

ANNUAL PLAN **2019-20**



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FOREWORD

Essex County Council appointed Ringway Jacobs in 2012 to undertake our highways work and much has been achieved. Using data and asset knowledge we have focused our resources, improved our main roads, and helped Essex County Council achieve 'Transport Local Authority of the Year' in 2017. Building on this, we are scoping the future of the service

COUNCILLOR KEVIN BENTLEY

Deputy Leader, Essex County Council
and Cabinet Member for Infrastructure

I became Cabinet Member for Infrastructure in May 2018 and I have enjoyed working with the service to make changes so that people actually see and feel the improvements we have already made in their local areas. Following our success with key routes, I have changed the focus to consider local roads more, as people's perception of progress is rooted in what they experience locally.

We have improved the support we give to County Members over their highway issues, speeded up the delivery of Local Highways Panel projects and empowered Members and local people to identify the defects they most want repaired, through our 'Top 20' pothole programme. In 2019/20 we are extending this initiative to cover footpaths and further improvements will come.

We continue to work with many partners to maximise the potential of this great county, encourage economic growth and create great places to live and work. We are already planning for the future. In 2019, we will be the first local authority to issue a Technology Strategy. We have led the campaign for a proposed new route for the A120 which, if central government backs it, will alleviate a lot of the traffic problems. In the south of the county we have set up an A127 taskforce to look at the issues and solutions, for this critically important corridor.

We have new or improved junctions planned for the M11, and we continue to work closely with our district, borough and city councils, to ensure that their local plans include critical infrastructure that supports shared growth.

All of this, alongside our day-to day maintenance and improvement programmes, will help us deliver a safe highway network everyone can be proud of.



INTRODUCTION

This Annual Plan provides an overview of the strategy to deliver task orders and budgets as detailed in the individual 2019-20 Service Plans, and highlights both service delivery achievement and priorities for this year



Essex Highways is a collaborative delivery partnership, created in 2012 by Essex County Council and Ringway Jacobs, to manage and deliver local highway services from the amalgamation of 10 separate highway contracts

Essex Highways comprises both Essex County Council and Ringway Jacobs people who are totally integrated throughout all levels of the service.

The partnership delivers an integrated service supported by direct-resource and over 100 supply chain partners, the majority being Essex based.

The Essex Highway asset covers over 5,000 miles of roads, 1,500 bridges, 4,000 miles of Public Rights of Way and 127,000 street lights. It is the seventh largest network in the country and has some of the heaviest traffic flows.

Natural deterioration, increased volume use and environmental impact, such as extreme weather, means that the asset can't be maintained within

existing budgetary constraints - a challenge faced by all local authorities. Our Asset Management approach and strategy is all about planning ahead to maximise the use of our resources, protect the existing infrastructure and prioritise works for the best long-term benefit. Our focus is on ECC objectives which are:

- Help realise ECC's Strategic Aims
- Meet customer needs
- Obtain value for money
- Promote improvement and innovation
- Reduce the cost of the Service

These objectives are to be achieved by delivering and improving public satisfaction on all aspects of the highway network by maximising the commercial and strategic opportunities available through this partnership.

Essex Highways is maintaining and adding to the existing highway network of which the residents of Essex can be proud.

BUILDING ON SUCCESS

Since 2012, Essex Highways has effectively and innovatively managed the county's biggest and most valuable asset, resulting in the public having a safe, accessible, serviceable and sustainable highway network.

The county's road condition has improved each year (based on independent survey data). At the start of 2019, the RAC reported that Essex had improved its pothole numbers by 44% over the last two years; the most improved council in the country.

We have been converting Essex's street lighting to energy efficient LED street lights, with the final phase planned to commence this year. Essex Highways continues to bring new technology and innovations that will benefit the highway network - and everyone in Essex- in the years to come. Some of our approaches to the future feature in our Technology Strategy - in fact, we will be the first local authority to publish such a document.

Our strategic delivery partnership was recognised at the 2017 National Transport Awards where Essex County Council won Transport Local Authority of the Year. Critically, the partnership is working to help the council reduce costs and generate additional income, which links to one of the key Council strategic priorities; to limit costs and drive growth in revenue.



Other neighbouring local authorities perceive Essex as the exemplar in securing external funding, as the partnership has brought in millions of capital grants and other government funding since it was formed.

We are continually improving the highway network, reducing cost through innovation, delivering efficiencies, while helping Essex achieve its Strategic Aims. The service directly helps to enable inclusive economic growth, but also helps to create great places to grow up in, to live and work.



HEALTH & SAFETY

'Think Safe, Home Safe' has become the cornerstone of Essex Highways' culture since its introduction in 2015. It focuses our dedication to providing a safe working environment, ensuring our employees go home safely at the end of each day



Our health and safety objectives are honed annually and encourage staff to focus on appropriate themes each and every month throughout the year, supported by online training modules and Tool Box Talks.

Positive Mental Health is key to the well-being of our people and forms part of our ongoing cultural change journey to improve health and safety standards. 2017 saw the launch of 'Open Minds, Healthy Minds' our vehicle to embed and implement awareness of positive mental health into our culture.

In 2018, our 24 trained Positive Mental Health Champions responded to 72 members of staff who requested their help. By mid-May 2019, 69 members of staff had received assistance.



In 2018 our organisation completed a best practice Five Star Occupational Health and Safety Audit conducted by the British Safety Council. This involved a review of our overall approach to safety management systems, as measured against a number of best practice benchmarks.



It included a comprehensive, quantified and robust evaluation of our occupational health and safety policies, processes and practices, and measured performance against key health and safety management best practice indicators.

In total, we underwent a detailed review of over sixty component elements. As a result, Ringway Jacobs was awarded a five-star grading following the audit, with an outstanding score of 97.88%.



Our approach is recognised beyond Essex. As well as being one of the first organisations worldwide to achieve ISO 45001 for health and safety management best practice, Ringway Jacobs has been awarded a ROSPA Gold Award which recognises our consistently excellent and continuously improving performance and innovative approach to health and safety.

issue this is nationally, to then take the matter to policy / law makers and see whether we can change how authorities such as the Police respond to road worker abuse, or whether the laws around this can be improved so that there are more significant consequences when it happens.



A key risk area for Ringway Jacobs is Roadworks Incursions and Abuse. As a result, Martin Cahalan, the company's Head of HSEQ, headed up a project group for the Highways Term Maintenance Association (HTMA) to understand how they can work nationally to deal with this problem. The first step was to pull together the data on how big an

It may take some time to effect any change, but efforts will continue through 2019/20 to ensure that our operatives get more protection from members of the public who cause this problem.

