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Cabinet Agenda

DARLINGTON BOROUGH COUNCIL

5.00 pm Tuesday, 11 September 2018
Committee Room No. 2, Town Hall,
Darlington. DL1 5QT

Members and Members of the Public are welcome to attend this Meeting.

1. Introductions/Attendance at Meeting.

2. Declarations of Interest.

3. To approve the Minutes of the Meeting of this Cabinet held on 10 July 2018. (Pages 1 - 12)

4. Matters Referred to Cabinet - There are no matters referred back for reconsideration at this meeting.

5. Issues Arising from Scrutiny Committee - Child Healthy Weight and Oral Hygiene - Report of the Chair of Children and Young People Scrutiny Committee. (Pages 13 - 18)

6. Key Decisions:-

   (a) Review of Decision to Relocate the Central Library Service - Report of the Managing Director and Director of Economic Growth and Neighbourhood Services. (Pages 19 - 26)

   (b) Introduction of Charging and Local Eligibility Criteria for the Self Build Register - Report of the Director of Economic Growth and Neighbourhood Services. (Pages 27 - 36)

7. Treasury Management Annual Report and Outturn Prudential Indicators 2017/18 - Report of the Managing Director. (Pages 37 - 58)

8. Tees Valley Waste Management Strategy - Report of the Director of Economic Growth and Neighbourhood Services. (Pages 59 - 130)

9. Membership Changes - To consider any Membership Changes to Other Bodies to

which Cabinet appoints.

10. SUPPLEMENTARY ITEM(S) which in the opinion of the Chair of this Committee are of an urgent nature and can be discussed at this meeting.

11. Questions.

EXCLUSION OF THE PUBLIC AND PRESS

12. To consider the exclusion of the Public and Press :- –
RECOMMENDED - That, pursuant to Sections 100A(4) and (5) of the Local Government Act 1972, the public be excluded from the meeting during the consideration of the ensuing items on the grounds that they involve the likely disclosure of exempt information as defined in exclusion paragraph 3 of Part I of Schedule 12A of the Act.

PART III NOT FOR PUBLICATION

13. Delivery of New Homes at Stag House Farm - Joint Venture Proposal and Land Disposal - Report of the Managing Director and the Director of Economic Growth and Neighbourhood Services (Exclusion Resolution No. 3). (Pages 131 - 140)

14. SUPPLEMENTARY ITEM(S) which in the opinion of the Chair of this Committee are of an urgent nature and can be discussed at this meeting.

15. Questions.

Luke Swinhoe
Assistant Director Law and Governance

Monday, 3 September 2018

Town Hall
Darlington.

Membership
Councillors Harker, C.L.B. Hughes, McEwan, S Richmond, A J Scott and Wallis

If you need this information in a different language or format or you have any other queries on this agenda please contact Lynne Wood, Elections Manager, Resources Group, during normal office hours 8.30 a.m. to 4.45 p.m. Mondays to Thursdays and 8.30 a.m. to 4.15 p.m. Fridays (e-mail Lynne.Wood@darlington.gov.uk or telephone 01325 405803).

ITEM NO. 3

DECISIONS SHOULD NOT BE IMPLEMENTED BEFORE MONDAY 23 JULY 2018

CABINET
10 July 2018

PRESENT – Councillor Dixon (in the Chair); Councillors Harker, C L B Hughes, A J Scott and Wallis (5)

INVITEES – Councillors Curry, Haszeldine and Mrs Scott. (3)

Apologies – Councillors McEwan and S Richmond. (2)

C24. REPRESENTATIONS – No representations were made by Members or members of the public in attendance at the meeting.

C25. DECLARATIONS OF INTEREST – There were no declarations of interest reported at the meeting.

C26. MINUTES - Submitted - The Minutes (previously circulated) of the meetings of this Cabinet held on 5 and 29 June 2018.

RESOLVED – That, with the amendment to Minute C2 to refer to the declaration of interest to Minute C10 and NOT Minute C9, the minutes be confirmed as a correct record.

REASON – They represent an accurate record of the meeting.

27. MATTERS REFERRED TO CABINET - There were no matters referred back for re-consideration to this meeting.

C28. ISSUES ARISING FROM SCRUTINY - There were no issues arising from Scrutiny considered at this meeting.

C29. PUBLIC SPACES PROTECTION ORDER DARLINGTON TOWN CENTRE - The Leader introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) highlighting the potential benefits from introducing a Public Space Protection Order (PSPO) in Darlington Town Centre and requesting that consideration be given to proceeding with wider public consultation on the implementation of a Public Space Protection Order (PSPO) in Darlington Town Centre.

The submitted report stated that anti-social behaviour nationally appeared to be on the increase and that it had had an impact on businesses and visitors to the town centre; the Council had worked closely with partners, particularly the Police, in recent months and that although a number of actions had taken place that had had a positive impact there were still on-going issues that could be addressed through a PSPO; that a PSPO

would place restrictions on behaviour which could be punishable by a fine; outlined the benefits of a PSPO; and the financial and legal implications.

Chief Inspector Sue Robinson outlined the support from the Police for the introduction of a PSPO for Darlington Town Centre and outlined the areas that would be given priority going forward which included anti-social behaviour; begging in the town centre; and street drinking.

Discussion ensued on the impact on other areas close to the town cent of the introduction of the order; the role of the police should the order be implemented; and the consultation process.

RESOLVED - That a consultation period of twelve weeks, be endorsed, on the implementation of a Pubic Space Protection Order for Darlington Town Centre, and that a further report be submitted to a future meeting of Cabinet following that consultation.

REASON - To enable consultation to take place prior to Cabinet making the final decision on whether or not to introduce a PSPO for Darlington Town Centre.

C30. KEY DECISIONS – (1) SCHOOL TERM DATES 2020/21 - The Cabinet Member with the Children and Young People Portfolio introduced the report of the Director of Children and Adults Services (previously circulated) requesting that consideration be given to the setting of the school term date arrangements for Darlington maintained schools for the academic years 2020/21, as detailed in the appendix to the submitted report, and to the publishing of those dates by the required deadline of the end of July 2018.

The submitted report stated that all schools within Darlington had been consulted on the proposed school term dates for 2020/21; outlined the consultation undertaken; and the results of that consultation.

Discussion ensued on the consultation process undertaken with other local authorities in the region to ensure consistency, as far as possible, with school term dates.

RESOLVED – That the proposed school term dates for Darlington maintained schools for the academic year 2020/21, as detailed in the appendix to the submitted report, be agreed for publication.

REASON - The draft dates are the ones preferred by the majority of schools and Governing Bodies following the consultation exercise which ended on 18 May 2018.

(2) Eastern Growth Zone Infrastructure Improvements - The Cabinet Member with the Leisure and Local Environment Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) requesting that consideration be given to providing a funding contribution from the Economic Growth Investment Fund (EGIF) towards the delivery of a strategic access road between Yarm Road and Tornado Way, that will compliment planned highway infrastructure investment to deliver wider transport and economic benefits to the surrounding area.

The submitted report stated that the Eastern Growth Zone comprised of Darlington's key existing and future employment sites; feasibility work had been undertaken which had resulted in funding that would enable highway improvements at key locations; the feasibility work had identified that a strategic link between Yarm Road and Tornado Way would complement planned investment and be beneficial to the wider transport network; and outlined the financial and legal implications.

Particular reference was made as to whether traffic congestion at Allington Way could be looked at as part of the scheme.

RESOLVED – (a) That the associated planned infrastructure investment, as detailed in the submitted report, for the delivery of wider transport and economic benefits, be noted.

(b) That the release of £500k from the Economic Growth Investment Fund, be approved, to contribute towards the delivery of the strategic link road between Yarm Road and Tornado Way.

REASON - To compliment planned infrastructure investment and deliver wider transport and economic benefits.

(3) Well Managed Highways Infrastructure – A Code of Practice - The Cabinet Member with the Leisure and Local Environment Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) advising Members of a new national code of practice for managing all highway assets.

The submitted report stated that the Well Managed Highways Infrastructure Code of Practice (CoP) replaced existing codes and promoted a risk based approach; as well as providing guidance, the CoP had 36 recommendations which had been used to develop a number of operational documents that would evidence how the Council had incorporated those recommendations into every day highway asset management operations; it was not a statutory document and that adoption of the recommendations were a matter for each Highway Authority to consider based on risk, needs and priorities; and that it would come into effect on October 2018.

RESOLVED – (a) That the adoption of the principles set out in the Well Managed Highway Infrastructure (CoP), the requirement to progress the specific recommendations and that operational highway asset management policies and procedures would be introduced or amended to reflect the new CoP, be noted.

(b) That delegated authority be given to the Director of Economic Growth and Neighbourhood Services, or nominated officers, to develop, update, bring into operation and review the policies and procedures that follow principles in the CoP.

REASON - To facilitate the efficient and effective management of the Council's highway infrastructure by incorporating recommendations and principles within the CoP.

C31. PROGRESS REPORT - RED HALL REGENERATION MASTER PLAN AND NEIGHBOURHOOD RENEWAL STRATEGY - The Cabinet Member with the Housing, Health and Partnerships Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) updating Members on progress on the execution of the Red Hall Master Plan and Neighbourhood Renewal Strategy together with their integration with the Healthy New Town initiative and requesting that consideration be given to revising the action plan in the light of current circumstances and evidence.

The submitted report outlined the background to the proposals; the progress of the various projects contained within the Master Plan; the proposals contained within the Neighbourhood Renewal Strategy; financial implications of the proposals; equality considerations; and the consultation undertaken.

RESOLVED – (a) That the progress against the Master Plan and the Neighbourhood Renewal Strategy, as detailed in the submitted report, be noted.

(b) That the Healthy New Town Board decision to implement the 10,000 step initiative and associated benches scheme, as detailed in the submitted report, be noted.

(c) That it be noted that the Great Places Arts Project, to be implemented 2018 to 2020, will explore the connections to the Stockton and Darlington Railway story.

(d) That the Director of Economic Growth and Neighbourhood Services be authorised to proceed to execute the following projects, namely:-

(i) improvements to the informal footpath network adjacent to the Red Hall Stables site (project 12 within the Master Plan);

(ii) provision of car parking facilities for the community centre subject to planning permission (part of project 14);

(iii) negotiate improvements to the current local shopping provision on site (part of project 5);

(iv) facilitation of the local garden grow your own initiative; and

(v) explore the options for the Friends of Red Hall to manage or assist in the management of the woodland and Nature Reserve.

(e) That the dependency of the proposals to extend Red Hall School, the implementation of new transport infrastructure and further considerations of an enhanced local centre on the emerging Burdon Hill development proposals, be noted.

(f) That the intention to incorporate Healthy New Town principles into the Burdon Hill development and the Local Plan, as detailed in the submitted report, be noted.

(g) That officers consider whether any parts of the feasibility report that has assessed the merits of improving on the Radburn design principles could be reasonably implemented and will report further on those considerations.

REASONS – (a) In order that progress against the aims of the Red Hall Master Plan and Neighbourhood Strategy can be communicated with residents, relevant stakeholders and funders.

(b) To enable reasonable adjustments to be made to implement the next actions to execute the Red Hall Master Plan and Neighbourhood Renewal Strategy.

C32. GARDEN WASTE COLLECTION SERVICE - The Cabinet Member with the Leisure and Local Environment Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) requesting that consideration be given to the introduction of an 'opt in' pay for use Garden Waste Collection Service for residents of the Borough.

The submitted report stated that all the other north-east authorities provided a fortnightly service, either using a wheeled bin or sack, with six of them charging for the service and five of them not; outlined the current options available to residents of the Borough to dispose of their garden waste; the proposal to introduce a fortnightly charged for garden waste collection service for a 30 week period from April to November, using a 240 litre bin, at a proposed cost of £35 per year; and the financial and legal implications of introducing the service, with a proposed start date of April 2019.

Particular reference was made to the benefits that the scheme would have on both the environment and on recycling rates.

RESOLVED – (a) That a consultation exercise with residents of the Borough, be approved, to gauge interest for the introduction of a Garden Waste Collection Service.

(b) That subject to enough residents wanting to participate in a Garden Waste Collection Service, the new service be introduced from April 2019 and that the final decision to implement the service be delegated to the Director of Economic Growth and Neighbourhood Services in consultation with Cabinet Member for Leisure and Local Environment Portfolio.

REASON - Subject to enough interest from residents, to enable a Garden Waste Collection Service to be introduced.

C33. DARLINGTON TOWN CENTRE FOOTFALL STRATEGY UPDATE – The Leader introduced the report of the Director of Economic Growth and Neighbourhood Services, to provide an update to Members on the implementation of the recently approved Footfall Strategy, which was presented to Cabinet in November 2017.

The submitted report outlined the background to the introduction of the Strategy and the work undertaken in delivering it and performance, in relation to footfall, car park usage, retail units and crime and disorder.

Discussion ensued on the importance of joint working with the town centre businesses; visiting Darlington being an experience; and stated that the town needed to build on what already worked.

RESOLVED – (a) That the content of the report, be noted.

(b) That the ongoing positive work with regard to the town centre, as detailed in the submitted report, be supported, and further updates be submitted to Cabinet as necessary.

(c) That a refresh of the Town Centre Masterplan be agreed.

REASONS – (a) To ensure the Council has a focused plan to support the town centre.

(b) To monitor performance of the town centre.

C34. REGULATION OF INVESTIGATORY POWERS - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Managing Director (previously circulated) informing and updating Members on issues relevant to the use of the Regulation of Investigatory Powers Act 2000; developments that have taken place since the last report to Cabinet in January 2018; and requesting that consideration be given to approving an updated RIPA Policy (also previously circulated), as a result of recent changes to the Council's senior management structure.

RESOLVED – (a) That the developments that have taken place since January 2018, as detailed in the submitted report, be noted.

(b) That the RIPA Policy, as detailed at Appendix 1 of the submitted report, be approved.

(c) That further reports on the use of RIPA and associated issues, be submitted to future meetings of Cabinet.

REASONS – (a) In order to ensure that the Council complies with the legal obligations under RIPA and national guidance.

(b) To update the RIPA policy and procedures to reflect the new management structure.

(c) To help in giving transparency about the use of RIPA in this Council.

C35. XENTRALL SHARED SERVICES ANNUAL REPORT 2017/18 - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Managing Director (previously circulated) requesting that consideration be given to the latest Xentrall Annual Report.

The submitted report stated that Xentrall Shared Services, the Stockton and Darlington Partnership, was established in May 2008 and had just celebrated its tenth anniversary; the agreement covered ICT (strategy and operations), Transactional HR, Transactional Finance and Design and Print; the initial savings that were identified were £7.4 m over a ten year period; and that those savings had been achieved, and that the additional efficiencies and benefits that had been made were almost double the original target; and that in recognition of the success of the partnership it had been amended from the original ten year period into an on-going rolling agreement.

RESOLVED - That the report be noted and the success of Xentrall in reaching its tenth anniversary and achieving almost double its original savings target of £7.4m., be acknowledged.

REASON - To allow Members to receive information about the progress of the partnership.

C36. PROJECT POSITION STATEMENT AND CAPITAL PROGRAMME MONITORING QUARTER ONE 2018/19 - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Managing Director and the Director of Economic Growth and Neighbourhood Services (previously circulated) providing Members with a summary of the latest Capital resource and commitment position, to inform monitoring of the affordability and funding of the Council's capital programme; an update on the current status of all construction projects currently being undertaken by the Council; and requesting that consideration be given to a number of changes to the programme.

The submitted report stated the projected outturn of the current Capital Programme was £130.989M against an approved programme of £131.295M; the investment was delivering a wide range of improvements to the Council's assets and Council services; the programme, including commitments, remained affordable within the Medium Term Financial Plan (MTFP); the Council had a substantial annual construction programme of work, with 31 live projects currently being managed by the Council with an overall project outturn value of £70.055M; the majority of the projects were running to time, cost and quality expectations; and that the projects were either managed by the Council's in house management team, a Framework Partner or by Consultants sourced via an open/OJEU tender process.

RESOLVED – (a) That the status position on construction projects, as detailed in the appendix to the submitted report, be noted.

(b) That the projected capital expenditure and resources, as detailed in the submitted report, be noted.

(c) That the adjustments to resources as detailed in paragraph 19 of the submitted report, be approved.

REASONS – (a) To inform Cabinet of the current status of construction projects.

(b) To make Cabinet aware of the latest financial position of the Council.

(c) To maintain effective management of resources.

C37. REVENUE BUDGET MONITORING 2018-19 – QUARTER 1 - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Managing Director (previously circulated) providing an early forecast of the 2018/19 revenue budget outturn as part of the Council's continuous financial management process and informing Cabinet of the budget rebasing exercise carried out following the 2017/18 outturn results.

The submitted report stated that this was the first revenue budget management report to Cabinet for 2018/19; the latest projections following a rebasing exercised showed an overall improvement of £0.955M, which was due to £0.530M of balances carried forward from 2017/18 and the rebasing exercise, which returned £0.425M to general reserves; Children and Adult Services were forecasting a break even position overall, although Children's Services, were forecasting an over spend of £0.908M.

RESOLVED – (a) That the forecast revenue outturn for 2018/19, as detailed in the submitted report, be noted.

(b) That further regular reports be made to Cabinet to monitor progress and take prompt action if necessary.

REASONS – (a) To continue effective management of resources.

(b) To continue to deliver services to agreed levels.

C38. WRITE-OFF OF FORMER HOUSING TENANT ARREARS, HOUSING BENEFIT OVERPAYMENTS, NON-DOMESTIC RATES AND COUNCIL TAX - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Managing Director and the Director of Economic Growth and Neighbourhood Services (previously circulated) providing an update on the current position on former Housing tenant rent arrears, Housing Benefit overpayments, Non-Domestic Rates and Council Tax, and requesting that consideration be given to the writing off of debts totalling £1,391,772.

The submitted report stated that the write off of former Housing tenant rent arrears totalling £108,994, was being sought in respect of 74 individual cases where arrears exceeded £500 and that it represented 0.47 per cent of the annual rent debit of £23.4M; Housing Benefit overpayments totalling £129,915 was being sought where arrears exceeded £500, which represented 0.36 per cent of the total Housing Benefit Expenditure; and Non-Domestic Rates and Council Tax debts totalling £1,152,863 was being sought in respect of individual cases exceeding £500, which represented 1.31 per cent of the total debit raised.

RESOLVED - That a total amount of £108,994 of former Housing tenant arrears, £129,915 of Housing Benefit overpayments and £1,152,863 of Non-Domestic Rates and Council Tax, be written-off, subject to steps for recovery being taken, wherever possible, if and when contact is made.

REASON - As regular arrangements for writing off debts are in accordance with best practice for good financial management.

C39. PROPOSED WRITE-OFF OF IRRECOVERABLE DEBTS - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Managing Director (previously circulated) requesting that consideration be given to the write-off of sundry debtor invoices with individual values greater than £500 that are considered to be irrecoverable.

The submitted report stated that approval was being sought for the write-off of 23 individual sundry debts totalling £33,078.32, being less than 0.1 per cent of the debt collectable, in which it had become apparent that no further practicable or economic steps could be taken to recover the sums due.

RESOLVED - That Sundry Debtor invoices over £500 in value amounting to £33,087.32 for 2017/18 be written-off, subject to further action if and when contacts are made.

REASONS – (a) It is considered all practical steps have been made to recover the debts.

(b) To enable the Council's accounts to be maintained in accordance with the Financial Procedure Rules.

C40. MEMBERSHIP CHANGES – There were no membership changes reported at the meeting.

C41. EXCLUSION OF THE PUBLIC - RESOLVED - That, pursuant to Sections 100A(4) and (5) of the Local Government Act 1972, the public be excluded from the meeting during the consideration of the ensuing items on the grounds that they involve the likely disclosure of exempt information as defined in exclusion paragraph 3 of Part I of Schedule 12A to the Act.

C42. INGENIUM PARC – ACQUISITION AND LAND AGREEMENT (EXCLUSION PARAGRAPH NO 3) - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) requesting that consideration be given to the terms broadly agreed (subject to detail) for the acquisition of land as shown on the plan (also previously circulated), required for the Ingenium Parc access road including an option agreement for the disposal of land in phase 1 of Ingenium Parc; authorising future disposals of development plots on Ingenium Parc; and delegating authority to the Director of Economic Growth and Neighbourhood Services to market and negotiate sales terms as appropriate once the site is opened up and serviced.

The submitted report outlined the background to the proposals; the proposed terms; and the financial and legal implications.

RESOLVED – (a) That the acquisition of 915sqm of land from Cummins, as shown on the plan appended to the submitted report, be approved.

(b) That the grant of an option to Cummins to purchase land in phase 1 of Ingenium Parc, be approved.

(c) That authority be delegated to the Director of Economic Growth and Neighbourhood Services to negotiate and finalise the terms of the acquisition and the option, in line with the terms as set out in the submitted report.

(d) That authority be delegated to the Director of Economic Growth and Neighbourhood Services to market and dispose of plots at Ingenium Parc at open market value, including the sale to Cummins if they exercise the option, with terms agreed being reported to future Cabinet meetings.

(e) That the Assistant Director - Law and Governance be authorised to complete all necessary documentation.

REASONS – (a) To facilitate the creation of a suitable access road to open up Ingenium Parc for development.

(b) To promote economic growth through the sale of employment land with the potential to create over 2000 jobs.

(c) Positive addition to our inward investment sites portfolio.

C43. SCHEDULE OF TRANSACTIONS (EXCLUSION PARAGRAPH NO 3) - The Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) requesting that consideration be given to the Schedule of Transactions (also previously circulated) and to the terms negotiated.

RESOLVED - That the schedule of transactions, as detailed in the appendix to the submitted report, be approved and the transactions be completed on the terms and conditions detailed therein.

REASON – The terms negotiated require approval by Cabinet before binding itself contractually to a transaction.

C44. DARLINGTON EAST END CLUB AND INSTITUTE, NEASHAM ROAD (EXCLUSION PARAGRAPH NO 3) – With the prior approval of the Leader to the matter being treated as urgent to enable the decision to be made at the earliest possible date, the Cabinet Member with the Efficiency and Resources Portfolio introduced the report of the Director of Economic Growth and Neighbourhood Services (previously circulated) requesting that consideration be given to the acquisition of the Darlington East End Club and Institute and granting a lease back to the Club.

The submitted report outlined the background to the proposals; proposed terms; and the financial and legal implications.

RESOLVED – (a) That the acquisition of the Darlington East End Club and Institute, be approved, on the terms as set out in the submitted report.

(b) That the release of capital from the Economic Growth Investment Fund to fund the acquisition, as detailed in the submitted report, be approved.

(c) That the grant of a lease back to the Darlington East End Club, on the principal terms as set out in the submitted report, be approved, with the Director of Economic Growth and Neighbourhood Services being given delegated authority to finalise detailed terms as appropriate.

(d) That the Assistant Director - Law and Governance be authorised to complete all necessary documentation.

REASONS – (a) To facilitate the vision for Darlington Bank Top Station and the improvement of the eastern approach to the station.

(b) To take advantage of the opportunity to acquire the property at a reasonable price in advance of future requirements and avoiding statutory compensation provisions.

DECISIONS DATED –
FRIDAY 12 JULY 2018

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CABINET
11 SEPTEMBER 2018

ITEM NO. .....

CHILD HEALTHY WEIGHT AND ORAL HYGIENE

CHILDREN AND YOUNG PEOPLE SCRUTINY COMMITTEE

Responsible Cabinet Member – Councillor Cyndi Hughes
Children and Young People

Responsible Director – Suzanne Joyner
Director of Children and Adults Services

Purpose of the Report

1. To present an interim recommendation from the Joint Review Group, established by this Scrutiny Committee, to examine Child Healthy Weight and Oral Hygiene and any associated Mental Health links and to seek Member's approval to the recommendation.

Summary

2. At a meeting of the Children and Young People Scrutiny Committee held on 30 October 2017 it was agreed to establish a Joint Review Group with the Health and Partnerships Scrutiny Committee to investigate the high incidence of childhood obesity in Darlington and the associated links with the low take up of dental services and poor dental health; and to investigate whether the desire to achieve a specific 'body image' promoted in the media had an impact on mental health issues in young people in Darlington.

3. The Group is continuing to meet, however, in view of a series of briefings and information provided by dental health and public health professionals the Group has agreed to make an interim recommendation in relation to fluoridation. The report to Children and Young People Scrutiny Committee on 2 July 2018 is attached for information **(Appendix).**

Recommendation

4. It is recommended that Cabinet consider the report and endorse the recommendation as contained therein.

Reasons

5. The recommendation is supported to enable a technical appraisal to be carried out to inform any consideration of a water fluoridation scheme in Darlington and/or the Tees Valley.

Councillor C Taylor
Chair of the Joint Review Group

Background Papers

No background papers were used in the preparation of this report other than those referred to.

Allison Hill : Extension 5997

S17 Crime and Disorder	This report has no implications for Crime and Disorder
Health and Well Being	This report has implications on the Health and Well Being of residents of Darlington.
Carbon Impact	There are no issues which this report needs to address.
Diversity	There are no issues relating to diversity which this report needs to address
Wards Affected	The impact of the report on any individual Ward is considered to be minimal.
Groups Affected	The impact of the report on any individual Group is considered to be minimal.
Budget and Policy Framework	This report does not represent a change to the budget and policy framework.
Key Decision	This is not a key decision.
Urgent Decision	This is not an urgent decision
One Darlington: Perfectly Placed	The report contributes to the Sustainable Community Strategy in a number of ways through the involvement of Members in contributing to the delivery of the eight outcomes.
Efficiency	The Work Programmes are integral to scrutinising and monitoring services efficiently (and effectively), however this report does not identify specific efficiency savings.
Impact on Looked After Children and Care Leavers	This report has no impact on Looked After Children or Care Leavers.

APPENDIX

CHILDREN AND YOUNG PEOPLE SCRUTINY COMMITTEE
2 JULY 2018

ITEM NO. .....**8.**.....

CHILDHOOD OBESITY AND DENTAL HEALTH CARE

SUMMARY REPORT

Purpose of the Report

1. To consider an interim recommendation from the Joint Review Group, established by this Scrutiny Committee, to examine Childhood Obesity and Dental Health Care and any associated Mental Health links.

Summary

2. At a meeting of the Children and Young People Scrutiny Committee held on 30 October 2017 it was agreed to establish a Joint Review Group with the Health and Partnerships Scrutiny Committee to investigate the high incidence of childhood obesity in Darlington and the associated links with the low take up of dental services and poor dental health; and to investigate whether the desire to achieve a specific 'body image' promoted in the media had an impact on mental health issues in young people in Darlington.

3. The Group is continuing to meet, however, in view of a series of briefings and information provided by dental health and public health professionals the Group has agreed to make an interim recommendation in relation to fluoridation.

4. According to the HM Government Childhood Obesity: A Plan for Action, childhood obesity and poor dental health outcomes are deteriorating in Darlington with strong links between the highest obesity rates and the poorest dental health being most prevalent in the most deprived areas of the Borough.

5. Dental decay is a significant public health problem in the North East and Darlington has levels of decay in children significantly higher than the average for England.

Recommendation

6. That this Scrutiny Committee supports the joint work underway to gather information required for consideration about any prospective water fluoridation scheme in Darlington and recommends to Cabinet that it agrees to carry out a technical appraisal for consideration of a water fluoridation scheme in Darlington and/or the Tees Valley**.**

Review Group Members of the Children and Young People and Health and Partnerships Scrutiny Committees

Background Papers

Public Health England (PHE) Dental Health Profile in Darlington (July 2017)
Briefing note of the Director of Public Health (April 2018)
HM Government Childhood Obesity: A Plan for Action (August 2016)
NHS England Dental Statistics (September 2017)

Author: Allison Hill Ext 5997

S17 Crime and Disorder	This report has no implications for Crime and Disorder
Health and Well Being	This report has implications on the Health and Well Being of residents of Darlington.
Carbon Impact	There are no issues which this report needs to address.
Diversity	There are no issues relating to diversity which this report needs to address
Wards Affected	The impact of the report on any individual Ward is considered to be minimal.
Groups Affected	The impact of the report on any individual Group is considered to be minimal.
Budget and Policy Framework	This report does not represent a change to the budget and policy framework.
Key Decision	This is not a key decision.
Urgent Decision	This is not an urgent decision
One Darlington: Perfectly Placed	The report contributes to the Sustainable Community Strategy in a number of ways through the involvement of Members in contributing to the delivery of the eight outcomes.
Efficiency	The Work Programmes are integral to scrutinising and monitoring services efficiently (and effectively), however this report does not identify specific efficiency savings.
Impact on Looked After Children and Care Leavers	This report has no impact on Looked After Children or Care Leavers.

MAIN REPORT

Information and Analysis

7. There is evidence from NHS England to show that those areas which are fully fluoridated either naturally or by artificial schemes have much lower levels of dental disease compared to un-fluoridated areas despite having similar or worse socio-economic challenges in their communities.

8. Water fluoridation is a well-established public health measure used to address dental health in England including different localities in the North East since the late 1960's and has a strong evidence base to demonstrate that it is highly effective and safe and contributes to reducing health inequalities.

9. Under the current legislation the local authority would be responsible for the revenue costs of any water fluoridation programmes and it has been calculated that the current costs of existing fluoridation schemes across the North East are approximately £300,000 per annum.

10. The initial step before any consideration about fluoridated water would be to carry out a desktop exercise to determine the technical aspects in relation to the existing water distribution network being able to support any potential fluoridation scheme and the potential impact on neighbouring localities. This desktop exercise has since been commissioned by Middlesbrough Borough Council on the behalf of NHS England and the other Tees authorities.

11. If an initial desktop technical appraisal exercise is favourable then a more detailed technical feasibility study would need to be undertaken to establish the viability of any proposed scheme, both in terms of cost and geography.

