## **Public Document Pack**

### **Executive Member Decisions**

Friday, 16th August, 2019

#### AGENDA

 Highways Resilience Strategy Review
 EMD - Highways Resilience Strategy Review 2019 2 - 23 Resilience Strategy - V2.0 EIA Checklist - Highways Resilience Strategy Review 2019

> Date Published: 16<sup>th</sup> August 2019 Denise Park, Chief Executive

# Agenda Item 1 EXECUTIVE MEMBER DECISION



REPORT OF:	Executive Member for Growth and Development
LEAD OFFICERS:	Director of Environment and Operations
DATE:	2 <sup>nd</sup> September 2019

PORTFOLIO/S	
AFFECTED:	

Growth and Development

WARD/S AFFECTED:

SUBJECT: Highways Resilience Strategy Review

All

#### **1. EXECUTIVE SUMMARY**

The Highways Resilience Strategy was approved in May 2017 and updated following a major rainfall event in October that year. A major review of the strategy was commenced in February this year in line with the policy to undertake such a review every 2 years. The updated revised strategy is attached.

#### 2. RECOMMENDATIONS

That the Executive Member:

• Approves the revised Highways Resilience Strategy

#### 3. BACKGROUND

The Highways Resilience Strategy is reviewed every 2 years as a minimum to ensure that any major changes to the network or council policy are incorporated. It is also reviewed after any major event which affects the network. One such event occurred during the heatwaves of 2018 and the 2 year review was due at the beginning of this year. These reviews have been combined into one major review.

#### 4. KEY ISSUES & RISKS

During the last week of June 2018, gritters had to be deployed to spread granite dust on melting roads within the borough, mainly Livesey Branch Road and Preston New Road. Roads with a reasonable amount of traffic tend to start softening at a surface temperature of 50°c. This can occur when the published air temperatures are some 20 to 30°c below 50°c, as in prolonged direct sunshine, black asphalt absorbs heat and the temperature can quickly reach melting point.

To deal with such heatwaves, the current strategy states that 'During prolonged periods of daytime air temperatures in excess of 30°c, additional inspections of the resilient network will be undertaken and sealing grit applied as necessary.' In June 2018 however the recorded air temperature only hit 30°c on one day whic Page 2 he council reacting to the problem rather than

monitoring and being proactive with any treatment. The revised strategy therefore proposes to lower the threshold for carrying out additional inspections from 30 to 25°c.

In November last year a revised Highways Safety Inspection Policy was adopted by the council, an element of which was a new Network Hierarchy based on asset function as recommended in the Well Managed Highway Infrastructure Code of Practice. The new Network Hierarchy highlighted several roads, predominately Class B & C roads, for addition to the Resilient Network. These roads have been added to the revised strategy and have necessitated some major changes to the resilient network gritting routes as outlined in Appendix A. The length of resilient network being gritted has increased from 45 miles to 63 miles with the 'redundant' mileage increasing from 26.5 miles to 29.5 miles.

#### 5. POLICY IMPLICATIONS

The strategy complements the existing asset management policy and further develops the Council's management of the adopted highway network.

#### **6. FINANCIAL IMPLICATIONS**

There are no direct financial implications arising from this strategy. Adherence to the principles and practices promoted will minimise expenditure during periods of severe weather. Currently the winter maintenance budget is ring-fenced and the highways revenue budget funds gully maintenance and flooding incidents.

#### 7. LEGAL IMPLICATIONS

The Council has a duty to maintain the highway under section 41 of the Highways Act 1980. This strategy sets out one element as to how the council will carry out this duty.

#### 8. RESOURCE IMPLICATIONS

No additional resources are required to comply with the strategy.

#### 9. EQUALITY AND HEALTH IMPLICATIONS

Please select one of the options below. Where appropriate please include the hyperlink to the EIA.

<u>Option 1</u>  $\boxtimes$  Equality Impact Assessment (EIA) not required – the EIA checklist has been completed.