Our operatives are urged to report every incident of this type and now also use personal CCTV to capture incidents and evidence if they happen.



67%
Reduction in service strikes across the contract since 2012

March 2018 - Ringway Jacobs one of the first organisations in UK to achieve ISO 45001



ROADS

Effective asset management of roads and footways leads to a safe, accessible, serviceable and sustainable highway network which is vital for providing access to key services such as employment, healthcare, education, social services, sports and leisure



Essex has maintained the status of “Level 3 of the Department for Transport Highway Maintenance Incentive Fund” since 2017/18 and our expectation is to retain this additional funding (worth £4.119m) during 2019/20 based on a recognised asset management approach.

Our asset-led maintenance strategy ensures that informed evidence-based decisions are made on the maintenance of all highway assets, giving the benefits of long-term planned works. Investment in road and footpath maintenance is delivered at carefully planned intervals over the lifecycle of each route.

The Technical Working Group (TWG) a joint body within the partnership, reviews and updates current specifications, materials, technologies and treatment options across all service areas in support of delivering value for money.

The frequency of inspections is determined by the Essex Highway Maintenance Strategy with PR1 roads inspected monthly, PR2 roads inspected quarterly, and local roads inspected annually. This equates to approximately 2,000 km of road length inspected in any given month.

The strategic direction for 2019-20 is to maintain the condition of the PR1/PR2 County routes, while capital funding focus is on local urban areas, in part to address residents’ concerns.

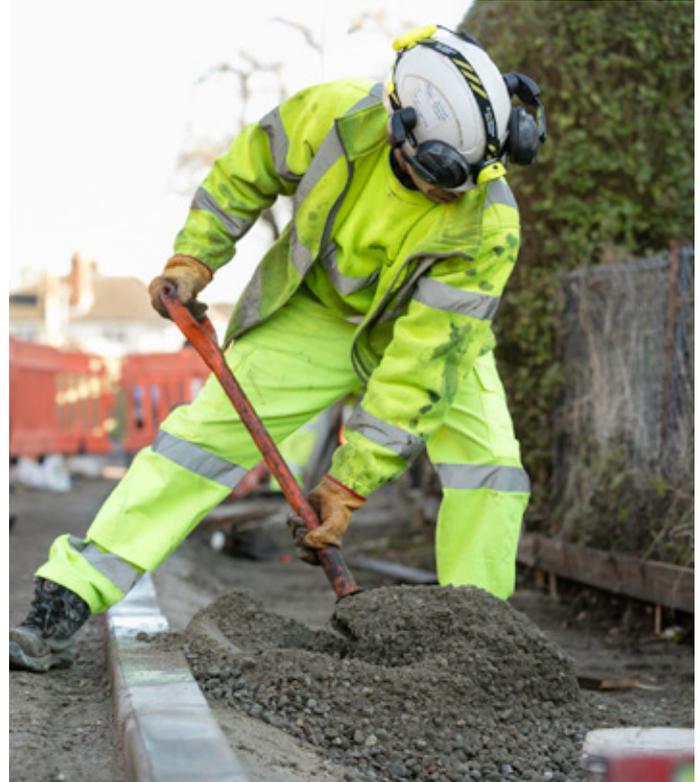
In 2018, Essex County Council provided £2.4m additional funding to tackle potholes. This resulted in a project which was supported by members and focussed on treating pothole defects that most concerned their local communities. The programme delivered over 6000 defects and was completed in June 2019. Information attained during this project delivery has been beneficial in supporting the future carriageway capital programme.

FOOTWAYS

ECC's strategy for footways is to deliver condition improvement to heavily trafficked assets while maintaining usability of the remaining network. Revenue funding will target high footfall footways, such as town centre areas, providing reactive maintenance response to reported / identified defects along with Priority Routes 1&2 on the County Routes network. This year, we will:

- Deliver validated Roads and Footways scheme lists for year 9 of the contract, as well as a list of un-validated potential schemes for Year 10
- BS ISO 55001 Asset Management – retain certification to this standard for carriageways and footways
- Submit bids for external funding as required (for example, DfT Incentive Fund, Challenge Fund)

In February 2019, ECC announced a further investment of £700,000 to maintain footways (pavements) in the new financial year (2019/20). Following on from the pothole initiative, County Members, again working with local parishes and districts, have been invited to identify the areas where footways require the most attention.



VERGE CUTTING

Verge cutting is an important aspect of keeping roads and footways safe for users. Roadside verges get cut back to preserve sightlines and keep them clear of overhanging trees and shrubs and we pay special attention to cutting down growth along our high-speed roads, which includes sections of the A13, a little of the A120, A130, A127, A1245 and A133.

Verge cutting season on “fast roads”, usually begins in June where we do the bulk of the work at night because the necessary traffic management - traffic lights and lane closures - would otherwise cause congestion. At the same time, the first weed spray (of two annually) is done in Braintree, Colchester, Maldon and Uttlesford, with other areas following.

Summer also sees the Parish verge-cutting programme, in some districts carried out by our partner companies, in others the City, Borough or District council makes their own arrangements.



16006 km
of weeds
treated in
2018/19
same number
expected
2019/20

3378 km
of grass
verge cut
2018/19
same number
expected
2019/20

QUALITY

Quality is about ensuring that our whole service delivery is at the highest standard. Our aim is not only to maintain this but to strive to continually improve it. Quality is measured externally through accreditation to various BS ISO standards

Essex Highways is certified to the following standards:

- BS ISO 9001 – Quality Management Systems
- BS ISO 14001 – Environmental Management
- BS ISO 44001 – Collaborative Working
- BS ISO 45001 – Occupational Health & Safety
- BS ISO 55001 – Asset Management

