



North Tyneside Council

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APPENDIX 2



Highway Asset Management Plan
(HAMP) 2017 to 2032
Annual Information Report
October 2019

CONTENTS

| | | |
|-----|--|------|
| 1) | EXECUTIVE SUMMARY | 3 |
| 2) | THE IMPORTANCE OF HIGHWAY INFRASTRUCTURE..... | 3 |
| 3) | CURRENT MAINTENANCE PRIORITIES | 5 |
| 4) | SUMMARY OF WORK UNDERTAKEN DURING THE LAST 12 MONTHS | 5 |
| 5) | INVESTMENT IN THE HIGHWAY ASSET | 11 |
| 6) | PERFORMANCE..... | 13 |
| 7) | VALUE OF THE HIGHWAY ASSET..... | 14 |
| 8) | CONDITION OF CARRIAGEWAYS (ROAD SURFACES)..... | 15 |
| 9) | CONDITION OF FOOTWAYS..... | 1919 |
| 10) | HIGHWAY MAINTENANCE BACKLOG | 2020 |
| 11) | CUSTOMER ENGAGEMENT | 20 |
| 12) | FUTURE PLANS AND ISSUES..... | 21 |
| 13) | OTHER INFORMATION | 24 |
| 14) | CONCLUSIONS..... | 31 |

1) EXECUTIVE SUMMARY

The Highway Asset Management Plan (HAMP) sets out the Council's strategic approach to highway and infrastructure maintenance. In order to provide regular information about the highway and infrastructure the HAMP contains a commitment to provide an annual information report to Cabinet. The report provides information on work undertaken within the last 12 months (October 2018 to September 2019), future planned activities and other items of general interest.

The report shows that within the last 12 months:

- We have successfully implemented an updated highway inspection policy in line with revised national codes of practice
- The backlog of highway repairs remains under control
- Performance is excellent with KPIs being met
- Highway asset work programmes have been completed successfully
- The Council again achieved Band 3 in the DfT Self-Assessment to ensure that it received its full budget allocation under the Incentive Fund
- Continued our investment in footway improvements across the Borough including an additional £400,000 improvement of council housing footways

We are currently operating within a challenging national financial climate and in recent years the investment in highway infrastructure and its performance has been increasingly under the spotlight. The Council recognises this challenge and as such has committed to significant additional investment in recent years.

Feedback from our customers has shown that the maintenance of footways is of particular importance. The improvement of footways is therefore currently a Mayoral and Cabinet priority and is being supported by additional Council capital investment.

All highway and infrastructure services are delivered by the North Tyneside and Capita Technical Services Partnership.

2) THE IMPORTANCE OF HIGHWAY INFRASTRUCTURE

The national highway network comprises the strategic network of motorways and trunk roads and both major and minor local roads. It totals some 235,000 miles and includes assets such as carriageways, footways, cycle-tracks, structures, highway lighting, street furniture, traffic management systems and similar highway infrastructure.

The local highway network is the responsibility of local highway authorities. Well maintained and accessible highway infrastructure is vital and fundamental to the economic, social and environmental wellbeing of the communities of North Tyneside. The aim to maintain a good highway network is important to delivering the Our North Tyneside Council Plan and the Mayor and Cabinet's commitment to making North Tyneside a great place to live, work and visit.



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North Tyneside Council is responsible for maintenance of the following assets:

| Asset Item | Quantity (Approx.) | Asset Item | Quantity (approx.) |
|--|--------------------|---|--------------------|
| Carriageway (Km) | | Street Lighting (managed separately through PFI) | |
| Principal Roads | 105.18 Km | Lighting Columns | 29418 |
| B Roads | 37.75 Km | Illuminated Signs | 998 |
| C Roads | 34.29 Km | High Mast Columns | 15 |
| Unclassified Roads | 684.73 Km | Pole Mounted Lamps | 20 |
| Back Lanes | 37.2 Km | Wall Mounted Lamps | 40 |
| Total Network Length | 899.15 Km | Subway Lights | 243 |
| | | Belisha Beacons | 265 |
| Total Road Gullies (approx.) | 44,000 | Feeder Pillars | 418 |
| Total Footways | 1239.01 Km | | |
| Total Dedicated Cycleways | 6km | | |
| Total Public Rights of Way | 143.74 Km | | |
| Bridges and other Structures (Number) | | | |
| Road Bridges | 46 | | |
| Retaining Walls | 73 | | |
| Footbridges (inc PROW) | 46 | | |
| Bridleway Underbridge | 1 | | |
| Bridleway Overbridge | 1 | | |
| Culvert | 41 | | |
| Subway | 25 | | |
| Tunnel | 1 | | |
| Underpass | 1 | | |
| Total | 235 | | |

3) CURRENT MAINTENANCE PRIORITIES

3.1 Highway Maintenance

As in recent previous years, in the last 12 months the priority has been to protect and improve, where possible, the strategic road network (main classified roads). These are the roads that carry the vast majority of local and through traffic. Whilst the strategic highway network remains a high priority, additional Council funding has continued to be invested allowing more resources to be allocated to dealing with the condition of residential roads. The improvement of residential roads remains a challenge, but they have benefitted from the additional funding that the Council has provided through the Additional Highway Maintenance capital allocation. Most estate road resurfacing work is now undertaken using this funding stream.

We have also continued to focus on improving the condition of our footways. In accordance with meeting the priority of the Elected Mayor, following feedback from North Tyneside residents, additional monies have continued to be invested by the Authority in footways. A programme of improvement works has been implemented focusing on areas such as town centres, key urban routes and residential areas. Often, older flagged constructed footways, which are susceptible to damage, are replaced with lower maintenance bituminous construction. In other areas we have undertaken large scale high quality flagstone replacement schemes. Examples include Northumberland Square in North Shields and Wallsend Town Centre. This programme of footway improvement work will be continued into the 2020/21 financial year.

3.2 Bridges and Infrastructure

This area of work is undertaken mainly using LTP funding. Maintenance priorities for major work for the next 6 years are set out in the HAMP and its supporting framework documents including Highway Structures – Risk-Based Principal Inspections. At present the work can be accommodated provided future LTP allocations remain relatively constant.

Day to day reactive repairs are undertaken using a revenue budget which is managed by Capita. The current programme is focussed and prioritised on locations and schemes which have been identified as requiring maintenance work or have been identified as requiring work in the next 12 – 18 months following statutory general and principal condition inspections of the Authority's bridges and other infrastructure assets. These inspections are critical in ensuring that the Council's bridge stock remains in a safe and usable condition.

4) SUMMARY OF WORK UNDERTAKEN DURING THE LAST 12 MONTHS

During the last quarter of the 2018/19 financial year, the highway maintenance schemes for the current 2019/20 financial year were finalised in accordance with our works prioritisation procedures and in consultation with the lead Cabinet Member and the Investment Programme Board. The following is a summary of the work that has been done to date and what will be achieved by the end of the current financial year.