12. Members received a briefing note on Community Water Fluoridation from the Director of Public Health and were advised that this authority was working with neighbouring authorities and taking part in a desktop technical appraisal with Northumbria Water. This technical feasibility study does not however initiate the formal legal processes set out in legislation necessary to introduce a scheme.

13. During the course of the Review an article on water fluoridation appeared in the Northern Echo following the meeting of Children and Young People Scrutiny Committee on 16 April 2018 and a number of emails were received from members of the public regarding water fluoridation.

14. The emails have been acknowledged and considered by this Review Group and have also been forwarded to the Director of Public Health to retain as part of any further public consultation.

15. There are other evidence based interventions available to encourage and improve dental health particularly in children. These include Supervised Tooth Brushing Schemes and the Fluoride Varnish Programmes. These can be provided in early

years settings and schools and these will be investigated further as part of the ongoing Review.

16. According to data published by NHS England in relation to access to dentistry (September 2017) 67 per cent of Darlington resident population of approximately 105,000 accessed NHS dental care within the previous 24 months period. This is higher when benchmarked locally, regionally and nationally and indicates that people in Darlington have relatively good access to dentistry services

17. Other data published by Public Health England shows that by the time children start school in Darlington, more than a third of them will have several decayed teeth. Oral disease is an important public health issue because of its impact on the individual in terms of pain and suffering the impact on society in terms of the cost of treatment and that dental decay in children is largely preventable.

18. Public Health England released a Dental Health Profile in July 2017 detailing the oral health of five year old children in the Darlington local authority area. This showed that more than a third of them will have children in Darlington have several decayed teeth by the time they start school. It also showed that there were higher levels of decay concentrated in those wards in the East of Darlington.

19. The Dental Health Profile also showed that about 22 per cent (4,400) children live in low income families and of children aged 10-11 years (Year 6) 21 per cent were classified as obese.

Financial Implications

20. The cost of the technical appraisal which is yet to be finalised is expected to be shared across all participating councils within the Tees Valley and NHS England. Funding has been earmarked from existing budgets and as a result there is not expected to be an additional financial impact on the council.

CABINET
11 SEPTEMBER 2018

ITEM NO. .....

REVIEW OF DECISION TO RELOCATE THE CENTRAL LIBRARY SERVICE

Responsible Cabinet Member - Councillor Nick Wallis,
Leisure and Local Environment Portfolio

Responsible Directors - Paul Wildsmith, Managing Director and
Ian Williams, Director of Economic Growth and Neighbourhood Services

SUMMARY REPORT

Purpose of the Report

1. At the request of Cabinet, consider the implications of not implementing the agreed decision to relocate the Central Library from Crown Street to the Dolphin Centre. The context for this review being the rapidly changing Town Centre environment and the better financial position of the Council in comparison to when the original decision was taken.

Summary

2. The report responds to the request by Cabinet to review the relocation of the Central Library decision and produces an alternative proposal for Crown Street with some limited library service available at the Dolphin Centre to help improve access for the young and hard to reach groups. The alternative includes modernising and repairing the Crown Street building which would increase the approved budget by £220,000 a year. The existing Medium Term Financial Plan (MTFP) could accommodate the extra costs in the medium term.

Recommendation

3. It is recommended that Cabinet consider the content of this report and decide whether to :-

   (a) Confirm the previous decision to relocate the Central Library to the Dolphin Centre

   or;

   (b) Retain the Central Library at Crown Street Building, and:

      (i) Approve the development of plans for the refurbishment of the Crown Street building and to refresh the internal design and service standards.

(ii) Approve a consultation on the internal redesign and service standards for the Crown Street library (to run in October/November 2018),

(iii) Release the space earmarked for a relocated central library service at the Dolphin Centre and Bennet House for other uses.

(iv) Approve the development of a quick picks library service point at the Dolphin Centre.

(v) Note that the Library Service Plan will need to be amended and updated to take account of the above proposals. It is planned to bring a revised Library Service Plan to Cabinet in January 2019 and thereafter to take this to Council for approval.

(c) To receive further reports about the Library Service as may be necessary

Reasons

4. The recommendation is supported by the following reasons:-

(a) To allow Cabinet to consider options relating to the Library service.
(b) To meet the statutory obligation to provide a comprehensive and efficient library service

Paul Wildsmith,
Managing Director

Ian Williams
Director of Economic Growth and Neighbourhood Services

Background Papers

Cabinet Report of 7 March 2017 – entitled The Library Service
Council Report of 23 March 2017- entitled The Library Service
Cabinet Report of 10 July 2018 – entitled Darlington Town Centre Footfall Strategy Update

Paul Wildsmith : Extension 5828
TAB

S17 Crime and Disorder	The content of this report does not impact on crime and disorder.
Health and Well Being	The Library service does have an impact on the health and well-being of people who use the service.
Carbon Impact	The content of this report does not have an impact on carbon emissions by the Council.
Diversity	Equality Impact Assessments have previously been carried out for the Library service and subject to any future changes, will be updated.
Wards Affected	All Wards are affected.

Groups Affected	All Groups that use the Library service will be affected.
Budget and Policy Framework	There will be an impact on the budget should Cabinet decide to retain the Library service at Crown Street. The Library Plan, which is part of the Policy Framework, would need to be updated and considered by Council.
Key Decision	This is a key decision.
Urgent Decision	This is not an urgent decision.
One Darlington: Perfectly Placed	The Library service does impact on a number of priorities within One Darlington: Perfectly Placed.
Efficiency	Depending on decisions Members make, there will be an impact on the Council's Efficiency agenda.
Impact on Looked After Children and Care Leavers	This report has no impact on Looked After Children or Care Leavers

MAIN REPORT

Information and Analysis

Update

5. The Council successfully defended the Judicial Review (JR) against the Library relocation, therefore there is no legal barrier to implementing the agreed Council decision. However, a complaint by a member of the public to the Department of Digital, Culture, Media and Sport (DCMS) has yet to be resolved. The complaint being that the after relocation the Council will not provide a comprehensive and efficient library service as set out in the Public Libraries and Museums Act 1964. Officers have supplied DCMS with evidence and have had visits from DCMS officials. DCMS were reluctant to make a decision whilst the JR was unresolved, contact has been made post the JR and DCMS have informed the Council that a final decision on the complaint is unlikely to be before October 2018.

6. The Council could have started the relocation following the successful JR, however it would have been unwise to do this whilst the outcome of the complaint to DCMS is not resolved. The timescale to relocate the Library from Crown Street to the Dolphin Centre from the point of submitting a planning application to completion is approximately 12-13 months.

7. A final issue in relation to delivering the project in full is identifying an alternative use for the Crown Street building. The decision on this is a matter for the Trustees (Cabinet) the process as envisaged would entail:

   (a) A Trustee meeting to decide on what action required. Trustees have indicated that a community use is preferable and if not possible to achieve then

commercial disposal with the receipt being used to establish a trust fund.

(b) Post the agreement of the Trustees a period of consultation to identify a community use and then, if identified, a period of consultation with the public and Charity Commission.

(c) If no suitable community use is found, then similar consultation required about disposal and use of any receipt.

8. The process will be along similar timescales to the relocation but clearly could take longer dependent on such things as the Charities Commission approval and potential for challenge.

Context of Request from Cabinet

9. Cabinet have requested officers look at options and produce a report so they can reconsider their original decision to relocate the Central Library to the Dolphin Centre. In doing so, Cabinet have in particular been mindful of the rapidly changing face of retail and the town centre over recent months. Darlington has seen the confirmation of the closure of Marks and Spencer and Binns (House of Fraser) although the latter is still subject to ongoing commercial discussions and negotiations.

10. The national picture of town centres is changing and Darlington is no different, however due to its relative success in recent years it is being hit quite hard now by national and international decisions on the future of retailing. The Council has started reviewing the long term vision for the town centre and will be consulting in due course, however, what is clear to all is that in future the town centre retail element will become smaller and buildings will require a change of use, leisure and housing being the most likely re-uses of retail property.

11. The town centre currently has 85% occupancy but maintaining or improving this level will remain challenging. The town centre continues to see new entrants and relocations within and there remains a vibrancy; in recent months footfall has plateaued and car park usage increased which are positive signs but it is very clear changes are upon us.

12. Cabinet have expressed their concern about the future potential use of the Crown Street building given the changing nature of retail and leisure within the town centre. The changing environment and likelihood of more vacant buildings within the town centre will undoubtedly increase the challenge of finding a suitable alternative use for the building therefore increasing the chance of it remaining vacant. However without testing the market it is not possible to be certain how likely finding a use is. Such market testing would not be easily undertaken given the Trust legal situation as it is unlikely a true market position could be ascertained without the full decision process of the trust being undertaken as described earlier in this report.

13. Cabinet in requesting this review also considered the financial position of the Council however, they remain aware that although improved the financial position

remains very tight and any significant changes could de-stabilise the MTFP.

14. In summarising the context of this decision it would be appropriate to say that the likelihood of finding an end use for Crown Street has diminished since the original decision was taken and the town centre is less buoyant. In addition, the Council is in a better financial position.

Implication of not implementing the original decision - Operational

15. The key benefits of relocation are set out below and by not relocating the following benefits would be lost should the current Crown Street building remain in its current form:-

    (a) Co-location benefits - combining both services into one building provides the opportunity for a sustainable library and Dolphin Centre (a refreshed and modernised service could broaden the reach of the library service to new users as well as existing users. Existing library service users may become more interested in using Dolphin Centre services).

    (b) Improved baby changing facilities.

    (c) Improved toilet provision.

    (d) Further develop the family learning experience.

    (e) Availability of catering facilities.

    (f) Availability of break-out social spaces.

    (g) Ability to expand the number of programmes particularly for children and young people.

    (h) Updated and increased ICT provision.

    (i) Improved access to facilities for the majority of residents.

    (j) Extended opening hours.

    (k) Improved library service offer for young people combined with the Dolphin Centre offer.

    (l) More appropriate, modern, vibrant facilities.

16. However beyond the potential for the Crown Street building being vacant and no longer used as a building there are positives of non-relocation.

    (a) Art Gallery would remain.

    (b) Local Studies would be co-located and operated at existing levels.

(c) The space allocated to the library would be slightly greater than at the Dolphin Centre.

(d) All books could be stored in one building.

(e) Dolphin Centre space earmarked for the library and Bennet House could be put to alternative uses.

17. In terms of library usage at Crown Street this continues to fall as illustrated below :-

Year	Visits	Book Loans	*Active Borrowers	ICT Sessions
2011/12	278,125	343,789	18,696	73,445
2012/13	255,050	296,851	17,355	63,490
2013/14	263,375	272,943	16,923	67,455
2014/15	255,489	230,410	13,136	62,120
2015/16	194,375	232,072	12,710	53,191
2016/17	207,150	210,003	9,555	46,013
2017/18	188,600	208,143	9,263	41,158

*Active Borrowers figures are for both Crown Street and Cockerton

18. The relocation and reinvigoration of the central library at the Dolphin Centre was expected to increase usage particularly within the younger and harder to reach elements of the population. An un-amended service at Crown Street would not have the same potential to reduce the decline of usage.

An Alternative to Relocation

19. Cabinet have requested that officers develop in outline an alternative to relocation that works towards mitigating some of the lost benefits of not relocating and takes full account of the costs of ensuring the building is repaired and well maintained into the future.

20. In original reports an outline alternative to relocation including changes to the service and building were presented, below, this is expanded and enhanced to include some mitigations and building sustainability.

21. To deliver a modern and vibrant service within the Crown Street building and to alter the internal structures to facilitate modern working leading to reduced staffing levels investment of circa £800,000 to £1m would be required. This would involve removal and amendments to internal walls, new furniture and decoration and modern integrated ICT. This would significantly change the internal feel and uses of the building to deliver some of the anticipated benefits of the Dolphin Centre. As far as possible facilities such as toilets and welfare facilities would be enhanced but clearly there are limitations.

22. If such investment is to be made in the Crown Street building it would make financial and operational sense to complete all other major structural works at the same time, in particular mechanical and engineering and the roof which need major works. A full survey is being undertaken but at this stage investment of £1m should be earmarked. Alterations and repairs of this magnitude will undoubtedly have

significant operational issues for the service as it will not be possible to undertake the work whilst having a fully operational library so there will be the need for service reductions during the building works.

23. To further mitigate the falling use and increase attractiveness of the library service in particular to young and hard to reach groups of the population, it is proposed that within the Dolphin Centre a “quick pick” facility is established together with a “window” into the library service for young people.

24. Clearly at this stage full works and feasibility have not yet commenced and if Cabinet wish to proceed more detailed work will be undertaken.

Alternative Uses for space allocated for the Library at the Dolphin Centre

25. The remodelled Dolphin Centre following relocation was dependent on investment of £1.1m funded by the revenue savings achieved by the relocation. The net saving of the move of £310,000 was after the cost of repaying the £1.1m investment. Therefore there are no funds available to create the new spaces identified including the mezzanine floor above the soft play area behind the café, consequently the only space available is that previously used by the Registrars service. The creation of any further space and/or reconfiguration would require capital investment and given the financial constraints would need to be on an income generating business case basis to recover the cost of investment.

26. Alternative income generation plans will be reviewed including potential service relocation and/or use of space by partner agencies.

27. The non relocation would free up Bennet House for disposal or rent.

Financial Implications of Non Relocation

28. Set out below is a comparison of the savings for relocation compared to those of the alternative at Crown Street

Budget Savings	**Dolphin Centre £**	**Crown Street £**
Staffing	220,000	150,000
Book Fund	60,000	60,000
Premise Costs	120,000	
Less Storage	(25,000)	
Less Refurbishment Work	(65,000)	(60,000)
Less Major Repairs		(60,000)
	310,000	**90,000**

29. The annual cost to the Council will therefore be £220,000, this may be offset by rental income from Bennet House and the Dolphin Centre. Clearly all estimates of costs and savings are subject to further feasibility work, at this stage it would be prudent to estimate for additional annual costs of £220,000 within the MTFP.

30. The Council MTFP has three years remaining and as a result there will be total cost to the current MTFP will be £660,000 with ongoing annual costs of £220,000 p.a.

The £660,000 can be funded from additional reserves created following the 2017/18 outturn and 2018/19 rebasing however it must be noted that the use of these balances will reduce the ability of the Council to balance future years MTFP's will the lower level of annual savings.

Risks

31. As noted through the report there are a number of unknown factors at play, survey works are currently being undertaken at Crown Street and the cost of refurbishment work and repairs could be higher than anticipated. Also feasibility works have not yet commenced in regard to the alternative space use in the Dolphin Centre which could require investment. There is a risk both these areas may need additional funding which has not been taken account of in the financial implications.

HR Implications

32. Both options have staffing implications and there would need to be consultation on revised staffing structures. In both cases there would be a reduction in staffing required, however this has been mitigated to some degree as vacancies that have occurred during this period have not been permanently filled and self-serve has been introduced.

Outcome of Consultation

33. Consultation on the proposed designs and service standards will take place in October and November 2018, for a six-week period. Design proposals and service standards will be available on the Council's website for interested parties to feedback on. Alongside this, the proposal will be available within the libraries with feedback forms and a number of drop-in sessions will be organised for people to attend and provide feedback. The outcome of this consultation will be fed back to Cabinet in January 2019.

Decision making

34. As indicated above, it is proposed that Cabinet receive a further report about the Library Service proposals and the consultation in January 2019. The current Library Service Plan, includes the provision of the central library from the Dolphin Centre. This will need to be revised and updated if the central library service is to be provided from the Crown Street building. It is therefore proposed that in January 2019 a revised Library Service Plan is also considered by Cabinet. Subject to approval by Cabinet, the Library Service Plan can then be recommended by Cabinet for adoption by Council. This can then be considered by Council in January 2019.

CABINET
11 SEPTEMBER 2018

ITEM NO. .....

INTRODUCTION OF CHARGING AND LOCAL ELIGIBILITY CRITERIA FOR THE SELF BUILD REGISTER

Responsible Cabinet Member – Councillor Chris McEwan
Economy and Regeneration Portfolio Councillor

Responsible Director – Ian Williams
Director of Economic Growth and Neighbourhood Services

SUMMARY REPORT

Purpose of the Report

1. To advise Members of the statutory duties associated with the Self-build and Custom Housebuilding Act 2015 (as amended) (thereafter referred to as 'the Act), one of these duties is a requirement to provide serviced self-build plots to meet an identified need.

2. Currently there is no fee to register which means persons could have their name on more than one register in the Tees Valley or wider. This could result in an over-estimation of need in the wider area and ultimately place a burden on several local authorities to provide serviced plots which would not all be required.

3. If left uncontrolled, the current arrangements could see wide interest in building self-build housing from persons with no local connection. The introduction of a charge, albeit modest, also allows the authority to recover a small part of the cost of managing the register and associated work involved.

Summary

4. The Council launched its self-build register on 1 April 2016, this met the initial duty of the Act.

5. The second duty confirms that the authority must bear this register in mind when carrying out its functions. These functions are listed as planning, housing, regeneration and the disposal of any land of the authority.

6. The final duty set out in the Act as amended is the 'duty to grant planning permission'. This requirement under Para 2A is to grant permission on sufficient serviced plots to meet the identified need on the self-build register for each base year.

7. This report seeks to reduce the burden placed on the authority by the Act, by controlling those who register by introducing a fee and by agreeing local eligibility criteria.

Recommendation

8. It is recommended that :-

   (a) That Members note the requirements of the Self-build and Custom Housebuilding Act 2015 (as Amended) and the need for the Borough Council to publish a self-build register and meet its duty to grant planning permission for sufficient serviced plots within the Borough; and

   (b) That Members agree to the introduction of the charging schedule as set out in this report (the proposed fees to be reviewed on a regular basis) for inclusion on Part 1 of the Self-build register;

   (c) That Members agree to the introduction of eligibility criteria for inclusion on Part 1 of the Self-build register as set out in this report.

Reasons

9. The recommendations are supported by the following reasons :-

   (a) The provision of self-build plots is a requirement as set out in the Self-build and Custom Housebuilding Act 2015 (as Amended). In terms of the provision of such plots these should be directed towards genuine need within the Borough.

   (b) The introduction of a charge, albeit modest, also allows the authority to recover a small part of the cost of managing the register and associated work involved.

   (c) Housing land is a finite resource and it is considered that without restrictions on who can apply to be on the register, persons could have their name on more than one register in the Tees Valley or wider. This could result in an over-estimation of need in the wider area. If left uncontrolled, could see wide interest in building self-build housing from persons with no local connection...

Ian Williams
Director of Economic Growth and Neighbourhood Services

Background Papers

(i) Self-build and Custom Housebuilding Act 2015 (as Amended)
(ii) Housing and Planning Act 2016
(iii) Self-build and Custom Housebuilding (Time for Compliance for Fees) Regulations 2016

David Hand : Extension 6294

S17 Crime and Disorder	There are no crime and disorder implications.
Health and Well Being	N/A
Carbon Impact	N/A
Diversity	N/A
Wards Affected	All Wards affected
Groups Affected	All community groups affected
Budget and Policy Framework	'This decision does not represent a change to the budget and policy framework'.
Key Decision	A key decision which effects all wards in the Borough.
Urgent Decision	This is a non-urgent decision
One Darlington: Perfectly Placed	Will assist in ensuring we have a place designed to thrive
Efficiency	We have a statutory duty to publish a self-build register, this brings further statutory duties in the future to provide or give permission for serviced self-build plots. The introduction of charging will at least cover some of the costs associated with maintaining the register and reduce the ongoing burden to the Authority by reducing the potential number of plots which will need to be provided.
Impact on Looked After Children and Care Leavers	There is no impact on Looked After Children or Care Leavers as a result of this report.

MAIN REPORT

Introduction

10. The Self-build and Custom Housebuilding Act 2015 (as Amended) (thereafter referred to as 'the Act') placed a duty on public authorities to keep a register of individuals and associations who wish to acquire serviced plots to bring forward self-build housing. This act placed a duty on public authorities to have regard to those registers in carrying out their planning and other functions. This was enacted on 26 March 2015.

11. Since that date the Planning Policy section has produced a register for self-builders and kept it up to date. This is covered later in the report.

12. This report seeks to update Members on the mechanisms for providing serviced plots in addition to seeking approval for the introduction of both eligibility criteria and a charge to be included on the self-build register. The criteria and the proposed charges are covered in the report.

Background and Issues

13. The issue for Members consideration is to note the duty that has been placed on the Local Authority and to determine whether to adopt both a local eligibility criteria and charge for being placed upon the self-build register.

Assessment

14. The assessment will set out what self-build housing is, the duties placed upon local authorities, whether the self-build register should attract a financial charge and local eligibility criteria and how the local authority will attempt to meet the duties placed upon them.

What is Self-build housing?

15. There is a definition included within the Act as amended by the Housing and Planning Act 2016. This states that 'self-build and custom housebuilding' means the building or completion by individuals, associations of individuals or persons working with or for individuals or associations of houses to be occupied as homes by these individuals. Such housing can be either market or affordable housing.

The Duties of Local Authorities (Self-build Registers and Serviced Plots)

16. Through the Act and subsequent amendments and Regulations several burdens and duties were placed on public authorities including the Borough Council.

17. The initial duty enacted by the Act required the keeping and publicising of a register by the Borough Council that allows persons to register their interest in acquiring a plot for a self-build house.

18. The second duty confirms that the authority must bear this register in mind when carrying out its functions. These functions are listed as planning, housing, regeneration and the disposal of any land of the authority.

19. The final duty set out in the Act as amended is the 'duty to grant planning permission'. This requirement under Section 2A is to grant permission on sufficient plots to meet the identified need on the self-build register for each base year. The base year starts from the first establishment of the register. In respect of Darlington this date was 1 April 2016 with that base year ending on 30 October 2016. Para 2 of the Self-build and Custom Housebuilding (Time for Compliance for Fees) Regulations 2016 confirms that the authority has three years from the end of the base period to comply with the duty. Therefore the Borough Council has until the 30 October 2019 to meet the needs of those persons who were entered on the register in the first year and three years from each subsequent year to meet any new arising demand for self-build plots. In the first base year eight people were entered onto the register, however, this demand may be reduced depending on the outcome of this report. A further 23 persons have been entered onto the register since 31 March 2017.

20. It should be noted, however, that the duty is to provide sufficient permissions for plot demand not to actually ensure all persons on the register actually deliver a self-build home. So long as sufficient plots are approved and/or are made available that is considered to be sufficient.

The Self-build Register (Charging and Eligibility)

21. The duty to publish a self-build register was set out in the Act. The Borough Council prepared a suitable register. This can be accessed through the Council's website at: http://www.darlington.gov.uk/environment-and-planning/planning/planning-and-environmental-policy/self-build-housing/

22. Currently an interested party must fill in the relevant details including:

    (a) Name and address;
    (b) Nationality;
    (c) The type of project (eg individual self-build);
    (d) Previous experience;
    (e) When they would like to commence.

23. From inspecting the information submitted to date the following is a list of notable points:

    (a) Of all the registered persons to date there is one association interested in building 5 plots the rest are interested only in individual plots
    (b) Of those registered 12 would be interested in group builds on larger sites;
    (c) 8 persons are from outside of the Borough;
    (d) In terms of timescales 20 state they are ready within the next 12 months, 6 state they were looking in 1-2 years, 4 stated 2-3 years with the remaining1 stated it was unknown.

24. The Act under Schedule 1 sets out that the Regulations may make provision about a person's eligibility to be entered on to the register. The subsequent Self-build and Custom Housebuilding Regulations 2016 set out further details on the eligibility criteria that can be used to determine who can be entered onto the register. The criteria can include:

    (a) A local connection test whereby a person can be requested to demonstrate a sufficient connection with the authority's area1; and/or
    (b) Whether a person who wishes to be entered onto the register has sufficient resources to purchase land for their own self-build.

25. Officers consider that the following criteria are sufficient to demonstrate a connection to the area. Applicants must demonstrate through the submission of appropriate documentation that;

    (a) They have been living in Darlington Borough for three consecutive years; or
    (b) They have previously lived in Darlington Borough for a period of three consecutive years within the past 10 years; or
    (c) They are currently employed in Darlington Borough and have been for the past 12 consecutive months; or
    (d) They are currently self-employed, with an ongoing viable venture where work is within the Borough, and has been for the past 12 consecutive months.

26. The Self-build and Custom Housebuilding (Time for Compliance and Fees) Regulations 2016 allow Authorities to charge a fee for entry onto the register and a separate annual fee for remaining on the register. It is considered that Darlington Borough Council should adopt a modest charge to recover reasonable costs incurred. These costs to the Council will include determining applications, maintaining the register and corresponding with entrants on the register.

27. Officers consider that it would be appropriate to charge £50 for entry onto the register and an annual fee of £25 for remaining on it.

28. Should Members agree with the above the fee should be applied to all persons either on or applying to be on the register if they meet the local eligibility tests. This includes those persons currently entered onto the register who will be contacted to determine if they meet the criteria and if so, requested to pay the £50 entry fee. It is recommended that officers should monitor the level of work involved with the process and, if necessary, seek to amend the fees at a future date and keep them under review. Should the introduction of a fee be agreed all persons entered onto the register will be notified that the fees chargeable will be subject to review and could go up

29. Where a person either does not meet the criteria or is not willing to pay to be included on the register they will be removed from Part 1 of the Register. In these instances where a person does not meet the criteria or will not pay a fee the Authority must write to them to notify them that they are not eligible for inclusion in Part 1 but that they can be entered onto Part 2 to the register. The difference between Parts 1 and 2 is that the Council has no duty to provide or ensure enough plots are made available for those on Part 2.

Meeting the Duty

30. The keeping of the register with whoever meets the agreed criteria is only half of the requirement. The second and possibly most demanding aspect of the new requirements is the duty placed upon the Authority to grant sufficient permissions to meet the identified need on Part 1 of the Register. This was explained in Paragraphs 20 and 21.

31. How this duty will be met is a difficult question. There are a number of ways in which the Authority could aim to address this need and these can include:

    (a) A policy in the Local Plan that requires a percentage of plots on new sites (over a certain scale) to be made available for self-build;
    (b) A policy in the Local Plan that allows self-build development on the edge of settlements in a similar manner to that permitted under the current rural exception policy H10;
    (c) The publicising of undeveloped plots for one or a small number of dwellings and providing connections between landowners and potential self-builders. A register of available sites could be placed on the Council's website and the persons on the self-build register notified of this;
    (d) The release of Council owned land for self-build plots or at a minimum the notification of the release of land for housing to those on the self-build register;

(e) Bespoke requests for self-build on larger sites at pre-application and application stage.

Policies in the Local Plan

32. Some Local Authorities are considering the inclusion of policies that require the provision of a set proportion of self-build plots on larger housing sites. As an example a district could seek to secure 5% of plots as self-build on schemes of over 100 units.

33. The other option is to consider a policy that would allow the release of small sites/plots on the edge of settlements for self-build housing. This would be in a similar manner to the release of sites for local occupancy housing (rural exceptions housing).

34. Neither of these options is considered to represent a suitable way forward at the current time. It is not considered that the securing of a percentage of plots on a larger housing site is the panacea that other authorities believe it may be. T here is little evidence to suggest that the demand for self-build plots would be satisfied within more modern housing developments; perhaps numerically but it is unlikely to be of a form and location that is of interest to those on the self-build register. There is also some trepidation from the larger housebuilders as there is less control over the design of the property that will sit within the wider development and no control over when the site will be developed. Such plots could remain vacant for many years until an appropriate buyer / self-builder is found. Which raises the question of how long would a housebuilder be expected to make the plot available for self-build before it could potentially revert back within their own portfolio. The longer the period the greater the risk to the housebuilder; a risk that would have to be incorporated into any viability assessments used to determine the delivery of affordable housing.

35. Officers will keep track of other Local Plans coming forward, if such policies are included and how successful they are. Notwithstanding this, options to provide self-build on large housing sites can still be explored and this is covered later in this report.

Undeveloped Plots

36. The Planning Section approves a significant number of planning applications each year for housing development. Many of these are for one or a small number of dwellings and a proportion of those never come to fruition. The reason for this is not known but could be a combination of finance, changing priorities for the applicant or a lack of expertise in house building.

37. Many of these applications remain undeveloped and often permission will expire. There would therefore appear to be untapped opportunities to bring forward housing including those of a self-build nature.

38. It is therefore proposed to further investigate the publicising of these sites. At the very least it is proposed to compile a list of these sites, updated bi—annually, and

uploaded to a convenient location for those on the self-build register to investigate potential opportunities. Whether actual details can be provided to the landowners of potential builders is unknown at present due to data protection issues. Such issues will have to be fully investigated before this is taken forward and will determine how it is taken forward.

39. It should also be noted that sites permitted prior to the base date (referred to earlier in the report) cannot be used to meet the Council's duty. The sites can still be publicised but the Regulations specifically state that the Council can only count sites permitted after the commencement of the self-build register to meet identified demand. Notwithstanding this, if a person on the self-build register does decide to take forward an older site the overall demand for plots will still reduce Council Owned Sites.

40. A further option to be explored is whether Council owned sites can be promoted for self-build housing. The Act suggests this should happen as it specifically states that the Council should have due regard to self-build in their duties including the release of Council land.

41. The Council is, however, also duty bound to achieve best value for its assets for the benefit of the wider population of the Borough. Therefore whilst persons on the self-build register can bid for land released by the Council they cannot be afforded special privileges in any competitive bidding process.

42. The availability of Council owned land will be investigated further with the Property Asset Management and Investment Team.

Self-Build on Proposed Sites

43. It may be feasible to deliver some self-build homes on large housing sites where it is considered appropriate. This can be done through negotiation at pre-application and formal application stage with the site promoter.