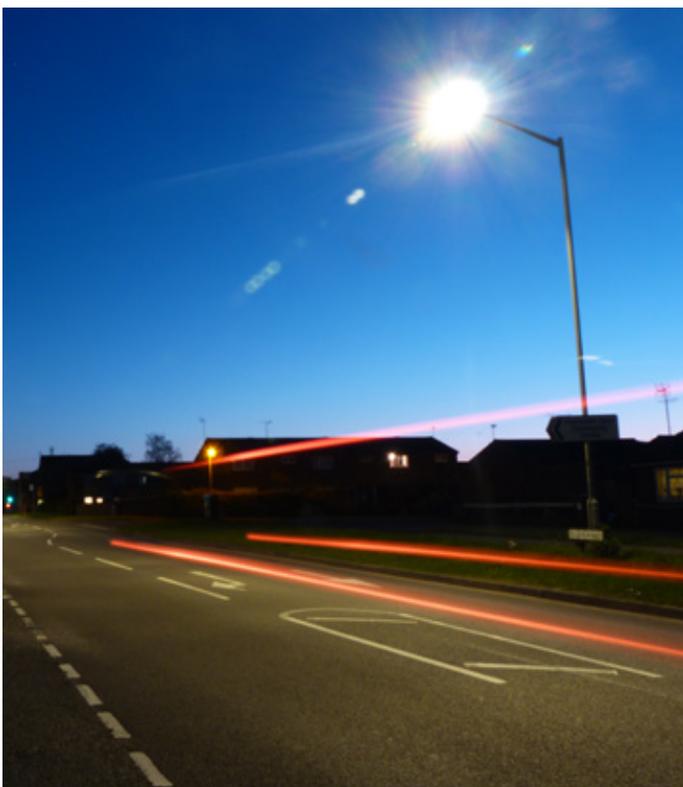
Essex Highways was one of the first organisations in the country to be accredited to BS ISO 55001 Asset Management of footways and carriageways in March 2017.

One of the main benefits of this accreditation is that it has helped to secure additional funding from the DfT through the Highway Maintenance Incentive Fund which amounted to £4.1m in 2018-19.

Our focus for 2019/20 is to maintain this accreditation and work toward extending this scope to include other asset groups such as Street Lighting, Intelligent Traffic Systems (ITS) and Structures.

The standard for Collaborative Working under BS 11000 was replaced by BS ISO 44001 and Essex Highways was successfully awarded accreditation to this internationally recognised standard in September 2018.

Accreditation to these standards recognises that we have industry leading processes and supporting culture to deliver our services to the highest levels. However, the real measure of quality lies in continuous improvement and innovation and this is monitored and reflected in Essex through the contract KPIs.



EFFICIENCIES & INNOVATION

Doing something new or in a different way to improve the business and provide an excellent customer experience...

Efficiencies can be classified as cashable and non-cashable. Non-cashable efficiencies are those where the effectiveness of the service is improved but while there are benefits resulting from the change, no financial savings are made.

Focus is on delivering those efficiencies where budget reductions (cashable efficiencies) can be made. These can either be one-off cost reductions (a change of material or process for an individual project) or the renegotiation of supply chain contracts.

The following efficiencies and innovations are under development for 2019-20;

- a) Essex Highways has established a reinvigorated joint efficiency pipeline to deliver on the 2019 objectives.
- b) Review of Land Charges Searches to ensure that we do not continue to over-deliver.

Several planned system developments are also key to gaining service improvements with a particular focus on the electronic handling of information, enabling the service to become more data/intelligence led;

- Introduction of longer multi-year programmes for Intelligent Traffic Systems, gully cleansing and LED Phase 4
- Use of business analytics and reporting tools

such as Microsoft Power BI and Map Essex will be further expanded to ensure the right up to date information is available

- Essex is working with Hertfordshire (the first county to achieve this) to manage road closures in real-time, sending information directly to road users via apps such as Google Maps.
- Trial of MAP16 to analyse gully cleansing data collected and enable the introduction of an optimised future cleaning frequencies on a two-year cycle and is anticipated to go live during summer 2019.

The Essex Highways Business Improvement Team is continually introducing new innovations such as:

- Streamlined and automated searches for underground utilities
- Underground services 3D mapping with augmented reality
- Road works information services through SatNav integration
- Introduction of new technology on the network to improve efficiency and drive quality such as MultiHog, a versatile vehicle that can be used for a variety of tasks from road surface removal through to snow-blowing (see below middle), and the Etnyre road surface chipping machine (see below right).



ASSET, RECORDS MANAGEMENT & INSPECTIONS

ASSET TEAM

The Asset Team ensures that Essex Highways adopts a best practice, integrated asset management led-policy and strategy for maintenance and investment across all asset groups, maximising the return on investment.

The team keeps asset data systems up to date and fit for purpose, so that accurate data is available for internal and external customers and stakeholders. The team provides prioritised asset derived information to drive the organisation's long-term forward programme.

RECORDS TEAM

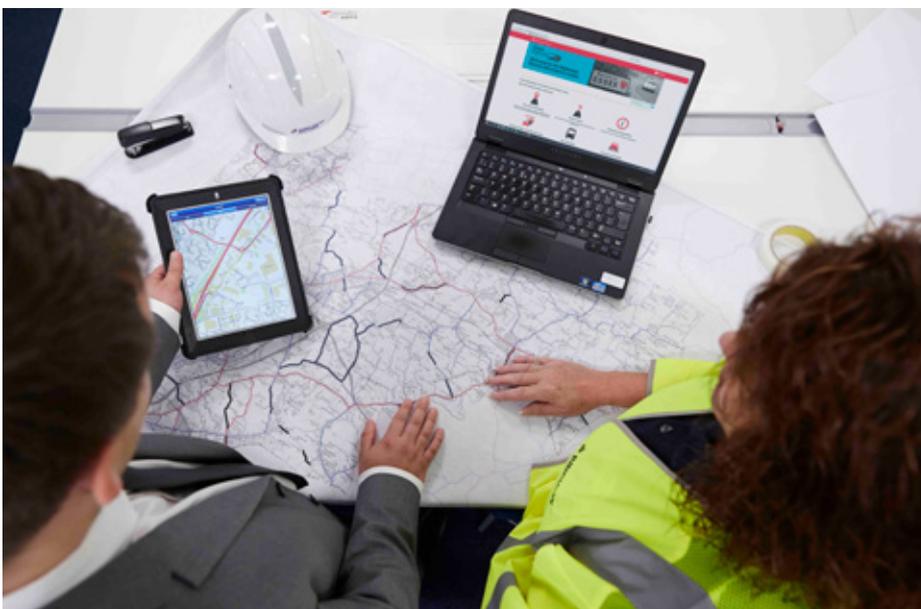
Economic growth in Essex is helped by providing a prompt and efficient land charge enquiry service to District Councils.