4.1 Carriageway Improvement Works

In order to achieve better value for money we have continued to use alternative construction products including micro-asphalt surfacing treatments on the highway network. By the end of this financial year we will have completed the following works:

Road Repair Work Undertaken in North Tyneside in 2019/20 (and comparison of previous years)

| Treatment Type | Area Covered in 16/17 | Area Covered in 17/18 | Area Covered in 18/19 | Area Covered in 19/20 |
|------------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Micro Asphalt | 119,951m ² (9.23 miles) | 69,422m ² (5.34 miles) | 19,813m ² (1.65 miles) | 46,425m ² (4.39 miles) |
| Full Resurfacing | 62,759m ² (4.83 miles) | 87,124m ² (6.70 miles) | 84,690m ² (6.51 miles) | 94,320m ² (7.94 miles) |
| Patching Sites | 123 No. | 60 No. | 46 no. | 52 no. |
| Footway Improvement Schemes | 90 No. | 112 No. | 47 No.* | 38 No.* |

* It can be seen that for the 2019/20 financial year, although investment has increased, there is a reduction in the number of footway schemes. This is attributed to the fact that in previous years we have carried out footway schemes which have been in localised areas within streets resulting in a relatively high number of schemes. In 2019/20, schemes have incorporated full streets rather than localised areas. This has resulted in higher quality and more noticeable improvements and maintains our commitment of increased investment in footway improvements.

Structural resurfacing is carried out when the road surface or its underlying layers have deteriorated to the point that they need to be replaced. The damaged layers are removed and new material is laid. Micro-asphalt, which is a cold-applied treatment which seals the road surface to prevent the intrusion of water, a major cause of deterioration. The following micro asphalt resurfacing works have been completed within the current financial year, all in accordance with the agreed programme:

| | |
|---------------------------------------|--|
| Alder Road, Battle Hill | Goldstone Court, Killingworth |
| Abercorn Place, Battle Hill | Chesters Avenue, Longbenton |
| Andover Place, Battle Hill | Wheatfield Grove, Longbenton |
| Ashburn Road, Battle Hill | Glenfield Road, Longbenton |
| Arrow Close, Camperdown | Main Crescent, Northumberland |
| Samson Close, Camperdown | Springfield Gardens, Northumberland |
| Polden Crescent, Collingwood | Shrewsbury Drive, Valley |
| Kilsyth Avenue, Collingwood | Telford Close, Valley |
| Longstone Court, Killingworth | Stretton Way, Valley |
| Knivestone Court, Killingworth | Sharnford Close, Valley |
| Amberley Chase, Killingworth | Sandon Close, Valley |
| Garth Twenty One, Killingworth | Bywell Grove, Valley |
| Crumstone Court, Killingworth | Milfield Avenue, Valley |
| Megstone Court, Killingworth | |



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By the end of the financial year the following structural resurfacing works (full renewal of the road surface) will also have been completed:

| | |
|---|---|
| Battle Hill Drive, Battle Hill | Front Street, Preston Village, Preston |
| Glebe Crescent, Benton | Northumberland Dock Road, Riverside |
| Glebe Terrace, Benton | Tyne View Terrace, Riverside |
| Farne Road, Benton | Front Street, Earsdon Village, St Mary's |
| East Forest Hall Road, Benton | Walwick Road, St Mary's |
| East Avenue, North Avenue, The Oval, Benton | Haddon Green, St Mary's |
| Denton Avenue/Stamfordham Avenue, Chirton | Crossway, Tynemouth |
| Holystone Gardens, Collingwood | Mill Grove, Tynemouth |
| Whitton Gardens, Collingwood | Station Terrace/Huntingdon Place, Tynemouth |
| Westmorland Road, Collingwood | Bath Terrace, Tynemouth |
| Links Road, Cullercoats | Upper Queens Street, Tynemouth |
| Churchill Street, Howdon | Howard Street, Tynemouth |
| Willington Square Interchange, Howdon | Grange Avenue, Valley |
| Shafto Street, Howdon | Earsdon View, Valley |
| McNamara Road, Howdon | Kings Road South, Wallsend |
| Howdon Lane, Howdon | Neptune Road/Buddle Street, Wallsend |
| East Bailey, Killingworth | Praetorian Drive/Neptune Road Lane, Wallsend |
| The Byways, The Roundways & Elmsford Grove, Longbenton | Benton Way, Wallsend |
| Cauldwell Close, Monkseaton North | Carville Road, Wallsend |
| Kenilworth Road, Monkseaton North | Front Street, Seaton Burn, Weetslade |
| Deneholm, Monkseaton North | The Avenue, Whitley Bay |
| Langley Avenue, Monkseaton South | Cliftonville Gardens, Whitley Bay |
| Elmfield Gardens, Monkseaton South | Esplanade, Whitley Bay |
| Townsville Avenue, Monkseaton South | Norham Road, Whitley Bay |
| Hampton Drive, Monkseaton South | Hillheads Road/Marden Road, Whitley Bay |
| West Street, Northumberland | |

4.2 Footway Improvement Work

By the end of the current financial year the following footway refurbishment schemes will have been completed, all in accordance with the agreed programme:

| FOOTWAY REVENUE BUDGET | |
|---|---|
| Hartburn Road, Cullercoats | Melbury, St. Marys |
| Weetslade Road, Weetslade | Simonside Avenue, Howdon |
| Manor Walk, Benton | Lansdowne Road, Benton |
| Grange Avenue, Valley | Blyth Road, St. Marys |
| FOOTWAY IMPROVEMENTS CAPITAL BUDGET | |
| Station Road/Park Lane, Wallsend | St. Anslem Road, Collingwood |
| Gilsland Avenue, Howdon | Robinson Gardens, Howdon |
| Amble Avenue, Whitley Bay | Wallington Avenue, Cullercoats |
| West Farm Avenue, Longbenton | Fairways Avenue, Benton |
| West Street, Wallsend | Holderness Road, Wallsend |
| Dene Crescent, Wallsend | Middle Green, Monkseaton South |
| Verne Drive, Monkseaton South | Fairfield Green, Monkseaton South |
| Holystone Gardens, North Shields | Mitford Gardens/Beal Close, Wallsend |
| High Street East, Wallsend | Sandown Court, Wallsend |
| Briarwood, Dudley | Headlam View, Wallsend |
| Percy Court, North Shields | Chirton Hill, North Shields |
| Windsor Drive, Howdon | St. Marks Court, Percy Main |
| Barnstable Close, Battle Hill | Belmont Close, Battle Hill |
| Harewood Court, Whitley Bay | Albert Terrace, Benton |
| Sheldon Court, Benton | Matfen Gardens, Wallsend |
| Northumberland Square, North Shields | |

4.3 Drainage Works

We have two gully wagons, one 18 tonne and the other 26 tonnes, which operate across the borough carrying out gully maintenance and dealing with reported flooding problems on the highway. We operate our gully services on a system from KaarbonTech called Gully Smart. Gully Smart provides us with a more sophisticated recording system for collecting information on site to inform future programmes of work.

Gully Smart can record the type of asset i.e. gully, linear kerb drainage or manhole, whether it is blocked or broken and most importantly the silt level. The silt level is the key element required to generate an intelligence-led maintenance programme and with this information we are developing a risk-based gully cleaning strategy for the borough. Since we implemented the Gully Smart system approximately 44,000 assets have been cleaned and recorded in its first year of operation. The gully cleaning crews are close to completing the 2nd full borough cleanse of all gullies to determine our future risk-based approach programme to gully cleaning.

Historically, the approach in North Tyneside to repairing and improving highway drainage assets has been cyclic, rather than needs-based. We are redesigning the

service to follow a risk-based approach, in accordance with the new 'Well-Managed Highway Infrastructure: A Code of Practice'. This will ensure better use of resources, a more effective gully cleansing regime and the controlled management of surface water to allow safe passage and promote network resilience.

