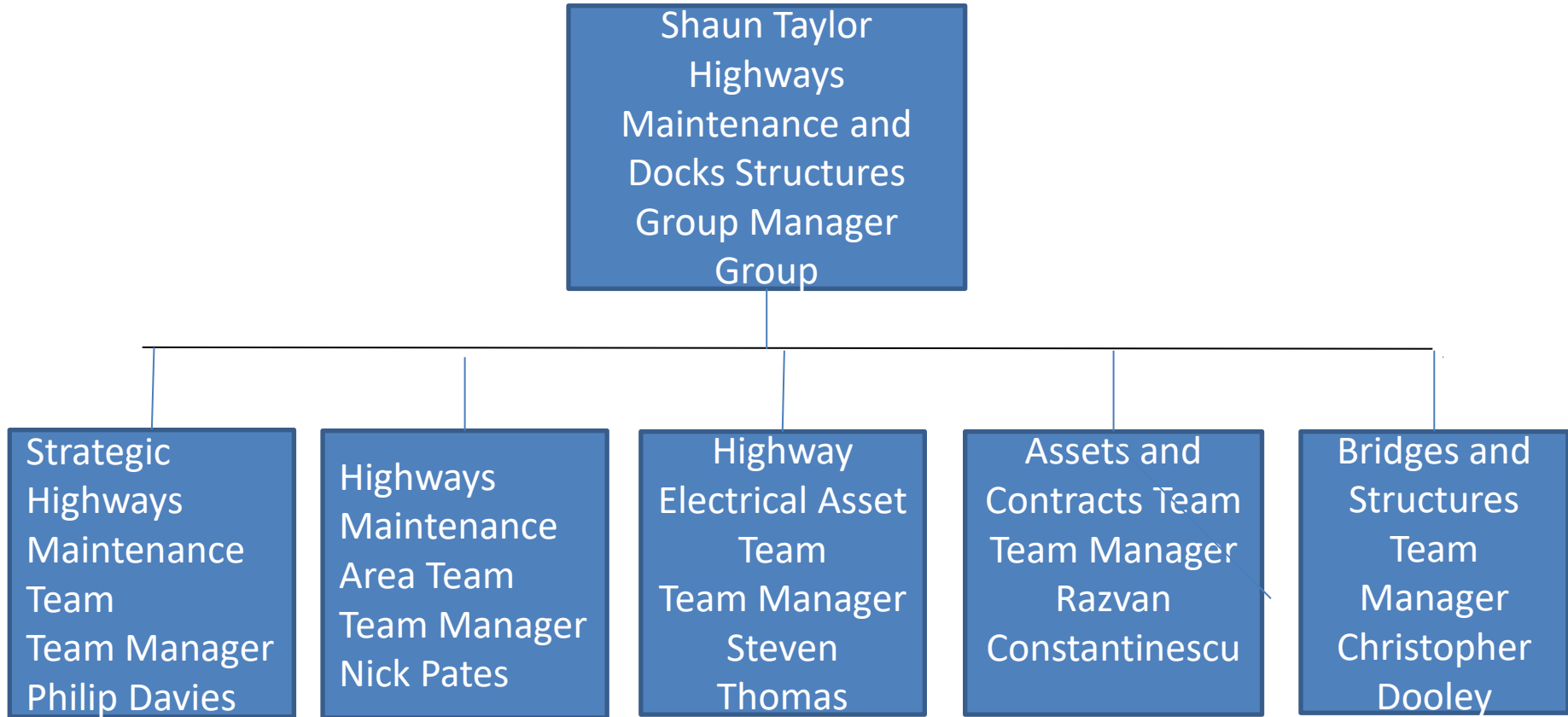


Highway Maintenance

G&R Scrutiny 28th March 2022

Highways Team Structure



What assets are we responsible for?

- Carriageway = 1,121 km
- Footways = 1,954 km
- Cycleway = 57.5km (NCNs)
- Highway Structures known = 937 no
- Highway retaining walls in excess of 1500.
- Gullies = 44161 no.
- Highway carrier drains unknown
- Street lighting 37000 no.
- Other electrical assets 8000 no.
- Highway trees and verges
- Street Furniture e.g non illuminated signs; benches
- Road marking and enforcement lines
- PROW 190km (Managed by Traffic team)
- Traffic Signals 354 no. (Managed by Traffic Team)

What does this mean to us

- The current known value of the asset we know about £5.5 billion estimated.
- Highway maintenance are responsible for approximately £5 billion of this.
- Current operation funding in revenue and capital running at approximately £11 million with additional project investment e.g. Cumberland Road, Park St, St Peters Rise.

As well as looking after the asset what else do highway maintenance do.