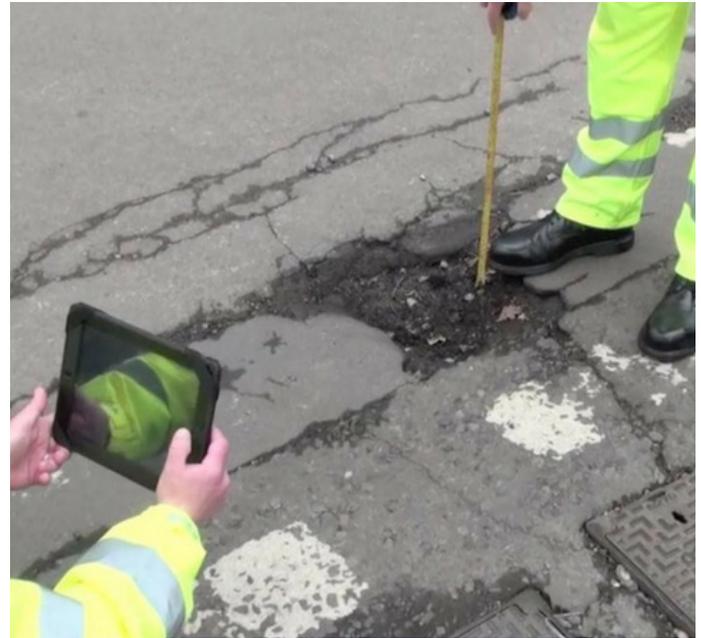
The team is tasked with the maintenance of legal records to ensure that they are current and accurate for items such as the Definitive Map of Public Rights of Way and the Highway Record. The team is developing systems to enable the public to self-serve using web-based IT.

INSPECTIONS TEAM

This team has been established for a number of years in carrying out Highway Safety Inspections and inspections on Public Rights of Way and has a reputation for delivering consistent quality services.

Because of the team's knowledge and experience, its staff are regularly called upon to provide evidence at Court in defence of third party claims.





ASSET AND RECORDS

Due to capital and revenue budget challenges in the coming years, the main focus of our teams, in addition to business as usual activities for the coming year, will be:

- Sustaining DfT Level 3 status
- Continue focus on Structures and associated Improvement plan
- Formalise approach to PRow maintenance through hierarchy and policy implementation
- Completion of the Public Rights of Way Improvement plan review

Achieving these aims should help ECC sustain Band 3 of the incentive funding provided by the Department for Transport, allowing 100% of potential funding to be released.

INSPECTIONS

The inspection regime will continue to be developed to support our asset led decisions. Further opportunities for enhanced data capture will be explored during 2019/20 and will include the rollout of specific inspections of VRS infrastructure. This asset led approach to inspections will support the revenue maintenance delivery and together with other asset condition data, supports the commissioned capital maintenance works across many service areas.

HIGHWAY INSPECTIONS

The Inspections team is responsible for routine safety inspections for all adopted roads in Essex.

The frequency of inspections is determined by the Essex Highway Maintenance Strategy with PR1 roads inspected monthly, PR2 roads inspected quarterly, and local roads inspected annually. The Essex Highway Maintenance Strategy is currently in final stages of review in light of the “Well Managed Highway Infrastructure” approach. We anticipate implementation over the summer of 2019.

The footway network has now been mapped in the asset management system, CONFIRM, which allows better quantifying of the length of network to be inspected. This makes it possible to review the geographical areas covered by each Inspector with a view to redistributing work across the team to better balance workloads.

The capture of condition associated with this network, will also help to improve the focus of the capital footway programme for additional funding.

The team works with other parts of the Service including Maintenance & Operations and Network & Safety to identify any further elements of data capture that could be undertaken on inspections.

This helps us make better informed decisions about future works programmes and support those parishes opting to initiate the delivery of highway services locally, as part of the Essex Association of Local Councils (EALC) and ECC’s Devolution pilot scheme.

BRIDGES, SUBWAYS & OTHER STRUCTURES

Ensuring the maximum life of all structural assets through targeted maintenance, to provide safe and accessible passage along the highways

There are 1500 structures throughout Essex which are varied in age and complex by nature, comprising bridges, subways, retaining walls, culverts and headwalls. The condition of these assets requires management through regular inspections and maintenance. This inevitably leads to the design of improvements or replacement of existing structures.

We recognise the importance of continually improving our asset-led approach for Structures and we are embedding our new maintenance policy for these particular assets. Our ongoing Structures Improvement plan encompasses:

- Forward plan for structures investment
- Future monitoring of Structures Asset Group.

We will continue monitoring throughout the year to ensure that all interested parties are clear about potential risk, aware of the current status of the structures asset and agree plans for future works. The schemes contained within the capital programme prioritises the structures with the highest risk.

78 improvement schemes are planned to be either investigated, prepared or delivered in 2019-20 from a budget of £9.1m and high value examples of these include;

- Abbotsford Bridge Strengthening, Elsenham
- Alderton Hill, Loughton
- Mundon Wash Bridge, Maldon

On occasions, temporary weight limits are imposed on structures while the design of a repair or replacement is completed and / or funding made available. In extreme cases, the passage of traffic over the structure might be restricted or prevented in the interests of safety.

The management of abnormal loads and weight restrictions are also a key element when it comes to managing the county's structures. Each individual bridge on the route is checked to ensure that they are capable of supporting the proposed loads.



Mundon Wash Bridge

COMMUNICATIONS

The Essex Highways Communications team provides a mixture of public relations, marketing and customer service support, giving factual, useful service delivery information and knowledge



The Essex Highways Communications Team provides the core 'one-to-many' information-sharing interface between the public of Essex and the Essex Highways service delivery teams. The team supports Essex County Council's focus on giving its customers great service and a positive experience. This is a natural 'fit' given that part of the team's remit lies within safeguarding the highways service's reputation. To support this in 2019, the team will continue to deliver:

- Accurate public highways information through the ECC Customer Service organisation and transparent media responses enable 'self-serve' information to people
- Improved local engagement, building advanced local awareness of specific schemes
- Promote safety and wellbeing of the public, our employees, supply chain partners
- Improvements to auto-responses on our Report It web tools, better managing expectations.