44. This is an option that officers can explore as the larger sites are submitted for consideration on an individual basis as opposed to seeking a blanket policy covering all sites that would require the Council to go through the Local Plan Examination in Public process.

Conclusions

45. Self-build housing is one means of delivering much needed homes. Whilst it is not going to make a major contribution towards the overall housing number it is a statutory requirement or duty placed on Local Authorities to firstly keep a register of interested parties and secondly to provide the requisite number of serviced plots.

46. Taking this into account it is considered wholly reasonable that the Council should ensure their efforts to provide serviced plots is aimed towards genuine local need. Without the criteria proposed in this report the Borough Council could put in significant effort to provide plots that won't actually be delivered as the applicant could be 'hedging their bets' within a number of local authority areas.

47. The imposition of a fee to be entered onto and stay on the register is also considered reasonable for the work that will have to be put in by the various Council sections, most notably the Planning Section. The fees proposed are modest and will be unlikely to cover the full costs but will allow at least some recovery of expenses and also ensure that self-builders are fully committed to building their own home.

Financial Implications

48. Given the overall low number of interested parties there are no significant financial implications to introducing a cost to be on the register apart from the generation of a small income source which will help support the on-going cost of maintaining the register.

Legal Implications

49. The Self-Build and Custom Housebuilding (Time for Compliance for Fees) Regulations 2016 allow for local authorities to charge a fee to be on the register and introduce eligibility criteria.

HR Implications

50. If the proposal affects the terms and conditions of any staff, or changes their duties and responsibilities the HR implications should be considered with advice where necessary before the preparation of the report. If the proposal could result in the redundancy of staff employed by a third part who are providing services on behalf of the council, HR advice should be sought before preparing the report.

Corporate Landlord Advice

51. There are no current implications for the authority as a corporate landlord. The recommendations in this report are likely to reduce or eliminate any future burdens.

Procurement Advice

52. There are no procurement implications.

Consultation

53. No consultation is required

Equalities considerations

54. The recommendation of this report does not impact on any particular section of society unfairly. The implications are equal for all.

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CABINET
11 SEPTEMBER 2018

ITEM NO. .....

TREASURY MANAGEMENT ANNUAL REPORT AND OUTTURN PRUDENTIAL INDICATORS 2017/18

Responsible Cabinet Member - Councillor Stephen Harker, Efficiency and Resources Portfolio

Responsible Director - Paul Wildsmith, Managing Director

SUMMARY REPORT

Purpose of the Report

1. This report provides important information regarding the regulation and management of the Council's borrowing, investments and cash-flow. It is a requirement of the Council's reporting procedures and covers treasury activity for 2017/18. The report also seeks approval of the Prudential Indicators results for 2017/18 in accordance with the Prudential Code.

Summary

2. The financial year 2017/18 presented similar circumstances to 2016/17 with regard to treasury management. However, due to the low returns for cash investments new ways to improve investment returns were sought. It was agreed to look at alternative investment types to increase return. Cost of borrowing remained low throughout 2017/18 and the cost of shorter term borrowing will remain low for a number of years in the future.

3. During 2017/18 the Council complied with its legislative and regulatory requirements. The borrowing need (Table 1) was only increased for capital purposes.

4. At 31st March 2018 the Council's external debt was £160.161M which is £33.000M more than the previous year, this increase relates to externalising debt which was in the past internal i.e. use of reserves. This externalisation enabled the Council to invest in Property Fund units to increase investment return. The average interest rate for borrowing was down from 4.30% in 2016/17 to 3.84% in 2017/18. This reduction in the average rate of interest is due to a new mix of maturity dates to take advantage of the lower cost of borrowing for short term debt. Investments totalled £52.443M at 31st March 2018 (£21.000M at 31st March 2017) earning interest of 0.31% on short term cash investments, 0.625% on longer term cash investments and 2.2% on Property Fund units net of costs.

5. Financing costs have been reduced during the year and a saving of £0.600M achieved from the original MTFP. The majority of the savings relate to the inclusion and purchase of Property Fund units in the investment portfolio, with the interest received reduced due to additional interest payments on debt and additional brokerage fees.

Recommendation

6. It is recommended that:

   (a) The outturn 2017/18 Prudential Indicators within this report and those in **Appendix 1** be noted.

   (b) The Treasury Management Annual Report for 2017/18 be noted.

   (c) This report to be forwarded to Council, in order for the 2017/18 Prudential Indicators to be noted.

Reasons

7. The recommendations are supported by the following reasons:

   (a) In order to comply with the Prudential Code for Capital Finance in Local Authorities.

   (b) To inform members of the Performance of the Treasury Management function.

   (c) To comply with the requirements of the Local Government Act 2003.

Paul Wildsmith
Managing Director

Background Papers
(i) Accounting Records
(ii) Annual Investment Strategy 2017/18
(iii) Prudential Indicators and Treasury Management Strategy Report 2017/18

Elaine Hufford : Extension 5404

S17 Crime and Disorder	This report has no implications for crime and disorder
Health and Well Being	There are no issues relating to health and wellbeing which this report needs to address
Carbon Impact	There are no issues relating to carbon impact
Diversity	There are no specific implications for diversity
Wards Affected	The proposals affect all wards
Groups Affected	The proposals do not affect any specific group
Budget and Policy Framework	The report does not change the Council's budget or Policy framework but needs to be considered by Council
Key Decision	This is not an Executive decision
Urgent Decision	This is not an Executive decision
One Darlington: Perfectly Placed	The proposals in the report support delivery of the Community Strategy through appropriate and effective deployment of the Councils Resources
Efficiency	The report outlines movements in the national economic outlook that have enabled officers to take advantage of different types of Investments and changing interest rates to benefit the Revenue MTFP.
Impact on Looked After Children and Care Leavers	Does this report impact on Looked After Children or Care Leavers

MAIN REPORT

Information and Analysis

8. This report summarises:

   (a) Capital expenditure and financing for 2017/18
   (b) The Council's underlying borrowing need
   (c) Treasury position at 31st March 2018
   (d) Prudential indicators and compliance issues
   (e) The economic background for 2017/18
   (f) A summary of the Treasury Management Strategy agreed for 2017/18
   (g) Treasury Management activity during 2017/18
   (h) Performance and risk benchmarking

9. Throughout this report a number of technical terms are used, a glossary of terms can be found at the end of this report.

The Council's Capital Expenditure and Financing 2017/18

10. The Council undertakes capital expenditure on long term assets, which is financed either,

    (a) immediately through capital receipts, capital grants, contributions and from revenue; or
    (b) by borrowing.

11. Part of the Council's treasury activities is to address this borrowing need, either through borrowing from external bodies, or utilising temporary cash resources within the Council. The wider treasury activities also include managing the Council's cash flow, its previous borrowing activities and the investment of surplus funds. These activities are structured to manage risk foremost and then optimise performance.

12. Capital Expenditure forms one of the prudential indicators that are used to regulate treasury activity. Table 1 shows total capital expenditure and how this was financed, compared with what was expected to be spent and how this would have been financed. Actual expenditure was £98.973M less than planned, mainly due to not progressing the Loan Facility to Registered Social Landlords (RSL's). However the mix of funding differs from that which was expected as some schemes progressed quicker than others. This impacted slightly on borrowing needed to fund expenditure, resulting in £0.402M less borrowing need than expected at this time which excludes any loans to RSL's.

Table 1 – Capital Expenditure and Financing

	2016/17	2017/18		
	Outturn £m	Revised Estimate £m	Outturn £m	Variance £m
General Fund Capital Expenditure	19.911	22.240	24.797	2.557
HRA Capital Expenditure	14.185	17.164	15.634	-1.530
Loan Facility to RSL's		100.000	0	-100.000
Total Capital Expenditure	**34.096**	**139.404**	**40.431**	**-98.973**
Resourced by:				
Capital Receipts GF	1.464	3.093	5.534	2.441
Capital receipts Housing	0.641	0.000	0.985	0.985
Capital Grants	14.275	10.194	13.349	3.155
Capital Contributions	0.220	1.829	1.716	-0.113
Revenue	0.872	2.475	0.000	-2.475
Revenue (Housing)	11.743	15.988	13.424	-2.564
Total Resources	**29.215**	**33.579**	**35.008**	**1.429**
Borrowing needed to finance expenditure	**4.881**	**105.825**	**5.423**	**-100.402**

The Council's Underlying Borrowing Need

13. The Council's underlying need to borrow is called the Capital Financing Requirement (CFR). The figure is a gauge for the Council's debt position. It represents 2017/18 and prior years' net capital expenditure which has not yet been paid for by revenue or other resources.

14. The General Fund element of the CFR is usually reduced each year by a statutory charge to the revenue accounts called the Minimum Revenue Provision (MRP). The total CFR can also be reduced each year through a Voluntary Revenue Provision (VRP).

15. The Council's CFR for the year is shown in table 2, and represents a key prudential indicator. The CFR outturn for 2017/18 is £198.788M which is £100.402M lower than approved because of the lower borrowing need than expected for 2017/18. No MRP repayments were made on the General Fund debt in line with the report to Council on 23rd February 2017.

Table 2 - **Capital Financing Requirement**

	2016/17	2017/18		
	Outturn £m	Approved Indicator £m	31 March Actual £m	Variance £m
Opening Balance	175.917	180.169	180.169	0.00
Add adjustment for the inclusion of leases on the balance sheet under IFRS	16.230	15.017	15.017	0.00
Add Capital Expenditure financed by borrowing	4.881	105.825	5.423	-100.402
Less MRP/VRP General Fund			0	
Less MRP/VRP Housing	-0.629	-0.629	-0.629	0.00
Less MRP/VRP PFI	-1.213	-1.192	-1.192	0.00
Closing balance	**195.186**	**299.190**	**198.788**	**-100.402**

Treasury Position at 31 March 2018

16. Whilst the measure of the Council's underlying need to borrow is the CFR, the Assistant Director of Resources can manage the Council's actual borrowing position by:

    (a) borrowing to the CFR level; or
    (b) choosing to utilise some temporary cash flows instead of borrowing ("under borrowing"); or
    (c) borrowing for future increases in CFR (borrowing in advance of need, the "over borrowed" amount can be invested).

17. The financial reporting practice that the Council is required to follow (the Statement of Recommended Practice (SORP)), changed in 2007/08. Financial instruments (borrowing and investments etc.) must now be reported in the Statement of Accounts in accordance with national Financial Reporting Standards. The figures in this report are based on actual amounts borrowed and invested and so will differ from those in the Statement of Accounts.

18. The Council's total debt outstanding at 31st March 2018 was £160.161M. In addition to this, a liability of £13.825M relating to the PFI scheme and Finance Leases brings the total to £173.986M. The Council's revised CFR position was estimated to be £299.190M, which included £100.000M that related to possible loans to RSL's which were not realised in 2017/18. However, the actual out turn position was £198.788M. When comparing this to our actual borrowing of £173.986M this meant that the Council was "under borrowed" by £24.802M this "under borrowed" amount was financed by internal borrowing this means that the amount that could have been invested externally was reduced to cover this. The amount of under borrowing has reduced from 2016/17 to enable external investments to be made in Property Funds. The reduced under borrowed position still has the dual effect of reducing costs to the MTFP because borrowing costs are

generally greater than investment returns and it reduces counterparty risk by reducing our exposure to banks and other financial institutions.

19. The treasury position at the 31st March 2018, including investments compared with the previous year is shown in table 3 below.

Table 3 – Summary of Borrowing and Investments

Treasury Position	31 March 2017		31 March 2018	
	Principal £m	Average Rate %	Principal £m	Net annualised Average Rate %
General Debt - Fixed Rate Debt, Market and Public Works Loan Board (PWLB)	127.161	4.30%	135.161	4.08%
Property Fund Borrowing			25.000	1.17%
Total Debt	**127.161**	**4.30%**	**160.161**	**3.84%**
Cashflow Investments up to 6 months	12.000	0.44%	21.000	0.31%
Capital Investments over 6 months	9.000	0.79%	2.000	0.625%
Property Fund Investment -net of costs			29.433	2.2%
Total Investments	**21.000**		**52.433**	
Net borrowing position	**106.161**		**107.728**	

Prudential Indicators and Compliance Issues

20. Some prudential indicators provide an overview while others are specific limits on treasury activity. These indicators are shown below:

21. **Gross Borrowing and the CFR –** Over the medium term the Council's external borrowing, net of investments, must only be for capital purposes. Gross borrowing should therefore not, except in the short term, have exceeded the CFR for 2017/18 plus the expected changes to the CFR over 2018/19 and 2019/20 Table 4 highlights the Council's Gross borrowing position against CFR. The Council has complied with this prudential indicator.

Table 4 – Gross Borrowing Compared with CFR

	31 March 2016 Actual £m	31 March 2018 Approved Indicator £m	31 March 2018 Actual £m
Gross Borrowing Position	**127.161**	**282.000**	**160.161**
CFR Excluding PFI & leases	**180.169**	**285.365**	**184.963**
CFR	**195.186**	**299.190**	**198.788**

22. **The Authorised Limit –** The Authorised Limit is the "Affordable Borrowing Limit" required by section 3 of the Local Government Act 2003. The Council does not have power to borrow above this level.

23. **The Operational Boundary –** The Operational Boundary is the expected borrowing position of the Council during the year. Periods where the actual position is either below or over the Boundary are both acceptable, subject to the Authorised Limit not being breached.

24. **Actual financing costs as a proportion of net revenue expenditure -** This indicator identifies the trend in the cost of capital (borrowing and other long term obligation costs net of investment income) against the net revenue expenditure. The actual for this indicator has reduced due to nil provision of MRP for the General Fund and other savings in the Financing Costs budget, but has risen from the previous year due to a reduction in the Councils overall budget.

Table 5 – Key Prudential Indicators

	Actual 2016/17 £M	Original Approved Limits 2017/18 £M	Revised Approved Limits 2017/18 £M	Actual Total Liabilities Borrowing + PFI/ leases 2017/18 Maximum £M
Approved Indicator – Authorised Limit	**142.178**	**205.616**	**310.616**	**173.986**
Approved Indicator – Operational Boundary	**142.178**	**195.825**	**295.825**	**173.986**
Financing costs as a percentage of net revenue expenditure	**4.19%**	**4.65%**	**4.01%**	**4.00%**

25. At 31st March 2018 the total liabilities were £173.986m which is below both the approved Authorised Limit and the approved Operational Boundary. The Operational Boundary is the point at which we expect borrowing to be, but it can be lower or higher. Borrowing cannot exceed the Authorised Limit.

26. A further four prudential indicators are detailed in **Appendix 1**.

Economic Background for 2017/18

27. A summary of the general economic conditions that have prevailed through 2017/18 provided by Link Asset Services, the Council's treasury management advisors is attached at **Appendix 2.**

Summary of the Treasury Management Strategy agreed for 2017/18

28. The revised Prudential Indicators anticipated that during 2017/18 the Council would need to borrow £105.825M to finance part of its capital programme including £100.000M of loans to RSL's.

29. The Annual Investment Strategy stated that the use of specified (usually less than 1 year) and non-specified (usually more than 1 year) investments would be carefully balanced to ensure that the Council has appropriate liquidity for its operational needs. In the normal course of the Council's business it is expected that both specified and non-specified investments will be utilised for the control of liquidity as both categories allow for short term investments.

30. Longer term instruments (greater than one year from inception to repayment) will only be used where the Council's liquidity requirements are safeguarded. An estimate of long term investments (over 1 year) were included in the report on the Prudential Indicators update these were as follows £30M for 2017/18, £50M for 2018/19 and £50M for 2019/20. Three investments of up to £10m each were made in 3 Property Funds during July August and December 2017. No other investments of over 1 year duration have been made during 2017/18.

Treasury Management Activity during 2017/18

Debt Position

31. **Borrowing –** this increased during 2017/18 by £33.000M in total

	PWLB			Market Loans (incl. other Local Authorities			Total
	Amount £M	Length of Loan	Interest Rate	Amount £M	Length of Loan	Interest Rate	£M
New Loans taken							
	8.500	5 years	1.38%	5.000	1 year	0.53%	
	8.000	10 years	2.01%	5.000	1 year	0.42%	
	5.000	11 years	2.20%	3.500	1 year	0.46%	
				5.000	1 year	0.50%	
				5.000	2years	0.80%	45.000
Loans Repaid							
				-5.000	15years	3.82%	
				-5.000	2years	0.80%	
				-2.000	2years	0.99%	-12000
Total New Borrowing	21.500			11.500			33.000

32. The new borrowing of £33.000m was taken for various lengths of time at various interest rates as shown above.

33. **Rescheduling –** 1 loan of £5m with 11 years remaining at an interest rate of 3.82% was repaid early and replaced with a loan for 11 years at 2.20% producing net annual savings to the Council of £68.000 for the next 11 years.

34. **Summary of Debt Transactions –**The consolidated rate of interest decreased from 4.30% to 3.84% due to the above transactions.

Investment Position

35. **Investment Policy –** the Council's investment policy for 2017/18 is governed by the DCLG Guidance which has been implemented in the annual investment strategy for 2017/18 approved by Council on 23 February 2017.

36. The investment activity during the year conformed to the approved Strategy and the Council had no liquidity difficulties.

37. Investments held by the Council consist of temporary surplus balances, capital receipts and other funds.

Table 6 - Temporary Surplus Cash Balances up to 6 months

	Original Budget 2017/18	Revised Budget 2017/18	Actual 2017/18
Monthly Average level of Investments	**£8.878M**	**£18.500M**	**£20.000M**
Average Rate of Return on Investment	**0.35%**	**0.20%**	**0.31%**
Interest Earned	**£31,000**	**£37,000**	**£61,000**

Table 7a – Longer Term 6 months to 5 years Cash

	Original Budget 2017/18	Revised Budget 2017/18	Actual 2017/18
Monthly Average level of Investments	**0.00**	**£3.800M**	**£4.500M**
Average Rate of Return on Investment	**0.00%**	**0.50%**	**0.53%**
Interest Earned	**0.000**	**£19,000**	**£23,900**

Table 7b – Longer Term 6 months to 5 years - Property Funds

	Original Budget 2017/18	Revised Budget 2017/18	Actual 2017/18
Monthly Average level of Investments	**0.0**	**£15.379M**	**£15.379M.**
Average Rate of Return on Investment (gross)	**0.0**	**3.62%**	**3.72%**
Interest Earned (Gross)	**0.0**	**£557,000**	**£571,600**

Performance and Risk Benchmarking

38. A regulatory development is the consideration and approval of security and liquidity benchmarks. Yield benchmarks are currently widely used to assess investment performance and these are shown in **Table 10**. Discrete security and liquidity benchmarks are relatively new requirements to the member reporting. These were first set in the Treasury Strategy report of the 25th February 2010.

39. The following reports the current position against the benchmarks originally approved.

40. Security – The Council's maximum security risk benchmarks for the current portfolio of investments, when compared to historic default tables was set as follows:

    0.077% historic risk of default when compared to the whole portfolio

41. **Table 8** shows that there has been a reduction in the historic levels of default over the year. This is mainly due to some longer term investments actually being made for shorter terms i.e. up to six months rather than 1 year as these investments were better value than longer term investments and were also a better fit with how the council was expecting to utilise investments. It also shows more emphasis being placed on counterparties with a higher credit rating.

42. The investment portfolio was maintained within this overall benchmark during this year as shown in **Table 8**.

Table 8

Maximum	Benchmark 2017/18	Actual June 2017	Actual October 2017	Actual January 2018	Actual March 2018
Year 1	0.077%	0.013%	0.013%	0.007%	0.007%

43. The counterparties that we use are all high rated therefore our actual risk of default based on the ratings attached to counterparties is virtually nil.

44. Liquidity – In respect of this area the Council set liquidity facilities/benchmark to maintain

    (a) Bank Overdraft £0.100M
    (b) Liquid short term deposits of at least £3.000M available within a weeks' notice.
    (c) Weighted Average Life benchmark is expected to be 146 days with a maximum of 1year.

45. Liquidity arrangements have been adequate for the year to date as shown in Table 9.

Table 9

	Benchmark	**Actual June 2017**	**Actual October 2017**	**Actual January 2018**	**Actual March 2018**
Weighted Average life	**146days to 1 years**	**132 days**	**103 days**	**111 days**	**83days**

46. This benchmark includes fixed term investments are for up to 1 year with cash flow monies being invested in Money Market funds which can be accessed immediately.

47. Yield - In respect of this area performance indicators relating to interest rates for borrowing and investments were set with reference to comparative interest rates. For borrowing, the indicator is the average rate paid during the year compared with the previous year. Investment rates are compared with a representative set of comparative rates.

Table 10 – Performance Compared With Indicators

Borrowing	Average overall rate paid compared to previous years	**2016/17 4.30%**	**2017/18 3.84%**
Investments		**DBC 2016/17**	**DBC 2017/18**
Short term	Cash flow investment rate returned against comparative average rate	0.44%	**0.31%**
Long term	Capital investment rate returned against comparative average rates	0.79%	**0.53%**
Comparative rates used to compare DBC performance: -		**Short Term Investments**	**Long Term Investments**
Comparative Rates			
Overnight Bid Rate Overnight		0.20%	-
London Interbank Bid Rate 7 day		0.22%	-
London Interbank Bid Rate 1 month		0.23%	
London Interbank Bid rate 3 months		0.29%	
London Interbank Bid rate 6 months		-	0.40%
London Interbank Bid rate 12 months		-	0.60%
Average External Comparators		**0.24%**	**0.50%**

48. As can be seen from the table, the actual investment rate achieved for both short and longer term investments exceeds the average of comparative rates.

Risk

49. The Council's treasury management activities are regulated by a variety of professional codes, statutes and guidance:-

    (a) The Local Government Act 2003(the Act), which provides the powers to borrow and invest as well as providing controls and limits on this activity.

    (b) The Act permits the Secretary of State to set limits either on the Council or nationally on all local authorities restricting the amount of borrowing which may be undertaken (although no restrictions were made in 2017/18).

    (c) Statutory Instrument (SI) 3146 2003, as amended, develops the controls and powers within the Act.

    (d) The SI requires the Council to undertake any borrowing activity with regard to the CIFPA Prudential Code for Capital Finance in Local Authorities.

    (e) The SI also requires the Council to operate the overall treasury function with regard to the CIPFA code of Practice for Treasury Management in Public Services.

(f) Under the Act the Department for Communities and Local Government has issued Investment Guidance to structure and regulate the Council's investment activities.

(g) Under section 238(2) of the Local Government and Public Involvement in Health Act 2007 the Secretary of State has taken powers to issue guidance on accounting practices. Guidance on Minimum Revenue Provision was issued under this section on 8 November 2007.

50. The Councils Treasury Management function has complied with all of the relevant statutory and regulatory requirements, which limit the levels of risk associated with its treasury management activities. In particular its adoption and implementation of both the Prudential Code and the code of Practice for Treasury Management means both that its capital expenditure is prudent, affordable and sustainable and its treasury practices demonstrate a low risk approach.

51. Officers of the Council are aware of the risks of passive management of the treasury portfolio and, with the support of Capita Asset Services, the Council's advisers, have proactively managed the debt and investments over the year.

Treasury Management Budget

52. There are three main elements within the Treasury Management Budget :-

(a) Long Term capital investments including Property Funds which earns interest, this comprises of the Council's revenue and capital balances, unused capital receipts, reserves and provisions.

(b) Cash flow interest earned – since becoming a unitary council in 1997, the authority has consistently had positive cash flow. Unlike long term capital investments it does not represent any particular sum but it is the consequence of many different influences such as receipts of grants, the relationship between debtors and creditors, cashing of cheques and payments to suppliers.

(c) Debt servicing costs – This is the principal and interest costs on the Council's long term debt to finance the capital programme.

Table 11 Changes to the Treasury Management Budget 2017/18

	£M	£M
Original Treasury Management Budget		**1.618**
Debt		
Add increased interest payable on debt	**0.106**	
Less further savings on MRP	**-0.133**	
Add additional annual premium on rescheduled debt	**0.002**	**-0.025**
Investments		
Less increased investment income including property funds		**-0.648**
Other Costs		
Add increased brokerage charges due to property funds		**0.073**
Outturn Treasury Management Budget 2017/18		**1.018**

53. The majority of the savings relate to the inclusion and purchase of Property Fund units in the investment portfolio, with the return reduced due to additional interest payments on debt and additional brokerage fees.

Conclusion

54. The Council's treasury management activity during 2017/18 has been carried out in accordance with Council Policy and within legal limits. Financing costs have been reduced during the year and a saving of £0.600M achieved from the original MTFP.

Outcome of Consultation

55. No formal consultation has been undertaken regarding this report, but it was examined by Audit Committee at their meeting on 26 July 2018

APPENDIX 1

Additional Prudential Indicators not reported in the body of the report

		2016/17 Actual	2017/18 Approved Indicator	2017/18 Outturn
1	**Upper limits on fixed interest rates (*against maximum position*)**	**79%**	**100%**	**83%**
2	**Upper limits on variable interest rates (*against maximum position*)**	**21%**	**40%**	**17%**
3	**Maturity structure of fixed rate borrowing (*against maximum position*)**			
	Under 12 months	**5.5%**	**25%**	**17%**
	12 months to 2 years	**7.9%**	**40%**	**3%**
	2 years to 5 years	**3.7%**	**60%**	**10%**
	5 years to 10 years	**1.6%**	**80%**	**5%**
	10 years and above	**81.3%**	**100%**	**65%**
4	**Maximum Principal funds invested greater than 364 days**	**£0M**	**£30M**	**£30M**

APPENDIX 2

The Economy and Interest Rates

1. **UK.** The outcome of the EU referendum in June 2016 resulted in a gloomy outlook and economic forecasts from the Bank of England based around an expectation of a major slowdown in UK GDP growth, particularly during the second half of 2016, which was expected to push back the first increase in Bank Rate for at least three years. Consequently, the Bank responded in August 2016 by cutting Bank Rate by 0.25% to 0.25% and making available over £100bn of cheap financing to the banking sector up to February 2018. Both measures were intended to stimulate growth in the economy. This gloom was overdone as the UK economy turned in a G7 leading growth rate of 1.8% in 2016, (actually joint equal with Germany), and followed it up with another 1.8% in 2017, (although this was a comparatively weak result compared to the US and EZ).

2. During the calendar year of 2017, there was a major shift in expectations in financial markets in terms of how soon Bank Rate would start on a rising trend. After the UK economy surprised on the upside with strong growth in the second half of 2016, growth in 2017 was disappointingly weak in the first half of the year; quarter 1 came in at +0.3% (+1.7% y/y) and quarter 2 was +0.3% (+1.5% y/y), which meant that growth in the first half of 2017 was the slowest for the first half of any year since 2012. The main reason for this was the sharp increase in inflation caused by the devaluation of sterling after the EU referendum, feeding increases into the cost of imports into the economy. This caused a reduction in consumer disposable income and spending power as inflation exceeded average wage increases. Consequently, the services sector of the economy, accounting for around 75% of GDP, saw weak growth as consumers responded by cutting back on their expenditure. However, growth did pick up in quarter 3 to 0.5% before dipping slightly to 0.4% in quarter 4.

3. Consequently, market expectations during the autumn rose significantly that the MPC would be heading in the direction of imminently raising Bank Rate. The MPC meeting of 14 September provided a shock to the markets with a sharp increase in tone in the minutes where the MPC considerably hardened their wording in terms of needing to raise Bank Rate very soon. The 2 November MPC quarterly Inflation Report meeting duly delivered on this warning by withdrawing the 0.25% emergency rate cut which had been implemented in August 2016. Market debate then moved on as to whether this would be a one and done move for maybe a year or more by the MPC, or the first of a series of increases in Bank Rate over the next 2-3 years. The MPC minutes from that meeting were viewed as being dovish, i.e. there was now little pressure to raise rates by much over that time period. In particular, the GDP growth forecasts were pessimistically weak while there was little evidence of building pressure on wage increases despite remarkably low unemployment. The MPC forecast that CPI would peak at about 3.1% and chose to look through that breaching of its 2% target as this was a one off result of the devaluation of sterling caused by the result of the EU referendum. The inflation forecast showed that the MPC expected inflation to come down to near the 2% target over the two to three year time horizon. So this all seemed to add up to cooling expectations of much further action to raise Bank Rate over the next two years.

4. However, GDP growth in the second half of 2017 came in stronger than expected, while in the new year there was evidence that wage increases had started to rise. The 8 February MPC meeting minutes therefore revealed another sharp hardening in MPC warnings focusing on a reduction in spare capacity in the economy, weak increases in productivity, higher GDP growth forecasts and a shift of their time horizon to focus on the 18 – 24 month period for seeing inflation come down to 2%. (CPI inflation ended the year at 2.7% but was forecast to still be just over 2% within two years.) This resulted in a marked increase in expectations that there would be another Bank Rate increase in May 2018 and a bringing forward of the timing of subsequent increases in Bank Rate. This shift in market expectations resulted in investment rates from 3 – 12 months increasing sharply during the spring quarter.

5. **PWLB borrowing rates** increased correspondingly to the above developments with the shorter term rates increasing more sharply than longer term rates. In addition, UK gilts have moved in a relatively narrow band this year, (within 25 bps for much of the year), compared to US treasuries. During the second half of the year, there was a noticeable trend in treasury yields being on a rising trend with the Fed raising rates by 0.25% in June, December and March, making six increases in all from the floor. The effect of these three increases was greater in shorter terms around 5 year, rather than longer term yields.

6. As for equity markets, the FTSE 100 hit a new peak near to 7,800 in early January before there was a sharp selloff in a number of stages during the spring, replicating similar developments in US equity markets.

7. The major UK landmark event of the year was the inconclusive result of the general election on 8 June. However, this had relatively little impact on financial markets. However, sterling did suffer a sharp devaluation against most other currencies, although it has recovered about half of that fall since then. Brexit negotiations have been a focus of much attention and concern during the year but so far, there has been little significant hold up to making progress.