- Winter maintenance
- Gully cleaning
- Inspect the highway and structures to undertake the authorities statutory duty in accordance with highway act
- Defend the authority in court.
- Deal with over 12000 enquiries annually
- Provide emergency out of hours service and are first responder for the authority in many incidents.
- Provide technical advice.
- Procure highway and various corporate contracts in excess of £70m
- Asset management systems and policy
- Provide professional technical services to various departments. E.g. Street lighting and Structures service to Docks.
- There are many more, advice, emails the list goes on.

Highway Area Team

- Inspect the highways to comply with the authorities statutory legal duty under Section 41 of Highways act.
- The HM area team fix approximately 10000 defects reported each year. 10560 of defects are found and reported by officers inspections, remaining 4353 is public enquiries
- 46% of all defects are potholes or depressions in tarmac but this is reducing
- Repair trip hazards, overgrowth cut back, section 81 utility covers
- Team undertake gully inspections to ensure we only clean as necessary
- Defend the authority in court on claims.
- Deal on average with 800 enquires into the area team monthly
- Comment and ensure all new major developments and projects on the highway can be maintained into the future.
- Deliver the out of hours service for highway defects

Strategic Maintenance

- Deliver Major Capital Carriageway resurfacing programmes over 200,000 m/sq per year
- Deliver carriageway patching and small works on structural defects in carriageways and footways.
- Deliver 400,000 m/sq of footway slurry seal on tarmac footways in addition to footway paving schemes annually
- Repair highway drainage blockages and non running gullies and pipework including subways
- Deliver the gully cleansing service and deal with customer enquiries
- Deliver the Winter maintenance service

Highway Electrical Asset Team

- Responsible for ensuring the authority meets its statutory duty under the electrical regulations for all electrical assets in the public realm
- Maintain all electrical asset on the highway and other departments e.g parks, docks, energy.
- Deliver major programs of LED replacement and column replacement
- Deliver Electrical Testing & Private cable network testing and units
- Deliver Salix programmes of lantern replacement
- Undertake Reactive Maintenance and respond to Customer enquiries
- EV Charging 6 monthly Testing and Yearly Test
- Develop EV across the authority ensuring it meets electrical standards
- Pump Maintenance and Adhoc Electrical Works to subways
- WIG WAG (School Patrol Warning Lights).
- Non-Destructive Structural Testing
- Non-Illuminated Signs and Bollards

Structures

- Ensuring the authority meets its statutory in relation to compliance with LA Statutory Duty and UK National Bridge Management Standards to enable a coherent and accurate Asset Valuation and depreciation enabling life cycle modelling.
- All existing highway structures are being cyclically programmed for inspection in compliance with national standards
- Dangerous Highway Structure condition for active Monitoring regime in place to form risk matrix register for critical timely response action.
- New Major Capital Investment on Highway Structures Schemes
- Technical approval (TA) system for new highway structures such as structures associated with Temple Island , Metrobus and other major internal Capital and private developments within the City, including Network Rail and EA.
- Administer all Abnormal Haulage routes through the City, ensuring safe passage of all HGV vehicles through the City to boundaries.
- Support a number of internal Depts. such as Corporate Property, City Docks, Parks & Parking in maintaining structures
- Administer & approval of Licencing for Cranes , Oversail/Undersail Licencing, Festive Licences etc.

Contracts

- Manages the **Performance Management Framework** for all Department's live contracts, using ProContract platform and/or alternative methodology
- Manages the **Quality Assurance Scheme** for all Department's new capital built projects.
- Manages the **Professional Services Framework** on behalf of all Department's teams
- Manages the BHAAWF contract consisting of 12 Lots and with an antipitated annual spending pattern of £10 to 15m
- Delivers all new and renewal contracts for the group which are used corporately

Assets Management

- Manages the **Strategic Assets Management Plan (SAMP)** on behalf of BCC
- Manages the **Assets Life-cycle Model** for BCC
- Custodian of BCC's **Strategic Assets Policy**
- Manages **CONFIRM** - BCC's IT- based assets and infrastructure management system
- Manages BCC's **Street Naming and Numbering** process (SNN)
- Senior user delivering Asset system for all departments in MOP and transport departments.
- Manages data supplied ot Government through Whole Government Returns and incentive survey.

Challenges

- The highway assets continues to depreciate, which is accelerating due to climate change therefore a constant challenge to adapt and find innovative ways to prevent its depreciation.
- Structures and Docks assets in the city are ageing and need significant future investment to maintain there benefit.
- Recruitment of engineers is a significant issue due to a national shortage. Therefore we are recruiting young and inexperienced staff who need time to gain experience and knowledge from more experienced senior officers.