Councillor Bentley became Cabinet Member for Infrastructure in May 2018 and immediately focused on work designed to improve the public's perception of the service. The team, helped to create and

continues to promote a number of initiatives:

- A County Member Buddy System (launched Autumn 2018) paired senior highways officers with County Members helping specific complex problems get resolved, building mutual understanding, increasing service intelligence
- Introduction of monthly newsletter 'Highways Highlights' (May 2018) for County Members, District Leaders; MPs and Parishes
- Introduction of Member-led 'Top 20 defect' programme; complements core asset-led repair programme. Similar footway initiative for 2019/20
- Technical innovations and specialist road dressing vehicles trialled. Multi-channel publicity, including video, given to improve public perception
- Highways service briefings increased understanding to County Members and District / Parish Councils via the EALC
- Promoting a shift in repair emphasis from main roads to local and estate roads helping public perception

For 2019/20 the team will continue working to help improve awareness of the positive works undertaken in Essex

DEVELOPMENT MANAGEMENT

Managing the outcome of planning applications and associated roads for adoption



Economic growth and the need for more housing stock in Essex brings pressures on the local road network and growth in the highway estate road system. Essex Highways' Development Management team is responsible for delivering the design and construction of all works on the public highway and areas for adoption on behalf of Essex County Council.

The Development Management team works with colleagues in strategic development and the planning authority to consider planning applications, ensuring that any new assets are constructed to a standard suitable for adoption and maintainable by Essex County Council.

Each adoption means an increase in assets we're responsible for and this is not mirrored by increased budgets. This results in increased risk to the network serviceability and requires careful management.

The creation of a new materials guide, due for publication in 2019, will become statutory planning guidance which will lead to less unsuitable materials

coming online. It will support our aims to:

- Minimise the adoption of new assets
- Optimise the use of commuted sums to discourage the transfer of adopted assets
- To promote the use of assets that require simple maintenance on adoption
- Work with other teams to ensure a joined-up approach is adopted across the council
- To ensure understanding of the available maintenance options for new assets

We are presently involved in more than 1100 developments across the county which vary in size, from minor developments to the infrastructure for major sites of 3000+ homes, such as Beaulieu in north Chelmsford. The expectation for the coming year is for sustained demand on our services and increasing workload.

To respond to the challenge, we are improving our existing processes and using online interactive software which is targeted at developers providing information and application forms to speed up the process.

LOCAL HIGHWAY PANELS

Local Highway Panels (LHPs) meet regularly to deliver small scale improvement schemes

Small scale schemes are identified by the 12 district LHPs and delivered by Essex Highways. Requests for improvements are received from a cross section of society, including local residents, Parish Councils, District/City/Borough Councillors and County Councillors and these are submitted to the LHPs for consideration.

The panels are encouraged to present their concerns on which Essex Highways officers and engineers offer support and advice, providing options and solutions for agreement and approval by the Cabinet Member for Infrastructure.



334
schemes
delivered in
2018/19

**Two additional
Direct Delivery
gangs enabled
66 more schemes
to be completed**

**More than
300 schemes
to be delivered
in 2019/20**

Fambridge

MAJOR PROJECTS

Essex Highways' specialist team is working with Essex County Council to take advantage of the Government's strategy for major investment in highways and wider transport

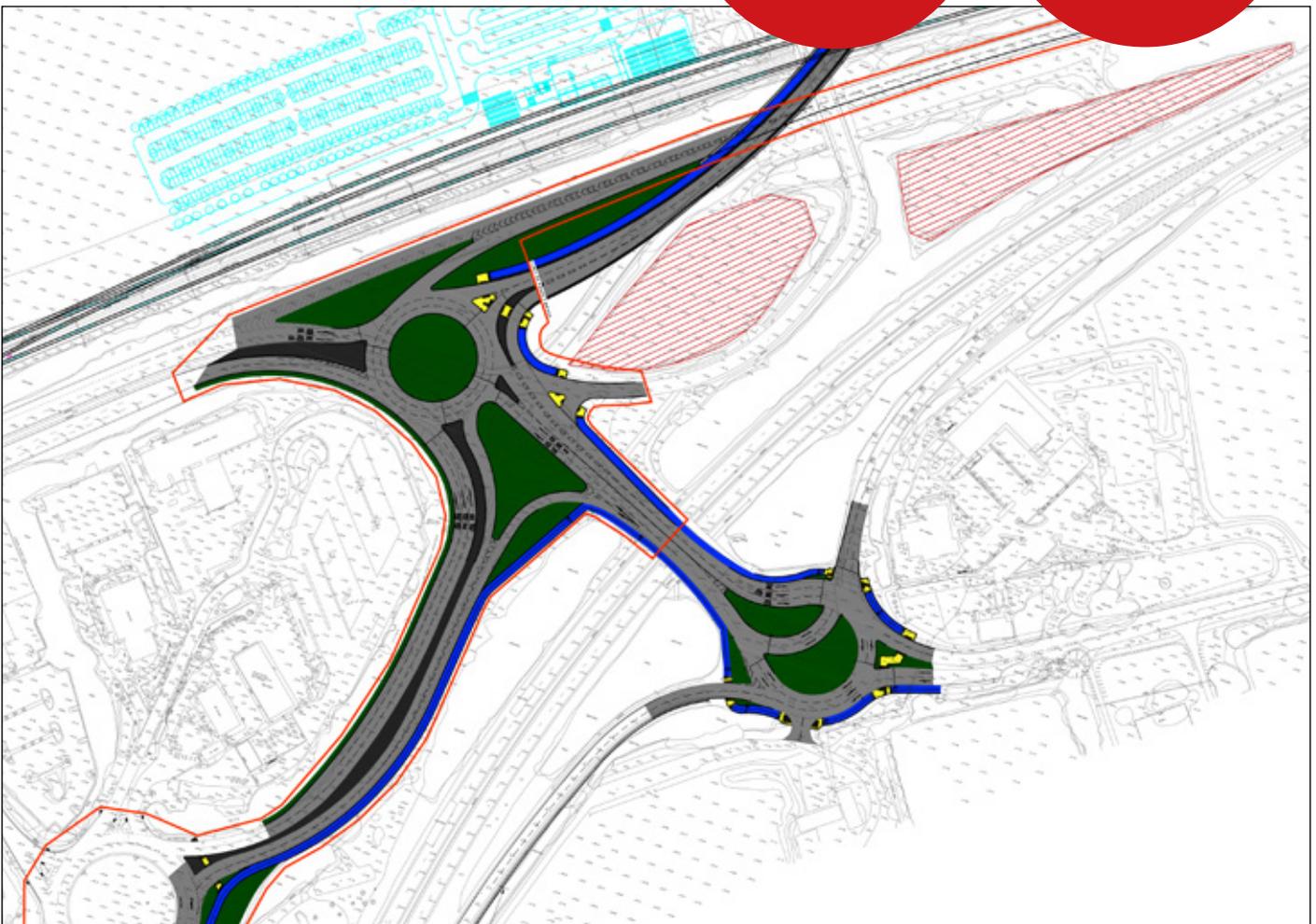
Essex Highways continues to develop expertise to enable more effective delivery of improvement schemes, getting it right first time and making the improvements sustainable for the long term. Major improvements to transport infrastructure are required to keep the Essex economy growing to its full potential. All of these are planned, developed designed and managed through construction to completion and opening.

