## Winter Service in Cheshire East





# **Simon Davies**

- Operations Manager
- Cheshire East Highways



## **Cheshire East Winter Maintenance Service**

- Cheshire East
- Our Winter Service
- Service Review
- Drivers
- Carbon reduction
- Adverse Weather Desk
- Future challenges



## **Cheshire East**

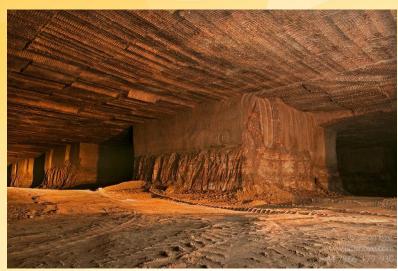








# **Cheshire East**





Working for a brighter future together

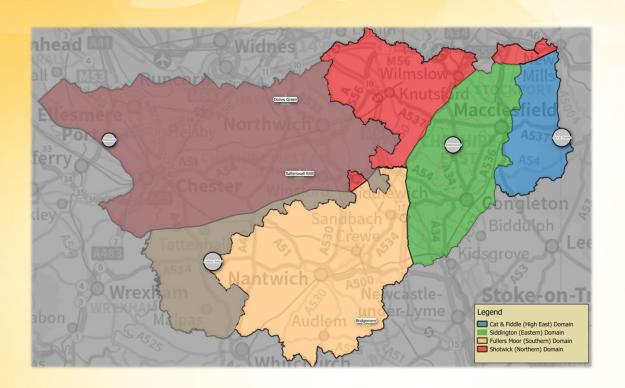








## **Cheshire East**



- High East
  - Above 200m
  - Weather station at the Cat and Fiddle, A537
- South
  - Cheshire Plain
  - Weather station at Fullers Moor, A534
- East
  - Transition
  - Weather station at Siddington, A34
- North
  - Legacy from CCC





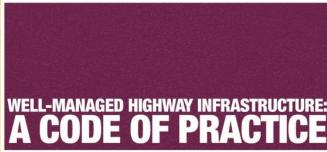


- 17 primary routes
- 2 depots
  - Macclesfield
  - Wardle
- New fleet
- Dry salt
- Navtrak automated salt spreading
- Forecasting and decision making
- Communications



### Service Review







- Well Managed Highway Infrastructure
- Risk-based approach
- New winter policy
- Methodology and scoring matrix
- Whole network
- Consultation
- Route optimisation
- Implementation
- Annual review



## Methodology and scoring matrix

Cheshire West & Chester		O Main Bus station		k 1.00	Business Park (Cat 1)	Check	_	College		1.00 Altitude above 200m	Ow	6ck 0.2						1.00 Care Home (large)			Access to Hamlet or Villag			Check
Derbyshire CC	Check 0.5	O Railway station (Main InterCity)	Chec	k 1.00	Business Park (Cat 2)	Check	0.50	University	Check	1.00 Altitude above 300m		kck 0.9	Shaded/Cold spo	Check	0.25		Check	0.10 Care Home (Medium)	Chec	* 0.25		Check	Recycling Centre	Check
High Peak Council	Check 0.5	O Railway station (Urban Commuter)	Chec	k 0.75	Business Park (Cat 3)	Check	0.25	Primary School (Rural)	Check	0.50 Exposed area		KK 0.1	Run Off	Check	0.25	Fire Station	Check	1.00 Care Home (Small)	Chec	× 0.10		Check	Recycling Domestic	Check
Manchester CC	Check 0.5	O Railway station (Rural)	□ Chec	k 0.50	Distribution Hub	Check	1.00	Primary School (Urban)	Check	0.25 Flooding Hotspots	O.	KK 0.2	5 Tunnel	Check	0.10	Hospital	Check	1.00 Centre of Community	Chec	× 0.10		Check	Refuse Landfill	Check
Newcastle under Lyme BC	Check 0.5			k 0.25		Check					_ Ch4	1.0	0	Check		Police Station	Check	1.00 Crematorium	Chec	<sup>2</sup> 1.00		Check	Retail Park	Check
Shropshire CC	Check 0.5	0 Bus Depot	□ Che	1.00	)	Check		Special School	Check	1.00 Gradient 1:10 (Cat 2)	C#	KX 0.7	5	Check		Primary Care Centre	Check	1.00 Public Cemetery	Chec	× 0.50		Check	Sewerage/Water Plant	Check
taffordshire CC	Check 0.5			k 1.00		Check			Check	Gradient 1:10 (Cat 3)	_ Ch4	KK 0.5	0	Check			Check		Chec	k .		Check	Alt Route for Low Bridge	Check
taffordshire Moorlands	Check 0.5			k 1.00		Check			Check	Gradient 1:10 (Cat 4)	_ Cre	KK 0.2	5	Check			Check		Chec	k .		Check		Check
tockport MBC				k 0.50		Check			Check		_ Ch4	_		Check			Check		Chec			Check		Check
	Check 0.5		Che	_		Check			Check		_ Ch4	_		Check			Check		Chec	k .		Check		Check
	Check 0.5		Chec	_		Check			Check		Che	-		Check			Check		Chec			Check		Check
Warrington BC	Check 0.5	0	Chec	_		Check			Check		Che			Check			Check		Chec	_		Check		Check
	Check		Chec	_		Check			Check		Che			Check			Check		Chec			Check		Check
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	Check		Chec	_		Check			Check		CH	KCK.		Check			Check		Chec	k .		Check		Check
											$\vdash$	-												
	"" Scheduled Bus X Boundary refers to those ro towns and as a consequence of the distance involved, the				+																			
		Business Park (Cat 1)		Through Route		Gradient 1:10 (Cat 1) Falls		isto		Strategic Route								Fillage - larger than a hamil	a hamlet few services, a church and or small shop/post		ast office.			
										Gradient 110 (Cat 2) falls t			Main Distributor								Hamlet - population (<100)	and very fer	r services, only a few buildings.	
							Gradient 1:10 (Cat 5) falls to			Secondary Distributor						Isolated direilling - 1 to 5 buildings or families negligit			families negligible services, if any	a services, if any.				
										Gradient 1:10 (Cat 4) falls t	.0		Link or Local Access	Road										
																					Hamlets in CEC			
																					Dean Green			
										Care home large	_		over 100 beds								Dodd's Green			
										Care home nedion	_		25 to 100 beds							_	Gatley Green			
										Care home small		_	up to 25 beds								Salesbrook			
										i													i	