The following is a summary of the ongoing activities associated with improving the highway drainage service:

- Development of a risk-based strategy for drainage cleansing and maintenance by the end of the 2019/20 year involving Elected Members in its development in order to compare the data with their experience;
- Identification of assets which require more frequent cleansing and assets which require less frequent cleansing;
- Maintenance of the highway drainage asset to a condition in which it remains functional for draining the highway;
- Design, construction and maintenance of highway drainage assets to meet current and future needs in a changing environment while making effective use of limited budgets; and
- Prioritisation of our maintenance activities based on the areas of the network in most need of maintenance in line with available budgets.

In last year's annual report, we reported that the risk-based gully cleaning programme required a further year of work whereby all gullies were to be cleaned again to provide robust data in terms of silt levels within gullies prior to cleaning and information relating to how soon a gully fills with debris. As detailed above, the gully crews have nearly completed the 2nd cycle of planned cleaning of all gullies in North Tyneside and it is anticipated by the 1st April 2020 we should be implementing a priority and risk based approach to gully cleaning in North Tyneside.

In addition to gully cleansing, by the end of the current financial year the following drainage schemes will have been completed, all in accordance with the agreed programme:

- Camera surveys
 - Bradford Avenue, Battle Hill
 - Charles Avenue, Forest Hall
 - Headlam View, Howdon (incl. pipe repair)
 - The Paddock, Killingworth
 - West Bailey, Killingworth
 - High Street West, Wallsend
 - Point Pleasant Terrace, Wallsend
 - Station Road, Wallsend
 - Chicken Road Culvert, Wallsend
 - Birchwood Avenue, Wideopen
- Station Road, Backworth – new manhole cover and frame
- Boldon Close, Battle Hill – new drainage connection
- Briar Edge, Forest Hall – gully pot replacement
- Edwins Avenue, Forest Hall – gully pot replacement

- Northumberland Avenue, Forest Hall – gully pot replacement
- Bede Close, Holystone – new drainage connection
- Malvern Road, North Shields – new field drain
- Park Lane, Shiremoor – new manhole cover and frame
- East Avenue, Whitley Bay – gully pot replacement
- Longridge Drive, Whitley Bay – gully pot replacement
- Westley Avenue, Whitley Bay – installation of linear drainage
- Windsor Gardens West, Whitley Bay – gully pot replacement
- Woodburn Square, Whitley Bay – gully risers
- Central Lower Promenade, Whitley Bay – installation of linear drainage
- Doultling Close, Longbenton – installation of field drain and footway realignment
- Laurel Avenue, Forest Hall – road collapse repair
- Sycamore Street, Wallsend – road collapse repair
- Vine Street, Wallsend – road collapse repair
- Tynemouth Road, North Shields – road collapse repair

4.4 Bridges and Infrastructure

Works Undertaken November 2018 to September 2019

Below is a summary of the bridge/highway structures maintenance inspection works undertaken to date within the 2018/19 year:

- Principal Bridge Inspections – 8 no.
- Principal Retaining Walls and Culverts Inspections – 10 no.
- General Inspections – 34 no.
- Bridge Assessments - 1 no.
- Completion of 6 year bridges plan update

Below is a summary of the structural works progressing or planned for the current 2019/20 year:

- Pier Road Bridge strengthening
- Gibraltar Rock cliff-top repairs
- Borough Road Bridge demolition planning and PROW processing

Below is a summary of further bridge/highway structure maintenance inspection works planned for the current 2019/20 year:

- Principal Bridge Inspections – 6 no.
- Principal Retaining Walls and Culverts Inspections – 11 no.
- General Inspections – 43 no.
- Bridge Assessments – 1 no.



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5) INVESTMENT IN THE HIGHWAY ASSET

The following tables provide a summary of the budgets that have been allocated to highway and infrastructure maintenance over the last 5 years.

Highway Maintenance

| Budget | Description of Work | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|------------------------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| Revenue | Day to day highway repairs (e.g. potholes), patching programme, small planned road and footpath improvement schemes, drainage repairs | £1,049,000 | £1,049,000 | £1,049,000 | £1,049,174 | £1,049,174 |
| Local Transport Plan Capital | Annual resurfacing programme, annual surface dressing and micro-asphalting programmes | £996,000 | £600,000 | £750,000 | £678,000 | £695,500 |
| Council Capital | Additional Council Capital investment in highway maintenance | £2m | £2m | £2m | £2m | £2m |
| Other Capital | Drainage Improvements and Asset Management | - | - | - | - | £290,000 |
| Other Capital | Additional DfT budget – National Pothole Fund | - | £138,000 | £191,000 | £131,000 | - |
| Capital Footway Work | Footway improvement works funded through LTP and additional Council contributions | £255,000 | £284,000 | £936,000 | £808,000 | £733,500 |
| Other Capital | Additional DfT funding (£1m) – Annual resurfacing programme and footway improvements | - | - | - | - | £730,000 |
| TOTAL | | £4,300,000 | £4,071,000 | £4,926,000 | £4,666,174 | £5,498,174 |



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Bridges and Infrastructure Maintenance

| Budget | Description of Work | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|------------------------------|--|-----------------|-------------------|-------------------|-----------------|-------------------|
| Revenue | Day to day bridge repairs, emergency work, graffiti bus partnership, minor planned schemes | £67,000 | £67,000 | £65,000 | £65,000 | £65,000 |
| Local Transport Plan Capital | Major structural schemes (e.g. bridge replacement / refurbishment) | £900,000 | £972,000 | £1,389,255 | £480,000 | £770,000 |
| Other Capital | Additional DfT Funding (£1m) | - | - | - | - | £270,000 |
| Total | | £967,000 | £1,039,000 | £1,454,255 | £545,000 | £1,105,000 |

6) PERFORMANCE

As part of the Technical Services Partnership between North Tyneside Council and Capita, a suite of performance indicators is used, monitoring aspects of the Partner's performance in relation to the management and condition of the network. These indicators have been in place since November 2012 and are reviewed on an annual basis. The tables below outline recent data in accordance with the performance indicator methodology.

With reference to the condition of the main classified roads, independent condition surveys are undertaken, and the data is used to calculate a performance indicator figure (Road Condition Indicator (RCI)). The results for recent years are shown in the table below (note: a lower figure is better).

| KPI/PI Reference | Performance Indicator | Target | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|------------------|---|--------|---------|---------|---------|---------|---------|---------|
| ENG 1.4 (RCI) | Percentage of A class roads that should be considered for structural maintenance | 5% | 3% | 3% | 3% | 2% | 2% | 2% |
| ENG 1.5 (RCI) | Percentage of B and C class roads that should be considered for structural maintenance | 5% | 5% | 3% | 3% | 3% | 2% | 2% |
| Not an indicator | Percentage of unclassified (residential) roads that should be considered for structural maintenance | N/A | 9% | 9% | 13% | 14% | 6% | 4% |

The above figures illustrate the percentage of structural maintenance required to improve the road network and it is evident the figures demonstrate a continued steady reducing trend. This demonstrates that the implementation and adoption of asset management policies of North Tyneside Council has had a positive impact on the condition of the A, B, C and unclassified road network.