8. The manufacturing sector has been the bright spot in the economy, seeing stronger growth, particularly as a result of increased demand for exports. It has helped that growth in the EU, our main trading partner, has improved significantly over the last year. However, the manufacturing sector only accounts for around 11% of GDP so expansion in this sector has a much more muted effect on the average total GDP growth figure for the UK economy as a whole.

9. **EU.** Economic growth in the EU, (the UK's biggest trading partner), was lack lustre for several years after the financial crisis despite the ECB eventually cutting its main rate to -0.4% and embarking on a massive programme of quantitative easing to stimulate growth. However, growth eventually picked up in 2016 and subsequently gathered further momentum to produce an overall GDP figure for 2017 of 2.3%. Nevertheless, despite providing this massive monetary stimulus, the ECB is still struggling to get inflation up to its 2% target and in March, inflation was still only 1.4%. It is, therefore, unlikely to start an upswing in rates until possibly towards the end of 2019.

10. **USA.** Growth in the American economy was volatile in 2015 and 2016. 2017 followed that path again with quarter 1 at 1.2%, quarter 2 3.1%, quarter 3 3.2% and quarter 4 2.9%. The annual rate of GDP growth for 2017 was 2.3%, up from 1.6% in 2016. Unemployment in the US also fell to the lowest level for 17 years, reaching 4.1% in October to February, while wage inflation pressures, and inflationary pressures in general, have been building. The Fed has been the first major western central bank to start on an upswing in rates with six increases since the first one in December 2015 to lift the central rate to 1.50 – 1.75% in March 2018. There could be a further two or three increases in 2018 as the Fed faces a challenging situation with GDP growth trending upwards at a time when the recent Trump fiscal stimulus is likely to increase growth further, consequently increasing inflationary pressures in an economy which is already operating at near full capacity. In October 2017, the Fed also became the first major western central bank to make a start on unwinding quantitative easing by phasing in a gradual reduction in reinvesting maturing debt.

11. **Chinese economic growth** has been weakening over successive years, despite repeated rounds of central bank stimulus and medium term risks are increasing. Major progress still needs to be made to eliminate excess industrial capacity and the stock of unsold property, and to address the level of non-performing loans in the banking and credit systems.

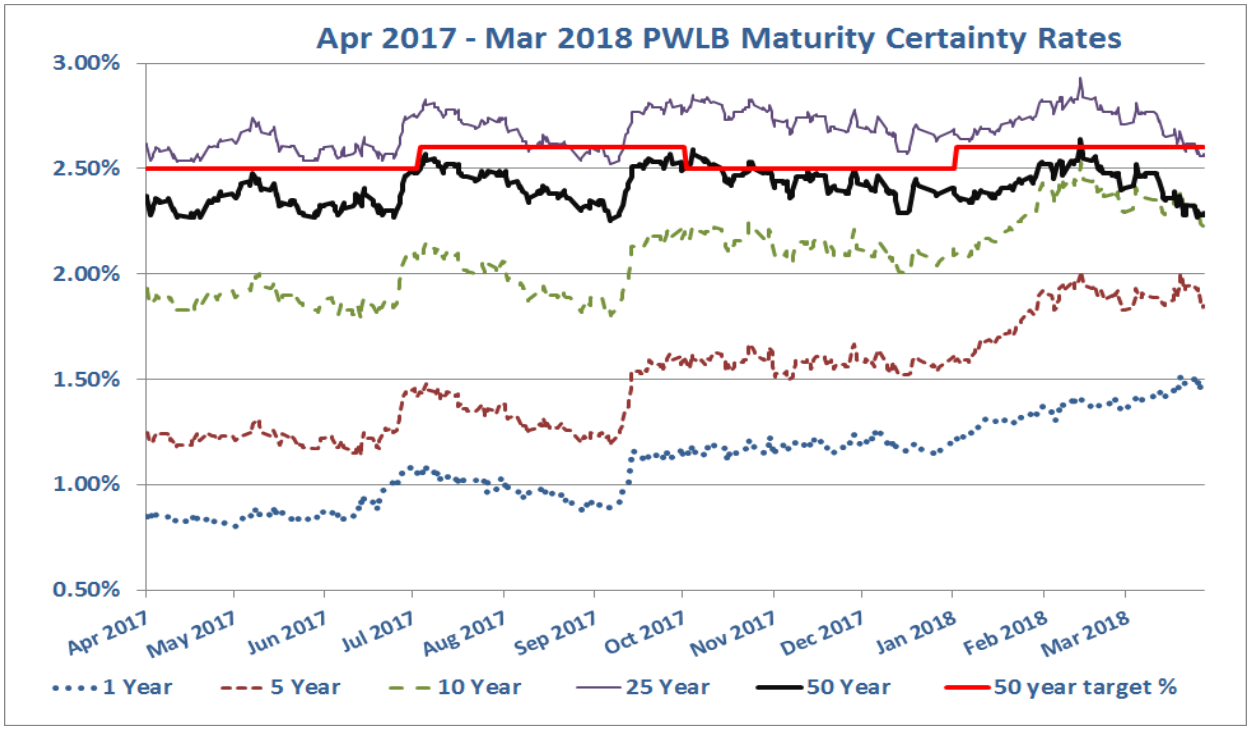
12. **Japan.** GDP growth has been improving to reach an annual figure of 2.1% in quarter 4 of 2017. However, it is still struggling to get inflation up to its target rate of 2% despite huge monetary and fiscal stimulus, although inflation has risen in 2018 to reach 1.5% in February. It is also making little progress on fundamental reform of the economy.

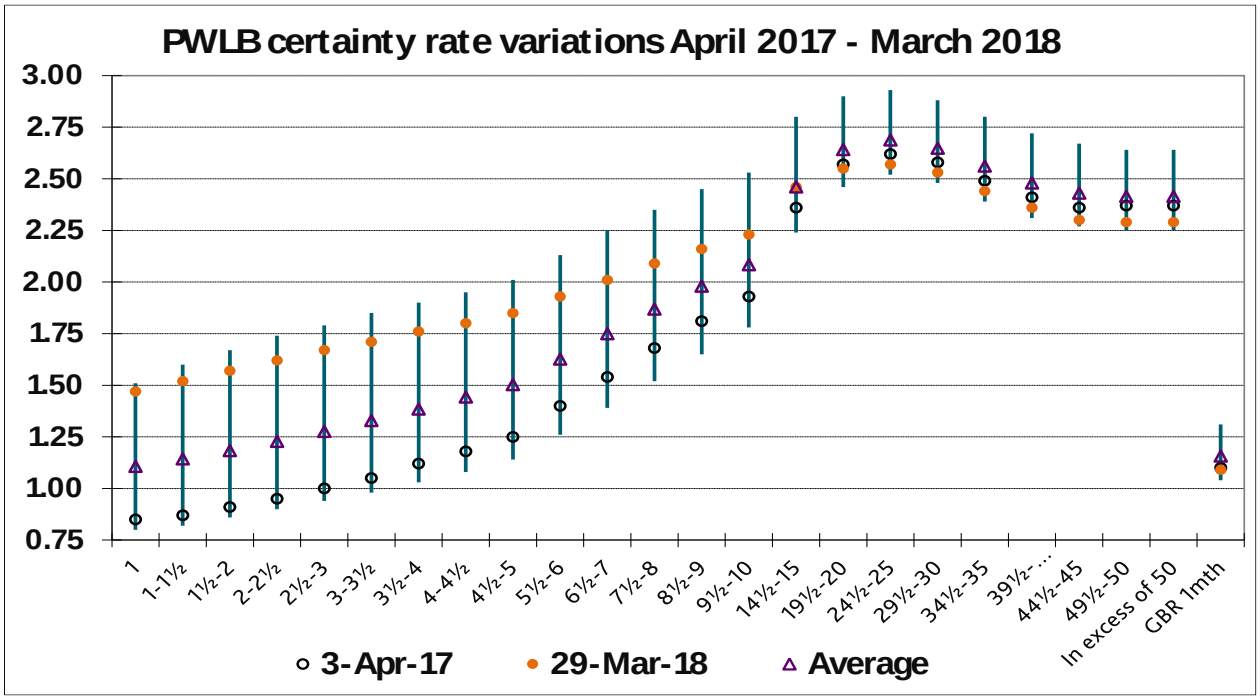
PWLB certainty maturity borrowing rates 2017/18

13. As depicted in the graph and tables below and in appendix 3, PWLB 25 and 50 year rates have been volatile during the year with little consistent trend. However, shorter rates were on a rising trend during the second half of the year and reached peaks in February / March.

14. During the year, the 50 year PWLB target (certainty) rate for new long term borrowing was 2.50% in quarters 1 and 3 and 2.60% in quarters 2 and 4.

15. The graphs and tables for PWLB rates show, for a selection of maturity periods, the average borrowing rates, the high and low points in rates, spreads and individual rates at the start and the end of the financial year.





	1	1-1.5	2.5-3	3.5-4	4.5-5	9.5-10	24.5-25	49.5-50	1 month variable
3/4/17	0.850%	0.870%	1.000%	1.120%	1.250%	1.930%	2.620%	2.370%	1.100%
29/3/18	1.470%	1.520%	1.670%	1.760%	1.850%	2.230%	2.570%	2.290%	1.090%
High	1.510%	1.600%	1.790%	1.900%	2.010%	2.530%	2.930%	2.640%	1.310%
Low	0.800%	0.820%	0.940%	1.030%	1.140%	1.780%	2.520%	2.250%	1.040%
Average	1.107%	1.143%	1.276%	1.384%	1.503%	2.083%	2.688%	2.415%	1.157%
Spread	0.710%	0.780%	0.850%	0.870%	0.870%	0.750%	0.410%	0.390%	0.270%
High date	21/03/2018	21/03/2018	21/03/2018	21/03/2018	15/02/2018	15/02/2018	15/02/2018	15/02/2018	21/03/2018
Low date	03/05/2017	03/05/2017	30/05/2017	15/06/2017	15/06/2017	15/06/2017	08/09/2017	08/09/2017	04/04/2017

	1 Year	5 Year	10 Year	25 Year	50 Year
1/4/17	0.85%	1.25%	1.93%	2.62%	2.37%
31/3/18	1.47%	1.85%	2.23%	2.57%	2.29%
Low	0.80%	1.14%	1.78%	2.52%	2.25%
Date	03/05/2017	15/06/2017	15/06/2017	08/09/2017	08/09/2017
High	1.51%	2.01%	2.53%	2.93%	2.64%
Date	21/03/2018	15/02/2018	15/02/2018	15/02/2018	15/02/2018
Average	1.11%	1.50%	2.08%	2.69%	2.41%

Money market investment rates 2017/18

	7 day	1 month	3 month	6 month	1 year
1/4/17	0.111	0.132	0.212	0.366	0.593
31/3/18	0.364	0.386	0.587	0.704	0.878
High	0.366	0.390	0.587	0.704	0.879
Low	0.099	0.122	0.140	0.273	0.461
Average	0.215	0.233	0.286	0.401	0.606
Spread	0.267	0.268	0.447	0.432	0.418
High date	27/2/18	22/3/18	29/3/18	29/3/18	28/3/18
Low date	4/7/17	10/8/17	7/8/17	7/9/17	6/9/17

Glossary of Terms

Capital Financing Requirement (CFR)	This is the Councils underlying need to borrow which can be traced back to the Councils Balance Sheet and the value of the Councils assets which have yet to be paid for.
Minimum Revenue Provision (MRP)	Monies set aside from the revenue budget to repay accumulated debt.
Call	Investments that can be returned without a period of notice
Counterparty	Institutions, Banks etc. that with make investments or take out loans with.
Specified Investments	Investments in Banks and Building Societies with a high credit rating for periods of less than 1 year
Non-Specified Investments	Investments in un rated Building Societies and any investments in Banks and Building Societies for more than 1 year.
Operational Liquidity	Working Cash flow
Authorised Limit	Maximum amount of borrowing that could be taken in total.
Operational Boundary	The expected amount of borrowing assumed in total.
PWLB	Public Works Loan Board. The Governments lending body to Local Authorities
Discount	Amount payable by the PWLB when loans are repaid if the current loan rate is less than the rate borne by the original debt
Yield Curve	Is a graph that shows the relationship between the interest rate paid and length of time to repayment of a loan.
Gilts	Government Borrowing Bonds
Spreads	The difference between the highest rate of interest and the lowest rate of interest earned/charged on any one particular maturity period i.e. 1 year, 2 year 5 year etc.
LIBID	London Interbank Bid Rate. The average rate at which a bank is willing to borrow from another bank.
LIBOR	London Interbank Offer Rate. The average rate at which a bank is willing to lend to another bank. LIBOR is always higher than the corresponding bid rate and the difference between the two rates is known as the spread.

CABINET
11 SEPTEMBER 2018

ITEM NO. .....

TEES VALLEY WASTE MANAGEMENT STRATEGY

Responsible Cabinet Member -
Councillor Nick Wallis, Leisure and Local Environment Portfolio

Responsible Director -
Ian Williams, Director of Economic Growth and Neighbourhood Services

SUMMARY REPORT

Purpose of the Report

1. To seek approval from Cabinet to enter into consultation on the Joint Waste Management Strategy (JWMS) for the Tees Valley.

Summary

2. The five Tees Valley Local Authorities are currently developing an outline business case for options on the future of waste treatment/disposal post 2025 when existing contractual arrangements come to an end. As part of this process, the JWMS for Tees Valley needs to be reviewed, refreshed and updated to take account of current policy direction. The existing JWMS for the Tees Valley covers the period up to 2025. The Councils have agreed that the new refreshed JWMS will cover the period from 2020 to 2035.

Recommendation

3. It is recommended that :-

   (a) Cabinet endorse the draft JWMS and supporting documents.

   (b) Approve commencing with public consultation from 1 October 2018 for 8 weeks.

Reasons

4. The recommendations are supported to enable the Council to consult on the JWMS.

Ian Williams
Director of Economic Growth and Neighbourhood Services

Background Papers
No background papers were used in the preparation of this report.

Ian Thompson : Extension 6628
CD

S17 Crime and Disorder	The content of this report does not impact on crime and disorder.
Health and Well Being	Effective safe management of waste can have a positive impact on the health and well being of residents.
Carbon Impact	As part of the production of the JWMS, the impact of carbon has been considered and modelled against the various options.
Diversity	There is no impact on diversity as a result of this report.
Wards Affected	There is no impact on any ward particularly as a result of this report, however should collection methods be changed in the future, it would impact on all Wards and all residents.
Groups Affected	No particular group is affected as a result of this report.
Budget and Policy Framework	This is not a change to the budget or policy framework.
Key Decision	No
Urgent Decision	No
One Darlington: Perfectly Placed	Waste management from collection to treatment/disposal has an impact on the Perfectly Placed agenda.
Efficiency	There is no impact on the Council's efficiency agenda as a result of this report.
Impact on Looked After Children and Care Leavers	This report has no impact on Looked After Children or Care Leavers

MAIN REPORT

Information and Analysis

Background

5. The Council entered into a medium term contract with Stonegrave Aggregate in April 2009 for 11 years to run through to March 2020. The contract is for the treatment, recycling and disposal of all local authority waste. The intention at the outset was for the contract to be co-terminus with the other four Tees Valley Authorities who are currently under contract with Suez (formerly SITA) to then give the opportunity for a large-scale procurement post 2020. Since the award of the initial contact, both Darlington and the other four Tees Valley Authorities have extended their contracts to 2025; again remaining co-terminus.

6. In order to plan for the future and place the Tees Valley in the strongest position, the Tees Valley Chief Executives agreed to develop a strategic outline business case to progress options for post 2025. Key to this is providing not only a long-term solution for dealing with waste but also a tangible contribution to local economic growth, turning our waste into opportunity and supporting the circular economy.

7. Underlining the strategic outline business case, the following outcomes of this programme of work were agreed:

   (a) Have a well-developed alternative option to contract extension giving the strong negotiating position in 2025 (with work beginning in 2017/18 in order to have enough development time for credible options).

   (b) Have a well-developed long-term solution and Waste Strategy 2025-2045 and beyond to provide certainty and financial stability for each authority.

   (c) Provide increased benefit from energy output of the Energy for Waste (EFW) where the current contract does not (relevant to the other four Tees Valley Authorities).

   (d) Contribute positively to the local circular economy, for example helping local energy intensive industries or extracting useful materials to be used locally.

   (e) Provide opportunities to increase recycling of our waste.

   (f) Contribute positively to the future regeneration and infrastructure of key development sites.

   (g) Promote jobs and growth.

Delivery of the Outline Business Case

8. One essential element to providing the Outline Business Case (OBC) is to ensure it is consistent with a valid waste management strategy, in this case one that is adopted by all Tees Valley Authorities.

9. The existing JWMS only covers the period up to 2020 and so it needs to be refreshed and updated to take account of current policy direction. The Councils have agreed that the new refreshed JWMS will cover the period from 2020 to 2035.

Joint Waste Management Strategy for Tees Valley

10. The JWMS for the Tees Valley, attached as **Appendix 1**, sets out the Council's approach to the management of local authority collected waste over the period from 2020 to 2035. The strategy will be supported by action plans that will provide the detail of each individual Council's activities at a local level. These will be prepared separately by each individual Council.

11. The strategy document has been developed in conjunction with:

    (a) An options appraisal, attached as **Appendix 2**, which considers a number of different ways to achieve the outcomes in this strategy, and

    (b) A Strategic Environmental Assessment (SEA), attached as **Appendix 3**, which has been carried out to assess if the proposed strategy is likely to have any adverse impact on the environment.

12. A review of existing and proposed policy at local, regional and national level has been carried out to inform the key themes of the JWMS. These were developed and agreed with Members (DBC representative Councillor Carson) and officers at a workshop in March 2018.

13. At the same time, the SEA scoping document was developed to ensure that the environmental issues most important to the Tees Valley area are included in the SEA.

14. The SEA scoping document was then subsequently sent out to the statutory consultees during June and July, and any responses received have been taken into account in the drafting of the SEA report that will accompany the JWMS for public consultation.

15. A second workshop was then held in May 2018 with officers to agree the evaluation criteria by which the strategy options were to be assessed together with weighting/prioritisation. This built on the earlier discussions with Members and officers at the March workshop. This process has now been completed and an options appraisal report produced.

16. The key stages in the options appraisal process have included:

    (a) Firstly developing the waste strategy objectives through workshop sessions with officers and Elected Members from each of the representative Councils that included identifying key issues/drivers for the strategy and by considering the policy and legislative context.

    (b) Identifying options for delivery of waste strategy objectives.

    (c) Agreed the options appraisal process, i.e. the assessment method scoring of evaluation criteria and weighting of the evaluation criteria.

    (d) Undertaking a detailed appraisal of each of the options based on the agreed evaluation criteria to help identify a preferred option.

17. The options considered were:

    (a) Do nothing

    (b) Residual waste solutions

        (i) Further contract extensions
        (ii) New built energy recovery facility
        (iii) New built refuse derived fuel facility
        (iv) Utilising third party energy recovery facility capacity

    (c) Collection solutions

        (i) High efficiency
        (ii) Higher recycling performance
        (iii) Prevention, reuse and recycling initiatives
        (iv) Combination of options

18. The preferred option selected was:

    (a) The adoption of prevention, reuse and recycling initiatives

    (b) The introduction of higher recycling performance collection

    (c) A new energy recovery facility with the ability to utilise the heat produced through the development of combined heat and power facility.

19. It should be noted that the options are consistent with the existing JWMS.

20. The JWMS together with the reporting options appraisal and SEA form the basis of consultation.

21. Essentially the new JWMS is an update version of the previous strategy. This strategy sets out the approach to the sustainable management of waste within the Tees Valley and the priorities for action over the next 15 years. It provides a framework for how the Councils will work towards reducing the amount of waste produced to recycle as much material as possible and find the most sustainable solution to deal with any waste that remains.

Tees Valley Vision for the Future – Sustainable Waste Management

22. The Tees Valley JWMS was built on the aims and objectives of the existing strategy and developed in conjunction with Members and officers. It aims to deliver:

    A high quality, accessible and affordable waste management service that contributes to:

(i) Economic regeneration including employment and a more circular economy

(ii) The protection of the environment and natural resources

(iii) Reducing the carbon impact of waste management

(iv) Delivers customer satisfaction

(v) Reduces the amount of waste generated by households in the Councils

(vi) Increases reuse and recycling

(vii) Maximises recovery of waste

(viii) Works towards zero waste to landfill

23. The Tees Valley Authorities work in partnership and are committed to work towards this vision for waste management and support the necessary changes in behaviour and practice to make this happen, whilst at the same time balancing financial commitments and budgets, and delivering a high quality service, supporting local self-sufficiency.

Timescales

24. The timescales associated with developing a new treatment option to replace the current arrangements across Tees Valley are such that it is essential that the public consultation commences on the draft JWMS on 1 October 2018 for an 8-week period to allow subsequent steps in the process to proceed.

Financial Implications

25. The Tees Valley Authorities outline business case for waste treatment and disposal 2025 is being funded by the Combined Authority.

26. Following the completion of the OBC towards the end of this year/early next year and dependent on the outcome, a further report will be brought to Cabinet with regard to the financial implications for the next stages of the process, which will include the requirement to move to a procurement project for a waste management solution for the Tees Valley post 2025.

Consultation

27. The draft JWMS consultation will take place from 1 October 2018 for an 8-week period with documents being available on the Council's website where comments can be posted. In addition, there will be a stakeholder session organised for interested organisations within the waste industry. Feedback from the public across the Tees Valley and industry will inform the final JWMS.

Draft Tees Valley Joint Waste Management Strategy for consultation

2020 to 2035

Contents

Introduction

This document is the Joint Waste Management Strategy for Tees Valley. It has been produced by the five local councils that comprise Tees Valley: Darlington Borough Council, Hartlepool Borough Council, Middlesbrough Council, Redcar and Cleveland Borough Council, and Stockton-on-Tees Borough Council.

The strategy sets out the joint approach to the sustainable management of waste within the Tees Valley and prioritises actions for the next fifteen years. It provides the framework for how the councils will work towards reducing the amount of waste produced, to recycle as much material as possible and find the most sustainable solution to deal with any waste that remains.

In recent years the amount of waste produced in Tees Valley has remained relatively constant and the amount of waste sent to landfill has reduced. However, there has been no increase in the amount of waste recycled. Currently only 34% of the household waste produced is recycled. So, there is still much more to be done before recycling becomes second nature and the amount of waste everybody produces each year falls.

Policy Context

The way that waste is managed in Tees Valley has been shaped by both National and European policies that has evolved over time setting out targets for recycling, limits on landfill, and encouraging activity around waste prevention.

The UK's decision to leave the European Union does create a degree of uncertainty over the future development and implementation of environmental policy and legislation, particularly over the next few years.

However, the 25-Year Environment Plan published by Defra in January 2018 makes a number of statements with regards to future environmental policy and legislation

In the Foreword, the Prime Minister states:

> '*When the United Kingdom leaves the European Union, control of important areas of environmental policy will return to these shores. We will use this opportunity to strengthen and enhance the protections that our countryside, rivers, coastline and wildlife habitats enjoy, and develop new methods of agricultural and fisheries support which put the environment first*.'

Further, in Section 2 on 'Putting the Plan into practice', it states:

> '*The Plan coincides with the once-in-a-generation opportunity presented by our leaving the EU. We will make the most of the chance to improve our environmental policy framework, align it with the ambitious goals we have set, and lead from the front in pursuit of higher standards across the world.*

The European Union (Withdrawal) Bill will ensure that the body of existing EU law, including environmental law, continues to hold sway in the UK. Key underlying principles of existing policy, such as the 'polluter pays' principle and the precautionary principle, are reflected in this legislation and in the historic judgements of the European Court, also covered by the Bill.

We will be consulting on the development of a policy statement on environmental principles to underpin policy-making post-EU Exit. This will provide maximum certainty about environmental regulations as we leave the EU.'

In addition, with regards to minimising waste, the 25-Year Plan makes the commitment:

'*meeting all existing waste targets*[1] *– including those on landfill, reuse and recycling – and developing ambitious new future targets and milestones*'.

A new Resources and Waste Strategy is expected to be published by Defra before the end of 2018. Defra's stated ambition is for the UK to '*become a world leader in resource efficiency, resource productivity and increasing competitiveness'*.

This strategy and current national policy are based on the principle of the waste hierarchy (Figure 1). The waste hierarchy is an important approach in waste management and it presents a number of waste management stages in their order of priority. It stresses the importance of preventing waste being created in the first instance as the main priority and disposal as the lowest priority option. Producing recyclable material of a high quality is also important so that further treatment and disposal is minimised.

Alongside the waste hierarchy is the concept of the circular economy (Figure 2), in which:

- resources are kept in use for as long as possible;
- the maximum value is extracted from them whilst in use;
- products and materials are recovered and regenerated at the end of each service life.

Figure 1 Waste hierarchy

[1] EU targets as well as UK

Figure 2 ***Tees Valley Strategic Economic Plan 2016 – 2026*** *(Tees Valley Combined Authority)*

To support the delivery of a circular economy the following targets have been agreed in Europe, which the UK are expected to adopt:

- 55% recycling target for municipal waste[2] by 2025
- 60% recycling target for municipal waste by 2030
- 65% recycling target for municipal waste by 2035
- 10% limit on the landfilling of municipal waste by 2035

[2] Municipal waste consists of the wastes collected and managed by local authorities (known as Local Authority Collected Waste (LACW)) and similar commercial and industrial wastes.

How our Strategy has been developed/evolved

In 2008 the Tees Valley councils produced a joint strategy for the wastes collected and managed by the councils. The principles of the 2008 strategy were:

- to reduce waste generation;
- to be achievable and affordable;
- to work towards zero landfill;
- to minimise the impact on climate change;
- to have an accountable and deliverable structure;
- to contribute towards economic regeneration.

This document considers the work that has been undertaken since the original JWMS was published in 2008 and reviews current performance. It also sets out the strategic objectives that are important to Tees Valley going forward and how it is proposed to support the changes required to meet these objectives.

This Strategy Document

This document covers the period from 2020 to 2035 and sets out Tees Valleys approach to the management of Local Authority Collected Waste (LACW) over this timeframe. The strategy will

subsequently be supported by action plans for each council, which provide detail of individual activities at a local level.

It is intended to review the strategy on a five-yearly basis.

This strategy document has been developed alongside and supported by:

- an Options Appraisal which considers a number of different ways to achieve the objectives in this strategy; and
- A Strategic Environmental Assessment (SEA), which has been carried out to determine if the activities that are proposed to progress in Tees Valley are likely to have any significant adverse impact on the environment.

Waste Management in Tees Valley

Tees Valley

Tees Valley covers an area of 790 km^2 hectares and has a rich industrial heritage with an economy based around key sectors including advanced manufacturing and engineering, aerospace, automotive, chemicals and processing and offshore oil and gas.

The population of the area is approximately 670,000, averaging 2.3 inhabitants per household, with much of the population centred around the River Tees and Teesmouth.

As with many areas that had a strong historic industrial heritage, there is a high level of deprivation amongst the population, which the Tees Valley Councils and the Tees Valley Combined Authority are working to overcome. It is well known that this situation also presents challenges for the provision and operation of efficient waste management services in particular waste avoidance and high recycling rates.

Council Waste Services

Waste collection services are provided by each local authority through in house services teams.

Kerbside Collections

All councils offer a fortnightly dry recycling collection service, the principal materials collected are paper, card, cans, glass, and plastic bottles. Some councils also collecting plastic tubs, pots and trays and drinks cartons. These materials are either sorted at the kerbside or at a Materials Recovery Facility (MRF) and then sent to a variety of end markets for sale or further reprocessing.

Refuse is collected weekly in Middlesbrough and Stockton-on-Tees and fortnightly in Darlington, Hartlepool and Redcar and Cleveland.

Garden waste is collected free of charge fortnightly by all authorities, with the exception of Darlington where no service is currently provided.

None of the authorities collect food waste, either mixed with the garden waste or separately as a dedicated service, it remains in the residual waste.

Bulky Collections and Trade Waste[3]

All Councils offer a charged bulky household waste collection for larger household items

Four of the five Tees Valley local authorities provide a trade waste service. In Middlesbrough businesses are directed to use suitable contracted services.

Household Waste Recycling Centres (HWRCs)

HWRCs are sites to which residents can take items that cannot be collected as they are either difficult or costly to collect from

[3]Waste collected by the councils from commercial properties

households, e.g. electrical items, household chemicals, furniture and rubble. There are currently four HWRCs across the Tees Valley, where residents can take household waste to be re-used, recycled or disposed of. Residents from each council have access to the HWRC in their home council area, with the exception of Middlesbrough where residents have access to the Haverton Hill HWRC (in Stockton-on-Tees), which is jointly managed by Middlesbrough and Stockton-on-Tees Councils.

A variety of materials are accepted for recycling at all of the HWRCs including wood, oil, batteries, paper, card, metals, textiles, glass, furniture, plastic bottles, garden waste and electrical equipment.

Treatment and Disposal

With the exception of Darlington, household residual waste is treated through an Energy from Waste (EfW) combustion facility at Billingham in Stockton-on-Tees. The residual waste collected from Darlington is currently treated through a residual waste MRF at Aycliffe Quarry, from where the Refuse Derived Fuel (RDF) produced is exported to an EU based EfW facility.

How much waste is produced in Tees Valley?

In 2016/2017 just over 350,000 tonnes of LACW was produced across Tees Valley. This tonnage is equivalent to approximately 1 tonne per household per annum (in 2016/17).