Funding

Proposed funding for 22/23 and estimated known funding from 2023 to 2027

Proposed Maintenance Capital Budget 2022/27

WECA Funding Source	22/23 (£k)	23/24 (£k)	24/25 (£k)	25/26 (£k)	26/27 (£k)	5 year Total funding
WECA Highways Capital Maintenance Block remaining ITB	7,960	7,960	7,960	7,960	7,960	39,800
WECA Highways Challenge fund	1,500	3,000	4,300	4,400	2,800	16,000
WECA subtotal	9,460	10,960	12,260	12,360	10,760	55,800
Other funding						
Reserves Capital Maintenance	1,000	1,000	1,000	1,000	1,000	5,000
Chocolate Path CIL funding	3,743	0	0	0	0	3,743
Redcliffe Bridge	2,721	0	0	0	0	2,721
Harbour and New cut assets	1,282	1100	0	0	0	2,382
Park St Repaving	500	0	0	0	0	500
St Peters rise	1,150	0	0	0	0	1,150
New Cut bridges	490	0	0	0	0	490
LED CMS	3,000	4,000	5,000	0	0	12,000
Pothole fund Carry forward (Check)	232	0	0	0	0	232
Highways Challenge fund	596	0	0	0	0	596
Other funding subtotal	14,714	6,100	6,000	1,000	1,000	28,814
Total	24,174	17,060	18,260	13,360	11,760	84,614

General Funding allocations 22/23

- Carriageways £4.4m

Programmed to deliver surfacing 130 sites in the city 22/23. Prioritised through asset management data led principals plus minor road patching as required to ensure safety of the highway from inspections and enquiries.

- Footways £1.3m

Programmed to deliver annual preventive on 400,000 m/sq based on a 12 year citywide rolling program with modular footway schemes prioritised through asset management data led principals, minor footway patching as required to ensure safety of the highway from inspections and enquiries

- Structures £1m

On going concrete and expansion joints repairs to Cumberland basin, Safety mitigation measures to New Brislington Bridge, Prince St Bridge mechanical engineering repairs, on going H&S parapet repairs, plus a number of smaller retaining walls minor bridges and culvert repairs from statutory inspections

General Funding allocations 22/23

- Drainage £500k

Deliver replacement and repairs to non running gullies prioritised through data led prioritisation taking into account resilient network, flood areas, contributing areas, emergencies and enquiries. Replacement of subway drainage pipes.

- Electrical assets £865k

Continued replacement of non galvanised columns, removal of H&S issue of mains at head including cast columns refurbishment plus illuminated bollards and signs replacement. Funding being set aside to assist in unlit areas.

- PROW £100k (Managed by Traffic team)

Funding to improve rights of way by way of surfacing improvements, signing works, additional of accessible gates and control of vegetation. Works prioritised through type of use and state of asset

- Traffic Signals £1m (Managed by Traffic Team)

Funding will allow between 5-7 sites to be replaced depending on their size. This are prioritised by condition and strategic importance plus investment into new VMS signing.

Project funding 22/23

Cumberland road £3.7m

On course to complete 22/23. Programme currently finishes in December 22. on budget and will be implementing improvements along the only length this year. E.g. Road side railings, drainage repairs.

Harbour Structures £1.3m

Further to Harbour condition survey 69 assets deemed needing repair. From the survey 11no. are deemed most critical and works are underway to establish modes of failure so mitigation works can be delivered. Works are programmed to be delivered on the Underfall sluice bridge in line with Cumberland road reopening.

Park St Footway reconstruction £500k

Currently on site with 75% of one side complete. Due for completion in June 2022

St Peters Rise reconstruction £1.1m

Currently on site and approximately 50% complete. Due for completion in June 2022

Project funding 22/23

New Cut bridges Refurbishment £2m

Complete refurbishment of Goal Ferry Bridge with design and structural assessments for the remaining bridges undertaken to determine scope of works for 2023 to 2027.

Redcliffe Bridge Refurbishment £2.7m

Works stalled due to contract going into administration. Contracts documents to complete the works are being finalised with a view to being back on site from May and completion in early 2023. 12 week bridge lift being re-programmed for autumn 2022

Whiteladies Road Flood Prevention £350k

Project imminently to go out to consultation. This scheme will provide better resilience to the annual carriageway flooding at this location whilst improving pedestrian footways due to damage from tree roots. Project also enabling more green infrastructure by creating larger tree pits for planting.