The other performance indicators within the Engineering service relevant to this report are detailed in the next table:



| CATEGORY 2 KPI's | | | |
|-------------------------|---|---------------|---|
| KPI/PI Reference | Performance Indicator | Target | Average performance over the last 12 months. From October 2018 to September 2019 |
| ENG 2.1 | Roads and Pavements – Percentage of routine street care safety inspections carried out on time | 95% | 99.94% |
| ENG 2.2 | Roads and pavements - Percentage of CAT 1 highway defects that were compliant within 24 hours | 98% | 100% |
| ENG 2.3 | Roads and Pavements - Percentage of CAT 2 highway defects that were made compliant within 10 working days | 98% | 99.49% |
| ENG 2.5 | Roads and pavements - Quality of maintenance repairs | 93% | 97.54% |

| CATEGORY 1 KPI's | | | |
|-------------------------|--|---------------|---|
| KPI/PI Reference | Performance Indicator | Target | Average performance over the last 12 months. From October 2018 to September 2019 |
| ENG 1.2 | Roads and Pavements – Permit scheme compliance of Capita workforce | 90% | 91.19% |
| ENG 1.4 | Roads and Pavements – Percentage of pothole and footpath enquiries inspected within 3 working days | 80% | 91.28% (<i>this is based on figures from April to September 2019</i>) |

The figures in the above tables demonstrate the Technical Services Partnership is achieving and exceeding, in many instances, its agreed prescribed performance targets with regard to undertaking the Authority's statutory maintenance duties and undertaking repairs in a safe and timely manner, reducing the risk of any harm occurring to users of the highway network.

7) VALUE OF THE HIGHWAY ASSET

Under the Whole of Government Accounting (WGA) procedure, all councils are required to submit an annual detailed valuation of their highways and infrastructure assets. Each year, independent condition surveys of roads, footways and structures are necessary to assess their condition. Depreciated Replacement Cost is used for measurements purposes and are disclosed as a separate class of asset on the Council's Balance Sheet.

The most recent values are as follows:

| Asset Type | 2016/17 Valuation | 2017/18 Valuation | 2018/19 Valuation |
|------------------------|--------------------------|--------------------------|--------------------------|
| Roads | £1,023 million | £1,065 million | £1,165 million |
| Footways and Cycleways | £135 million | £144 million | £206 million |
| Bridges | £189 million | £195 million | £461 million |

The total value of highway assets as calculated in **Sept 2018** equated to **£1,404,000,000.**

As of **September 2019**, the total value of highway assets equates to **£1,832,000,000.**

The large increase in value isn't necessarily due to additional assets coming into being. It is more to do with improvements made over the last 12 months in our inventory data which now takes into account highway widths and not just length as reported previously. The square area of our highway assets has now been accurately surveyed and is higher than previously estimated. This improved inventory data has assisted in providing a more accurate WGA submission.

8) CONDITION OF CARRIAGEWAYS (ROAD SURFACES)

The Council uses a specialist computer system, ExpertAssets, to model the condition of roads under different funding scenarios.

The service standards developed for North Tyneside's roads are 'good', 'early life', 'mid-life' and 'late life'.

- Roads classed as 'good' (colour coded green) are defined as a road which is as new, no defects or cracking identified. These roads do not require structural maintenance and are not defective
- Roads classed as 'early life' (colour coded yellow) are defined as a road which has minor chip loss, fretting, cracking and minor fatting. The road has minor defects
- Roads classed as 'mid-life' (colour coded amber) are defined as a road which has moderate defects such as local settlement, major chip loss and cracking. The road has moderate defects but can be "saved" by preventative maintenance
- Roads classed as 'late-life' (colour coded red) are defined as roads which have severe local settlement, major wheel track cracking, whole carriageway major cracking and whole carriageway major fretting. These roads require full resurfacing and cannot be saved by preventative maintenance treatments



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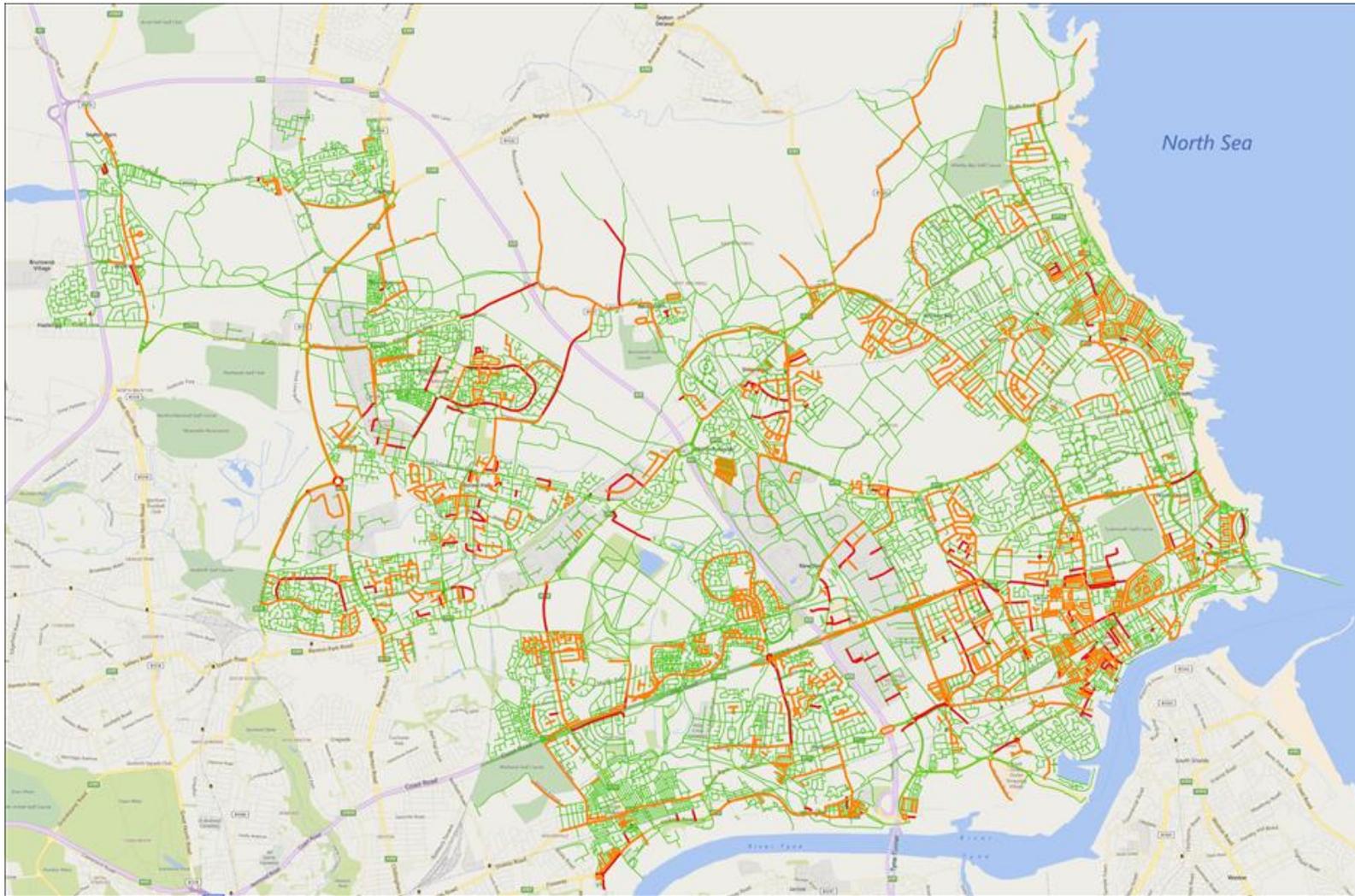
This section of the report demonstrates the positive effect that the continued additional investment in highways has made in recent years.

