

Chartered Institute of Highways and Transportation  
East of England Region  
Cambridge Conference, 30 June 2016

**Asset Management: Get your  
priorities right –  
Make that difficult decision**

**Paul Bird**



Department  
for Transport

## All Party Parliamentary Group on Highways Maintenance – The Importance of Asset Management

‘Without effective asset management plans there is concern that local authorities’ most valuable asset – their road networks – will be maintained inefficiently even under optimal funding conditions.’





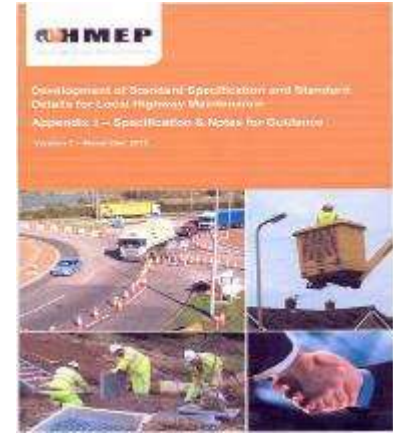
# A General Update on HMEP

- Set up 5 years ago to support the sector in transforming highway services
- By the sector, for the sector to encourage best practice, greater savings and efficiencies
- Over 80% of local authorities in England are participating in HMEP according to a 2014 survey
- HMEP is currently undergoing a period of change and transition
- DfT are looking to gradually withdraw direct support for HMEP and hand products over to the sector in the next 12 months



# HMEP Tools to Aid Efficiency Savings

- ▶ Highways Infrastructure Asset Management Guidance
- ▶ Lifecycle Planning and Deterioration Models
- ▶ Procurement Route Choices Toolkit
- ▶ LEAN Toolkit for Highways Services
- ▶ Collaborative Alliance Toolkit
- ▶ Shared Services Toolkit
- ▶ Potholes Review – ‘Prevention and a Better Cure’





## Funding for local highways maintenance

- ▶ Needs Fund
- ▶ Incentive Fund
- ▶ Challenge Fund
- ▶ Pothole Action Fund



# Essex Highways

- **Contract started April 2012**
- **10 years with possible 5 year extension**
- **Delivery of entire Highways and Transportation Service**
- **Year-on-year efficiencies**
- **Fully Integrated contract**
- **400 RJ and 200 ECC employees**



# Essex Highway Assets

Total Value of Assets approx. £10-20 Billion



5,200 miles of Road



4,000 miles of Footways



127,000 Streetlights



1,500 Highway Structures



4,000 miles of Public Rights of Way

# Evidence led decision making

Decisions are made using data.

Data collected includes:

- Annual condition surveys
- Inspections
- Ad hoc specialist surveys and reports.



# How do we use the data?

Data is analysed to produce a priority list for maintenance works.  
Considerations include:

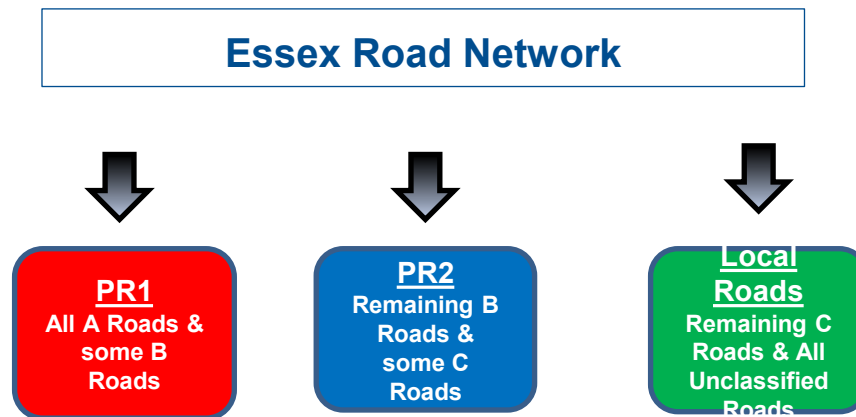
- Safety
- Budget available
- Type of works required
- Long term requirements for the assets
- Timing of works
- Value for money
- Risk

The resulting prioritised list is based on a combination of these factors.