<u>Option 2</u> In determining this matter the Executive Member needs to consider the EIA associated with this item in advance of making the decision. *(insert EIA link here)* 

<u>Option 3</u> In determining this matter the Executive Board Members need to consider the EIA associated with this item in advance of making the decision. *(insert EIA attachment)* 

#### **10. CONSULTATIONS**

Consultations with Neighbouring Highway Authorities

#### **11. STATEMENT OF COMPLIANCE**

The recommendations are made further to advice from the Monitoring Officer and the Section 151 Officer has confirmed that they do not incur unlawful expenditure. They are also compliant with equality legislation and an equality analysis and impact assessment has been considered. The recommendations reflect the core principles of good governance set out in the Council's Code of Corporate Governance.

#### **12. DECLARATION OF INTEREST**

All Declarations of Interest of any Executive Member consulted and note of any dispensation granted by the Chief Executive will be recorded and published if applicable.

VERSION:	1
CONTACT OFFICER:	George Bell
DATE:	1 <sup>st</sup> August 2019
BACKGROUND	Resilience Strategy Version 2.0
PAPER:	



# Highways Resilience

# Resilience

# Strategy

# **DOCUMENT CONTROL**

Policy Title: Resilience Strategy

Version No: V 2.0

Status:

DRAFT / TO BE APPROVED

Version	Date	Amendment	Prepared by	Checked by	Date Approved By BwDBC
1.0	27/01/17	-	George Bell	Matthew Joyce	Approved 12 <sup>th</sup> May 2017
1.1	08/11/17	Update following October severe event	George Bell	Matthew Joyce	
2.0	21/02/19	Major Review	George Bell	Matthew Joyce	

Next major review due 27/01/21

# **Resilience Strategy**

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## **Resilience Standard**

It is vital that sufficient resources are available throughout the winter period and other severe weather events to ensure that it is possible to provide an effective, efficient service. These requirements vary throughout the season particularly in periods of severe weather, but as a minimum the service should endeavour to keep the resilient network clear at all times.

The resilient network and strategy should be reviewed and updated every two years as a minimum but with any major changes to the network triggering an earlier review. It should also be reviewed and updated following any relevant event.

#### **Resilient Network**

This is the minimum network required in order that the businesses and services across the borough can continue to operate. The A road network forms the majority of the resilient network but not exclusively so.

The resilient network consists of the following roads:

- All 'A' roads
- B6130, B6231(from Haslingden Road to Branch Road), B6232, B6236, B6391 and B6447
- C613, C614(from Broadhead Road to Chapeltown Road), C615(from Bolton Road to Pole Lane), C616 and C618
- Davy Field Road
- Hardman Way, Sudell Road, Sudellside Street, Olive Lane, Winterton Road, Chapels, Goosehouse Lane, Lower Eccleshill Road, Paul Rink Way (only required as relief for A666 should flooding occur)

This network is mapped on the Council's corporate GIS system.

#### **Resilience Preparation**

Prior to being in a position whereby the council is invoking the full resilience strategy, there are many actions that the council can take in preparation for its implementation:

- Effective maintenance of the resilient network is a priority, i.e. the resilient network receives a higher priority in any maintenance programme
- Ensure salt stock is at a maximum going into any winter period
- Accurate and frequent monitoring of salt stock during the season with early ordering of salt to top-up stock will take place.
- Ensure that the fleet of gritters are ready and well maintained
- Ensure constant revision of flooding areas following any severe weather event.
- Ensure wide dissemination of self-help information to the public, e.g. flooding leaflets, winter driving tip leaflets, etc.

#### **Risk Management**

Risks and their mitigation associated with the resilient network are documented within the network risk register and are incorporated into the departmental risk register.

## Winter Service

#### Introduction

This strategy is not intended to cover normal winter maintenance which may in itself result in some road closures and major disruptions. This strategy should therefore be looked at as a supplement to the existing policy to deal with a very severe prolonged winter weather event.