The following plan illustrates the current condition of the A, B and C classified network. As a result of the continued investment and the application of asset management principles the percentage of red routes has remained steady year on year since the additional investment was introduced. Without this investment, our classified road network would deteriorate much sooner.



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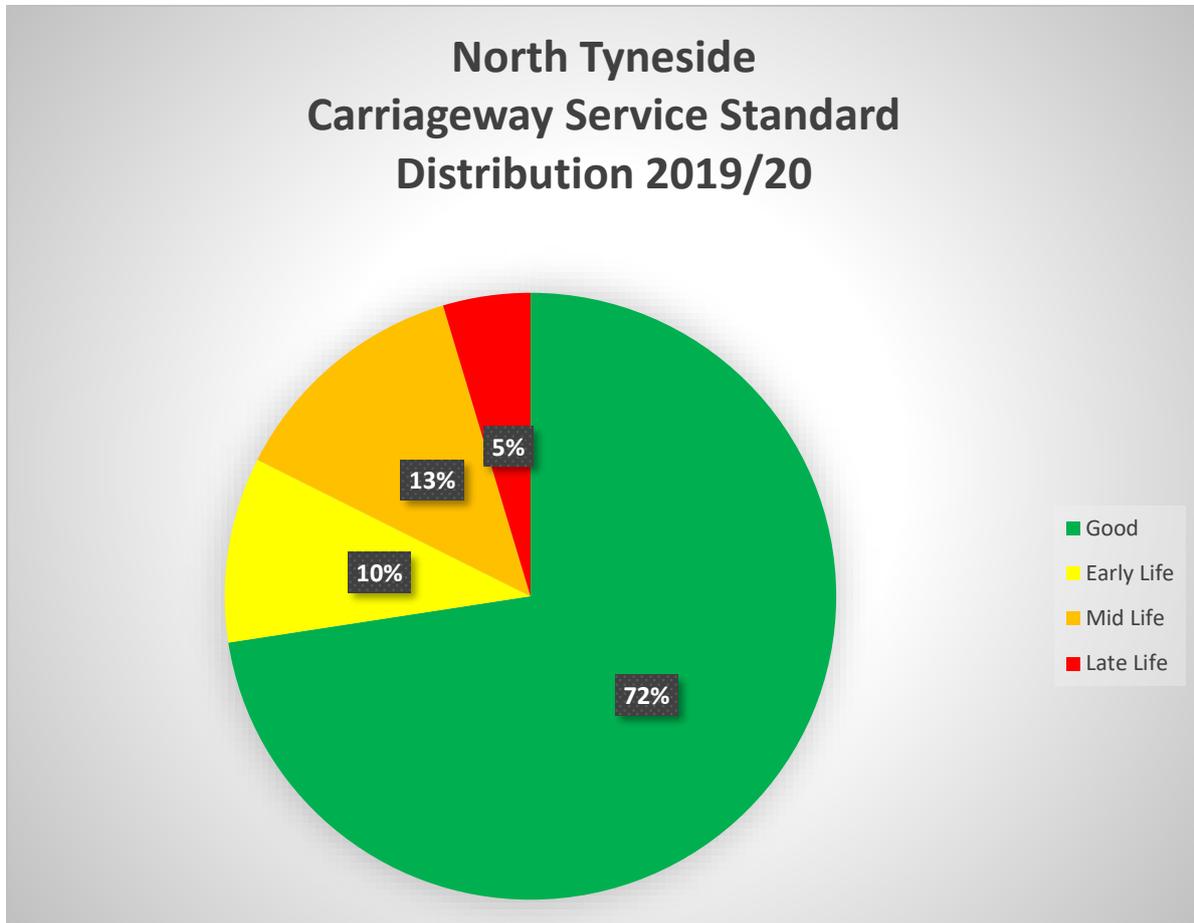
Plan showing condition of highway network – September 2019



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The pie chart below demonstrates that under current funding arrangements, the quality of the highway asset is very good. This is evidenced by the majority of the roads being in good condition and only a minimal percentage of roads being in late life.



Current Service Standard - Carriageway

The key to continuing the year on year good condition of our highways is to target our early and mid-life roads with preventative treatments to prolong their life. By carrying out preventative cost-effective surface treatments we will halt further deterioration of mid-life roads. As the above chart shows, only 5% of the borough's roads are in a condition where structural resurfacing should be considered. This has remained unchanged since last year which demonstrates that our Highway Asset management Principles are working by using the preventative treatments on mid-life roads and therefore managing to keep a constant level of condition of carriageways with limited budgets.

To ensure we target our early and mid-life roads we gather annual condition survey data, input into ExpertAssets which will identify the roads in early and mid-life state. It is this information which we use to inform our forward works programme for improvement works on the highway

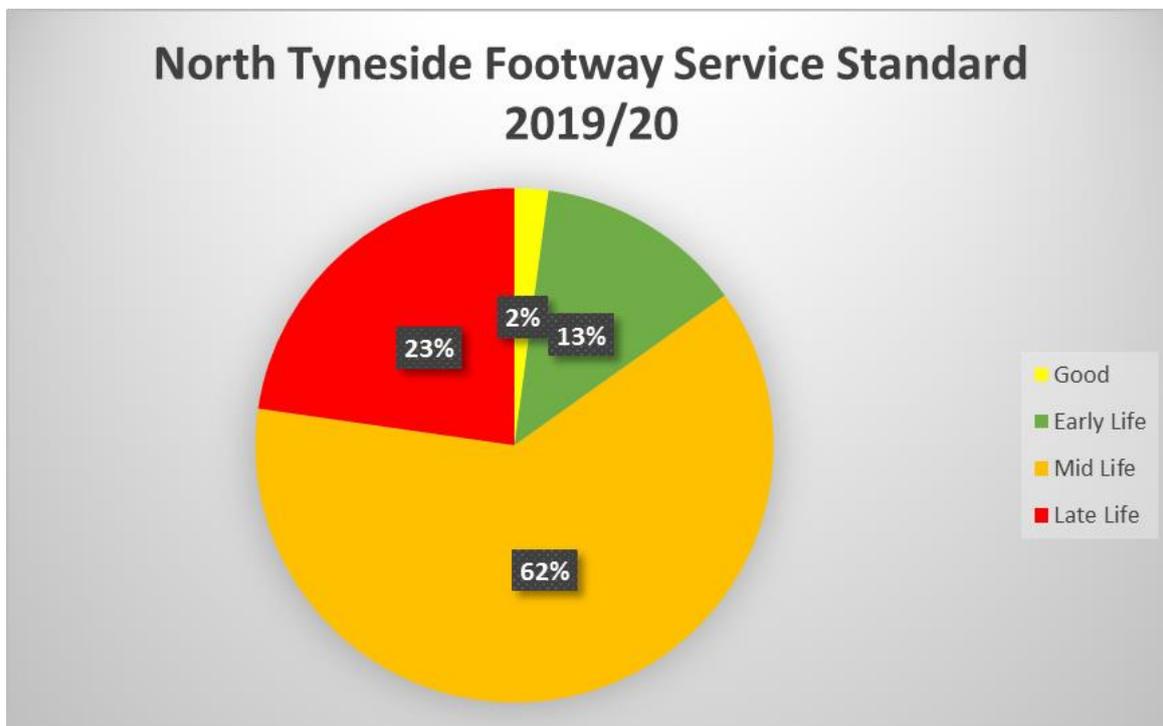
9) CONDITION OF FOOTWAYS

A Footway Network Survey (FNS) has been completed on 100% of the footway network and the condition presented in the pie chart below. As with carriageways the data is held in ExpertAssets and will be used to complete the Whole of Government Accounts (WGA) return and identify future footway schemes in line with the advocated asset management principles. Improvements to footways is a Mayoral priority and is considered accordingly as part of current and future work programmes.

