on the highway is a serious business to which safety risks are attached.

142. The Group reiterates its concern about incidents of control measures around sites being ignored by impatient motorists and staff being abused. It again emphasises that it is completely unacceptable for the workforce to be treated in this way and their safety and wellbeing jeopardised

Recommendations: Strategic Issues

- 21) Funding: the Council should a) pursue all available 'invest to save' opportunities, b) consider prudential borrowing for such investments, and c) lobby for much more consistent and less ad hoc central government funding for highways.**
 - 22) Innovation: BBLP should be encouraged to continuously appraise new techniques, processes and materials that can deliver repairs more efficiently.**
 - 23) The council highways strategy should continue to consider climate change,**
 - 24) BBLP should continue to give safety a high priority, both in terms of a) worker and public safety during repair operations, including worker health and safety, and b) continuing risk-based approach to prioritising works.**
-