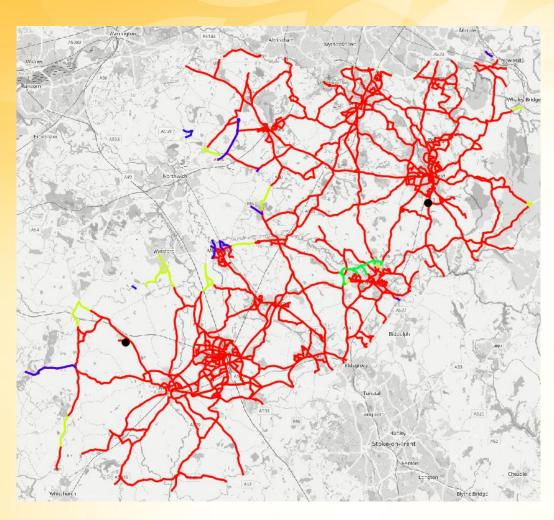


# **Example risk assessment score**

KnutsfordFaulkners LaneGr	reat WarfordC111_05										
Road Number	C111_05	Road Name	Faulkners L	CONTRACTOR							
Highway Area Group	Knutsford	Parish/Town	Great Warf	Cheshire East Council							
USRN	24100822	X-point	380253.5524 Y-point	378562.6468	Highways						
Road classification	C Road	Section Length	615 metres	Secondar	dary Distributor						
Add to precautionary route?	NO										
		Score		Mitigating Factors							
Emergency Services	[	0									
Public Transport Hubs		0									
Education Establishment	[	0									
Locality Resilience	[	0									
Local Infrastructure	[	25	Care Home (Medium)								
Manufacturing & Industrial Cen	tres	0									
Rural Communities	[	0									
Topological Features		0									
Existing or Prevailing Climate Co	onditions	10	Bridge deck								
Co-ordination with Adjacent Hig	hway Authorities	0									
	_										
	Total	35									
Following the risk assessment carried out in accordance with the Defined Methodology, this length of highway (on the Cheshire East Highway Network) DOES NOT MEET THE THRESHOLD for inclusion on the Winter Treatment Network											
Additional Comments:											



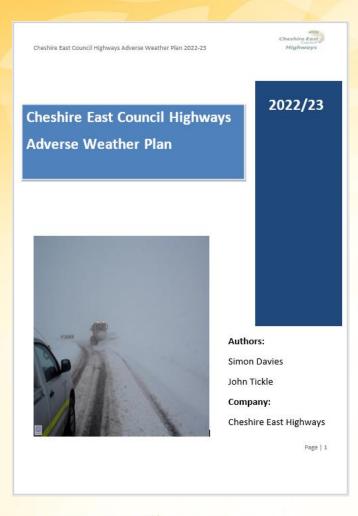
## Route optimisation



- Initial scoping report
- Detailed optimisation to include:
  - Maximum treatment times
  - Spread rates
  - Vehicle capacities
  - Depot locations
  - Reciprocal arrangements
  - Additional capacity for new roads



#### **Adverse Weather Plan**



- Key Objectives
  - Prepare and plan
  - Process, roles and responsibilities
  - Prioritise response
  - Manage and supervise
  - Record
  - Communication
  - Recovery



#### **Adverse Weather Plan**



- Adverse Weather Desk
- Provides key roles
  - Manager
  - Telephone
  - Prioritiser
  - Recorder
  - Comms
  - Supervisor



#### **Drivers**

- Recruitment
- Retention
- Supply chain
- Training
- Reduced requirement
  - Fewer routes
  - Changes to shift pattern
- Zero hours contracts



## **Carbon Savings**



- Solar panels
- Route optimisation
  - Less routes, less gritters
  - More efficient routes
  - Subsequent fuel saving
  - Reduced emissions
- Dynamic calibration of gritters
  - More accurate spreading
  - Less waste.
- Alternative fuels



#### What next?

- Climate change
  - Warmer and wetter winters?
  - More storms and severe weather events
- Sustainability
- Technology
- Innovation



# Thank You!



# Any questions?