The service standards developed for North Tyneside's footways are 'good', 'early life', 'mid-life' and 'late life'.

- Footways classed as 'good' (green) are defined as new, no defects or cracking identified.
- Footways classed as 'early life' (yellow) are defined as having minor defects with only localised repairs required
- Footways classed as 'mid-life' (amber) are defined as having more serious defects and large areas of repair required
- Footways classed as 'late-life' (red) are defined as having severe defects and are beyond localised repairs

The pie chart below shows the current condition of footways across the Borough.



Footways do not deteriorate at the same rate as roads. This is due to the significantly less weight-bearing traffic movement undertaken on a daily basis. The above pie chart shows that overall 77% of the footways in North Tyneside are in an acceptable condition. As with carriageways, the overall deterioration of footways has remained steady compared to last year further suggesting that our HAMP policies are effective.

10) HIGHWAY MAINTENANCE BACKLOG

The Expert Assets system can also be used to calculate the current backlog of highway repairs i.e. the one-off cost of rectifying all highway defects and bringing the network back to an “all green” condition.

The current carriageway maintenance backlog is calculated to be circa. **£24million**. The methodology used to calculate the backlog is currently being refined due to improvements to the ExpertAssets system. The backlog figure has increased by around £4m compared to 12 months ago due to national changes in the parameters for calculating the backlog. At present it is expected to remain steady provided current levels of funding are maintained. If the Authority was solely reliant on LTP funding, then the backlog would be substantially higher and would rapidly increase from year to year.

Due to improved inventory data we have been able for the first time to accurately calculate the footways maintenance backlog. The figure is currently around **£6million**.

11) CUSTOMER ENGAGEMENT

In recent years, the council’s resident satisfaction surveys have shown that a well-maintained highway network is very important to our residents and customer satisfaction in this area has proved to be a challenge. The Highway Asset Management Plan (HAMP) recognises that improvement to the network will always be constrained by available resources and so there is a need to prioritise.

Since 2016, a customer feedback form has been used by the highways team, which is delivered to areas where road resurfacing works have been carried out. It aims to gain views on how the works were communicated and delivered as well as the quality of the finished scheme. The responses received over the last 12 months have been analysed. The findings show that overall the majority of our residents are very satisfied with the delivery of our works programmes on the highway network. A lessons learned exercise concluded that the service was operating well and no further improvements are planned at this time.

The Authority is a member of the National Highways and Transport Network (NHT), which is a leading performance improvement organisation. We use the NHT to share experiences and best practice with other local authorities. As part of the work of the NHT, it carries out a resident’s survey every 3 years. The next survey falls due in

2020 and allows us to benchmark against similar authorities and gather information on resident's priorities. Our intention is to participate in this survey as part of our overall ongoing customer engagement.

The Authority has an Engagement Strategy. Our public engagement activity will be conducted in line with that Strategy and planned through our Engagement Team which may involve consultation with the Resident's Panel and speaking with residents through other means.

To attain Band 3 DfT self-assessment funding, it is vital that the Council demonstrates an ongoing commitment to customer engagement. In 2019/20 the Highways Team will maintain its commitment to good customer engagement and will include evidence of this as part of the Council's DfT self-assessment which will be submitted in February 2020.

12) FUTURE PLANS AND ISSUES

This section of the report advises of future activities within the Highway Maintenance Service and emerging issues which the Authority needs to be made aware of.

12.1) Response to Customer Feedback – Footway Improvement Works

Over the last 24 months customer engagement activities showed that footway improvement work continues to be a high priority for our Mayor and residents and businesses of North Tyneside. The Council continues to listen to this feedback and the Mayor and Cabinet have responded by investing more funding into improving footways. We understand that there is more to do to meet our resident's expectations and this investment from the Mayor and Cabinet will continue.

12.2) Self-Assessment Questionnaire by the Department for Transport

Several years ago, to encourage local authorities to adopt good asset management practices, DfT introduced changes to the highway maintenance formula funding mechanism. Each highway authority is required to complete a self-assessment questionnaire against a set of criteria aimed at assessing performance in relation to asset management, resilience, customer engagement, benchmarking, efficiency and operational delivery.

The self-assessment bandings are based on the maturity of the authority in key areas, which are described in each question. The principle on which the levels of maturity for each question were determined is described as follows: Band 1 – has a basic understanding of key areas and is in the process of taking it forward; Band 2 – can demonstrate that outputs have been produced that support the implementation of key areas that will lead towards improvements; Band 3 – can demonstrate that outcomes have been achieved in key areas as part of a continuous improvement process. A local authority's Band will be based on their score in the self-assessment questionnaire.

Our most recent self-assessment was submitted on 30th January 2019 and the Council was assessed to be a Band 3 authority. This has resulted in the Council receiving its full allocation of Capital funding for the Highway Maintenance block. The Technical Partnership will not rest upon its success but will continue to maintain and improve our self-assessment answers for the next submission. It is understood that the next self-assessment questionnaire will have differing questions which the Council will have to meet. Currently we are awaiting guidance from DfT on what these questions will be, but the Council is in a sound position to successfully answer any question in terms of highways.

Details of the 'incentive bands' and funding % for future years are shown below: -

| Year | Band 1 | Band 2 | Band 3 |
|---------|--------|--------|--------|
| 2015/16 | 100% | 100% | 100% |
| 2016/17 | 90% | 100% | 100% |
| 2017/18 | 60% | 90% | 100% |
| 2018/19 | 30% | 70% | 100% |
| 2019/20 | 10% | 60% | 100% |
| 2020/21 | 0% | 30% | 100% |

The funding allocation for North Tyneside Council is presented in the table below. This information was extracted from the DfT's website.

| | Total needs/formula allocation (£) announced in December 2014 | Indicative incentive element by "band" of self-assessment ranking (£) | | |
|---------|---|---|---|--|
| | | Band 3 (highest band = 100% of maximum incentive) ¹ | Band 2 (medium band = 100% of maximum incentive) ¹ | Band 1 (lowest band = 90% of maximum incentive) ¹ |
| 2016-17 | 2,070,000 | 125,000 | 125,000 | 113,000 |
| 2017-18 | 2,007,000 | 188,000 | 169,000 | 113,000 |
| 2018-19 | 1,817,000 | 378,000 | 265,000 | 114,000 |
| 2019-20 | 1,817,000 | 378,000 | 189,000 | 38,000 |
| 2020-21 | 1,817,000 | 378,000 | 114,000 | 0 |

To give an indication as to the consequence of not meeting Band 3 the funding implications are highlighted blue in the table below.

| | Total needs/formula + band 3 monies | Total needs/formula + band 2 monies | Loss of funding if band 3 is not achieved for NT |
|---------|-------------------------------------|-------------------------------------|--|
| 2016-17 | 2,195,000 | 2,195,000 | 0 |
| 2017-18 | 2,195,000 | 2,176,000 | 19,000 |
| 2018-19 | 2,195,000 | 2,081,000 | 114,000 |
| 2019-20 | 2,195,000 | 2,006,000 | 189,000 |
| 2020-21 | 2,195,000 | 1,930,000 | 265,000 |

12.3) The Changes to Codes of Practice (CoP) Guidance and Implementation

The revised CoP, Well-managed Highway Infrastructure was released in October 2016 which prompted all authorities responsible for the maintenance of highway infrastructure assets to review their working practices. For all highway authorities there was a 2-year transition period for implementation of the new CoP by October 2018. One of the fundamental changes in the CoP has been the move to adopting a risk-based approach to managing highway infrastructure.