Essex Highways has been very successful in securing external additional funding from South-East Local Enterprise Partnership (SELEP). Winning Bids in Rounds 1, 2 & 3 have provided a significant forward programme for this service to 2022-23.

Three HIF (Housing Infrastructure Fund) Business Cases have been submitted and successful bids are due to be announced in Summer/Autumn. If we are successful with a HIF bid, this funding will be awarded by Homes England for immediate scheme preparation and or implementation for delivery by March 2023.

**£40m
budget
for
2018-19**

**£79m
budget
for
2019-20**





Improvement works, Wickford Station

Traffic & economic data analysis and transport demand modelling are modern tools used to establish the locations where it is best to implement improvement schemes.

Proposed major schemes are rigorously assessed and prioritised according to strategic objectives and priorities, to ensure the maximum benefit for Essex residents, business and visitors.

Through our Consultancy Services, we aim to provide non-highways services to other departments and we are supporting ECC with various services including major infrastructure provision such as the Lower Thames Crossing, increased Airports capacity and the potential Bradwell Nuclear Power site.

A significant offering is the provision of expertise for the Technology Forum to deliver technology applications for the digital revolution. Elsewhere, the 5-year Flooding programme concludes this year with the delivery of pre-designed schemes.

The A120 study is complete and has been submitted to Highways England and public and member engagement continues. The budget for the remaining two large major schemes (M11 Jct. 7a and A127 Fairglen) are now in a relatively low spend phase.

Any successful HIF bid would result in a Strategic/ Large Major Schemes addition to the programme. An award announcement is expected in the Summer/Autumn of 2019.

PERMIT SCHEME

Management and permitting of all road works on the highway and co-ordination of works to minimise disruption to the travelling public while maintaining safety



**105,000
permits issued
in 2018/19 -
similar number
expected
2019/20**

The Street Works team is responsible for the management and permitting of all road works on the asset and the licencing of skips and scaffolding on the highway, in accordance with the New Roads and Street Works Act (NRSWA).

The ECC Permit Scheme, delivered by the permit team, co-ordinates works to minimise disruption to the travelling public while maintaining network safety. Inspections undertaken by the team ensure the condition of the highway asset is maintained.

The Department for Transport (DfT) announced in 2018 the expansion of Lane Rental Schemes producing guidance to help councils develop their

own lane rental schemes for approval. Essex Highways is investigating the feasibility of operating such a scheme in Essex and the benefits it may offer.

The DfT is also developing a new Street Works system, Street Manager, to replace the existing Electronic Transfer of Notifications (EToN) system which is no longer aligned with current legislation.

The DfT plans to introduce Street Manager during this financial year and has requested that Essex is involved in the testing of the system. This is a great opportunity for Essex Highways to influence the outcome.

PUBLIC RIGHTS OF WAY

The management and maintenance of 4000 miles of Public Rights of Way throughout the County which comprise, footpaths, bridle ways and by-ways to provide unimpeded access for permitted users



Delivering the statutory functions associated with the Public Rights of Way (PRoW) service provides public access to the Essex countryside and promotes the amenity value of the PRoW network.

The Public Rights of Way (PRoW) hierarchy will categorise each route in accordance to its strategic importance. Inspections and works will then be aligned to the hierarchy as the basis of establishing a targeted approach across the PRoW network.

This will be reflected in the Rights of Way Improvement Plan Review which will provide the PRoW business case for 2019/20 and beyond. A statutory document updated every 10 years (update due 2019), the Review will also capture other initiatives, including the emerging Byway policy with an updated version of the Developer and PRoW Guide (2010) protecting the PRoW development process.

Public Path Orders (PPO) are required when it is necessary to create or divert paths as a result of road or drainage improvements, housing developments and following requests from landowners. PPOs are published to advertise and inform the public to ensure that the views of all interested parties are considered.

Orders are split into two types, those made under the Highways Act (HA) and those we make on behalf of the planning authorities under the Town and Country Planning Act (TCPA). The HA Orders are charged against a framework with a basic set fee but extra charge for additional add-ons.

Essentially this means the more PRoW affected by an order proposal, the greater the cost. Extra plans or orders associated with a PPO scheme will be cost recoverable accordingly.

TCPA Orders do not have a set fee and we recoup our officer time and costs such as advertising but they are sealed by the legal department of the relevant authority. The work is quite complex as there are over 115 elements we have to complete when making an order and they can take months to process. Of 161 orders processed, 55 orders were made in 2018/19 and over the last three years we have processed an average of 120 annually.

Some parish councils wish to maintain sections of their network and this is managed through the Parish Path Partnership (P3) which comprises 38 parishes and 16 other groups and is being extended this year through the Highway Works Devolution project. The Headland Management scheme is where landowners maintain sections of PRoW on behalf of Essex County Council. The PRoW team also manages the Essex Local Access Forum (ELAF) and undertakes Land Searches connected with house sales and purchases.

The responsibility of maintaining the Definitive Map and Highway Records, which officially records the extent of highway ownership and any changes that have occurred, also falls within the PRoW team's remit. The inspection team ensures that routes are accessible through regular, walked surveys and takes enforcement action when routes have been obstructed inadvertently or otherwise.

ROAD DRAINAGE

Essex Highways has a clear plan for prioritising the work to reduce preventable flooding incidents on our roads



The highways drainage assets include:

- Gullies - remove surface water from the highway.
- Slotted and gridded drainage channel - more discreet types of gully, removing surface water.
- Catchpits – chambers with an inlet pipe and an outlet pipe, allowing sediment to collect by removing it from the flow of water.
- Manholes - inspection chambers for maintenance work.

Maintenance of highway drainage assets is an important aspect of delivering a safer network for road users in Essex. We carry out cleansing on the PR1, PR2 and local roads network, district by district, following a 2-year annual cyclic approach. There are more than 250,000 gully assets on the network, with thousands of “catch pits” and drainage channels and five dedicated crews will complete at least 130,000 gully cleanses in 2019/20.