A summary of the total arisings in the Tees Valley is shown in **Error! Reference source not found.**, this covers the last 7 years and is colour coded by each Council's contribution to total arisings. The actual tonnage data are provided in the Annex.

In addition to the waste collected by local authorities there remains a significant proportion of waste that is generated by commercial and industrial, construction and demolition activities, which is managed by private waste contractors. This is not dealt with by local authorities' and is therefore not a focus of this strategy document.

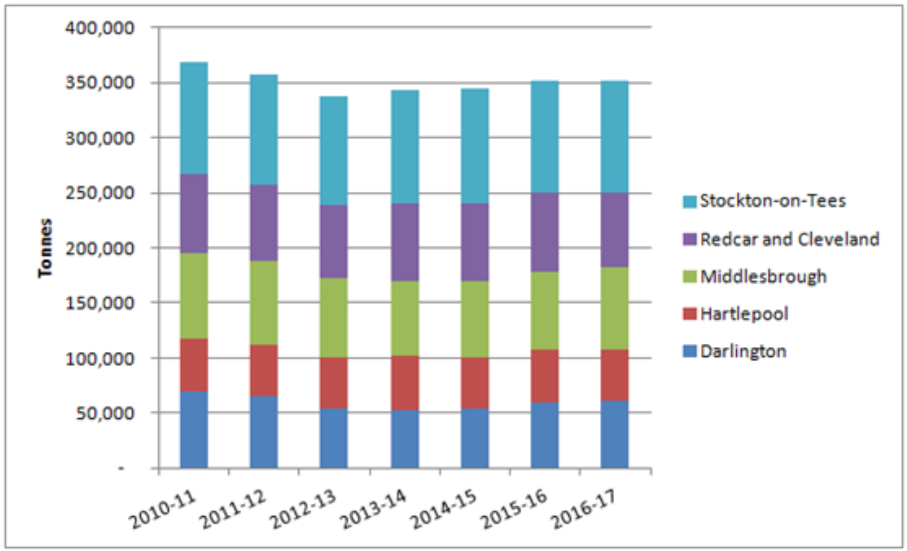


Figure 3 Total LACW produced in the Tees Valley 2010-11 to 2016-17

Waste Trends

The amount of waste produced in 2016/17 can be compared with the tonnage produced since 2010/11. The tonnage data shows a decline up to 2012/13 followed by a steady increase back to the 2010/11 figure. Over this time waste trends have tended to mirror patterns of economic decline and growth.

There are, however, other factors that influenced these figures including housing growth, local authority waste prevention activities and weather conditions (which has an impact on the amounts of garden waste produced). Overall since 2012/13, at the Tees Valley level, the waste produced per household has remained relatively static just below 1 tonne per household per year. At the individual council level, Darlington, Hartlepool and Stockton-on-Tees have seen small deceases whilst Middlesbrough and Redcar and Cleveland experiencing small increases.

Looking forward, across all the council areas population and housing is predicted to increase to 2035. These predicted increases in population and housing means that more waste is likely to be generated across the Tees Valley area, which will also need to be managed.

A range of waste growth scenarios have been considered based on local and national trends. The resulting waste forecasts indicate that between 373,000 to 399,00 tonnes of LACW (Figure 4) will be produced by 2035 compared to the 352,000 tonnes produced in 2016/17. If the economic regeneration planned by the Tees Valley Combined Authority is realised, this could increase population and housing further resulting in between 392,00 to 420,00 tonnes of LACW by 2035.

For the purposes of waste strategy planning it has been assumed that the future waste growth rate will be approximately 0.25% per annum.

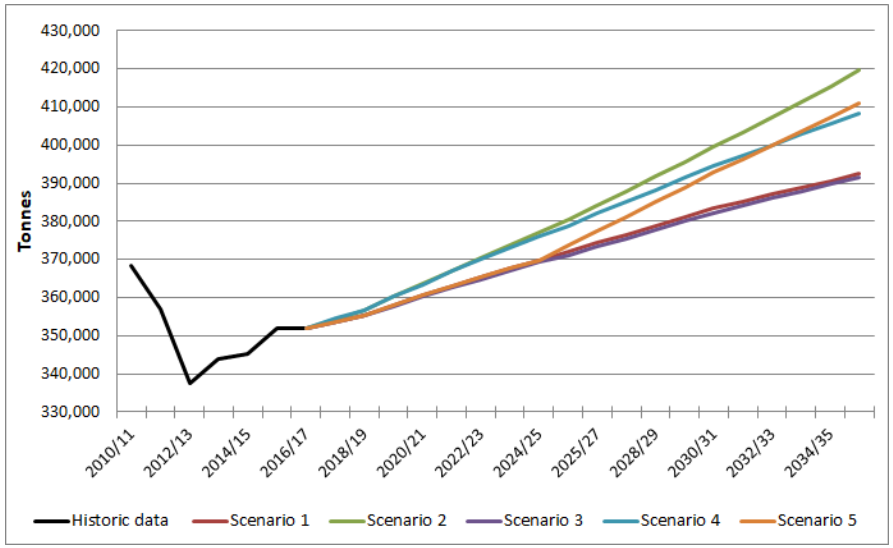


Figure 4 Range of forecast tonnages up to 2035

Recycling and Composting Performance

Over the last seven years there has been little change in the quantity of material collected for recycling and composting across Tees Valley. In 2016/17, the combined household waste recycling rate for the Tees Valley Councils was 34%.

Figure 5 shows the household recycling rates between 2010/11 and 2016/17 for England, the North East region and the combined rate for the Tees Valley Councils. The figure highlights that whilst the performance in Tees Valley is below the national average, the trend is consistent with national performance with household recycling rates remaining relatively static.

In addition, the household recycling rates in Tees Valley are comparable with those achieved across the North East region.

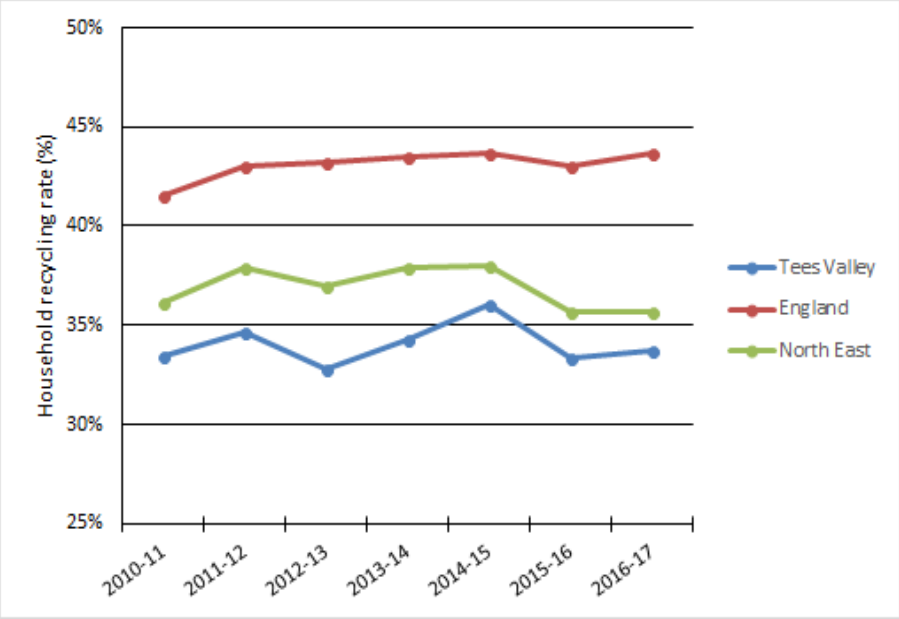


Figure 5 Household recycling rates for Tees Valley, England and the North East region

Treatment and Disposal Performance

Whilst recycling performance has not changed over recent years, there has been a notable improvement in the recovery of LACW and its diversion from landfill.

Figure 6 shows that since 2010/11 there has been:

- a 13% increase in the amount of waste recovered through energy recovery;
- a 10% reduction in the amount of waste sent to landfill

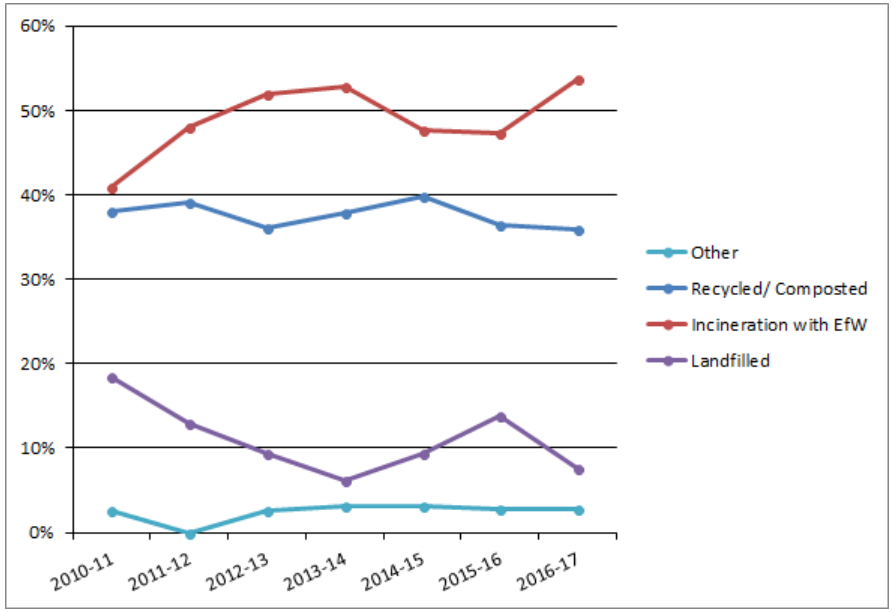


Figure 6 Tees Valley LACW Management Methods 2010/11 to 2016/17

Our Vision for the Future – Sustainable Waste Management

The Tees Valley Joint Waste Management Strategy aims to deliver a high quality, accessible and affordable waste management service that contributes to:

- economic regeneration, including employment and a more circular economy;
- the protection of the environment and natural resources; and
- reducing the carbon impact of waste management.

and:

- delivers customer satisfaction;
- reduces the amount of waste generated by householders and the Councils;
- increases reuse and recycling;
- then maximises recovery of waste, and;
- works towards zero waste to landfill.

The Tees Valley Councils, acting in partnership, are committed to working towards this vision for waste management. This includes supporting the necessary changes in behaviour and practice whilst at the same time balancing financial commitments and budgets to provide a high-quality service supporting local self-sufficiency.

Strategy Objectives

Over the period of the strategy the Tees Valley Councils will seek to achieve the following objectives, always recognising the challenges of delivering increasing levels of high quality recycling efficiently and economically and support from central Government:

Waste generation:

- Aim to maintain the current level of below 1 tonne of household waste per household.

Reuse and recycling:

Increase reuse, recycling and composting of household waste from the current levels to:

- 45% to 50% in the first five year of this strategy (2020 to 2025);
- between 2025 and 2030 seek to further improve reuse, recycling and composting beyond the 2025 levels;
- set targets for beyond 2030 during the strategy review in 2025.

Waste recovery and landfill diversion:

- provide sufficient waste recovery capacity to ensure that no more than 10% of LACW waste is landfilled.

How Do We Achieve the Strategy Vision?

To achieve the strategy for waste management in Tees Valley all parties and stakeholders will need to work together; this means all residents participating and contributing, supported by initiatives from the Tees Valley Councils. There are many different actions that can be taken to support the strategy and produce a visible change. Education will be key in changing attitudes and behaviour and thus improving performance against the objectives and targets.

A wide range of options across the waste hierarchy have been considered, with different combination of the following options being testing through an options appraisal.

Waste Prevention, Reuse and Recycling Options

Raising waste awareness and education campaigns	Various campaigns designed to raise awareness and increase participation in waste prevention and reuse activities, including: ▪ general education and waste prevention initiatives; ▪ general reuse initiatives ▪ Love Food Hate Waste ▪ Junk Mail ▪ promoting smart shopping practices
Home Composting / Digestion	Promote home composting (or anaerobic digestion) to reduce the demand on collection services and treatment capacity
Reuse at HWRCs	Install facilities at HWRCs that allow members of the public to leave and collect items such as furniture, including awareness and promotional campaigns of the service.
Bulky Collection Reuse	Sorting of bulky waste collections to extract reusable goods with a view to refurbishment, reuse and resale, including awareness and promotional campaigns.

Recycling and Composting Collection Options

High efficiency scenario	Which would look at increasing dry recycling performance, through a reduction in residual waste collection capacity and introducing a charge for garden waste services
High recycling performance scenario	Which would look at increasing dry recycling performance through introducing separate food waste collections, reducing residual waste collection capacity and introducing a charge for garden waste services

Alongside these primary options:

Bulky Waste Recycling	Sorting of bulky waste collections to extract recyclable goods in order to improve recycling performance, including awareness and promotional campaigns of the services provided.
Quality: Reducing contamination in recycling/composting	Stronger engagement with residents to increase public understanding of the issues associated with contamination of recycling/composting collections to deliver behaviour change. Combined with tighter management of contamination across all Tees Valley councils.

Residual Waste Treatment Options

The primary waste treatment option at the Tees Valley level:

- Further contract extension (beyond 2025) for the existing EfW contract
- New build energy recovery facility
- New build refuse derived fuel facility (RDF)
- Utilise third party energy recovery facility capacity

Options Appraisal

Twenty combinations of these options were considered against the following criteria:

- Delivers an accessible service with engagement and customer satisfaction
- Reduces the amount of waste generated by householder and managed by the Councils from baseline forecast
- Increases reuse and recycling
- Maximises recovery of waste
- Working towards zero waste to landfill
- Economic regeneration, including employment and a more circular economy
- Protection of the environment and natural resources
- Reducing the carbon impact of waste management
- Affordable (long term measure)
- Deliverability

Full details of the assessment are included in the Options Appraisal Report.

The Preferred Option

The Options Appraisal process identified the following preferred option:

- adoption of prevention, reuse and recycling initiatives;
- the introduction of high recycling collections including separate food waste collections; and
- a new energy recovery facility with the ability to utilise the heat produced, through the development of Combined Heat and Power (CHP).

The Preferred Option would:

- Contribute to reducing the amount of waste generated compared to the baseline forecast;
- Increase the recycling and composting rate by 13-14% by the midpoint of the Strategy period (2027) to bring the overall recycling and composting rate to between 45-50%. This is a significant improvement on the current performance and reflects the challenges faced in an urban industrial setting;
- Further increase the recovery of waste by 3-4%;
- Further reduce the waste sent to landfill;
- Reduce the carbon impact of waste management; and
- Create/secure employment within Tees Valley.

Delivering the Preferred Option

The 2008 JWMS set out a series of policies to support the implementation of the strategy. These existing policies are still valid and consistent with the refreshed strategy aims and objectives.

Therefore, the existing policies are to be retained to help each Council develop local solutions against a consistent policy framework.

Policy 1: Joint Working

We will continue to work together in partnership with other stakeholders in order to ensure sustainable waste management within the Tees Valley to protect the natural environment. We will strive for sub-regional self-sufficiency and be mindful of the proximity principle.

Policy 2: Sustainable Waste Management

We will ensure that the services delivered by the Tees Valley Authorities implement methods of sustainable waste management in line with the Waste Hierarchy.

Policy 3: Waste Awareness and Prevention

We will work with partners to promote waste awareness and prevention and encourage householders, schools and local businesses to reduce the impact of their behaviour with regards to their waste stream.

Policy 4: Waste Collections

We will increase the proportion of material that is collected for recycling and composting through kerbside schemes, bring sites and HWRCs.

Policy 5: Waste Treatment Facilities

We will maximise the amount of material that is recycled, composted or recovered from the residual waste stream.

Policy 6: Residual Waste Stream

We will minimise the amount of waste that is disposed of in line with our principle of working towards zero waste to landfill.

Policy 7: Monitoring and Review

We will regularly monitor and review this Strategy in consultation with stakeholders and the public to ensure that it links with other plans and strategies.

Next Steps

This overarching Strategy document provides a framework for action in Tees Valley.

Following the adoption of the overarching Strategy, each of the Tees Valley Councils will develop an individual action plan to tailor the delivery of the preferred option to complement their current services and reflect their specific local circumstances and operations.

Measuring Success

There are several ways in which success can be measured and progress against the strategy can be determined.

The performance of the JWMS will be monitored against the following performance measures.

Performance measures	**Unit/metric**
Waste generation:	Waste generated per household per year
Reuse and recycling	% of waste recycled per year
Waste recovery and landfill diversion	% of waste landfilled per year

The Strategy will be reviewed every five years. Progress on delivery of this Strategy will be regularly reported.

Glossary of Terms

AD	Anaerobic Digestion
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
CH_4	Methane
CHP	Combined Heat and Power
CO_2	Carbon dioxide
DCLG	Department of Communities and Local Government
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
EU ETS	EU Emission Trading System
TVJWMS	Tees Valley Joint Municipal Waste Management Strategy
GHG	Greenhouse Gases
GWP	Global Warming Potential
HPA	Health Protection Agency
HWRC	Household Waste Recycling Centre
JWMS	Joint Municipal Waste Management Strategy
LACW	Local Authority Collected Waste
LATS	Landfill Allowance Trading Scheme
MRF	Materials Recovery Facility
N_2O	Nitrous Oxide
PO_4	Phosphates
RDF	Refuse Derived Fuel
SEA	Strategic Environmental Assessment
SO_2	Sulphur Dioxide
SPA's	Special Protection Area's
SPZ's	Source Protection Zones
SSSI	Site of Special Scientific Interest
WEEE	Waste Electrical and Electronic Equipment
WRAP	Waste and Resources Action Programme
WRATE	Waste and Resources Assessment Tool for the Environment

Annex: Waste Management Data

Total LACW arisings in the Tees Valley 2010-11 to 2016-17

Authority	Tonnes of LACW						
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Darlington	68,880	65,009	53,809	53,215	54,255	60,221	61,115
Hartlepool	48,995	46,951	46,456	48,394	46,985	46,914	46,524
Middlesbrough	76,858	75,417	71,817	68,235	67,888	71,364	74,399
Redcar and Cleveland	71,715	69,537	66,462	70,384	71,804	70,995	67,612
Stockton-on-Tees	101,997	99,983	99,121	103,582	104,218	102,613	102,466
Tees Valley	368,444	356,897	337,664	343,809	345,150	352,107	352,116
Source: Department for Environment, Food & Rural Affairs							

Management of LACW in the Tees Valley 2010-11 to 2016-17

Authority	Management of LACW (tonnes and %)[3]						
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Recycled/ Composted	138,616 38%	139,754 39%	121,598 36%	130,009 38%	137,252 40%	127,986 36%	126,369 36%
Incineration with EfW	149,359 41%	171,063 48%	175,456 52%	181,777 53%	164,675 48%	166,280 47%	188,870 54%
Incineration without EfW	7 0%	8 0%	5 0%	5 0%	6 0%	24 0%	5 0%
Landfilled	67,056 18%	46,078 13%	31,560 9%	21,116 6%	32,514 9%	48,331 14%	26,956 8%
Other[1]	9,699 3%	- 0%	9,037 3%	10,904 3%	10,706 3%	9,482 3%	9,909 3%
Total[2]	364,737	356,902	337,656	343,811	345,151	352,103	352,108

Notes:

1. Other includes waste treated/disposed through other unspecified treatment processes as well as process and moisture loss.
2. Total Local Authority collected waste managed may not match total Local Authority collected waste arisings due to stockpiling of waste between reporting periods.
3. Inputs to intermediate plants e.g. MBT, Residual MRFs, RDF and other plants prior to treatment and disposal and included in the final treatment and disposal figures.

Source: Department for Environment, Food & Rural Affairs

Options Appraisal Report

To inform the development of the Joint Municipal Waste Strategy

1 Introduction

The current Tees Valley Joint Waste Management Strategy (JWMS) was developed to cover the period between 2008 until 2020. Since then there have been developments and changes to waste management policy that means that the existing strategy needs revision. This document refreshes the previous JWMS and extends it until 2035 with particular regard to:

- moving waste up the waste hierarchy of options through prevention, reuse, recycling and composting activities; and
- the identification of a long-term residual waste treatment solution for the region.

This work is supported by a series of supplementary reports that provide technical waste management information and discuss in further detail the considerations used in the preparation of the Strategy. This Options Assessment Report is one of the supporting documents and describes the options appraisal process undertaken by the Tees Valley Councils which resulted in the selection of a draft Preferred Option.

1.1 Options Assessment Process

Key stages in the options appraisal process have included:

- developing the waste strategy objectives, through workshop sessions with officers and members from each of the representative Councils, including the identification of the key issues and drivers for the strategy by reference to existing and proposed policy and legislation.
- identifying options for delivering the waste strategy objectives with input from officers and members.
- agreeing the options appraisal process, i.e. the assessment method, scoring of evaluation criteria, weighting of evaluation criteria;
- development of a waste flow model for the Tees Valley area which enables forecasts of future waste flows and types, and costs (described in Appendix 3)
- undertaking a detailed appraisal of each of the options based on the agreed evaluation criteria to help identify a draft Preferred Option.

2 Waste Strategy Objectives

2.1 Historical perspective

The 2008 JWMS had six key principles:

- to reduce waste generation
- to work towards zero landfill
- to be achievable and affordable
- to have an accountable and deliverable structure
- to minimise the impact on climate change
- to contribute towards economic regeneration

There was also a number of additional policy commitments including; managing waste in line with the waste hierarchy, maximising the amount of material that is recycled, composted or recovered from the residual waste stream and minimising the amount of waste sent to landfill.

2.2 Policy Driver Developments

The first step in reviewing and refreshing the waste strategy objectives was the identification of key policy drivers and related objectives within other relevant strategies and plans. This provided the means to establish an initial set of potential strategic outcomes and allowed the outcomes to be compared to the current position. This information was also used as part of the Strategic Environmental Assessment (SEA[1]).

The initial identification of policy drivers involved a desk-based assessment and review of current policy and strategy impacting on the way that waste is managed and is likely to be managed in Tees Valley up to 2035. This was carried out at an EU, national and local level and covered strategic waste management, planning policy, climate change and low carbon initiatives, e.g. Clean Growth Strategy, the Industrial Strategy White Paper, the Tees Valley Strategic Economic Plan 2016-2026.

Other key proposals and consultations relating to future policy and legislative change that may impact on waste management policy and decision making were also reviewed. Such documents included Defra's 25-Year Environment Plan and the European Circular Economy Package.

The policy documents were reviewed and analysed for common issues resulting in the identification of a list of thirty policy and strategy themes related to waste management. The detailed review is provided in Appendix 1 of the Environmental Report prepared for the SEA.

As a number of the themes overlapped or used different terminology to describe the same purpose the themes were rationalised to provide a consolidated list of themes for consideration as part of developing the revised JWMS. The consolidated list of themes together with a commentary is provided in Table 2.1.

[1] All central and local Government plans and strategies that can have a significant effect on the environment are required to be assessed regarding how they contribute to Sustainable Development. An assessment of how a strategy meets the aims of Sustainable Development can be delivered through an approach known as a Strategic Environmental Assessment.

Table 2.1: Consolidated list of themes for the consideration in the revised JWMS

Key Themes	Comments
Waste prevention	Whilst these themes could be combined under the theme of the waste hierarchy, within a JWMS it is important that they are considered as individual themes. The elements of waste hierarchy will also contribute to renewable energy generation and the emerging theme of zero avoidable waste.
Reuse, recycling and composting	
Energy recovery from waste	
Landfill diversion	
Reducing the carbon impact of waste management	Covering climate change and including carbon / greenhouse gas emissions, low carbon economy, reducing transport impacts.
Affordability	Including value for money and the potential for delivering cost savings.
Circular economy	Encompassing resource efficiency / productivity, industrial symbiosis, developing markets for recyclable materials and sustainable procurement as a means of completing the circle.
Limiting environmental impacts and harm to human health	Including environmental protection, sustainable communities.
Reducing fly-tipping and litter	Encompassing the quality of the local amenity and contributing to green infrastructure
Managing the impact of food waste	Two very topical themes, which could be considered under different elements of the waste hierarchy but could be specific themes within the JWMS.
Managing the impact of plastic wastes	
Management of all municipal waste	With the emergence of municipal waste, targets cover commercial wastes similar in nature to household waste.
Raising waste awareness and education	On-going behaviour change.

These themes were subsequently explored at a Members and Officers Workshop which resulted in the addition of three additional themes:

- Economic regeneration and job creation: These are a priority in Tees Valley; and whilst the circular economy theme incorporates an element of resource efficiency and economic benefit, ‘economic regeneration and job creation’ should be included as a standalone theme.

- Income generation: The potential to generate income from waste management activities is an important consideration for Tees Valley and needs to be considered in the themes. It was agreed that it was not a specific theme in its own right but formed an important element of ‘Affordability’ as options that can provide an income will contribute to the overall affordability of any solution.

- Service Quality and Customer Satisfaction: Whilst the themes identified covered the key policy areas, it was highlighted that a key priority for the Councils is to provide a high-quality

service that encourages all residents to participate in recycling activities whilst delivering customer satisfaction. Therefore 'Service Quality / Customer Satisfaction' was added as a separate theme.

Future recycling targets and objectives were also discussed at the Workshop in order to determine the level of ambition and commitment to recycling, by the Councils, as part of the development of the revised JWMS. It was accepted that the level of recycling and composting achieved by the Councils would be largely dependent on a combination of the collection systems offered by each Council, education and enforcement over time. This is turn would determine the quantity of residual waste requiring treatment post 2025.

In this context, the ability of the Councils to achieve the recently agreed EU Circular Economy targets of 55% recycling by 2025, 60% recycling by 2030 and 65% recycling by 2035, was also discussed. It was noted in the discussion that rural Councils typically achieve higher recycling rates than urban Councils due to the increased availability of green waste for composting and that those Councils with higher levels of deprivation are frequently associated with lower recycling rates. Therefore, it was concluded that for Tees Valley as a whole, to achieve a recycling rate in excess of 55% by 2025 would be challenging, even though there is an aspiration to reach such a target.

To develop a set of refreshed aims and objectives for the revised JWMS, the themes identified above were prioritised and the following order resulted (highest priority first):

1 Affordability / Income Generation

2 Reuse, recycling and composting

3 Raising waste awareness and education

4 Service Quality / Customer Satisfaction

5 Waste prevention

6 Regeneration / Job Creation

7 Reducing fly-tipping and litter

8 Limiting environmental impacts and harm to human health

9 Circular economy

10 Energy recovery from waste

11 Landfill diversion

12 Reducing the carbon impact of waste management

13 Managing the impact of plastic wastes

14 Management of all municipal waste

15 Managing the impact of food waste

The resulting ranking of the themes was broadly consistent with the principles and policies within the existing JWMS. These were therefore revised to reflect emerging waste management policies and the comments from members and officers. The following draft aims and objectives, were proposed for the revised JWMS:

To deliver a high quality, accessible and affordable waste management service that contributes to:

- economic regeneration, including employment and a more circular economy;
- the protection of the environment and natural resources; and
- reducing the carbon impact of waste management.

and:

- delivers customer satisfaction;
- reduces the amount of waste generated by householders and the Councils;
- increases reuse and recycling;
- then maximises recovery of waste, and;
- works towards zero waste to landfill;

3 Options Appraisal Methodology

3.1 Evaluation Criteria

The evaluation criteria for assessing potential options were developed from the draft aims and objectives of the JWMS. The draft evaluation criteria and potential assessment methods, Table 3.1, were presented to officers, from each of the representative Councils, at an Options Appraisal Workshop. Following discussion of the criteria, officers agreed that Criterion 1 (Delivers engagement and customer satisfaction) and Criterion 9 (Accessible) should be combined into a single criterion because their assessments are very closely linked. The revised list of 10 criteria and their method of assessment are set out in Table 3.2

It was also agreed that the assessment of Criterion 7 (Protection of the environment and natural resources) should include the total waste transport mileage, as a means of considering local air quality.

Table 3.1: Proposed criteria and potential assessment method

No.	Criterion	Potential assessment method
1	Delivers engagement and customer satisfaction	Qualitative assessment of levels of engagement e.g. promotional/educational activity to encourage behavioural change and/or deemed levels of householder acceptability of the option
2	Reduces the amount of waste generated by the householder and the Councils	Qualitative assessment of the reduction in the waste arisings
3	Increases reuse and recycling	Change in reuse and recycling performance from base position
4	Maximises recovery of waste	Change in the percentage of non-recycled waste which is recovered
5	Zero waste to landfill	Change in percentage of waste diverted from landfill compared to base position
6	Economic regeneration, including employment and a more circular economy	Semi-qualitative assessment of employment (jobs created and type of employment) using case studies / waste industry reports for likely employment & training opportunities, combined with the 'Resource use' factor as a European person – Equivalent, which can be extracted from WRATE
7	Protection of the environment and natural resources	Semi-qualitative assessment using the following (quantified) outputs from WRATE: • Acidification (kg SO_2) • Human Toxicity (kg 1, 4 – DCB eq.) • Freshwater Aquatic Toxicity (kg 1, 4 – DCB eq.) • Eutrophication (PO4 kg eq.)
8	Reducing the carbon impact of waste management	Change in tonnes of CO_2 equivalent emissions from base position
9	Accessible	Qualitative assessment of how easy it was for householders to use/access the service.
10	Long-term affordable	Percentage change in Net Present Value (NPV) from baseline position
11	Deliverability	Qualitative assessment of procurement risk, planning, technology risk, etc.