Following a gap analysis which was undertaken by the Council 24 months ago to ascertain what was required to implement the revised CoP in October 2018, the Technical Partnership completed all the work needed to meet the requirements of the risk-based approach in the last financial year with a view to assess the impact in 2019/20. The work undertaken to date is: -

- Updating of the Council's HAMP – completed October 2018
- Updating of the Highways Safety Inspection Policy – completed October 2018
- Update of the Highway Safety Inspection Guidance document for highway maintenance staff – completed October 2018
- Development of a new risk based gully cleaning policy - Due to be in place by April 2020. The team will involve elected members in the development of the new risk-based policy in order to compare the data with their experience.

It is intended to undertake a review of the impact this has had on the service during 2020.

12.3) The Introduction of Gully and Culvert Sensors

In 2019/20, the Technical Services Partnership will be introducing new innovative technology to further improve our gully cleaning service and surface water management service through the introduction of 20 no. sensors around the Borough to a number of strategically located gullies and culverts. The sensor is installed in gullies and culverts and can remotely:

- monitor water levels
- issue flood alerts and warnings (via email/SMS/voice) at pre-set levels
- send a battery health warning
- issue data to a monitoring portal

The monitoring portal will provide us with live and historic data to see how the levels react to weather events and with a warning alert to ensure we have some warning of a potential flood at the location concerned.

It is anticipated that these sensors will be installed in flooding hotspots before the end of 2019 and the Technical Services Partnership will undertake a 12 month trial and produce a report at the end of the trial to determine the usefulness of these sensors and to determine if it is a viable technology that we should use in our efforts to address the risk of surface water flooding across North Tyneside.

This system will work alongside our GullySmart system which is used within our gully cleaning vehicles as part of our risk-based approach to highway maintenance.

13) OTHER INFORMATION

This section of the report outlines items of general interest in relation to highway maintenance services.

13.1) Action Plan Update in 2019/20

As part of the Technical Services Partnership, Capita are committed to a number of service improvement plans and each has an action plan. Progress is summarised in the following tables.



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| | | | | | |
|---|------------------------------------|------------------------|--|-----------------------------------|--|
| Priority | Highway Asset Inventory Collection | | | | |
| ONT Priority: | Our Places | ONT Outcome: | <ul style="list-style-type: none"> • Be great places to live, and attract others to visit or work here • Offer a good choice of quality housing appropriate to need, including affordable homes • Provide a clean, green, healthy, attractive and safe environment • Have an effective transport and physical infrastructure - including our roads, cycleways, pavements, street lighting, drainage and public transport | | |
| Start Date | April 2019 | Completion Date | March 2020 | Lead Service Area/Officer: | Andrew Mollon (Asset) / Sam Lacy (Network) / Garry Hoyle (Parking) |
| What is the priority designed to accomplish? | | | | | |
| <p>This action plan is designed to expand the existing inventory of North Tyneside Council's highway assets which will feed into the development of a capital renewal rolling programme. The work will consist of</p> <ol style="list-style-type: none"> 1) Review of existing inventory data 2) Gap analysis of inventory data 3) Collection of inventory data, the scope of which will be agreed with the Client 4) Uploading of new inventory data into the appropriate data management systems 5) Production of an asset renewal plan for the following 2020-21 year. <p>Additional Information: Key deliverable/outcome of this Action Plan: <i>The outcome is for North Tyneside Council to have an improved inventory of their highway assets and a plan for maintenance/renewal which can be continued in subsequent years by means of a rolling programme of work. The captured data will be uploaded to and managed within the most appropriate asset management system</i> Key dates of this Action Plan: <i>31st January – Volume of Parking Assets to be submitted to client to inform LTP budget discussion.</i> Is this Action Plan for the delivery of a statutory requirement? <i>No.</i> Is this Action Plan for the delivery of improvements across the service area? <i>Yes.</i></p> | | | | | |
| Key Performance Indicators linked to this priority | | | | | |



| None. | | | |
|---|--|--|---|
| Quarterly Profile of Planned Actions | | On track? Yes/No | Progress |
| Quarter 1 (April, May & June) | <ul style="list-style-type: none"> - Hold initial meeting with XAIS to understand collection process and understand what is achievable in a 12-month period. - Capita to produce a briefing note of what data we currently hold and present to client team. Capita / Client to review the accuracy of data. - Capita to recommend to NTC which assets should be prioritised for year 1 collection (eg road markings, traffic signs, pay and display machines, VMS units etc). - Capita to recommend methodology for collection of agreed asset set (eg by road classification, area etc) | No – As of 8 th July 2019 (briefing note submitted after Q1). | <p>Capita have organised meeting with XAIS on 07/05/2019 to determine priorities for collection, how this inventory will be collected and how it will be stored and linked within our Expert Assets system. First draft of Briefing note to be produced following this meeting and submitted to client by June 2019.</p> <p>Meeting with XAIS has been undertaken and agreed that Gap analysis to be undertaken to ascertain condition of existing highways asset inventory. Briefing note has been produced and will be presented to Client for June 2019 Sub-Group detailing programme of works to be done to complete action.</p> <p>Briefing note to be submitted to client at July 2019 subgroup, which will include what asset Capita recommends should be collected in year 1.</p> <p>Capita are awaiting confirmation from XAIS on the technical content final estimates and timescales on inventory collection. The inventory identified will further improve accuracy of WGA.</p> |
| Quarter 2 (July, August & September) | <ul style="list-style-type: none"> - Capita to meet with XAIS (Expert Assets Partner) to confirm scope of inventory collection work and the methodology for data collection and quotation for cost. - Agree methodology and collection mechanism for parking assets. | Yes – As of 9 th September 2019 (confirmed next steps) | <p>Briefing note has been emailed to Client with recommendation of assets to be collected and in which priority.</p> <p>Meeting scheduled for end of September with XAIS to confirm scope of works and how this will</p> |



| | | | |
|---|---|------------------------|---|
| | <ul style="list-style-type: none">- Capita to meet client and present progress to date and proposed data collection delivery programme. Client to review and approve method and any costs. | with client via email) | be undertaken and how it will be recorded. Estimated cost of undertaking works will be provided. Briefing note has been amended and returned to client with recommendation and request for consideration to be given to methodology. |
| Quarter 3 (October, November & December) | <ul style="list-style-type: none">- Capita to gather inventory data on assets agreed with Client for year 1.- All collected data uploaded into relevant system in manageable format to inform delivery plan. | | |
| Quarter 4 (January, Feb & March) | <ul style="list-style-type: none">- Capita to produce a report detailing asset inventory collected and condition data.- Capita to produce a rolling programme for asset inventory to fit available budgets and a preliminary capital renewal programme.- Capita to provide figure on number of parking and road safety assets which need replacing in 20/21 by 31/01/2020 | | |