Cleanse data will be captured via Map 16 and uploaded into Confirm, helping to create optimised cleaning frequencies in the future. This approach offers resilience and flexibility - cleansing crews are

still available to react to flooding incidents. The management of drainage systems is to be further strengthened by using the link between the cyclical highway drainage cleansing approach and the ECC's Flood Management information. Electronic information on all drainage assets will be captured along with data from incidents and inspections to support a more intelligent approach to maintenance.

Surface Water Alleviation Schemes (SWAS) are projects to improve highways drainage systems. This could involve the replacement of pipes or implementing new drainage assets. The asset management team ranks proposed SWAS schemes by risk assessment and 34 high priority SWAS schemes are scheduled to be delivered by a capital funded programme in 2019/20.

The extensive network of watercourses, ditches, form an important part of flood risk management. As more intense and heavy rainfall events are experienced, the significance of maintaining the capacity of these local drainage systems has never been greater.

ROAD SAFETY

To ensure people enjoy safe travel on our highways with the key aim to reduce 'Killed and Serious Injuries' (KSIs) towards the vision of zero deaths and serious injuries

Road safety is the sole purpose of the Safer Essex Roads Partnership (SERP) which comprises Essex County Council, Southend-on-Sea Borough Council, Thurrock Council, Essex Police, Essex Fire and Rescue Service, Highways England, Essex and Herts Air Ambulance Trust, East of England Ambulance Trust and Safer Roads Foundation.

Essex Highways provides SERP with the core secretariat, strategic data analysis, safety camera expertise and a considerable proportion of the outreach and campaign management.

SERP's vision is to 'Reduce death and serious injury on Essex roads to zero'. Vision zero is an ambitious

target which SERP cannot tackle alone: road users need to play their part in keeping themselves and everyone else safe.

In the interim, SERP has a target to reduce death and serious injuries on Essex roads by 40% by 2020. SERP supports the 'Safe System Approach' to help achieve Essex County Council's target for casualty reduction and Vision Zero.

The Safe System Approach states that life and health should not be comprised for mobility. SERP's partner members are encouraged to adopt the Safer System Approach to ensure that highway investment is made with safety as its highest priority.



CONTINUED >

ROAD SAFETY

Road safety and casualty reduction will be achieved through:

SAFER ROADS AND MOBILITY

SERP aims to raise the inherent safety quality of the roads within the areas it covers for the benefit of all road users. It is proactively encouraging each local authority and/or its delivery partners to adopt the Safer System approach and work to the principles of ISO 39001 - Road Traffic Safety (RTS) Management Systems.

SAFER VEHICLES

Encourage deployment of improved vehicle safety technologies for both active and passive safety. For this, SERP needs to work closely with the DfT and support any campaigns.

SAFER ROAD USERS

Develop intelligence-led, effective programmes to improve road user behaviour with measurable outcomes. Work with other partnerships, authorities and organisations to improve compliance with rules, incentivise positive behaviour changes and equipment choice.

POST-CRASH RESPONSE

Improve post incident responsiveness to minimise the impact on casualties and the road user. SERP has funded an additional Rapid Response

vehicle for the Essex & Herts Air Ambulance Trust (E&HAAT) to provide continuous emergency cover when the helicopter cannot fly.

BIKEABILITY

Bikeability, which trained over 7713 adults and children in 2018-19, promotes safe cycling as a sustainable transport option. This year, we expect approximately 7500 people to gain both skills and confidence on the roads through Bikeability.

SAFETY CAMERAS

Essex Highways staff work in partnership with Essex Police in maintaining the 86 fixed site and two average speed safety cameras that are installed. We aim to use enforcement as a means to engage and educate as it is far more beneficial for a driver to learn from their mistakes and gain a greater awareness for safety on the roads, than simply pay a fine.

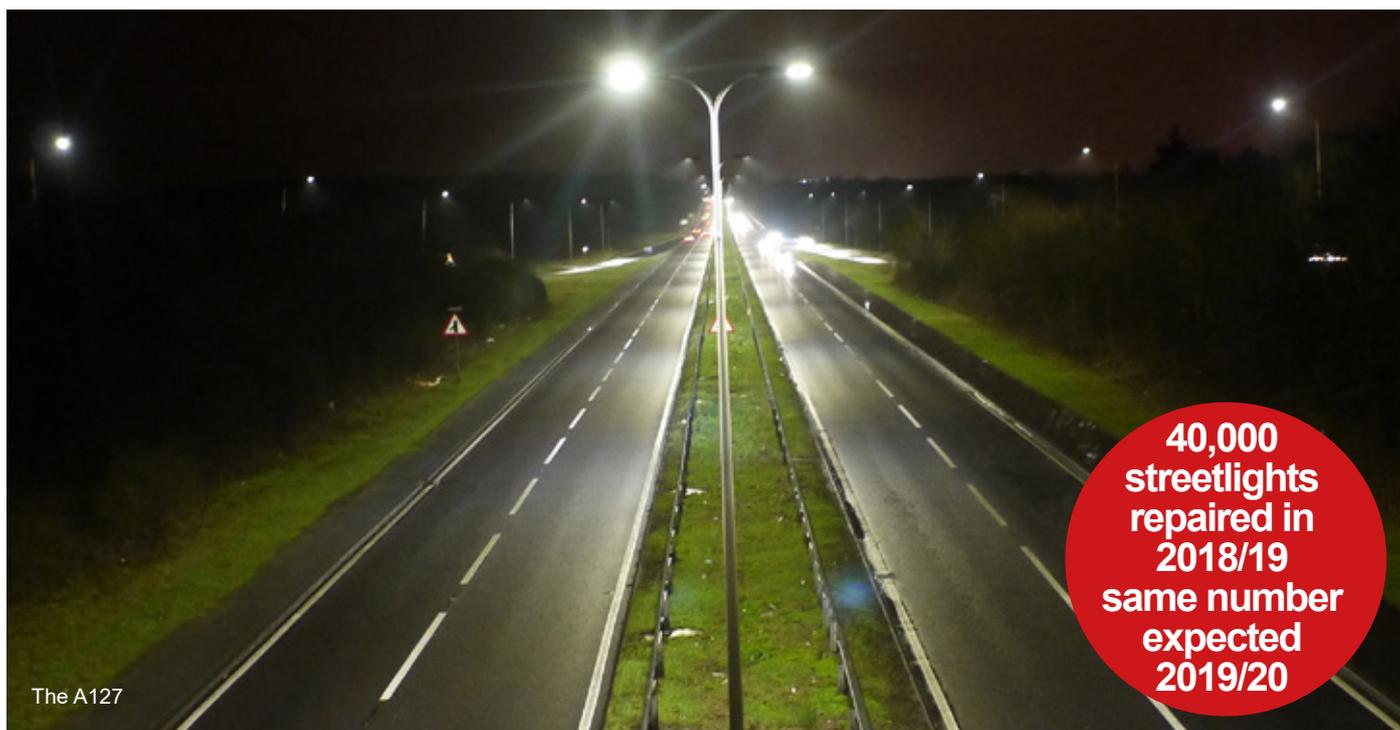
NATIONAL DRIVER RETRAINING COURSES (NDORS)