During such an event, particularly if it is nationwide, there can be, as was the case in February 2009, rock salt supply difficulties resulting in serious rock salt shortages.

Under normal winter conditions the council's gritting routes seek to ensure that, so far as is reasonably practicable:

- the strategic and principal routes are available
- emergency Services are not unduly delayed
- principal public transport routes are maintained

In times of shortage or difficulty it will not always be possible to maintain all of these routes to an ideal standard and when this point is reached the provisions contained within this strategy should be implemented. As a guideline the trigger point for implementing this strategy would be when salt stocks drop below the level whereby given the daily salt usage in place at the point where there was less than 5 days capacity in reserve.

#### **Reduction in service**

The measures detailed below need to be implemented as a controlled degradation of service as opposed to a knee jerk reaction to intermittent supply problems.

The implementation of these measures will most probably give rise to an increase in road traffic accidents on untreated roads and as such the decision to implement this strategy should be taken by the Head of Service or an appropriate Chief Officer.

There are six distinct types of action which can be taken to reduce the overall tonnage of rock salt used by the Borough.

- Reduce spreading rates (e.g. from 40 grams per square metre to 20 gsm)
- Bulk out the normal rock salt using inert fillers, such as sharp sand (normally only used when hard packed snow is an issue).
- Source alternate products such as pad salt.
- Reduce the length of road gritted.
- Reduce or stop hand gritting.
- Reduce or stop re-filling salt bins.

These actions can be used individually or in any combination.

It should be borne in mind that reducing spread rates and bulking out rock salt vastly reduces the actual amount of rock salt spread on the road and this could quickly lead to a dangerously low and unacceptable level of service.

It is not possible to give specific instructions on reducing spread rates and bulking out percentages in advance as the extent of actual shortages and availability of alternatives is unknown.

Hand gritting and re-filling salt bins do not consume large tonnages of rock salt, nevertheless significant savings can be made if these routine actions are discontinued in times of shortages.

Normal gritting routes comprises

- Four primary routes treating 84.5 miles (136 km) of carriageway and
- Four secondary routes treating 81.9 miles (131.8 km) of carriageway,
  Total: 166.4 miles (267.8 km).

#### **Network Reduction**

Prior to reducing the network coverage to the resilient network, salt stocks should be conserved through reducing spread rates if possible, however a careful balance is required in order to ensure driver safety on the network along with maintaining vital infrastructure.

Therefore, if current stock levels are sufficient a spread rate reduction may be sufficient to maintain stocks above the critical level whilst still covering the majority of the primary and secondary network.

However, if consequences are outside the local authorities control and the weather is having an impact on national supplies and shortages are occurring then it may be prudent to gradually reduce network coverage until sufficient deliveries and re-stock takes place and weather conditions improve. Should however the guideline trigger value of 5 days salt stock capacity in reserve be reached, network coverage should be reduced to the resilient network.

A priority list below in order not to reduce the network alone:

- 1<sup>st</sup> In instances of prolonged hard packed snow, mix salt with grit<sup>1</sup>
- 2<sup>nd</sup> Reduce spread rate
- 3<sup>rd</sup> Gradually reduce network coverage
- 4<sup>th</sup> Treat resilient network only see Appendix A for resilient network gritting routes.

These decisions must only be made by a Chief Officer or Head of Service.

<sup>&</sup>lt;sup>1</sup> Grit, which is in fact a coarse natural sand, is only usually used on hard-packed snow and ice. In conditions where snow has already settled, grit can be mixed with salt up to a ratio of 50/50 to provide traction and help break up frozen surfaces.