# What are the benefits of this approach?

- Promotes a longer term view
- Better use of limited resources
- Evidence based decisions
- Clear line of sight from corporate outcomes to works delivery

# Roads Hierarchy (maintenance)



- **County Routes (Priority 1) = Inspected Monthly**
- **County Routes (Priority 2) = Inspected Quarterly**
- **Local Roads = Inspected Annually**

# Using data to prioritise

Investigatory Levels



Risk Assessments – **Impact** and **Probability**



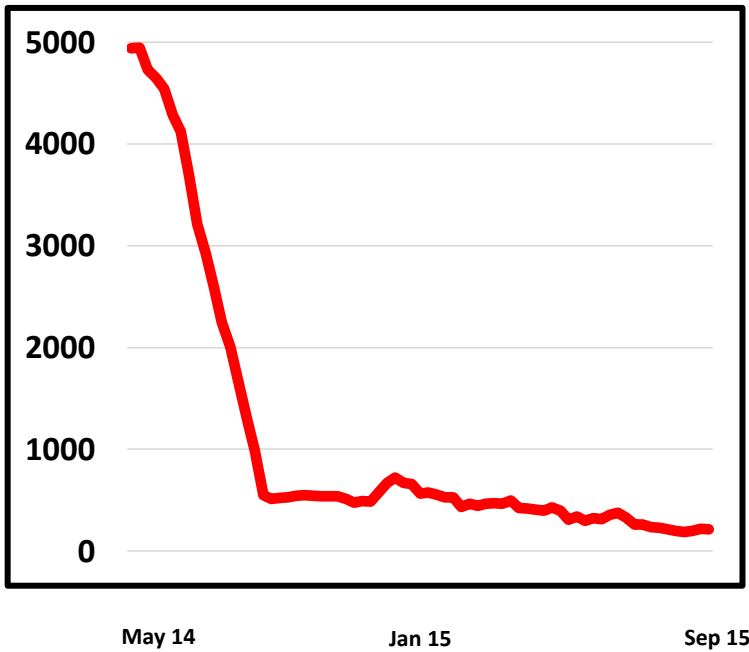
Prioritised response, from ‘future planned maintenance repair’ to ‘within 2 hours’

# Revised Maintenance Strategy Repair Times

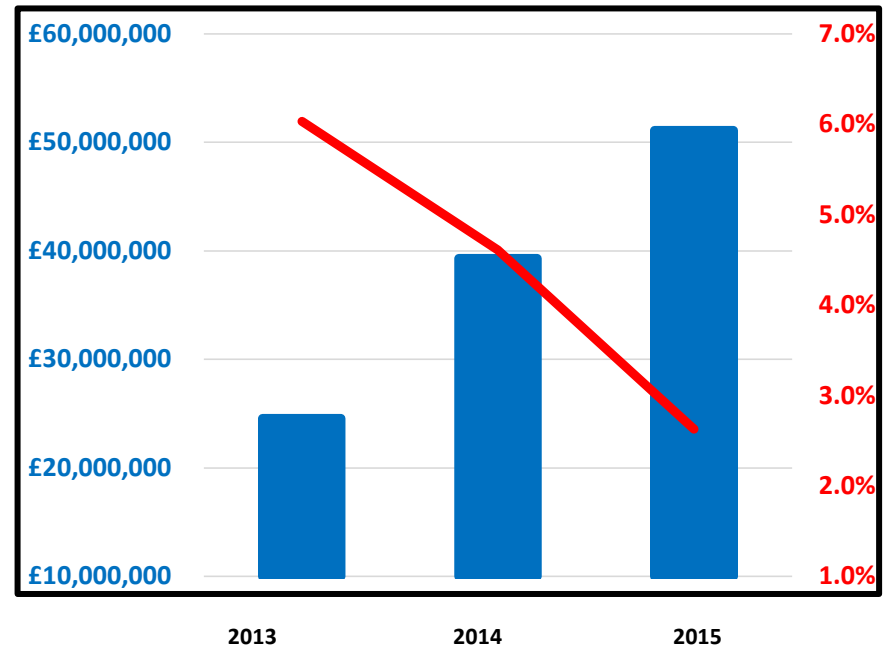
|  | Priority 1 (P1) | Priority 2 (P2)         | Priority 3 (P3)  | Priority 4 (P4)  |                                 |
|--|-----------------|-------------------------|--|--|---------------------------------|
| <b>Maintenance Strategy April 2008</b> | 2 hours         | End of next working day | Up to 28 calendar days                                     | More than 28 calendar days   | <b>All Defect Types</b>         |
| <b>County Routes</b>                   | 2 hours*        | 2 working days*         | Up to 28 calendar days                                     | Defect to be considered for repair as part of the planned maintenance programme                        |                                 |
| <b>Local Roads</b>                     | 2 hours*        | 5 working days*         | Repair will be undertaken within a non specified timescale | Defect to be considered for repair as part of the planned maintenance programme                        | <b>Carriageway Defects Only</b> |
| <b>Code of Practice</b>                | 24 hours        | 5 working days          | Repair within 4 weeks                                      | Repair during next available programme, schedule more detailed inspection or review at next inspection |                                 |