Essex now delivers the most NDORS courses in the country and 57,000 drivers attended in 2018-19. This year the target is to deliver NDORS courses to 60,000 attendees, not only during office hours but also evenings, weekends and Bank Holidays to meet customer demand.



STREET LIGHTING

The provision of cost effective and efficient lighting for the safety of users of the roads, footways and cycleways



There are approximately 127,000 lighting columns, 12,000 illuminated signs and 5,600 bollards on the network. We repaired approximately 40,000 faults on streetlights in 2018/19 and a similar number of repairs is expected in 2019-20.

Our aim is to keep these assets in a safe and serviceable condition, to maximise their service life and reduce ongoing energy usage and reactive maintenance costs. Street lighting assets have a high maintenance cost and energy expenditure.

Essex County Council has budgeted £2m for 2019-20 on revenue maintenance and £4.98m on energy costs. Not only is this costly to Essex but it is unsustainable for the environment and street lighting contributes £150,000 pa on carbon taxes. This is why we started to change all our lights to LED in 2015/16. LED lights are more sustainable and offer better value for money.

For example, Phase 3, which started in 2018 and completes in 2019 consists of more than 23,000 units, offering reduced energy consumption and

also a reduction in maintenance costs of over £4.9m, over 25 years, due to the lamps having a longer design life.

We will also have better control over the brightness of the new units, so that they can be dimmed depending upon the surroundings.

The LED replacement programme to date has delivered 38,000 conversions, 85,000 lamps remain and LED Phase 4 is a four-year programme and commences in 2019 which will deliver 15,600 units in the first year with an investment value of £4.7m.

The illuminated signs on priority routes will be upgraded to LED along with the lighting in underpasses, which remain a priority.

Due to limited availability and production closure from June 2019, there will be a national supply shortage of existing low pressure sodium lamps (those which normally have an orange glow). The pre-purchase of 15,000 units will safeguard supplies for a further 12 months.

TRAFFIC MANAGEMENT

The provision of efficient Traffic Management for the safety of users of the roads, footways and cycleways

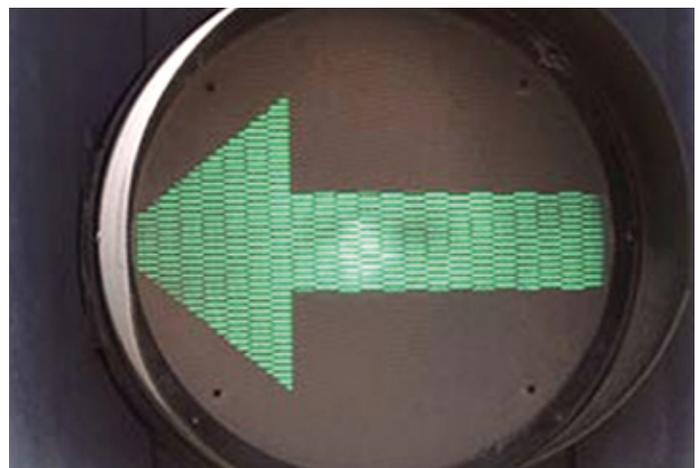
The Network and Safety function delivers the Network Management Duty of the Traffic Management Act supporting the safe and efficient movement of people and goods around and through the county. The Network Operations team is responsible for the real-time management of incidents and events, on the network, predominantly focussed on traffic management

The Essex Traffic Control Centre plays a key role in monitoring and managing the road network, broadcasting information to road users following incidents and or occurrences that impact on network availability and maintaining traffic flow via many sources, such as radio broadcasts and a Twitter feed with 52,000 followers inform the public about travel issues and areas of congestion.

Bus lane enforcement cameras operating across nine sites in the County have issued 92,000 penalty charge notices in 2018-19. The enforcement function is currently being reviewed.

Intelligent Transport Systems (ITS) manages traffic signals and light controlled crossings and Thurrock ITS Systems. ITS renewals are delivered through the capital programme, this includes the upgrade of junction controllers and a review of crossings and junctions for either removal or design change.

The new ITS maintenance contract was awarded to Telent and commenced on 1 April 2019.



WINTER SAFETY

Aiming to keep roads, as far as reasonably practicable, free from ice and snow, for the safe and expedient movement of the travelling public

The Winter service period in Essex is between late October to early April, using 59 salt-spreading vehicles to treat approximately 2000 miles of roads. The salting network can be viewed on the Essex County Council website.

Each vehicle delivers a mix of rock salt and brine solution which improves the adherence of the treated salt to the road surface. In instances of heavy demand, dry salt can, and is, also used. If temperatures fall below -6 deg C or during snow conditions the effectiveness of salting is diminished. In severe weather or heavy snowfall, delivery is adjusted accordingly and any significant build-up of snow addressed by ploughing.

Essex has ten weather stations located at strategic locations around the county combined with specialist road surface forecasters who determine the weather and its likely effects across all parts of the county network. During the 2019-20 winter season we will

investigate the benefits of route-based forecasting which, in marginal conditions, targets the spreading of salt only on those roads or sections of roads that actually need treating.

Town Councils, Parish Councils and other organisations are invited to sign up to the Salt Bag Partnership prior to the winter season where the delivery of one- tonne of bagged salt is provided to help treat local areas.

The scheme also covers urban un-parished wards. We are also very grateful to our network of many farmers who are prepared to plough local roads when required, following snow fall.

It costs in the region of £1.6m to prepare and provide the resources required to be able to respond to the weather conditions. The average cost of treating the network is £1.0m but this is dependent upon the weather.



Snow clearing, Canvey Island



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