

'Pothole Action Fund'

Over 7,000 road potholes had been repaired to end of January – and this figure is expected to rise to over 8,000 by the end of March. This includes potholes addressed through capital funded surface works such as pre-surfacing patching.

Pothole repair funding in Essex combines Essex County Council (ECC) funding with the Department for Transport (DfT) Pothole Action Fund, resulting in an enhanced repair programme of approximately £4.39 million for 2019/20.

ECC recognises public concern, and accordingly is investing over £2.39 million for tackling potholes in 2019/20. This includes a £565,000 County Councillor led, locally focused pothole repair initiative for 2019/20, which is a continuation of the initiative which was launched in 2018/19.

The Department for Transport (DfT) provided £1.994 million for the Pothole Action Fund for 2019/20.

The DfT funding has enabled additional road pothole repairs on all road types across Essex. The most appropriate treatments are selected site-by-site, but are mainly traditional patching for most requirements. Other treatments include: injection patching; thermal patching and localised concrete repairs.

Essex Highways complies with best practice, investing in 'right first time' value for money permanent repairs. This approach reflects the Highways Maintenance Efficiency Programme (HMEP) guidance, which is an industry led, government promoted initiative encouraging good asset management practice.

Cost at individual sites ranges widely, depending on requirements for traffic management, speed of road, and the most appropriate treatment technique. These costs contribute a share of the total cost of operations to fix potholes which includes materials, labour, plant including vehicles, traffic management, management, insurance, training and other overheads.

The ECC funding for pothole maintenance repairs has focused on higher priority, safety related repairs, although lower priority repairs have also been undertaken – especially through the County-Councillor-led repair initiative. Pothole repairs have also been undertaken during the roads capital resurfacing programme.

For information on the numbers of potholes repaired under the range of funded repair activities referenced above, please refer to Table 1 below, where it can be seen that the DfT funding significantly enhanced ECC spending plans.

Table 1: Pothole Productivity Repair Outputs	Quantity of Potholes Repaired	
	Funding Initiative	End of January
DfT Pothole Action Fund	1,897	2,248
ECC Funded Carrageway Maintenance	2,238	2,678
ECC Funded Capital Surface Wearing Course Repair	973	1,170
ECC Funded Councillor led Pothole Initiative	1,350	1,350
ECC Funded Capital Roads Resurfacing Programme 19/20	600	710
Total	7,058	8,157

Pothole prevention through a balanced capital road resurfacing programme of preventative and strengthening treatments in 2019/20

Note that the pothole repair information above relates to general maintenance, including pre-patching as part of preparation for more extensive road resurfacing works. However, Essex also undertakes a comprehensive programme of capital road resurfacing works each year.

Essex takes a 'preventative approach' to road resurfacing, whereby capital funded, value for money preventative treatments such as Surface Dressing and Micro Surfacing are applied to seal the road surface to prevent water ingress. Water penetration of the road surface is a major cause of potholes, especially during winter months with its accompanying freeze/thaw cycles. Strengthening treatments, such as machine surfacing and reconstruction, make surfaces more resistant to the formation of potholes, but these are more expensive.

Table 2 below shows the capital road resurfacing works programmed for 2019/20 – most are already completed. The programme includes over 1 Million square metres of Surface Dressing and Micro Surfacing. These low-cost preventative treatments cover nearly 70% of the total area of works – great value for Essex taxpayers.

Table 2: Capital Road Resurfacing Programme 2019/20

Treatment Type	Area in Square Metres	Estimated km Treatment Length	% Treatment Compared to Total
Surface Dressing	784,200	109	50%
Machine Surfacing	381,400	56	26%
Micro Surfacing	275,400	42	19%
Major Reconstruction	78,100	11	5%
Total	1,519,100	218	100%

Planned length of road resurfacing works is 218 km (136 miles), further than from London to Norwich. Essex has some 5,000 miles of roads, about the distance from London to Saudi Arabia.

Why potholes are unlikely ever to be eradicated completely

Despite the many thousands of pothole repairs and miles of resurfacing undertaken in Essex every year, potholes will still occur. Why?

Water penetrates the road surface through cracks caused by oxidation, ground movement and the effects of heavy traffic. Oxidation is the process whereby the road surface becomes brittle over time simply through exposure to air. Under the freeze/thaw cycles of winter, the penetration of water causes the road material to begin to break down and delaminate, creating voids and other deterioration which we refer to as potholes. Eventually roads need substantial, expensive rebuilding. Many existing roads were not built for today's heavy, busy traffic.

Essex Highways uses these HMEP techniques:

- **Intervening at the right time** with preventative treatments such as Surface Dressing or Micro Surfacing to prevent potholes forming
- **Getting it right first time** with permanent repairs to reduce the cost of re-visits
- **Providing clarity to the public** – communicating what is being done on the Essex Highways website, Twitter account and ECC news releases.

The inevitability of some potholes in future is acknowledged by the DfT, and we trust we will receive further Pothole Action funding in future years to add to our planned spending, improving our roads for all road users.