Table 3.2: Revised criteria and assessment method

No.	Criterion	Potential assessment method
1	Delivers an accessible service with engagement and customer satisfaction	Qualitative assessment of how easy it is for householders to use/access the service taking account of the levels of engagement e.g. promotional/educational activity to encourage behavioural change and/or deemed levels of householder acceptability of the option
2	Reduces the amount of waste generated by the householder and the Councils	Qualitative assessment of the reduction in the waste arisings
3	Increases reuse and recycling	Change in reuse and recycling performance from base position
4	Maximises recovery of waste	Change in the percentage of non-recycled waste which is recovered
5	Working towards zero waste to landfill	Change in percentage of waste diverted from landfill compared to base position
6	Economic regeneration, including employment and a more circular economy	Semi-qualitative assessment of employment (jobs created and type of employment) using case studies / waste industry reports for likely employment & training opportunities, combined with the 'Resource use' factor as a European person – Equivalent, which can be extracted from WRATE
7	Protection of the environment and natural resources	Semi-qualitative assessment informed by the following (quantitative) outputs from WRATE: • Resource use (kg Sb eq.) • Acidification (kg SO_2) • Human Toxicity (kg 1, 4 – DCB eq.) • Freshwater Aquatic Toxicity (kg 1, 4 – DCB eq.) • Eutrophication (PO4 kg eq.) • Total waste transport mileage
8	Reducing the carbon impact of waste management	Change in tonnes of CO_2 equivalent emissions from base position
9	Long-term affordable	Percentage change in NPV from baseline position
10	Deliverability	Qualitative assessment of procurement risk, planning, technology risk, etc.

3.2 Evaluation Criteria Scoring

A proposed scoring mechanism was presented at the Options Appraisal Workshop and adapted following officers' comments. The resulting scoring mechanism is set out in Table 3.3 with each criterion assigned a scale to score the options from 0 – 5, with 0 representing the lowest score and 5 the highest score. For quantitative criteria which use numerical values, the figures in Table 3.3 have been based on a range of output values derived from the waste flow model or the WRATE [2]analysis.

[2] Forecasts of future waste flows in the Tees Valley were determined using a waste flow model. WRATE is a tool developed by the Environment Agency for quantifying the environmental impact of various waste management systems (see section 4.2.5).

Table 3.3: Scoring for evaluation criteria

Criterion	Evaluation Criteria	Score
1.Delivers an accessible service with engagement and customer satisfaction	High levels of accessibility (>90%) with levels of engagement that should lead to increased understanding and high customer satisfaction	5
	Moderate levels of accessibility (70%-90%) with levels of engagement that should lead to increased understanding and high customer satisfaction	4
	Lower levels of accessibility (<70%) with levels of engagement that should lead to increased understanding and customer satisfaction	3
	Moderate levels of accessibility (70%-90%) with levels of engagement that may lead to increased understanding but neutral/reduced customer satisfaction	2
	High / moderate levels of accessibility with limited levels of engagement & / or potential customer dissatisfaction	1
	Lower levels of accessibility with no engagement and /or potentially high levels of customer dissatisfaction	0
2. Reduces the amount of waste generated by householder and managed by the Councils from baseline forecast	**Evaluation Criteria**	**Score**
	Very high reduction in waste arisings (>2%)	5
	High reduction (1 - 2%)	4
	Medium reduction (0.51- 0.99%)	3
	Minor reduction (<0.50%)	2
	No change in waste arising	1
	Increase in waste arising	0
3. Increases reuse and recycling	**Evaluation Criteria**	**Score**
	High increase in reuse/recycling/composting rate (>10%)	5
	Medium increase in reuse/recycling/composting rate (5 - 9.99%)	4
	Reasonable increase in reuse/recycling/composting rate (2 - 4.99%)	3
	Minor increase in reuse/recycling/composting rate (0.1 - 1.99%)	2
	No change in reuse/recycling/composting rate	1
	Decrease in reuse/recycling/composting rate	0
4. Maximises recovery of waste	**Evaluation Criteria**	**Score**
	Reasonable increase in proportion of non-recycled household waste recovered (5 – 14.99%)	5
	Minor increase in proportion of non-recycled household waste recovered (1 – 4.99%)	4
	No change in proportion of non-recycled household waste recovered (+/- 0.99%)	3
	Minor decrease in proportion of non-recycled household waste recovered (1 – 4.99%)	2
	Reasonable decrease in proportion of non-recycled household waste recovered (5 – 14.99%)	1
	High decrease in proportion of non-recycled household waste recovered (>15%)	0
5. Working towards zero waste to landfill	**Evaluation Criteria**	**Score**
	High decrease in waste to landfill (2.5 - 5%)	5
	Medium decrease in waste to landfill (1 - 2.49%)	4
	Reasonable decrease in waste to landfill (0.5 – 0.99%)	3
	Minor decrease in waste to landfill (<0.5%)	2
	No change in landfill diversion	1
	Increase in waste to landfill	0

	Evaluation Criteria	Score
6. Economic regeneration, including employment and a more circular economy	Medium positive contribution to jobs created / potentially secured and a reduction in the Resource use Eur.Person.Eq from the baseline which could benefit Tees Valley	5
	Minor positive contribution to jobs created / potentially secured and a reduction in the Resource use Eur.Person.Eq from the baseline which could benefit Tees Valley	4
	No net additional jobs created and/or no wider employment security and reasonable reduction in the Resource use Eur.Person.Eq (10 - 50% from baseline) which could benefit Tees Valley	3
	No net additional jobs created and/or no wider employment security and no significant change in the Resource use Eur.Person.Eq (+/-9.99% from baseline) which could benefit Tees Valley	2
	Job losses and/or no wider employment security but a reasonable reduction in the Resource use Eur.Person.Eq (10 - 50% from baseline) which could benefit Tees Valley	1
	Job losses and/or no wider employment security and no significant change in the Resource use Eur.Person.Eq (+/-9.99% from baseline) which could benefit Tees Valley	0
7. Protection of the environment and natural resources	**Evaluation Criteria**	**Score**
	High level of improvement in environmental protection based on resource use, acidification, human toxicity, freshwater aquatic toxicity, eutrophication and mileage	5
	Medium level of improvement in environmental protection based on resource use, acidification, human toxicity, freshwater aquatic toxicity, eutrophication and mileage	4
	Minor improvement in the level of environmental protection based on resource use, acidification, human toxicity, freshwater aquatic toxicity, eutrophication and mileage	3
	No change in the level of environmental protection based on resource use, acidification, human toxicity, freshwater aquatic toxicity, eutrophication and mileage	2
	Decrease in the level of environmental protection based on resource use, acidification, human toxicity, freshwater aquatic toxicity, eutrophication and mileage	1
	Significant decrease in the level of environmental protection based on resource use, acidification, human toxicity, freshwater aquatic toxicity, eutrophication and mileage	0
8.Reducing the carbon impact of waste management	**Evaluation Criteria**	**Score**
	Significant reduction in tonnes of CO_2 equivalents (>30,000 tonnes CO2-Eq)	5
	High reduction in tonnes of CO_2 equivalents (20,000-30,000 tonnes CO2-Eq)	4
	Medium reduction in tonnes of CO_2 equivalents (10,000-19,999 tonnes CO2-Eq)	3
	Minor reduction in tonnes of CO_2 equivalents (1,000-9,999 tonnes CO2-Eq)	2
	No change in tonnes of CO_2 equivalents from baseline (+/- 999 tonnes CO2-Eq)	1
	Increase in tonnes of CO_2 equivalents (>1,000 tonnes CO2-Eq)	0
9. Affordable (long term measure)	**Evaluation Criteria**	**Score**
	Significant percentage savings in NPV achieved (>10%)	5
	High percentage savings achieved in NPV (-7.5 to -10%)	4
	Medium percentage savings in NPV (-5% to -7.49%)	3
	Minor percentage savings in NPV (-2.5% to -4.99%)	2
	No significant percentage change in NPV (+/- 2.49%)	1
	Some percentage increase in NPV (>+2.5%)	0
10. Deliverability	**Evaluation Criteria**	**Score**
	No major deliverability challenges envisaged	5
	Some minor deliverability issues	4
	Some moderate deliverability issues	3
	Some substantial deliverability issues	2
	Major deliverability risks	1
	High chance of being undeliverable	0

3.3 Weighting of Evaluation Criteria

It is common practice to weight evaluation criteria to reflect local conditions. It was agreed at the Options Appraisal Workshop that the weightings should be based on the prioritisation at the Members and Officers Workshop but also revised to more broadly reflect the Tees Valley Combined Authority aims of driving economic growth and for Tees Valley to become a high-value, low-carbon, diverse and inclusive economy. The weightings are shown in Table 3.4.

Table 3.4: Weighting for Evaluation Criteria

Evaluation Criteria	Weighing
Delivers an accessible service with engagement and customer satisfaction	3
Deliverability	3
Affordable (long term measure)	3
Increases reuse and recycling	3
Reduces the amount of waste generated by householders and the Councils	3
Economic regeneration, including employment and a more circular economy	3
Protection of the environment and natural resources	2
Reducing the carbon impact of waste management	2
Maximises recovery of waste	2
Working towards zero waste to landfill	1

4 Options Appraisal Scenarios

Whilst a key output of the revised JWMS is to help determine the nature of any future residual waste treatment facility for the Tees Valley, it is also intended that the revised JWMS helps each Council make decisions about waste prevention, reuse and recycling options they may wish to adopt in the future. Therefore, a range of options were agreed across the waste hierarchy having regard to the policy and legislation review, potential collection systems for the Tees Valley Authorities and the ranking of themes at the first workshop.

The agreed options for consideration in the options appraisal process are:

Waste Prevention, Reuse and Recycling Initiatives

Raising waste awareness and education campaigns	Various campaigns designed to raise awareness and increase participation in waste prevention and reuse activities, including: • general education and waste prevention initiatives; • general reuse initiatives • Love Food Hate Waste • Junk Mail • promoting smart shopping practices
Home Composting / Digestion	Promote home composting (or anaerobic digestion) to reduce the demand on collection services and treatment capacity
Reuse at HWRCs	Install facilities at HWRCs that allow members of the public to leave and collect items such as furniture. This can include awareness and promotional campaigns of the service.
Bulky Collection Reuse	Sort bulky waste collections to extract reusable goods with a view to refurbishment, reuse and resale. This can include awareness and promotional campaigns.

Recycling and Composting Options

High efficiency scenario	Which would look at increasing dry recycling performance, through a reduction in residual waste capacity and introducing a charge for garden waste services
High recycling performance scenario	Which would look at increasing dry recycling performance through introducing separate food waste collections, reducing residual waste capacity and introducing a charge for garden waste services

Alongside these primary options, the following Initiatives would be assessed:

Bulky Waste Recycling	Sort bulky waste collections to extract recyclable goods in order to improve recycling performance across the councils in Tees Valley. This can include awareness and promotional campaigns of the services provided.
Reducing contamination in recycling/composting	Stronger engagement with residents to increase public understanding of the issues associated with contamination of recycling/composting collections to deliver behaviour change. Combined with tighter management of contamination across all Tees Valley councils.

Residual Waste Treatment Options

The primary waste treatment scenarios that would be assessed on the Tees Valley level are:

- Contract extension (beyond 2025) for existing EfW contract
- New build energy recovery facility
- New build refuse derived fuel facility (RDF)
- Utilise third party energy recovery facility capacity

4.1 Scenarios Assessment

It was agreed that the options would be grouped together into scenarios to highlight what could be achieved by:

- residual waste treatment options alone;
- implementing the residual waste treatment option alongside collection changes; or
- by implementing a full range of prevention, reuse and recycling options alongside collection changes and residual waste treatment options.

This approach provided an insight into how the different waste management 'building blocks' could be arranged, what might be achieved and how the combination of variables effect the residual waste treatment options. The scenarios are summarised in Figure 4.1 and Table 4.1; this approach is broadly consistent with the approach taken in the 2008 options appraisal.

Table 4.1: Assessment Scenarios

Scenario	Prevention, reuse and recycling	Collection	Residual Treatment
1a	No change	No change	Contract extension (beyond 2025) for existing EfW contract (No change)
1b	No change	No change	New build energy recovery facility
1c	No change	No change	New build refuse derived fuel facility (RDF)
1d	No change	No change	Utilise 3rd party energy recovery facility capacity
2a	No change	High efficiency	Contract extension (beyond 2025) for existing EfW contract
2b	No change	High efficiency	New build energy recovery facility
2c	No change	High efficiency	New build refuse derived fuel facility (RDF)
2d	No change	High efficiency	Utilise 3rd party energy recovery facility capacity
2e	No change	High recycling performance	Contract extension (beyond 2025) for existing EfW contract
2f	No change	High recycling performance	New build energy recovery facility
2g	No change	High recycling performance	New build refuse derived fuel facility (RDF)
2h	No change	High recycling performance	Utilise 3rd party energy recovery facility capacity
3a	All measures	High efficiency	Contract extension (beyond 2025) for existing EfW contract
3b	All measures	High efficiency	New build energy recovery facility
3c	All measures	High efficiency	New build refuse derived fuel facility (RDF)
3d	All measures	High efficiency	Utilise 3rd party energy recovery facility capacity
3e	All measures	High recycling performance	Contract extension (beyond 2025) for existing EfW contract
3f	All measures	High recycling performance	New build energy recovery facility
3g	All measures	High recycling performance	New build refuse derived fuel facility (RDF)
3h	All measures	High recycling performance	Utilise 3rd party energy recovery facility capacity

Figure 4.1: Assessment Scenarios

Scenario	Prevention, reuse and recycling	Collection	Residual Treatment
1 Residual waste solutions	Do nothing	Do nothing	Contract extension (beyond 2025) for existing EfW contract New build energy recovery facility New build refuse derived fuel facility (RDF) Utilise third party energy recovery facility capacity
2 Collection changes only with residual waste solutions	Do nothing	High efficiency scenario	Contract extension (beyond 2025) for existing EfW contract New build energy recovery facility New build refuse derived fuel facility (RDF) Utilise third party energy recovery facility capacity
		High recycling performance scenario	
3 All Options with residual waste solutions	Raising waste awareness and education campaigns Home Composting / Digestion Bulk waste reuse and recycling Reuse at HWRCs and increase recycling Reducing contamination	High efficiency scenario	Contract extension (beyond 2025) for existing EfW contract New build energy recovery facility New build refuse derived fuel facility (RDF) Utilise third party energy recovery facility capacity
		High recycling performance scenario	

4.2 Key Assumptions

As part of the options appraisal process assumptions were made around potential performance and costs. The key assumptions relate to:

- Waste forecasts in future years.
- The performance of prevention, reuse and recycling initiatives (based on the impact on current systems and publicly available information)
- Alternative collection scheme performance and costs – based on a set of agreed assumptions applied in WRAP's KAT model for the high efficiency and high recycling performance scenario as described in Section 4.0 above
- Waste treatment options performance and costs – based on existing publicly available information.

Details are provided below.

4.2.1 Waste forecasts

National Planning Practice Guidance on waste (NPPG: Waste) provides information in support of the implementation of waste planning policy. It includes guidance on how waste planning authorities should forecast municipal waste arisings and preparing waste growth profiles. The NPPG: Waste methodology was used to prepare a range of growth profiles to estimates future arisings, the detailed analysis is provided in Appendix A.

The analysis resulted in five waste growth scenarios, which are summarised in Table 4.2, with the resulting tonnage forecasts based on MHCLG[3] housing forecast provided in Table 4.3 and Figure 4.2.

Table 4.2: Waste Growth Scenarios

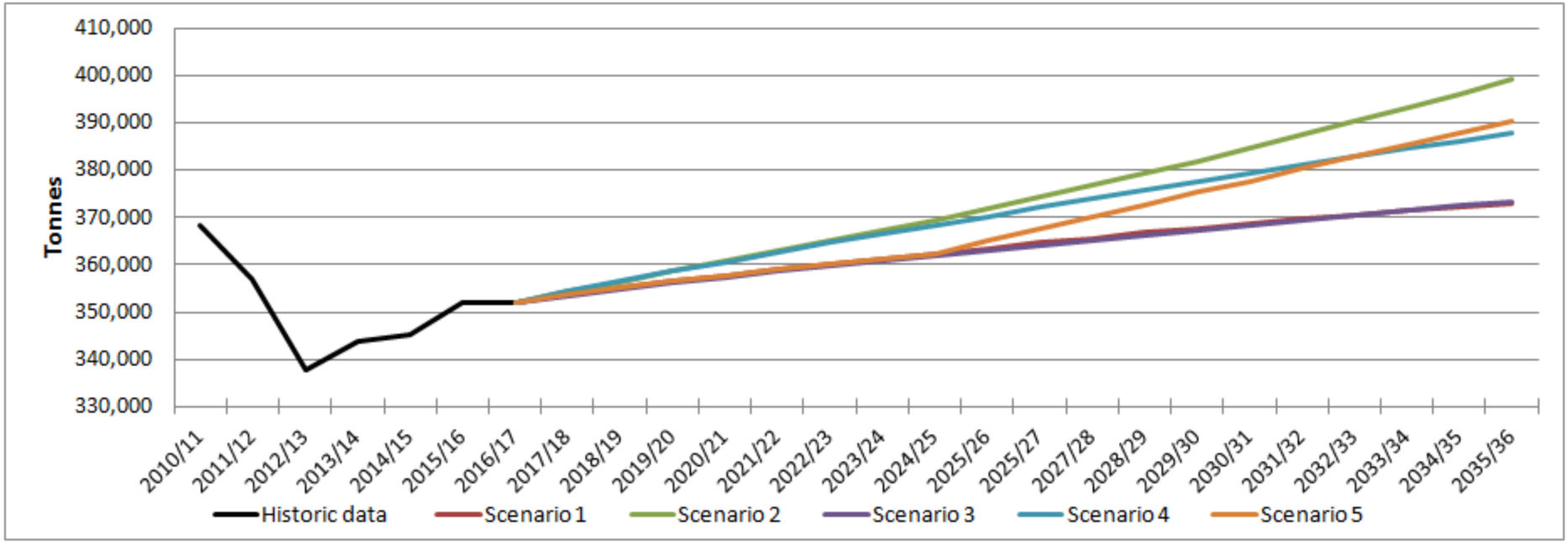
Scenario	Household waste per household assumptions	Non-household waste assumptions
1	Static household waste per household based the 2016/17 figure	Non-households waste remains static at 2016/17 level.
2	The household waste per household changes from the 2016/17 figure based on the annual average change since 2014/15	Non-households waste remains static at 2016/17 level.
3	The household waste per household changes from the 2016/17 figure based on the annual average change since 2012/13	Non-households waste remains static at 2016/17 level.
4	The household waste per household increases at 0.25% per annum from the 2016/17.	Non-households waste remains static at 2016/17 level.
5	As per Scenario 1 up to 2024/25, then a 0.5% per annum increase in household waste per household	Non-households waste remains static at 2016/17 level.

[3] Ministry of Housing, Communities and Local Government (formerly DCLG)

Table 4.3: Forecast Tonnage based on MHCLG housing forecast

	2020/21	2025/26	2030/31	2035/36
Scenario 1	357,700	363,500	368,600	373,100
Scenario 2	360,800	371,800	384,600	399,200
Scenario 3	357,400	362,900	368,300	373,300
Scenario 4	360,600	370,200	379,400	388,000
Scenario 5	357,700	365,000	377,700	390,300
Range	357,400 to 360,800	362,900 to 371,800	368,300 to 384,600	373,100 to 399,200

Figure 4.2: Forecast Tonnage based on MHCLG housing forecast



The proposed waste forecasts were agreed at the Options Appraisal Workshop, with Waste Forecast Scenario 4 being used as the forecast in the waste flow model. However, it was also agreed to run a sensitivity analysis on the waste forecasts using the percentage changes in household numbers which are proposed in upcoming Local Plans for some of the constituent Councils. The tonnage forecasts based on the housing growth proposed by each Council is provided in Table 4.4, and highlight that if the housing growth proposed within Local Plans is achieved there is the potential for an additional 18,000 to 20,000 tonnes of waste to be managed per annum.

Table 4.4: Forecast Tonnage based on constituent Council housing forecast

	2020/21	2025/26	2030/31	2035/36
Scenario 1	360,600	372,000	383,400	392,400
Scenario 2	363,600	380,500	399,600	419,600
Scenario 3	360,200	371,200	382,300	391,700
Scenario 4	363,500	378,900	394,500	408,200
Scenario 5	360,600	373,600	393,000	410,900
Range	360,200 to 363,600	371,200 to 380,500	382,300 to 399,600	391,700 to 419,600

4.2.2 Prevention, reuse and recycling initiatives assumptions

For the prevention, reuse and recycling initiatives (including bulky waste recycling and minimisation of contamination in dry recycling and composting), a series of performance and cost assumptions were developed based on information produced by WRAP and industry knowledge. The assumptions are provided in Appendix B. The assumptions were fed into the waste flow model. Appendix C provides an overview of the waste flow model.

4.2.3 Collection modelling assumptions

The collection system modelling was undertaken using WRAP's Kerbside Analysis Tool (KAT). This provided a means to calculate the amount of residual waste requiring treatment depending on the alternative collection system modelled and the level of recycling achieved.

Each Council was provided with KAT data pro-formas to obtain data on their current collection service performance and operation. The pro-formas captured data under the following general headings:

- Vehicle requirements;
- Vehicle specifications / costs / operational parameters and performance;
- Operational and capital costs, financing arrangements and infrastructure procurement details;
- Collection tonnages;
- Round data; and
- Staffing levels.

This data was then used to develop a baseline model. The baseline model reflects the current service operation and therefore provides an accurate representation of the existing service to compare against the alternative collection scenarios. All cost elements are annualised, including existing bins, vehicles etc. This approach allows a 'like for like' comparison against alternative collection systems.

A number of assumptions were made to supplement the information provided. These were based on industry practice, either in the form of WRAP guidance or prior experience from comparable

authorities. All assumptions were agreed with officers prior to modelling. A summary of the KAT modelling assumptions is provided in Appendix D

The outputs from KAT modelling were fed into the waste flow model. In addition, the outputs from KAT have been used to inform the assessment of:

- Criterion 6: Economic regeneration, including employment and a more circular economy, in term of the employment implications of different collection scenarios;
- Criterion 7: Protection of the environment and natural resources, with the different mileage from the different collection scenarios being fed to the WRATE analysis.

4.2.4 Waste treatment options assumptions

The waste flow model allows the performance of each of the scenarios to be tested and provides outputs for the assessment of:

- Criterion 2: Reduces the amount of waste generated by householder and managed by the Councils from baseline forecast;
- Criterion 3: Increases reuse and recycling;
- Criterion 4: Maximises recovery of waste;
- Criterion 5: Working towards zero waste to landfill; and
- Criterion 9. Affordable (long term measure).

To inform the inputs to the waste flow model a series of assumptions were needed about the waste treatment options.

Contract extension (beyond 2025) for existing EfW contract

Under this option, it has been assumed that the existing Haverton Hill EfW continues to be used under an extension to the existing agreements. The performance of the facility remains the same with waste being received from Hartlepool, Middlesbrough, Redcar and Cleveland and Stockton-on-Tees with Darlington continuing to use the Stonegrave treatment facility to prepare an RFD.

The agreed cost profile for the Haverton Hill EfW continues up 2025 after which the gates fee is aligned with market prices.

New build energy recovery facility

The term energy recovery facility can cover a range of technologies and facility designs, such Incineration (which usually involves the combustion of unprepared residual waste) or Advanced Thermal Treatment (ATT) - the principal processes being gasification and pyrolysis. Both Incineration and ATT technologies offer the option of treating residual waste and recovering energy. However, these technologies are different in how the waste is processed and the energy liberated for recovery, i.e. combustion directly releases the energy in the waste, whereas pyrolysis and gasification thermally treat the waste to generate secondary products (gas, liquid and/or solid) from which energy can be generated.

In the UK, there is a proven commercial and operational track record for incineration, whereas there has been limited success with ATT technologies. Therefore, for the purposes of the options appraisal process it has been assumed that the energy recovery facility would be a new EfW and both electricity only and CHP facilities have been considered. In the result for these scenarios, the assessment only uses the scores for the CHP facility to show the potential benefits from developing a CHP facility. In this scenario it is assumed that waste for all the Councils is sent for the new energy recovery facility from 2025.

In addition, the use of an EfW in the options appraisal process would not prevent an ATT facility being brought forward by a potential contractor in any subsequent procurement process.

New build refuse derived fuel facility (RDF)

Under this option, it has been assumed that waste for all the Councils is sent to a new RDF facility from 2025 with the RDF being exported to Europe, as is the case with the RDF currently produced from Darlington's waste at Stonegrave treatment facility.

Utilise third party energy recovery facility capacity

Under this option, it has been assumed that, from 2025, capacity at an existing EfW facility outside Tees Valley in the UK is secured for the waste for all the Councils. So, alongside the gate fee for the 3rd party EfW facility there is a transport cost of transferring the waste to the energy recovery facility.

4.2.5 WRATE assumptions

The WRATE (Waste and Resources Assessment Tool for the Environment) software developed by the Environment Agency was used to perform a life cycle analysis for the baseline and alternative scenarios (primarily the collection and residual treatment options). WRATE is applied to assess environmental impacts of waste management activities during their whole life cycle. The model incorporates the EcoInvent life cycle database, allowing the environmental impacts of the material inputs and outputs to be calculated. The model includes peer reviewed waste management data and processes to facilitate the benefits and disbenefits of waste treatment, recycling and disposal.

The WRATE results include the following parameters which have been utilised for the Strategy development process, either in terms of this options appraisal or the Strategic environmental assessment:

- Climate Change impacts
- Human Toxicity
- Acidification
- Eutrophication
- Resource Use
- Freshwater Aquatic Toxicity
- Land Take
- Vehicle Mileage data

It should be noted that WRATE is not a good tool for measuring waste prevention or re-use activity, and for these options alternative approaches have been used within the options appraisal.

A comparison of alternative collection and treatment options and the effect of implementing alternative collection systems was modelled using the 2027 waste arisings (from the waste flow model) and associated estimated energy mix (within WRATE). This is the mid-point of the strategy and a point by which alternative residual waste treatment systems are assumed to have been implemented.

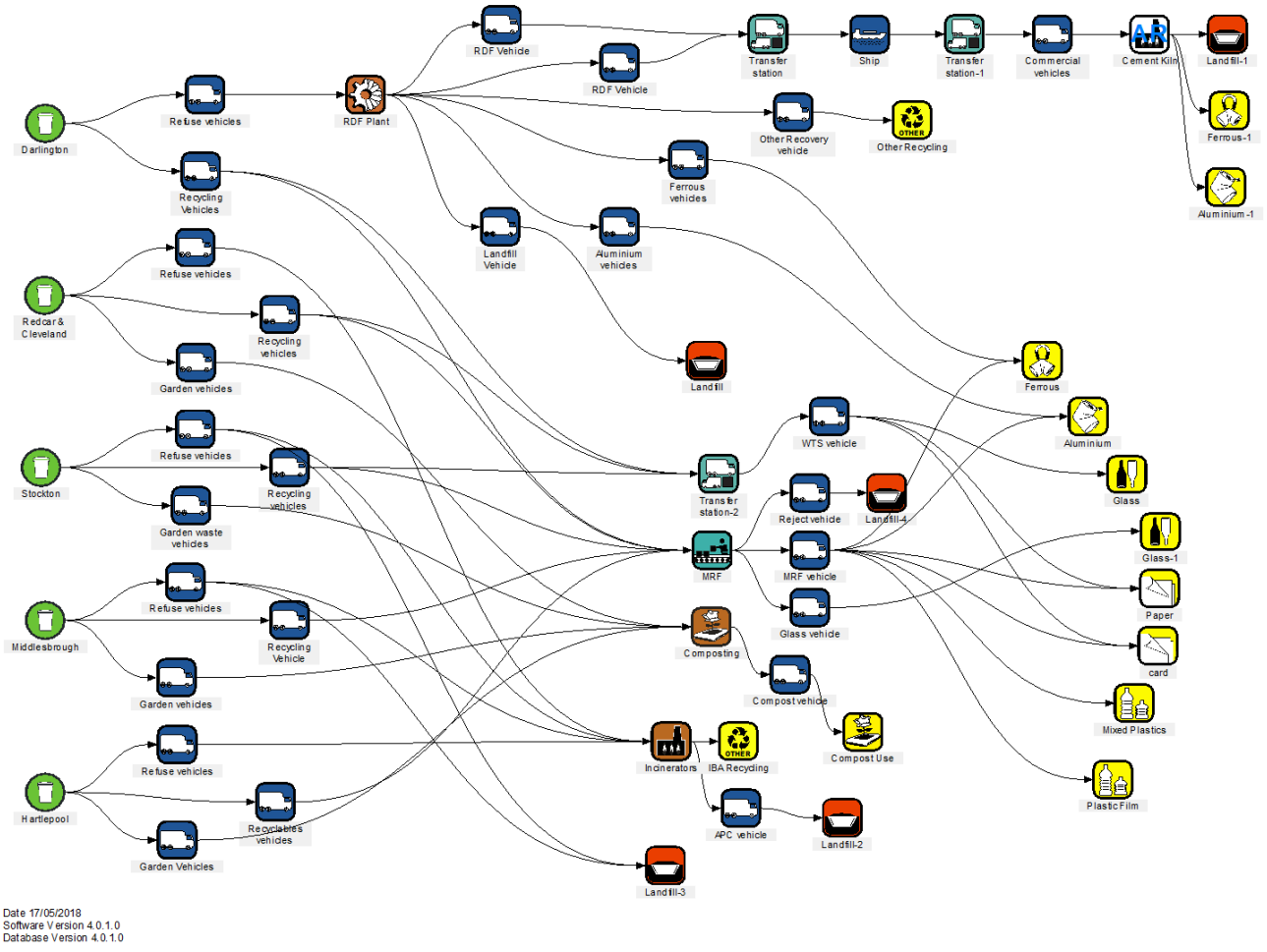
The assumptions applied within the models incorporated the data from the collection modelling (KAT), waste growth assumptions and the waste flow model assumptions. Other key assumptions applied to the modelling are:

- Default technologies and closest vehicles applied from WRATE database

- Existing mass balances and energy recovery efficiency applied for the RDF and EfW plants respectively
- New EfW plant scenario has 29% electrical efficiency
- Third party EfW plant assumed at 50-mile A-B distance from waste arisings
- Anaerobic Digestion assumed for food waste processing
- Where waste is displaced (e.g. via the charged garden collection), this is sent to home composting in the model as a proxy of impact
- Collection mileages from KAT are inflated by the same factor as waste growth (in 2027) as a proxy of vehicle impacts
- RDF is exported as per actual situation, to Latvia
- All reprocessors / non-specific outputs are set as 20km (A-B) distance, with the exception of Air Pollution Control residues which are 50km. Incinerator Bottom Ash (IBA) assumed to be processed at the EfW site, as per current arrangement
- Separated recyclate fractions are sent straight to a transfer station, comingled recyclate streams to an MRF

Figure 4.3 illustrates the structure of a scenario being modelled using WRATE.