Project funding 22/23

LED and CMS rollout £3m

Start 12m City wide Light Emitting Diode (LED) Replacement and Central Management System (CMS) Install

3 Year Programme (29,000 LED Lanterns Replaced and 37,000 CMS units Installed)

Payback period is 6.5 years

Saving at least £1.8m per year in electricity costs (Dependant on energy costs)

CMS enables lights to be controlled and dimmed, gives flexibility and possible further energy/carbon savings

Scheme will reduce Light Pollution and can be adapted to Ecology Requirements

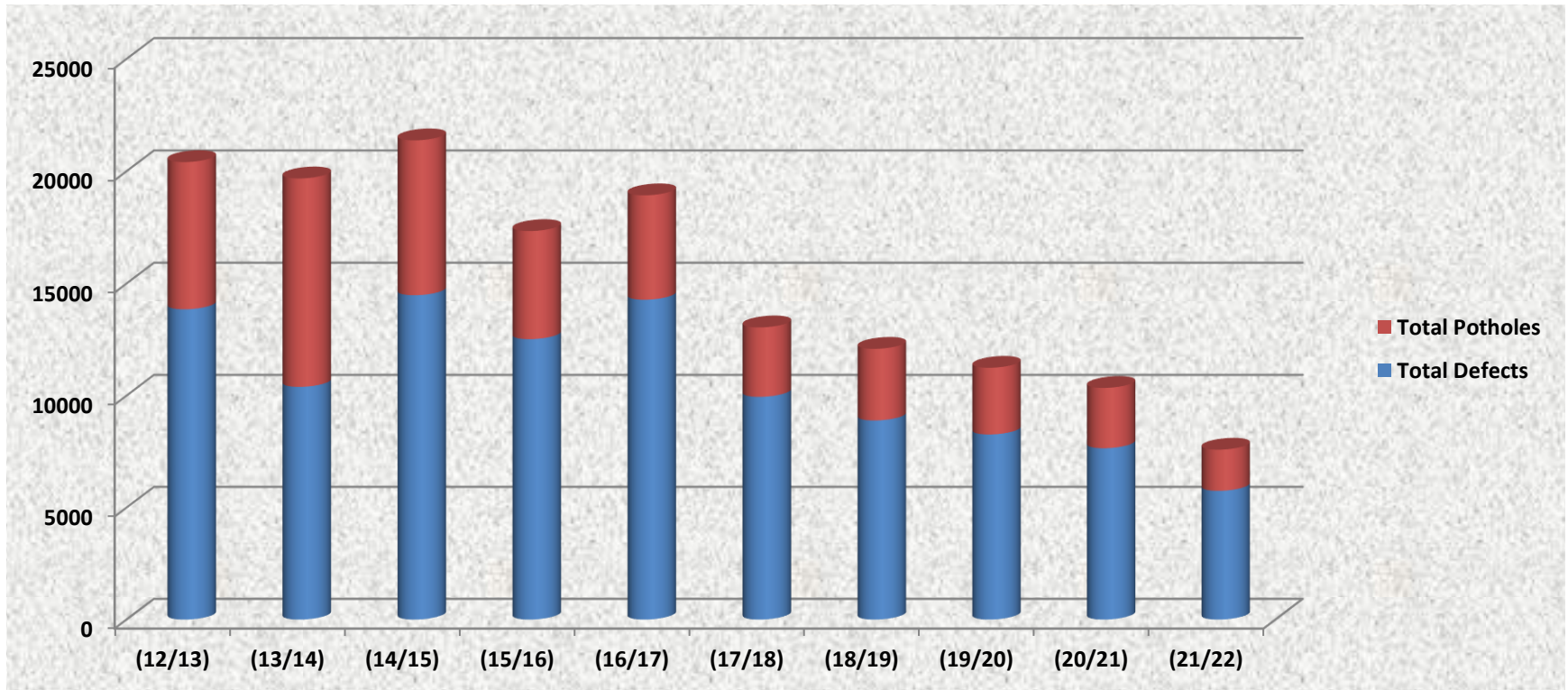
Saves approximately 12k tonnes of carbon by year 10

Scheme Prioritisation

- All assets use a scheme prioritisation process and data to establish annual programmes of work.
- This considers a number of data sources including condition surveys; inspections; hierarchy of road, etc. as these allow the authority to undertake a robust asset management approach and maintain the network.
- Each of the asset type is slightly different
 - Carriageways and footways use a prioritisation tool attached which takes into account a number of weighting including condition, road hierarchy, potholes, enquiries, sustainable route, near a hospital, etc
 - Drainage we use data from cleansing which is then matched against the resilient network, flood areas and contributing areas
 - Structures is done through inspection and asset scoring on the database
 - Electrical assets are prioritised through electrical inspections, enquiries, lifecycle data of equipment and testing.

How are we doing?

Previous 10 year pothole figures demonstrating the prioritisation and asset management approach using “Prevention is Better than Cure methodology is having a benefit.



Any Questions ?