### Combination of salt spread reduction and network reduction

Various scenarios are given below for different reductions in salt availability

Percent reduction in supply	Possible action	Percent reduction in consumption
10	Reduce spread rates on secondary routes from 40 gsm to 30 gsm	12.3 %
20	Reduce spread rates on secondary routes from 40 gsm to 20 gsm OR	24.6 %
	Reduce spread rates on primary and secondary routes from 40 gsm to 30 gsm	25%
30	Reduce spread rates on primary routes from 40 gsm to 30 gsm and reduce secondary routes from 40gsm to 25 gsm	31%
40	Reduce spread rates on primary routes from 40 grams to 30 grams and secondary routes from 40grams to 20 grams	37%
50	Bulk out rock salt using sharp sand in equal parts, effectively cuts rock salt spread rates in half	50%
60	Reduce spread rates on all routes from 40 gsm to 20 gsm and Reduce gritting mileage on secondary routes from 81.9 miles to 50 miles	59.6%
70	Reduce spread rates on all routes from 40 gsm to 20 gsm and Reduce gritting mileage on secondary routes from 81.9 miles to 10 miles	71.6%

## **Severe Weather**

#### Rain

The council's response to periods of prolonged wet weather are generally covered within the Council's Multi-Agency Flood Plan Parts 1 & 2.

The location of gullies and watercourse trash screens in areas known to flood have been identified and mapped on the council's corporate GIS system. As per the council's Gully Cleaning Policy, all critical gullies will be attended twice per year as a minimum. They will also be inspected on receipt of either an amber or red flood warning event and cleaned as necessary prior to the event.

The main area of the resilient network that is at risk from flooding is the A666 in Darwen between the circus and Hollins Grove. On receipt of either an amber or red flood warning event, the resilient network route Sudell Road, Sudellside Street, Olive Lane, Winterton Road, Chapels, Goosehouse Lane, Lower Eccleshill Road and Paul Rink Way will be checked to ensure that there are no obstructions on the route by Utility Company's or other works.

For critical flood risk areas see Appendix B.

#### Wind

There are no known areas of the network which are adversely affected by wind. Historically, however, there have been occasions of highways being blocked by uprooted trees. When high winds are forecast, the council's tactical officer will consider whether or not the forecast is severe enough to warrant having a tree specialist gang on stand-by.

In addition street lighting columns on the resilient routes are subject to more frequent structural checks and are programmed for replacement before their condition becomes critical.

#### Heat

Periods of exceptional heat during the summer months may result in some roads surfaced with older materials requiring the application of sealing grit to maintain their skid resistance and prevent their deterioration. During prolonged periods of daytime air temperatures in excess of 25°c, additional inspections of the resilient network will be undertaken and sealing grit applied as necessary.

## **Other Risks**

#### **Major Incidents**

In the event of a major incident affecting the resilient network, critical network diversion routes have been identified and documented in the Network Risk Register - Highway Asset Management Structures (Network Impact). Any incident will be dealt with under the Council's Major Incident Contingency Plan – MERLIN.

No high risk industrial plants, e.g. chemical or oil plants, have been identified as risks to the network.

Major incidents include local risks such as a breach of the Leeds / Liverpool canal banks where it runs through the borough or a rail incident at one of the many rail bridges over the highway network.

### Communications

#### **Information and Publicity**

A key aspect of any resilience strategy is keeping the public informed of the developing condition of the network. This needs to be done through a variety of media outlets in order that information reaches the widest public audience.

#### **Current Information**

For day-to-day updates on the unfolding network condition during severe weather events, the quickest way to keep the public informed is through social media networks and local radio stations.

Should the resilient strategy be invoked, the council's Policy and Communication's team will be on standby to disseminate information through the Council's Facebook and Twitter accounts as well as briefing the local radio stations, BBC Radio Lancashire, The Bee Radio and Rock FM.

Press releases will be regularly supplied to the local newspaper, the Lancashire Telegraph.