Figure 4.3: Schematic of the Tees Valley WRATE Model



4.2.6 Other Assumptions

2016/17 figure were used for the base year for the waste arisings from WasteDateFlow[4].

The inflation rate for all costs is assumed to be 2.5% pa other than where future price profiles have been provided.

The changes in the collection arrangements has been modelled to start from 1st April 2020 for all authorities.

In the scenarios where additional recycling communications are employed, and additional activities are used to enhance the recycling at HWRCS, this has been modelled as a 2.5% increase in the amount of recyclates in the first year and a 0.5% increase for the subsequent 9 years ending in 2030. This has been assumed to cost £1 per household in addition to the normal collection costs. The impact of the HWRC interventions will lead to an increase in recycling and reuse of 11% for Middlesbrough, Stockton and Hartlepool or 12% for Redcar and Cleveland and Darlington. The costs to set this up are £50k per site plus an annual cost of £25k for additional staffing.

Anaerobic Digestion

Where scenarios utilise separate food waste collection this is sent to anaerobic digestion, which is modelled as a facility within the Tees Valley area, but no specific facility is represented. A gate fee of £20/t is assumed

New RDF production facility

Based on a typical performance of 33% mass loss, 2% recycling, 35% RDF, 30% landfill.

Costs are £25/t operational cost, RDF gate fee of £100/t and landfill at the prevailing costs (gate fee plus landfill tax)

New EfW

For the scenario analysis, data from a range of facilities has been collated and two options have been assessed. A local facility of 250ktpa capacity and a larger (450ktpa) remote “merchant” facility. The costs for the local facility is estimated at £83.56 /t on a 2016/17 basis and inflated at 2.5% pa. The larger non-local facility was assumed to cost £68.14/t but require £15/t in additional transport costs, but again on a 2016/17 basis plus 2.5% inflation.

The mass balance assumed was, 3.6% APCR and unrecovered IBA to landfill, 2% recycled, 73% process loss and 21.4% recovered IBA.

Landfill

The model assumes a single gate fee of £24.95 plus the landfill tax at the current rate and in subsequent years inflated in line with the other cost in the model at 2.5%. Landfill of asbestos is costed at £181.75/t plus tax.

[4] the web-based system for LACW data reporting by UK local authorities to government

5 Assessment Results

The options appraisal process involved evaluating the twenty scenarios against the evaluation criteria set out in Table 3.3. A summary of the outputs from the various models used to support the assessment are provided in the following appendices:

- Appendix E: Summary of KAT model outputs
- Appendix F: Summary of waste flow model outputs
- Appendix G: Summary of WRATE outputs

The assessment results are provided in Table 5.1 and graphically in Figure 5.1 which shows the unweighted scores and Figure 5.2 which presents the weighted scores.

For both the unweighted and weighted scores the options which included building of a new energy recovery facility scored best within each scenario. With Scenario 3f, which includes all prevention, reuse and recycling initiatives, high recycling collections and new energy recovery facility, scoring highest overall.

The detailed assessment of each scenario is provided in Appendix H.

Table 5.1: Assessment results

Scenario	1. Delivers an accessible service with engagement and customer satisfaction	2. Reduces the amount of waste generated by householder and managed by the Councils	3. Increases reuse and recycling	4. Maximises recovery of waste	5. Working towards zero waste to landfill	6. Economic regeneration, including employment and a more circular economy	7. Protection of the environment and natural resources	8. Reducing the carbon impact of waste management	9. Affordable (long term measure)	10. Deliverability	Unweighted Score	Weighted Score
1a: Contract extension only	1	1	1	3	1	2	2	1	1	0	**13**	**31**
1b: New energy recovery only	1	1	1	4	4	5	4	5	1	1	**27**	**60**
1c: New RDF only	1	1	1	0	0	4	3	0	1	2	**13**	**36**
1d: 3rd Party EfW	1	1	1	3	4	0	3	3	1	2	**19**	**40**
2a: High efficiency collection with contract extension	2	4	2	3	2	0	1	2	3	0	**19**	**47**
2b: High efficiency collection with new energy recovery	2	4	2	4	4	4	1	5	3	1	**30**	**72**
2c: High efficiency collection with new RDF facility	2	4	2	0	0	2	2	1	4	2	**19**	**54**
2d: High efficiency collection with 3rd Party EfW	2	4	2	4	4	0	0	4	3	2	**25**	**59**
2e: High recycling collection with contract extension	3	4	4	3	3	4	0	2	2	0	**25**	**64**
2f: High recycling collection with new energy recovery	3	4	4	4	5	5	0	5	1	2	**33**	**80**
2g: High recycling collection with new RDF facility	3	4	4	0	0	4	0	2	2	3	**22**	**64**
2h: High recycling collection with 3rd Party EfW	3	4	4	4	5	2	0	4	1	3	**30**	**72**
3a: Waste prevention with high efficiency collection and contract extension	3	5	3	3	2	0	2	2	4	0	**24**	**61**
3b: Waste prevention with high efficiency collection and new energy recovery	3	5	3	4	4	4	2	5	3	1	**34**	**83**
3c: Waste prevention with high efficiency collection and new RDF facility	3	5	3	0	0	2	3	2	4	2	**24**	**67**
3d: Waste prevention with high efficiency collection and 3rd Party EfW	3	5	3	4	4	1	1	4	3	2	**30**	**73**
3e: Waste prevention with high recycling collection and contract extension	3	4	5	3	4	4	1	2	2	0	**28**	**70**
3f: Waste prevention with high recycling collection and new energy recovery	3	4	5	4	5	5	1	5	1	3	**36**	**88**
3g: Waste prevention with high recycling collection and new RDF facility	3	4	5	0	0	4	1	3	2	4	**26**	**74**
3h: Waste prevention with high recycling collection and 3rd Party EfW	3	4	5	4	5	3	1	4	1	4	**34**	**83**

Figure 5.1: Assessment results – unweighted scores

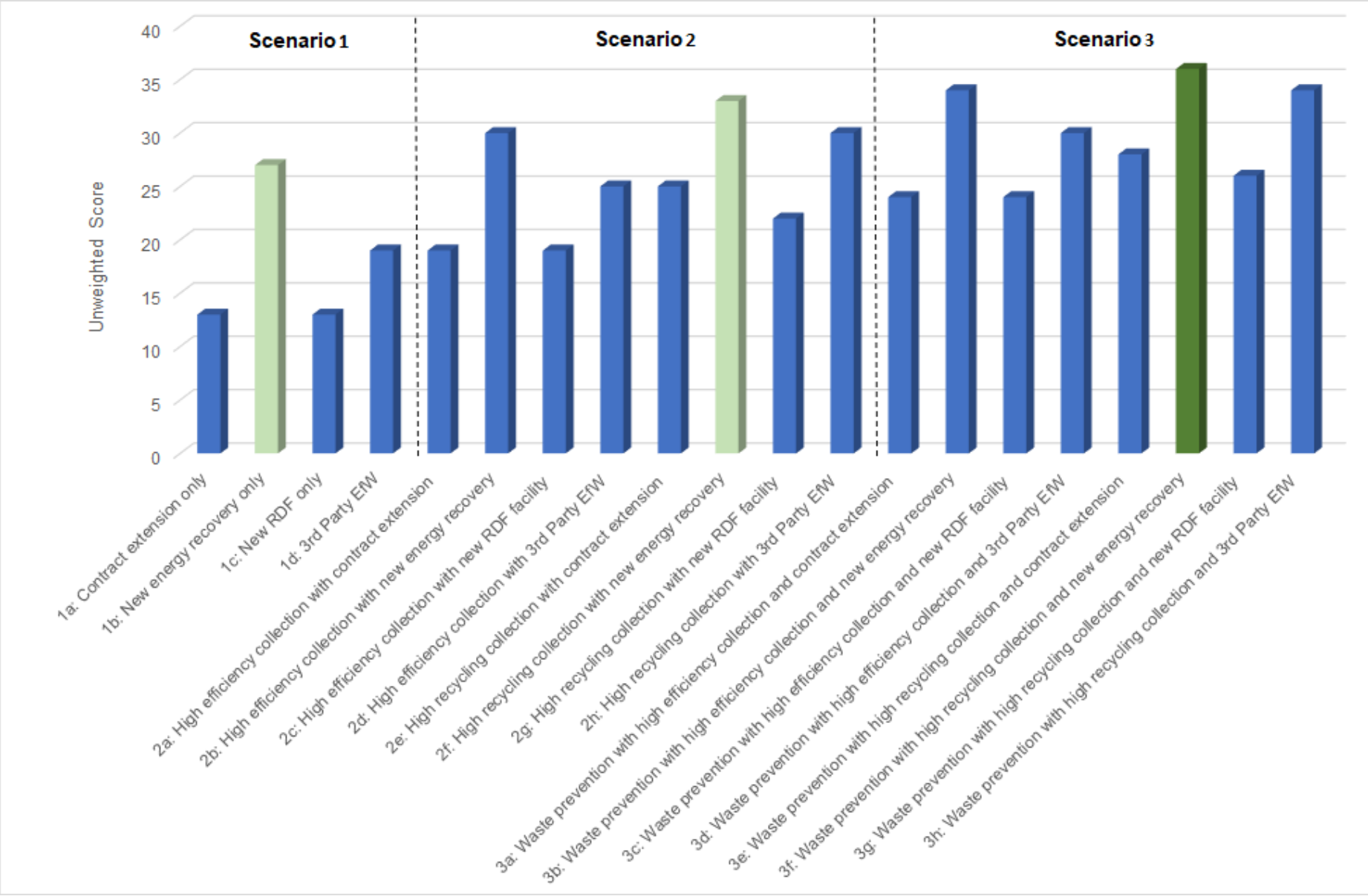
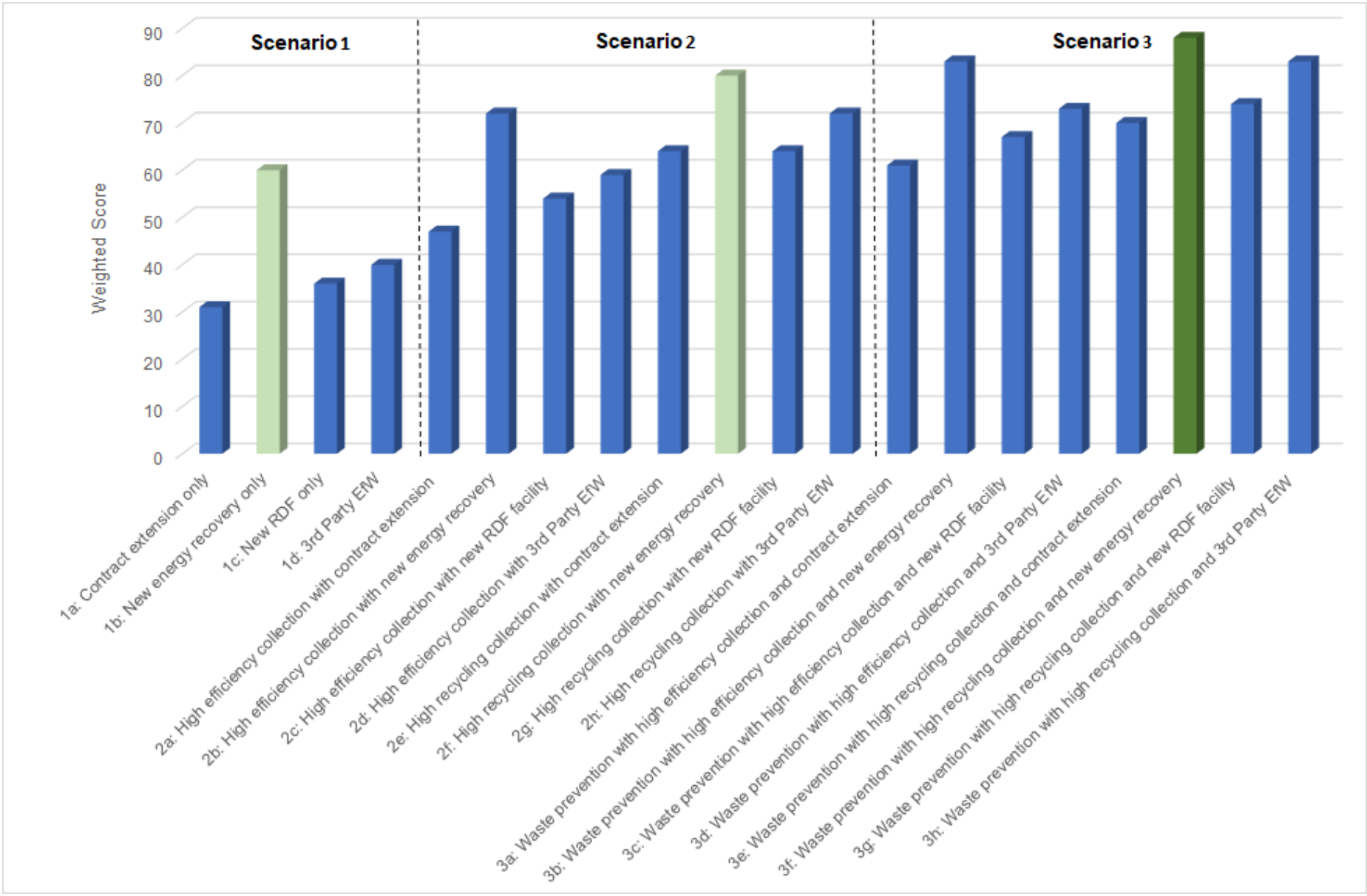


Figure 5.2: Assessment results –weighted scores



6 Discussion

The key factors that influenced the performance of different scenarios were;

6.1 Collection Scenarios

Both the baseline position and the high efficiency collection scenarios in isolation have no or limited impact on the level of reuse or recycling and as a result score less well than the high recycling collection scenarios. In addition, the high efficiency collection scenarios reduce the coverage and frequency of certain collections services which results in a loss of collection jobs; whereas the high recycling collection scenarios increases the number of collection jobs.

6.2 Prevention, reuse and recycling initiatives

The various waste prevention, reuse and recycling initiatives contribute to improved engagement, reuse and recycling, resource recovery and increased deliverability (due to consistency with current and emerging national policy). Therefore, Scenario 3s score better than the comparable Scenario 2s.

6.3 Waste treatment options

The different waste treatment options have a range of influencing factors:

- Scenarios based on a contract extension (beyond 2025) of the existing EfW contract perform poorly in terms of: economic regeneration/employment because no new jobs are created and is unlikely to help to secure other jobs in Tees Valley; the carbon impact of waste management because of the efficiency of the facility and no CHP capability; and deliverability mainly due to the fact that further extension to the current contract without competition is highly likely to be in breach of procurement rules.
- Scenarios which include a new build energy recovery facility score well because: they have the potential to secure jobs in the construction engineering sectors during construction of a new facility and if a CHP facility is developed it could help to secure employment in the energy use and manufacturing sector; also, a CHP facility would significantly reduce the carbon impacts of waste management. However, there are some deliverability issues related to securing funding and locating a suitable site.
- Scenarios which include a new build refuse derived fuel facility (RDF) perform poorly in terms of maximising recovery, diversion of waste from landfill and reducing the carbon impacts of waste management. This is because there is a significant increase in the amount of waste sent to landfill when compared to the current situation and the other technology options considered.
- Scenarios which utilise 3rd party energy recovery facility capacity score poorly on economic regeneration/employment because it is assumed that the 3rd party facility is located outside Tees Valley, resulting in a loss of jobs in the waste management sector. It also scores less well than the new build energy recovery facility on reducing carbon impacts, as it was assumed that the 3rd party facility is not CHP enabled and there is additional transport.

Therefore, based on the agreed evaluation criteria, and regardless of weighting, the preferred option would be; all prevention, reuse and recycling initiatives, high recycling collections and new energy recovery facility. The outcome is consistent with the approach adopted in the existing Waste Strategy.

Appendix A: Waste Forecast

Methodology

National Planning Practice Guidance on waste (NPPG: Waste) provides information in support of the implementation of waste planning policy. It includes guidance on how waste planning authorities should forecast municipal waste arisings preparing growth profiles. Box A1 reproduces the guidance for the 2014 revision (https://www.gov.uk/guidance/waste accessed 3rd February 2018)

Box A1: National Planning Practice Guidance: Waste

How should waste planning authorities forecast waste arisings?

Waste planning authorities should anticipate and forecast the amount of waste that should be managed at the end of the plan period. They should also forecast waste arising at specific points within the plan period, so as to enable proper consideration of when certain facilities might be needed. However, the right balance needs to be made between obtaining the best evidence to inform what will be necessary to meet waste needs, while avoiding unnecessary and spurious precision.

Paragraph: 028 Reference ID: 28-028-20141016

How should waste planning authorities forecast future municipal waste arisings?

Forecasts of future municipal waste arisings are normally central to the development of Municipal Waste Management Strategies.

It will be helpful to examine municipal waste arisings according to source (ie household collections, civic amenity site wastes, trade waste etc.). This may allow growth to be attributed to particular factors and to inform future forecasts.

A 'growth profile', setting out the assumed rate of change in waste arisings may be a useful starting point for forecasting municipal waste arisings. The growth profile should be based on 2 factors:

- household or population growth; and
- waste arisings per household or per capita.

Paragraph: 029 Reference ID: 28-029-20141016

How is a growth profile prepared?

A growth profile is prepared through a staged process:

- calculate arisings per head by dividing annual arisings by population or household data to establish short- and long-term average annual growth rates per household and
- factor in a range of different scenarios, e.g. constant rate of growth, progressively lowering growth rates due to waste minimisation initiatives.

The final forecast can then be modelled with scenarios based on the long- and short-term rate of growth per household, together with household forecasts.

Paragraph: 030 Reference ID: 28-030-20141016

Housing data and forecasts

To analyse the trends in waste generation per household, historic household numbers 2016/17 are required, along with household forecasts up to 2031 to consider future trends.

Ministry of Housing, Communities and Local Government (MHCLG formerly DCLG) housing data[5] cover the period from 2010 to 2039. This data allows current trends in waste per household to be analysed using the same dataset that will be used for estimating future arisings, ensuring the dataset is internally consistent.

[5] Table 406 of the Household_Projections_Published_Tables spreadsheet published in July 2016. https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections

3 to 5 Year Trends

The trends are considered over the last three to five years as this coincides with the low point in LACW arisings both in Tees Valley and nationally following the impact of the recession on waste generation levels, see Table A1.

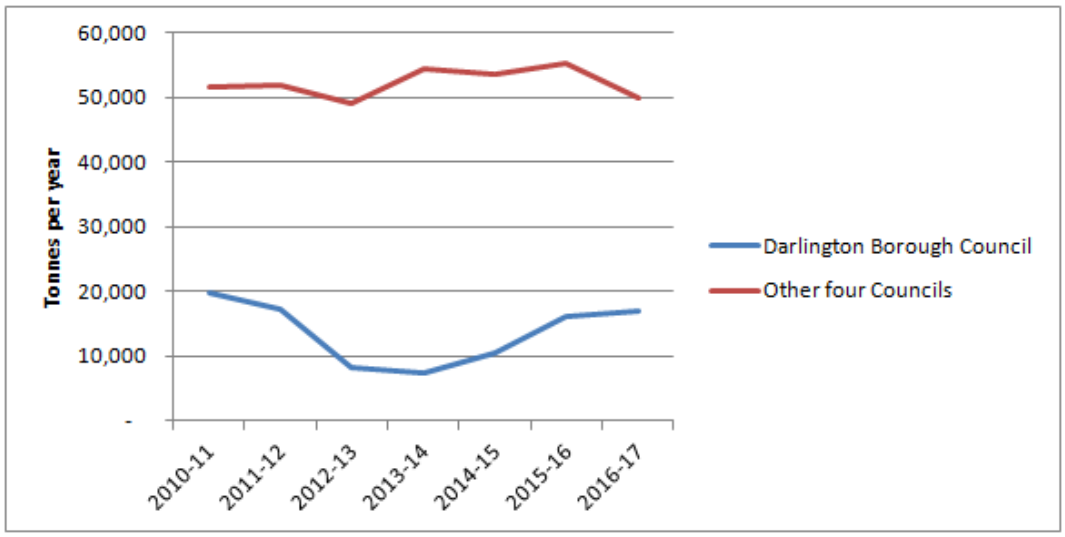
Household waste growth is broadly consistent with growth in the number of households, with the growth in LACW being driven more by the growth in non-household waste. The change in the non-household waste over the last five years is effectively as a result of the increase of 9,000 in Darlington over the last five years, with total for the other four authorities sitting between 50,000 and 55,000 tpa over the last five years, see Figure A1. Figure A1 also highlights that the non-household waste in Darlington has recover to the pre 2012-13 levels.

Table A1: Tees Valley LACW tonnage Trends

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Number of Households ('0000) Source: MHCLG[1]	281.40	283.05	284.31	285.50	286.79	288.14	289.70
Annual average change since 2014/15						0.51%	
Annual average change since 2012/13					0.47%		
Total LACW	368,444	356,897	337,664	343,809	345,150	352,107	352,116
Annual average change since 2014/15						1.00%	
Annual average change since 2012/13					1.05%		
Total household waste	296,970	287,654	280,321	281,885	281,138	280,538	285,160
Annual average change since 2014/15						0.71%	
Annual average change since 2012/13					0.43%		
Total non-household waste	71,474	69,243	57,343	61,924	64,014	71,570	66,956
Annual average change since 2014/15						2.27%	
Annual average change since 2012/13					3.95%		

1. Ministry of Housing, Communities and Local Government (formerly DCLG)

Figure A1 Total non-household waste, 2010-11 to 2016-17



The overall household waste per household for Tees Valley has been effectively static over the last three to five years, as shown in Table A2 below. Although, there are differences in the trends between the authorities but there is no consistent trend.

Table A2: Trends in household waste per household

Household waste per household	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Darlington	1.06	1.02	0.98	0.98	0.93	0.94	0.93
Annual average change since 2014/15						-0.15%	
Annual average change since 2012/13					-1.17%		
Hartlepool	1.06	1.03	1.01	1.05	1.01	1.00	0.99
Annual average change since 2014/15						-0.70%	
Annual average change since 2012/13					-0.52%		
Middlesbrough	1.09	1.04	1.00	0.97	0.97	0.98	1.02
Annual average change since 2014/15						2.96%	
Annual average change since 2012/13					0.55%		
Redcar and Cleveland	1.01	0.97	0.92	0.93	0.96	0.96	0.95
Annual average change since 2014/15						-0.32%	
Annual average change since 2012/13					0.97%		
Stockton-on-Tees	1.06	1.03	1.02	1.02	1.02	0.99	1.00
Annual average change since 2014/15					-0.70%		
Annual average change since 2012/13			-0.31%				
Tees Valley	1.06	1.02	0.99	0.99	0.98	0.97	0.98
Annual average change since 2014/15						0.21%	
Annual average change since 2012/13					-0.04%		

Economic growth and waste generation

Historical trends in most industrial economies show that resource use and the resulting waste generation is linked to economic activity. Decoupling economic growth from waste generation is the main objective of recent waste policies (e.g. waste prevention, resource efficiency, circular economy) across Europe. Consequently, there have been a number of studies over the last few years that look at the relationship between waste growth and economic growth.

At the end of 2012, WRAP published a report[6] highlighting that household waste arisings peaked between 2003 and 2007 and started to fall before the start of the recession, showing strong evidence of decoupling. For England, there was strong evidence of decoupling of household waste arisings from Gross Disposable Household Income[7] and a short period of decoupling with Gross Value Added[8]. However, from 2005/06 waste rose and fell in line with Household Expenditure[9], suggesting a strong link, or coupling, between Household Expenditure and household waste arisings, as would be expected.

It also highlighted that the perception of the 2007 credit crunch precipitated a loss of consumer confidence, with Household Expenditure falling while income was yet unaffected, and that household waste arisings are not coupled to Gross Disposable Household Income at a time of low consumer confidence (although they may well be at other more positive times).

More recent modelling[10] undertaken by the National Infrastructure Commission (NIC) to inform the National Infrastructure Assessment highlighted that historical data shows that waste generation is correlated with economic activity. However, recent trends indicate that economic growth and LACW arisings may be decoupling (i.e. using less resources and generating less waste per unit of economic activity). Due to the uncertainty around the rate at which waste arisings may decouple from economic growth in the future, a sensitivity analysis of the degree of decupling was factored into this modelling of future LACW arisings.

The NIC modelling of future LACW arisings suggested LACW arisings of between 31 million tonnes and 59 million tonnes by 2050; with the exception of the model which assumed a high decoupling rate, which indicated a reduction to 23 million tonnes compared with a 2015 arising of 26 million tonnes.

Therefore, when forecasting future LACW arisings, there is a need to recognise a degree of decoupling of waste growth from economic growth but a correlation of house expenditure with LACW growth is still evident.

Therefore, three growth scenarios based on the trends over the last five years have been considered along with two scenarios that assume a level of economic growth which increase the waste generation per household:

- One scenario considers a small increase of 0.25% per annum in household waste per household from 2016/17; and

[6] WRAP, Decoupling of Waste and Economic Indicators, October 2012

[7] Gross Disposable Household Income (GDHI) – an alternative measure of income; it measures what is available for households to spend or save once taxes, social contributions, pension contributions and property ownership have been taken into account.

[8] Gross Value Added (GVA) measures the contribution to the economy of each individual producer, industry or sector in the United Kingdom and is a headline measure used to monitor economic performance.

[9] Household Expenditure (HE) encompasses all domestic outlays (by residents and non-residents) for individual needs, including expenditure on goods and services.

[10] Infrastructure Commission (NIC) Modelling Results Roundtable, London, June 2017

- Another scenario seeks to reflect an increase in the UK economy from growth in manufacturing within the UK, as a result of the UK's decision to leave the European Union. However, there is clearly a degree of uncertainty over how the UK economy will change as a result of Brexit.

The scenarios are summarised in Table A3

Table A3: Waste Growth Scenarios

Scenario	Household waste per household assumptions	Non-household waste assumptions
1	Static household waste per household based the 2016/17 figure	Non-households waste remains static at 2016/17 level.
2	The household waste per household changes from the 2016/17 figure based on the annual average change since 2014/15	Non-households waste remains static at 2016/17 level.
3	The household waste per household changes from the 2016/17 figure based on the annual average change since 2012/13	Non-households waste remains static at 2016/17 level.
4	The household waste per household increases at 0.25% per annum from the 2016/17.	Non-households waste remains static at 2016/17 level.
5	As per Scenario 1 up to 2024/25, then a 0.5% per annum increase in household waste per household	Non-households waste remains static at 2016/17 level.

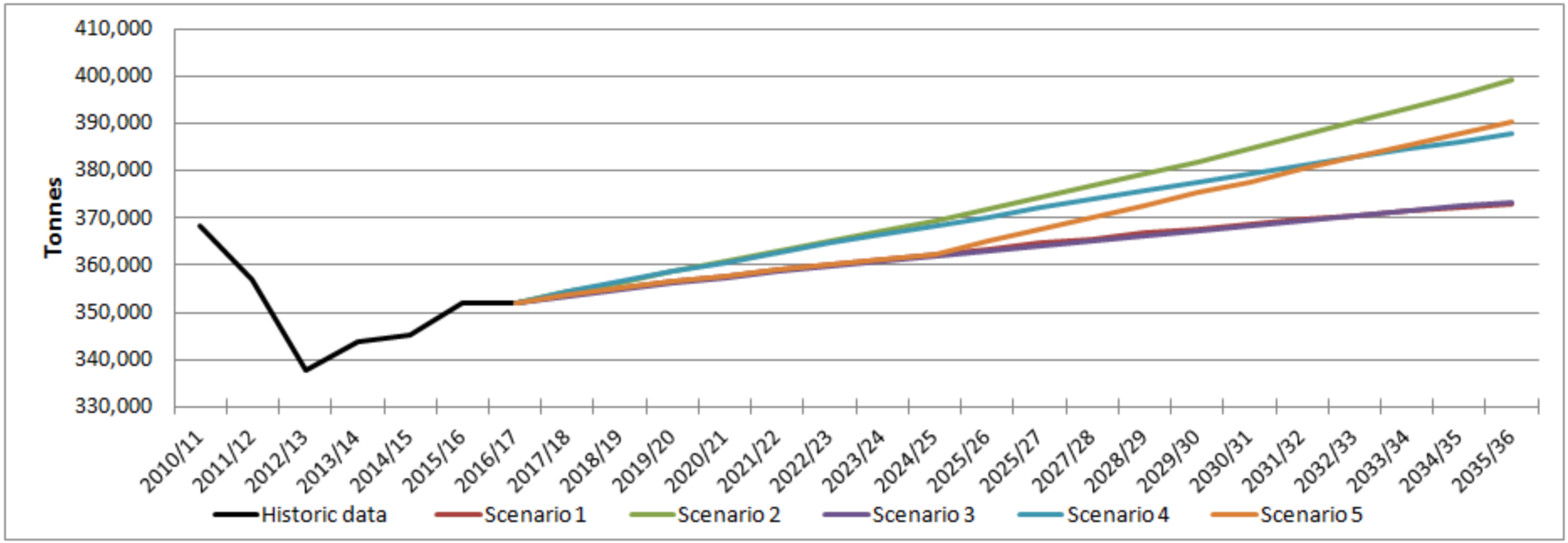
Table A4 and Figure A2 at a 'Tees Valley' level shows Scenarios 1 and 3 are almost identical with an average annual growth equivalent to 0.3%. Scenario 2 shows a higher growth, equivalent to 0.7% average annual growth, mainly due to the 3% increase in the household waste per household in Middlesbrough over the last three years. Scenarios 4 and 5 show average annual growth equivalent to 0.5% and 0.55% respectively and therefore sit between Scenarios 1 & 3 and Scenario 2.