| | | | | | |
|--|--|------------------------|---------------------|--|----------------------|
| Priority | Strategic Gully Cleaning Programme – Completion and Implementation | | | | |
| ONT Priority: | <i>Our Places</i> | | ONT Outcome: | <ul style="list-style-type: none"> • Be great places to live, and attract others to visit or work here • Offer a good choice of quality housing appropriate to need, including affordable homes • Provide a clean, green, healthy, attractive and safe environment • Have an effective transport and physical infrastructure - including our roads, cycleways, pavements, street lighting, drainage and public transport | |
| Start Date | <i>April 2019</i> | Completion Date | <i>March 2020</i> | Lead Service Area/Officer: | <i>Andrew Mollon</i> |
| What is the priority designed to accomplish? | | | | | |
| <p>In 2018 the GullySmart system gathered data on the gully network and silt levels. This was the completion of the first cycle of cleaning all highway gullies in North Tyneside to ascertain silt levels to produce a risk-based gully cleaning strategy. To ensure Capita has an accurate benchmark level, the Gully Smart system has continued to be applied to all gullies within the borough and a second cycle of cleaning is expected to be completed in Q2. At this point we will be at a point where silt level data can be fully relied upon and can be used to complete a comprehensive risk-based gully cleansing strategy. This will allow the available resources to be used more efficiently and allow a more targeted approach to be used at known problem locations, clear other drainage assets such as kerb drainage and introduce income generating operations for external partners and customers.</p> <p>Additional Information: Key deliverable/outcome* of this Action Plan: <i>The outcome is for North Tyneside Council to have a finalised data-led Gully Cleansing Maintenance Strategy and a better understanding of drainage infrastructure at flooding hotspots within the borough. A further outcome is to understand what efficiency savings result from this improved cleansing strategy and what potential income generating opportunities can then be looked at.</i> Key dates** of this Action Plan: <i>September 2019 – Finalise second cycle</i> Is this Action Plan for the delivery of a statutory requirement? No Is this Action Plan for the delivery of improvements across the service area? Yes</p> <p><i>*(any change to Action Plans will consider the impact of any change on this key deliverable in the first instance)</i> <i>** (any change to Action Plans will consider the impact of any change on this key date in the first instance)</i> <i>*** (any change to Action Plans will consider the statutory/service improvement aspect in the first instance)</i></p> | | | | | |



| Key Performance Indicators linked to this priority | | | |
|--|--|---|--|
| None. | | | |
| Quarterly Profile of Planned Actions | | On track? Yes/No | Progress |
| Quarter 1 (2018) (April, May & June) | <ul style="list-style-type: none"> Continue second cycle to collect gully cleaning data and silt levels data using the approved gully cleaning strategy during second cycle which will further refine the risk-based approach strategy to highway drainage cleansing. Brief Client on the plans for investing in linear drainage data collection and the associated benefits Procure and implement linear data collection software compatible with KaarbonTech's Gully software system. Begin collection of linear drainage assets via Drainage Engineer utilizing KaarbonTech Gully smart system initially focusing on flooding hotspots. | Yes – As of 8 th July 2019 | <p>Second cycle of gully cleaning is continuing as planned.</p> <p>Client has been verbally briefed on the use of the Drainage Engineer to be utilised on a number of core drainage activities with the collection of linear drainage assets which will be input into Kaarbontech and Expert Assets.</p> <p>Initial scoping meetings have taken place with KaarbonTech and XAIS about data collection and storage. Gap analysis of what needs to be collected has been started and collection of assets will begin in June 2019.</p> <p>Collection of linear drainage assets will commence 22nd July 2019 and inspections of flood hotspots are the priority. Capita will be undertaking site visits with KaarbonTech on 9th July to identify sites for sensors and also begin training on collection.</p> |
| Quarter 2 (2018) (July, August & September) | <ul style="list-style-type: none"> Continue & complete second cycle of cleaning/attending all highways gullies using the risk-based approach gully cleaning strategy. Continue collection of linear drainage assets. | Yes – As of 9 th September 2019 | <p>Second cycle of gully cleaning is continuing, and collection of linear drainage assets is underway.</p> <p>Second cycle of gully cleaning is</p> |



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| | | | programmed to be completed by the end of September. All information collected is on KaarbonTech server and Andy Mollon has requested a date to sit down with them to begin scrutiny of data collected and start production of risk-based gully cleaning schedule. |
| Quarter 3 (2018) (October, November & December) | <ul style="list-style-type: none">• Work with KaarbonTech to validate data collected from both gully cleaning cycles to determine cleaning frequencies for all individual highway gullies utilizing silt levels, recorded flood locations and frequencies and gully locations on the highway network. Produce a risk-based gully cleansing schedule for approval by Subgroup detailing cleaning cycle for all gullies in North Tyneside utilising the silt data. Report to detail monthly, quarterly, 6 monthly, annual and 2-year gully cleaning cycles.• Continue collection of linear drainage assets. | | |
| Quarter 4 (2019) (January, Feb & March) | <ul style="list-style-type: none">• Agree and sign off final risk-based gulley cleansing programme no later than March 2020 Sub Group. Implementation of fully targeted risk-based gully cleaning approach to begin 1st April 2020.• Produce report which will then be repeated annually for North Tyneside Council detailing all drainage assets collected to date, locations and condition data. To be presented at March 2020 Subgroup. | | |

14) CONCLUSIONS

The following conclusions can be drawn from this report:

- The highway network is the most valuable asset in the Authority's ownership
- The current total value of highway assets is **£1.8 billion**
- The successful implementation of the HAMP policy and investment strategy is demonstrating that the adoption of asset management principles by North Tyneside is gradually improving the condition of the road network
- The continued additional capital investment in highway maintenance is improving the overall condition of the carriageway network in line with HAMP principles. This fact is illustrated by the current "Road Condition Indicator" (RCI) calculation results recorded on page 13
- Although the highway network is currently in a manageable condition, the absence of sufficient funding from central government presents a difficult financial challenge and there remains a significant backlog of highway repairs that is likely to increase unless current resources are maintained
- The continued additional capital investment in footways has resulted in tangible improvements to footways across the Borough in line the priorities set by the Elected Mayor and Cabinet. The improvements have been well received by residents
- The Council is performing well in relation to the maintenance of classified main roads and is showing a steady improvement in unclassified residential roads which is evidence that the Authority's preventative maintenance principles and other HAMP principles are working effectively. The relatively healthy financial investment in main roads is producing the expected benefits.
- Our highway maintenance backlog is currently around **£24 million**.
- The footways highway maintenance backlog is currently around **£6 million**
- The Technical Services Partnership continues to achieve its KPI targets and through its Annual Service Plan is identifying innovative ways of working, service improvements and efficiencies which is evident in the report
- Continued customer engagement is providing better intelligence on what the public want us to focus our highway maintenance efforts on. These include continuing our improvements of residential and strategic roads and footways and improving the gully cleaning service



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- With the publication of the revised Codes of Practice, Well-managed Highway Infrastructure, the Technical Services Partnership has completed the work of implementing this and successfully carried out 12 months of work using it. The Code is designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment and the Technical Services Partnership has achieved this