# Appendix A

**Resilient Network Gritting Routes** 



BLUE ROUTE - Resilient Network					
Salt / Not Salt	Direction	Route Detail	S Miles	NS Miles	
		Route starts at Davyfield Road, BB1 2LX			
S	TR	Davy Field Road	0.2		
S	TL	Roman Road	0.4		
S	TL	Stopes Brow / Rakes Bridge / Fore Street	0.6		
S	SA	Branch Road	0.5		
NS	TR	Bolton Road		0.4	
S	TL	Livesey Branch Road	2.2		
S	TL	Preston Old Road to Tintagel Close	0.4		
NS	TA	Preston Old Road to Livesey Branch Road		0.4	
S	TR	Preston Old Road	1.7		
S	SA	Redlam / Bank Top / Whalley Banks	0.9		
S	TL	Montague Street	0.1		
S	TR	Barbara Castle Way	0.8		
S	SA	Eanam / Higher Eanam	0.3		
S	TR	Unamed Link Road	0.0		
S	TR	Higher Audley Street	0.1		
NS	TR	Higher Barn Street		0.1	
S	TL	Eanam	0.1		
S	SA	Barbara Castle Way	0.8		
S	TR	Feilden Street / Cardwell Place	0.2		
NS	SA	Higher Church St / Darwen St / Park Rd / Russell St		0.6	
S	SA	Wainwright Way	0.4		
S	SA	Montague Street	0.3		
S	TL	Montague Street	0.3		
S	SA	Wainwright Way	0.4		
S	TR	Bolton Road	0.8		
S	TL	Bolton Road	0.2		
NC	ті	Return to Depot - Bolton Rd / Branch Rd / Stopes Brow/		2 1	
	I L	Roman Rd		2.1	

Route Totals Salting	Non Salting
11.5	3.6

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NSTRShadsworth Road0.1NSTLFecitt Brow0.2STLBank Lane0.2STLShadsworth Road1.1NSTLReturn to Depot - Haslingden Rd / Blackamoor Rd / Roman Rd1.7	S	TR	Bank Lane	0.1		
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S  TL  Shadsworth Road  1.1    NS  TL  Return to Depot - Haslingden Rd / Blackamoor Rd / Roman Rd  1.7	S	TL	Bank Lane	0.2		
NS TL Return to Depot - Haslingden Rd / Blackamoor Rd / Roman 1.7	S	TL	Shadsworth Road	1.1		
	NS	TL	Return to Depot - Haslingden Rd / Blackamoor Rd / Roman Rd		1.7	

Route Totals	Salting	Non Salting
	16.74	4.09
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PINK ROUTE - Resilient Network					
Salt / Not Salt	Direction	Route Detail	S Miles	NS Miles	
R	oute st	tarts at Blacksnape Road, Junction of Marsh H	louse Lar	ne	
NS	TR	Davy Field Road		0.2	
NS	TR	Roman Road		1.9	
S	SA	Blacksnape Road / Roman Road / Blackburn Road	4.0		
S	SA	Bury Road	1.1		
NS	TA	Bury Road		1.1	
S	TL	Bolton Road / Wellington Road / Chapeltown Road	1.8		
NS	TA	Chapeltown Road		0.7	
S	TL	High Street / Green Arms Road	2.7		
S	TR	Bolton Road / Cemetery Road	2.0		
NS	TA	Cemetery Road / Bolton Road to Green Arms Road		2.0	
S	SA	Bolton Road / Blackburn Road	1.1		
NS	SA	A666 to Bar Lane		2.8	
NS	TR	Bar Lane		0.2	
NS	TR	Belmont Road to Borough Boundary		1.5	
S	SA	A675 Belmont Road / High Street	4.9		
NS	SA	Return to Depot - A675 through Abbey Vilage to Jct 3 M65		3.5	
NS	TR	M65 Jct 3 to Jct 5		5.1	
NS	TL	Blackamoor Rd / Roman Rd / Davy Field Rd		1.5	
		ROUTE COMPLETE			