# Results

## Total Outstanding Defects (PR1 and PR2 Roads)

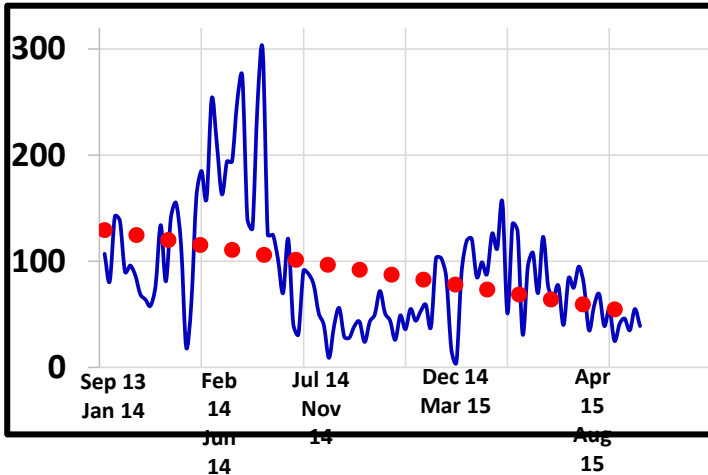


## Capital Carriageway Spend vs. Condition

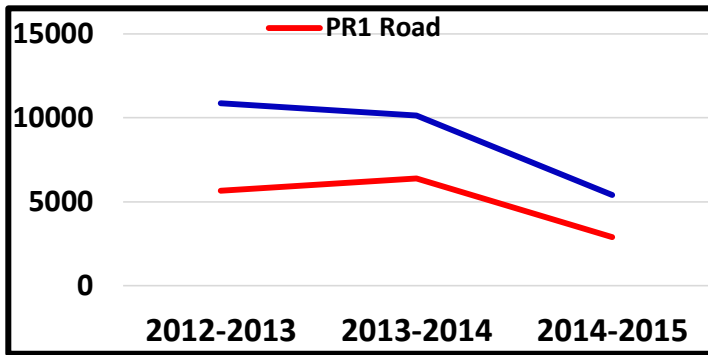


# Outcomes

Weekly Added P3 Defects (PR1 and PR2 Roads)



Carriageway Enquiries Received (PR1 and PR2 Roads)



## Insurance Claims

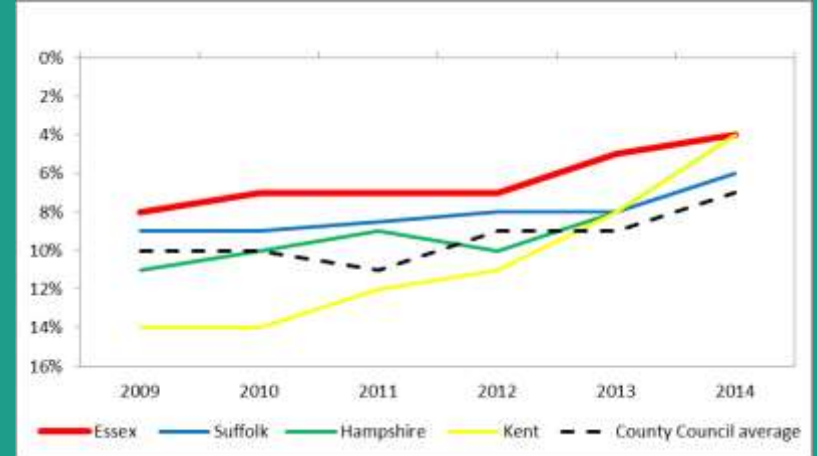
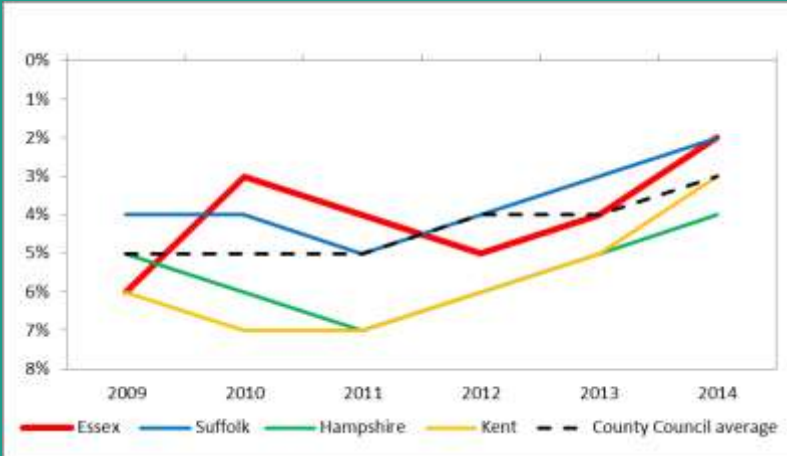
(reduction in claims received and higher repudiation rates)

| Policy Year | Claims Received | Repudiation Rate |
|-------------|-----------------|------------------|
| 2012/13     | 3381            | 91.13%           |
| 2013/14     | 3394            | 94.32%           |
| 2014/15     | 2002            | 94.75%           |