Route Totals Salting	Non Salting
17.5	20.3

RED ROUTE - Resilient Network								
Salt / Not Salt	Direction	Route Detail	S Miles	NS Miles				
Route starts at Blackamoor Road, Juncion of Roman Road								
NS	SA	Davy Field Road / Roman Road to Blackamoor Lights		0.6				
S	TR	Blackamoor Road to Guide Crossroads	0.6					
S	TR/TA	M65 Roundabout	0.6					
S	SA	Haslingden Road	1.7					
S	TR	Grimshaw Park	0.2					
S	TL	Russell Street	0.1					
S	TR	Great Bolton Street	0.1					
S	TR	Lower Audley Street	0.4					
S	TL	Higher Audley Street	0.4					
S	TL	Higher Barn Street	0.1					
S	TR	Higher Eanam/Copy	1.2					
		Nook/Bottomgate/Furthergate/Accrington Ro						
S	TL	Whitebirk Road	0.4					
S	TR	Red Lion Roundabout/A678 Slip Road to Whitebirk Roundabout	0.2					
S	ті	Whitebirk Drive/Brownhill Drive/Bamsgreave Drive	2.3					
S	TL	Pleckgate Road	0.8					
S	TL	Shear Brow	0.7					
NS	TL	Barbara Castle Way		0.4				
S	TL	A666/Larkhill Whalley New Road	1.7	••••				
S	TL	Ramsgreave Drive/Yew Tree Drive	1.9					
S	TR	A677/Preston New Road	1.9					
NS	TR	Barbara Castle Way		0.1				
S	TL	Alma St/Blakey Moor/Cardwell Pl/Higher Church	0.6					
		St/Darwen St						
S	SA	Park Road	0.2					
NS	SA	Grimshaw Park	4.2	0.2				
S	SA	Brandy House Brow/Roman Road to Blackamoor lights	1.2	• -				
NS	SA	Return to Depot - Roman Road/Davy Field Road		0.6				

Route Totals Salting Sa	lting
17.6	1.9

# **Appendix B**

#### **Critical Flood Risk Areas**







#### EQUALITY IMPACT ASSESSMENT CHECKLIST

#### This checklist is to be used when you are uncertain if your activity requires an EIA or not.

An Equality Impact Assessment (EIA) is a tool for identifying the potential impact of the organisation's policies, services and functions on its residents and staff. EIAs should be actively looking for negative or adverse impacts of policies, services and functions on any of the nine protected characteristics.

The checklist below contains a number of questions/prompts to assist officers and service managers to assess whether or not the activity proposed requires an EIA. Supporting literature and useful questions are supplied within the <u>EIA Guidance</u> to assist managers and team leaders to complete all EIAs.

	Service area & dept.	Environment & Operations	Date the activity will be implemented	02/09/2019
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Brief	
description	Highways Resilience strategy
of activity	

Answers favouring doing an EIA	Checklist question	Answers favouring not doing an EIA
🛛 Yes	Does this activity involve any of the following: - Commissioning / decommissioning a service - Change to existing Council policy/strategy	🗆 No
□ Yes	Does the activity impact negatively on any of the protected characteristics as stated within the Equality Act (2010)?	🖂 No
□ No □ Not sure	Is there a sufficient information / intelligence with regards to service uptake and customer profiles to understand the activity's implications?	⊠ Yes
<ul><li>☐ Yes</li><li>☐ Not sure</li></ul>	<b>Does this activity:</b> Contribute towards unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act <i>(i.e. the activity creates or increases disadvantages suffered by people due to their protected characteristic)</i>	⊠ No
□ Yes □ Not sure	Reduce equality of opportunity between those who share a protected characteristic and those who do not ( <i>i.e. the activity fail to meet the needs of people from protected groups where these are different from the needs of other people</i> )	⊠ No
<ul><li>☐ Yes</li><li>☐ Not sure</li></ul>	Foster poor relations between people who share a protected characteristic and those who do not ( <i>i.e. the function prevents people from protected groups to participate in public life or in other activities where their participation is disproportionately low</i> )	⊠ No
FOR = 1	TOTAL	AGAINST = 5

#### Will you now be completing an EIA?

The EIA toolkit can be found here

Assessment Lead SignatureChecked by departmental<br/>E&D LeadDate05/08/2019

□ Yes

🛛 No