- The development of pot holes is on a downward trend, saving £22,500 per week on revenue repairs
- Those pot holes that do appear are dealt with quicker reducing further deterioration
- Reductions in the number of enquiries received relating to carriageway issues, reducing the numbers of site visits
- Insurance Claims have reduced and repudiation rates higher

# Roads Improving

## Improving our roads



Essex has invested significantly in its road network; Principal road trend has improved from 5% in 2012 to 2% and Non Principal road trend has improved from 7% in 2012 to 4%.

2015 data for Essex indicates that we are maintaining network quality at the same rate as in 2014.

Note: Kent, Suffolk and Hampshire are shown as statistical neighbours as they have similar sized networks and a similar mix of urban and rural roads.



# 2015-16 Performance

## 2015-2016 Performance

Outstanding PR1 network  
carriageway surface and  
structural defects down  
23% to 173

Outstanding PR2 network  
carriageway surface and  
structural defects kept below  
500 for 2 consecutive years  
– currently 318

Outstanding local network  
carriageway surface and  
structural defects down 13%  
to 4,533

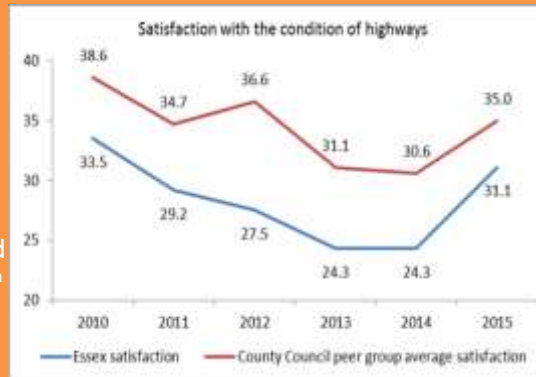


# Perception-changing

## Satisfaction improving

The NHT survey shows that Essex has consistently achieved below our peer group average of county councils in relation to many aspects of Highways, including condition of roads.

However, we have now turned the curve and achieved the 4<sup>th</sup> largest improvement in satisfaction with condition of highways in 2015.



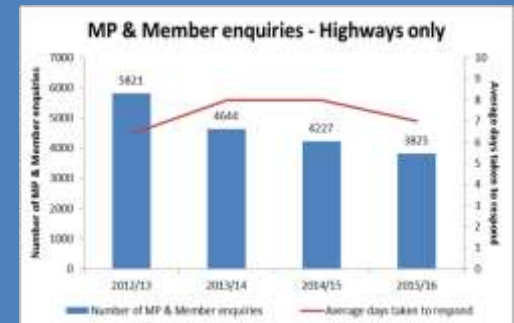
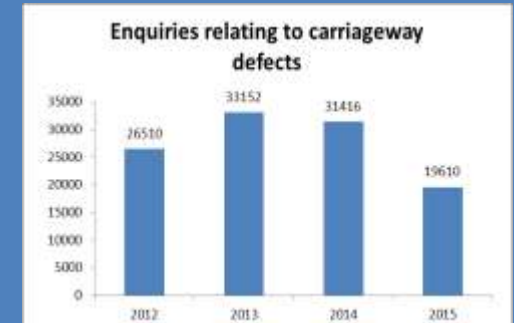
- Despite significant investment, only 10% of respondents think that the council is doing more to repair local roads, 44% think it's about the same, and most importantly, 31% think it is doing less.
- 47% of respondents believe there are more potholes or damaged roads compared to the previous year
- 45% of respondents said that they had changed journeys to avoid surfaces because of problems with a local road

## Enquiries reducing as road condition improves

In 2015 we saw a significant decrease in the number of enquiries relating to carriageway defects.

This reflects the investment in our road network.

Similarly the number of MP and Member enquiries has decreased.





# What next?

- Footways - hierarchical approach?
- Public Rights of Way – County Network, local access
- Local Urban Roads – who should be responsible?
- Rural Roads – Quiet country lanes, no maintenance?
- Materials innovation and lower PSV
- Should we adopt new housing estates?