Table A4: Forecast Tonnage based on MHCLG housing forecast

Waste Forecast	2020/21	2025/26	2030/31	2035/36
Scenario 1	357,700	363,500	368,600	373,100
Scenario 2	360,800	371,800	384,600	399,200
Scenario 3	357,400	362,900	368,300	373,300
Scenario 4	360,600	370,200	379,400	388,000
Scenario 5	357,700	365,000	377,700	390,300
Range	357,400 to 360,800	362,900 to 371,800	368,300 to 384,600	373,100 to 399,200

The proposed waste forecasts were agreed at the Options Appraisal Workshop, with Waste Forecast Scenario 4 being used as the central forecast in the waste flow model. However, it was also agreed to run a sensitivity analysis on the waste forecasts using the percentage changes in household numbers which are proposed in upcoming Local Plans for some of the constituent Authorities.

Figure A2: Forecast Tonnage based on MHCLG housing forecast



Appendix B: Waste Prevention, Reuse and Recycling Initiatives Assumptions

Option	Raising waste awareness and education campaigns
Current Activity	Overall communications are focussed on operational information (including social media, calendars, leaflets, bin stickers, vehicle side advertisements, press releases, council magazine) with limited budget allocated to campaigns on raising waste awareness and education. Annual budgets for waste related communications are • Darlington: £3k • Hartlepool: £12k • Middlesbrough: None Allocated • Redcar &Cleveland: None Allocated • Stockton-on-Tees: None Allocated
Description	A rolling programme of campaigns designed to raise awareness and increase participation in waste prevention and reuse activities, including: • General education and waste prevention initiatives; • General reuse initiatives • Love Food Hate Waste • Junk Mail • Promoting smart shopping practices
Performance Assumptions	There is no definitive evidence base on the impact of communications campaigns due to the range of variables related to the impacts. Modelling assumption: 2.5% uplift in recycling in year 1 followed by 0.5% per annum Modelling assumption: .0.1% waste prevention per annum
Cost Assumptions	WRAP - Improving recycling through effective communications: '*There is, unfortunately, no simple formula to determine how much needs to be spent on communications to achieve any given desired result. There are too many variables and too many ways of achieving results for such a formula to exist. As a rule of thumb, however, experience suggests that an effective campaign costs a minimum of £1.00 per household (NB. This will vary and for small LAs the figure could be greater as core costs for activities like monitoring etc will absorb a greater proportion of your funding). Your budget may also need to be proportionally greater if, for example, you are launching a new authority-wide service. If your plan requires a budget of much less or more than this figure (e.g. £0.50 - £1.50 per household) it is not necessarily wrong but you should reconsider it and satisfy yourself that your proposed budget is neither too high nor too low. These figures will give you an approximate target budget to aim at*.' Modelling assumption: £1/household per year

Option	Home Composting / Digestion
Current Activity	The Council currently do not heavily promote composting. A couple of council's direct residents to the RecyleNow composting website and another directs to the getcomposting.com website for subsidised home composting bins.
Description	Actively promote home composting (or anaerobic / aerobic digestion) to reduce the demand on collection services and treatment capacity by providing a £5 subsidy per composting bin.
Performance Assumptions	Modelling assumption: 1000 composting bins requested per annum for 5 years 150kg diversion per composting bin per year Lapse rate 5% per annum Tonnage diversion Year 1: 150 tonnes Year 2: 293 tonnes Year 3: 428 tonnes Year 4: 557 tonnes Year 5: 679 tonnes etc Based on WRAP Waste Prevention Calculator from 2010
Cost Assumptions	Modelling assumption: £5 subsidy per composting bin. Communications costs covered as part of overall waste awareness and education campaigns options.

Option	Recycling & Reuse at Household Waste Recycling Centres (HWRC)
Current Activity	There is a high level of landfill diversion (96%) from the HWRCs due to the majority of residual waste being diverted to the Haverton Hill EfW facility. However, the recycling rates (excluding rubble) at the HWRCs are low (30%-43%) compared to the UK average of 62% in 2015/16[1]
Description	Install facilities at HWRCs that allow members of the public to leave and collect items such as furniture. This can include awareness and promotional campaigns of the service. The WRAP HWRC Toolkit has been used to estimate the impact of: • Introducing reuse system; • Introducing/expanding 'meet and greet' policy with an additional staff member; • Rebranding the site as strongly focused on recycling and reuse; and • Introducing activities that strongly promote on recycling and reuse or displaying current recycling rate on site.
Performance Assumptions	The WRAP HWRC Toolkit indicates that the above activities could increase the recycling rates (excluding rubble) at the HWRCs as follows: • Haverton Hill: +11% • Burn Rd: +11% • Dunsdale Rd: +12% • Mewburn Rd: +12%
Cost Assumptions	WRAP: HWRC shops overview 2016:

	'Smaller shops cost an average of £12,000 to set up (approximately £200 per sq. metre). Larger shops cost an average of £135,000, or £380 per sq. metre, to set up'. '*Most shops cover their running costs and larger shops can generate substantial tonnage and profit returns.'* Modelling assumption: One off set up cost of £50,000 per site and cost neutral running costs. Modelling assumption: £25,000 per annum per additional staff member, assume one per site (4 in total) Communications costs covered as part of overall waste awareness and education campaigns options.
1. WRAP HWRC Toolkit (May 2017)	

Option	**Bulky waste collection reuse and recycling**
Current Activity	There is limited information on the extent of bulky waste collection reuse and recycling. • Darlington: Charged (£16.83 for 6 items) 472 tonnes collected, from 4,577 collections Recycled, reuse and resale – Not known Cost of service £74.6k, Income ~£77k (based on collections) • Hartlepool: Charged (£20 for 3 items) 243 tonnes collected 12% recycled (scrap metal, wood, WEEE), no reuse and resale Cost of service £25k, Income £31.6k • Middlesbrough: Charged (£10 for up to 5 Items) 500 tonnes collected (estimated) 20% recycled, no reuse and resale No separate cost information • Redcar &: Cleveland Charged (£18/6 items; £29/7-12 items; £39/13-18 items) 291 tonnes collected (budgeted) Recycled, reuse and resale – Not known No separate cost information, Income £80k • Stockton Charged (£15 for 6 items) 749 tonnes collected 36% recycled, no reuse and resale No separate cost information
Description	Sort bulky waste collections to extract reusable goods with a view to refurbishment, reuse and resale either by 3rd sector organisations or via re-use shops at HWRCs. Awareness and promotional campaigns to support this option would be included as part of the overall waste awareness and education campaigns options.
Performance Assumptions	WRAP - Composition and reuse potential of household bulky waste in the UK (2012): "*For items collected via bulky waste collections, surveyors estimated that across all types of items 24% of bulky items were re-usable, with a further 16% assessed as re-usable with slight repair*". Modelling assumption 25% of collected bulky is diverted to reuse.

Cost Assumptions	Awareness and education costs covered as part of overall waste awareness and education campaigns options. No net changes in service delivery costs as assumed that any additional costs would be reflected in charges. Cost saving from avoided treatment disposal costs of material reused.

Option	**Reducing contamination**
Current Activity	There is limited information on the extent of bulky waste collection reuse and recycling. • Hartlepool 22% • Darlington 15% • Middlesbrough 12.2% - 14% (KAT modelling used the 12.2%) • Redcar & Cleveland 25.1% • Stockton on Tees 2.8%
Description	A combination of communication and enforcement reduce the contamination levels in the dry recycling collection. Awareness and promotional campaigns to support this option would be included as part of the overall waste awareness and education campaigns options.
Performance Assumptions	There is no definitive evidence base on the impact of communications campaigns and enforcement on reducing the level of contamination due to the range of variables related to the impacts. Modelling assumption: A reduction of one third in the level of contamination of the single and two stream collection of recycling, which is correctly place in the residual waste stream
Cost Assumptions	Awareness and education costs covered as part of overall waste awareness and education campaigns options. Modelling assumption: £30,000 per annum per add additional staff member, assume one per Council collecting dry recycling co-mingled Cost saving on tonnage entering the MRF

Appendix C: Tees Valley Waste Flow Model

Overview

The waste flow model for this project has been developed to allow the quick evaluation of changes to the ways waste is managed over time. The model allows the impacts of alternative collection scenarios and treatment processes thought to the end disposal points or markets to be determined. In addition, it is possible to model alternative disposal arrangements so that the scale of facilities that might be considered can be determined and the resultant costs evaluated.

The model also captures the costs associated with the various treatment operations and the different collection schemes. This is carried out in a simple method of applying gate fee type calculations to the tonnages processed or a cost per household to the collection costs. This provides a consistent methodology for comparing the cost impacts resulting from the alternative waste management systems considered.

Appendix D: Summary of KAT Modelling Assumptions

High efficiency collection scenario

This represents a 'high efficiency' option incorporating a charged garden waste service and a fortnightly residual waste collection using 140 litre wheeled bins. Dry recycling remains as per the current systems, albeit with higher performance due to the restricted residual capacity[11]. The assumptions used for the garden waste service can be found within Table D1. Due to the restricted residual service it was assumed that only 20% of the garden waste no longer collected via the charged system would be put into the residual stream and 30% would be sent to HWRC's. The remaining 50% of 'non-collected' garden waste is assumed to be prevented / home composted. It was also assumed that as the service is a charged service, garden waste contamination would be 0%.

Table D1: Assumptions used for the modelling of High Efficiency scenario

Assumptions	
Subscription fee	£35/hh
Take up (of those that received the free garden waste collection)	30%
Set out amongst subscribers	95%
Participation amongst subscribers	100%
Proportion of GW Tonnage collected[12]	45%

High recycling collection scenario

This scenario models a 'high recycling performance option'. It applies a charged garden waste service (as outlined in the High Efficiency Scenario), a separate weekly food waste collection, a fortnightly 2 stream dry recycling collection and a three-weekly residual collection in 240l wheeled bins. A restricted residual waste service combined with regular recycling collections was modelled to maximise the amount of material segregated for recycling. The assumptions used for the increase in recycling performance are outlined in Table D2.

Table D2: Assumptions used for the modelling of the enhanced dry recycling

Assumptions- dry recycling stream	
Participation	+ 7.5%
Set out	+ 5%
Capture	+ 2.5%
Contamination	+ 2%

In addition, the food waste collection was modelled to deliver a high yield of food waste via the weekly service. The data was sourced from the WRAP 'Ready Reckoner' formula and assuming a 60% participation rate.

[11] The enhanced dry recycling is the same as the increase shown in Table D2 (High recycling scenario)

[12] Versus the free service, as currently offered in all Tees Valley Authorities except Darlington

Appendix E: Summary of KAT model outputs

Table E3: Indicative annualised collection costs and kerbside recycling performance for all Councils

Gross annualised collection costs/kerbside recycling performance (%)						
Council	**Baseline**		**High efficiency option**		**High recycling option**	
Darlington	£3,068,664	21%	£3,248,679	29%	£3,615,253	45%
Hartlepool	£3,478,372	32%	£2,533,937	27%	£3,370,668	41%
Middlesbrough	£4,455,631	31%	£3,163,232	28%	£3,869,119	36%
Redcar & Cleveland	£5,281,723	43%	£4,461,639	39%	£5,169,295	52%
Stockton-on-Tees	£6,236,458	21%	£6,015,219	21%	£6,806,005	31%
Tees Valley	**£22,520,848**	**29%**	**£19,422,706 [£17,383,088*]**	**28%**	**£22,830,340 [£20,790,722*]**	**40%**
***** includes Garden waste service subscription net revenue						

Table E4: Number of front line roles required to operate collection service for all Councils

Council	Baseline	High efficiency option	High recycling option
Darlington	39	42	53
Hartlepool	36	30	46
Middlesbrough	57	39	54
Redcar & Cleveland	76	64	78
Stockton-on-Tees	91	78	98
Tees Valley	**299**	**253**	**329**

Table E5 Collection mileage, derived from KAT and inflated to 2027 projection (km)

Council	Baseline	High efficiency option	High recycling option
Darlington	342,029	359,292	492,353
Hartlepool	623,680	309,909	474,569
Middlesbrough	250,001	199,404	259,744
Redcar & Cleveland	1,041,667	884,785	1,386,169
Stockton-on-Tees	591,697	587,813	794,664
Tees Valley	**2,849,074**	**2,341,204**	**3,407,500**

Appendix F: Summary of waste flow model outputs

Scenario 1a (Baseline)		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	358,024	360,016	361,934	363,711	365,511	367,313	369,224	371,049	372,838	374,567	376,317	378,145	379,860	381,553	383,138	384,737
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.0%	33.9%	33.9%	33.9%	33.9%	33.8%	33.8%	33.8%	33.8%	33.7%	33.7%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.5%	89.5%	89.5%	89.5%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.2%	6.2%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%
	NPV	£505,244,769																			
Scenario 1b		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	358,024	360,016	361,934	363,711	365,511	367,313	369,224	371,049	372,838	374,567	376,317	378,145	379,860	381,553	383,138	384,737
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.0%	34.0%	33.9%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.4%	93.3%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.2%	6.2%	6.1%	6.1%	6.1%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
	NPV	£514,479,309																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%	4.0%	4.0%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%
	9: % change in NPV	1.8%																			
Scenario 1c		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	358,024	360,016	361,934	363,711	365,511	367,313	369,224	371,049	372,838	374,567	376,317	378,145	379,860	381,553	383,138	384,737
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.0%	34.0%	33.9%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.4%	64.9%	64.9%	64.9%	65.0%	65.0%	65.0%	65.0%	65.1%	65.1%	65.1%	65.1%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.2%	6.2%	6.1%	6.1%	6.1%	20.2%	20.2%	20.2%	20.2%	20.2%	20.2%	20.3%	20.3%	20.3%	20.3%	20.3%
	NPV	£494,885,562																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-24.5%	-24.5%	-24.5%	-24.4%	-24.4%	-24.4%	-24.4%	-24.4%	-24.4%	-24.4%	-24.4%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%
	9: % change in NPV	-2.1%																			
Scenario 1d		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	358,024	360,016	361,934	363,711	365,511	367,313	369,224	371,049	372,838	374,567	376,317	378,145	379,860	381,553	383,138	384,737
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.2%	34.2%	34.1%	34.1%	34.1%	34.0%	34.0%	34.0%	34.0%	34.0%	33.9%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.3%	89.4%	93.3%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.2%	6.2%	6.1%	6.1%	6.1%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
	NPV	£513,847,597																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%	4.0%	4.0%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%
	9: % change in NPV	1.7%																			

Scenario 2a		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,723	353,674	355,551	357,293	359,055	360,821	362,693	364,481	366,235	367,930	369,645	371,437	373,117	374,777	376,331	377,899
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.4%	34.4%	34.4%	34.4%	34.3%	34.3%	34.3%	34.3%	34.2%	34.2%	34.2%	34.2%	34.1%	34.1%	34.1%	34.1%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.6%	89.6%	89.6%	89.6%	89.6%	89.6%	89.6%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
	NPV	£468,574,929																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.34%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.13%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
	9: % change in NPV	-7.3%																			
Scenario 2b		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,723	353,674	355,551	357,293	359,055	360,821	362,693	364,481	366,235	367,930	369,645	371,437	373,117	374,777	376,331	377,899
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.4%	34.4%	34.4%	34.4%	34.3%	34.5%	34.5%	34.5%	34.4%	34.4%	34.4%	34.4%	34.3%	34.3%	34.3%	34.3%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.5%	89.5%	89.5%	89.5%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.0%	6.0%	6.0%	6.0%	6.0%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
	NPV	£477,748,444																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%
	9: % change in NPV	-5.4%																			
Scenario 2c		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,723	353,674	355,551	357,293	359,055	360,821	362,693	364,481	366,235	367,930	369,645	371,437	373,117	374,777	376,331	377,899
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.4%	34.4%	34.4%	34.4%	34.3%	34.5%	34.5%	34.5%	34.4%	34.4%	34.4%	34.4%	34.3%	34.3%	34.3%	34.3%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.5%	89.5%	89.5%	89.5%	64.8%	64.9%	64.9%	64.9%	64.9%	65.0%	65.0%	65.0%	65.1%	65.1%	65.1%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.0%	6.0%	6.0%	6.0%	6.0%	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%
	NPV	£458,598,575																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	-24.5%	-24.5%	-24.5%	-24.5%	-24.5%	-24.5%	-24.4%	-24.4%	-24.4%	-24.4%	-24.4%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	13.9%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
	9: % change in NPV	-9.2%																			
Scenario 2d		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,723	353,674	355,551	357,293	359,055	360,821	362,693	364,481	366,235	367,930	369,645	371,437	373,117	374,777	376,331	377,899
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	34.4%	34.4%	34.4%	34.4%	34.3%	34.5%	34.5%	34.5%	34.4%	34.4%	34.4%	34.4%	34.3%	34.3%	34.3%	34.3%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.5%	89.5%	89.5%	89.5%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%	93.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	6.0%	6.0%	6.0%	6.0%	6.0%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
	NPV	£477,131,043																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%	-2.3%
	9: % change in NPV	-5.6%																			

Scenario 2e		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,908	353,859	355,738	357,480	359,243	361,009	362,882	364,671	366,425	368,121	369,836	371,628	373,309	374,969	376,523	378,091
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	43.3%	43.3%	43.3%	43.3%	43.2%	43.2%	43.2%	43.1%	43.1%	43.1%	43.1%	43.0%	43.0%	43.0%	43.0%	42.9%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.6%	89.6%	89.6%	89.6%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
	NPV	£492,540,215																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%	9.2%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.09%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.85%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%
	9: % change in NPV	-2.5%																			
Scenario 2f		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,908	353,859	355,738	357,480	359,243	361,009	362,882	364,671	366,425	368,121	369,836	371,628	373,309	374,969	376,523	378,091
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	43.3%	43.3%	43.3%	43.3%	43.2%	43.4%	43.3%	43.3%	43.3%	43.3%	43.2%	43.2%	43.2%	43.2%	43.1%	43.1%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.3%	5.3%	5.3%	5.3%	5.3%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
	NPV	£500,738,857																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	9.2%	9.2%	9.2%	9.2%	9.2%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%
	9: % change in NPV	-0.9%																			
Scenario 2g		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,908	353,859	355,738	357,480	359,243	361,009	362,882	364,671	366,425	368,121	369,836	371,628	373,309	374,969	376,523	378,091
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	43.3%	43.3%	43.3%	43.3%	43.2%	43.4%	43.3%	43.3%	43.3%	43.3%	43.2%	43.2%	43.2%	43.2%	43.1%	43.1%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	64.3%	64.4%	64.4%	64.4%	64.5%	64.5%	64.5%	64.6%	64.6%	64.6%	64.6%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.3%	5.3%	5.3%	5.3%	5.3%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.9%	17.9%	17.9%	17.9%	17.9%
	NPV	£483,813,313																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	9.2%	9.2%	9.2%	9.2%	9.2%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	-25.0%	-25.0%	-25.0%	-25.0%	-25.0%	-24.9%	-24.9%	-24.9%	-24.9%	-24.9%	-24.8%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%
	9: % change in NPV	-4.2%																			
Scenario 2h		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	351,908	353,859	355,738	357,480	359,243	361,009	362,882	364,671	366,425	368,121	369,836	371,628	373,309	374,969	376,523	378,091
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	43.3%	43.3%	43.3%	43.3%	43.2%	43.4%	43.3%	43.3%	43.3%	43.3%	43.2%	43.2%	43.2%	43.2%	43.1%	43.1%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%	93.2%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.3%	5.3%	5.3%	5.3%	5.3%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%
	NPV	£500,193,169c																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	9.2%	9.2%	9.2%	9.2%	9.2%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%
	9: % change in NPV	-1.0%																			

Scenario 3a		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,427	352,369	354,238	355,970	357,725	359,482	361,345	363,125	364,871	366,559	368,266	370,050	371,722	373,375	374,922	376,483
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	37.0%	37.1%	37.1%	37.1%	37.2%	37.2%	37.3%	37.3%	37.3%	37.4%	37.3%	37.3%	37.3%	37.3%	37.2%	37.2%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%	89.6%	89.6%	89.6%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%
	NPV	£467,033,114																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	2.9%	3.0%	3.1%	3.1%	3.2%	3.3%	3.3%	3.4%	3.4%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.09%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.4%	-0.4%	-0.36%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%
	9: % change in NPV	-7.6%																			
Scenario 3b		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,427	352,369	354,238	355,970	357,725	359,482	361,345	363,125	364,871	366,559	368,266	370,050	371,722	373,375	374,922	376,483
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	37.0%	37.1%	37.1%	37.1%	37.2%	37.4%	37.5%	37.5%	37.5%	37.6%	37.5%	37.5%	37.5%	37.5%	37.4%	37.4%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.5%	89.5%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.8%	5.8%	5.8%	5.8%	5.8%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
	NPV	£475,864,465																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	2.9%	3.0%	3.1%	3.1%	3.2%	3.5%	3.5%	3.6%	3.6%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-2.4%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%
	9: % change in NPV	-5.8%																			
Scenario 3c		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,427	352,369	354,238	355,970	357,725	359,482	361,345	363,125	364,871	366,559	368,266	370,050	371,722	373,375	374,922	376,483
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	37.0%	37.1%	37.1%	37.1%	37.2%	37.4%	37.5%	37.5%	37.5%	37.6%	37.5%	37.5%	37.5%	37.5%	37.4%	37.4%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.5%	89.5%	64.7%	64.7%	64.7%	64.7%	64.8%	64.8%	64.8%	64.8%	64.9%	64.9%	64.9%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.8%	5.8%	5.8%	5.8%	5.8%	19.4%	19.4%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%	19.3%
	NPV	£457,570,071																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	2.9%	3.0%	3.1%	3.1%	3.2%	3.5%	3.5%	3.6%	3.6%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	-24.7%	-24.7%	-24.7%	-24.7%	-24.7%	-24.6%	-24.6%	-24.6%	-24.6%	-24.6%	-24.6%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%	13.2%
	9: % change in NPV	-9.4%																			
Scenario 3d		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,427	352,369	354,238	355,970	357,725	359,482	361,345	363,125	364,871	366,559	368,266	370,050	371,722	373,375	374,922	376,483
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	37.0%	37.1%	37.1%	37.1%	37.2%	37.4%	37.5%	37.5%	37.5%	37.6%	37.5%	37.5%	37.5%	37.5%	37.4%	37.4%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.5%	89.5%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.3%	93.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.8%	5.8%	5.8%	5.8%	5.8%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
	NPV	£475,274,645																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%	-2.1%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	2.9%	3.0%	3.1%	3.1%	3.2%	3.5%	3.5%	3.6%	3.6%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-2.4%	-2.5%	-2.45%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%	-2.5%
	9: % change in NPV	-5.9%																			

Scenario 3e		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,790	352,764	354,667	356,433	358,221	360,011	361,909	363,723	365,503	367,225	368,935	370,722	372,398	374,053	375,603	377,166
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	46.2%	46.3%	46.3%	46.4%	46.5%	46.5%	46.6%	46.7%	46.7%	46.8%	46.8%	46.7%	46.7%	46.7%	46.7%	46.6%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.4%	89.5%	89.5%	89.5%	89.5%	89.5%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.1%	5.1%	5.1%	5.1%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	NPV	£490,596,307																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-1.97%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	12.1%	12.2%	12.3%	12.4%	12.5%	12.6%	12.7%	12.8%	12.8%	12.9%	12.9%	12.9%	12.9%	12.9%	12.9%	12.9%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.02%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%
	9: % change in NPV	-2.9%																			
Scenario 3f		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,790	352,764	354,667	356,433	358,221	360,011	361,909	363,723	365,503	367,225	368,935	370,722	372,398	374,053	375,603	377,166
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	46.2%	46.3%	46.3%	46.4%	46.5%	46.7%	46.8%	46.8%	46.9%	47.0%	46.9%	46.9%	46.9%	46.9%	46.8%	46.8%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	93.0%	93.0%	93.0%	93.0%	93.1%	93.1%	93.1%	93.1%	93.1%	93.1%	93.1%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.1%	5.1%	5.1%	5.1%	5.0%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
	NPV	£498,429,872																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-1.97%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	12.1%	12.2%	12.3%	12.4%	12.5%	12.7%	12.8%	12.9%	13.0%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-2.8%	-2.8%	-2.8%	-2.8%	-2.9%	-2.9%	-2.9%	-2.9%	-2.9%	-2.9%	-2.9%
	9: % change in NPV	-1.3%																			
Scenario 3g		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,790	352,764	354,667	356,433	358,221	360,011	361,909	363,723	365,503	367,225	368,935	370,722	372,398	374,053	375,603	377,166
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	46.2%	46.3%	46.3%	46.4%	46.5%	46.7%	46.8%	46.8%	46.9%	47.0%	46.9%	46.9%	46.9%	46.9%	46.8%	46.8%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	64.1%	64.1%	64.1%	64.2%	64.2%	64.2%	64.3%	64.3%	64.3%	64.3%	64.4%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.1%	5.1%	5.1%	5.1%	5.0%	17.0%	17.0%	17.0%	16.9%	16.9%	16.9%	16.9%	16.9%	16.9%	16.9%	16.9%
	NPV	£482,459,135																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	12.1%	12.2%	12.3%	12.4%	12.5%	12.7%	12.8%	12.9%	13.0%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	-25.3%	-25.3%	-25.3%	-25.2%	-25.2%	-25.2%	-25.2%	-25.2%	-25.2%	-25.1%	-25.1%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%
	9: % change in NPV	-4.5%																			
Scenario 3h		**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**	**2032/33**	**2033/34**	**2034/35**	**2035/36**
WfM outputs	Total LACW arisings	351,644	351,860	353,917	356,011	350,790	352,764	354,667	356,433	358,221	360,011	361,909	363,723	365,503	367,225	368,935	370,722	372,398	374,053	375,603	377,166
	Reuse and recycling	34.2%	34.2%	34.2%	34.1%	46.2%	46.3%	46.3%	46.4%	46.5%	46.7%	46.8%	46.8%	46.9%	47.0%	46.9%	46.9%	46.9%	46.9%	46.8%	46.8%
	Recovery of waste	88.1%	89.3%	89.3%	89.3%	89.4%	89.4%	89.4%	89.4%	89.4%	93.0%	93.0%	93.0%	93.0%	93.1%	93.1%	93.1%	93.1%	93.1%	93.1%	93.1%
	Waste to landfill	6.8%	6.2%	6.2%	6.2%	5.1%	5.1%	5.1%	5.1%	5.0%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
	NPV	£497,914,968																			
Options appraisal criterion	2: % change in arisings	0.0%	0.0%	0.0%	0.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%
	3: Change in % recycling	0.0%	0.0%	0.0%	0.0%	12.1%	12.2%	12.3%	12.4%	12.5%	12.7%	12.8%	12.9%	13.0%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%
	4: Change in % recovery	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
	5: Change in % landfill	0.0%	0.0%	0.0%	0.0%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-2.8%	-2.8%	-2.8%	-2.8%	-2.9%	-2.9%	-2.9%	-2.9%	-2.9%	-2.9%	-2.9%
	9: % change in NPV	-1.5%																			

Appendix G: Summary of WRATE outputs

Raw Data	Unit	Sc1a (Baseline)	Sc1b EfW (electricity only)	Sc1b EfW (CHP)	Sc1c	Sc1d	Sc2a	Sc2b EfW (electricity only)	Sc2c	Sc2d	Sc2e	Sc2f EfW (electricity only)	Sc2g	Sc2h
Climate change: GWP 100a	kg CO2-Eq	-10,090,974	-29,507,099	-52,175,384	-7,479,756	-27,927,226	-14,563,558	-33,067,854	-10,936,213	-31,427,214	-15,182,048	-31,777,034	-15,756,06	-30,649,906
Climate change: GWP 100a Change from baseline	t CO2-Eq		-19,400	-42,100	2,600	-17,800	-4,500	-23,000	-800	-21,300	-5,100	-21,700	-5,700	-20,600
Acidification potential: average European	kg SO2-Eq	-113,435	-111,320	-133,577	-217,651	-102,795	183,710	184,925	81,331	193,779	207,962	206,909	116,398	212,991
Eutrophication potential: generic	kg PO4-Eq	21,249	12,971	12,862	53,109	14,605	87,601	79,919	119,739	81,616	89,458	83,331	115,427	84,496
Freshwater aquatic ecotoxicity: FAETP infinite	kg 1,4-DCB-Eq	-7,922,771	-8,538,891	-8,536,584	-7,713,597	-8,392,579	-8,617,423	-9,216,150	-8,373,291	-9,064,210	-8,565,552	-9,145,763	-8,300,587	-9,041,380
Human toxicity: HTP infinite	kg 1,4-DCB-Eq	-96,566,232	-99,971,347	-102,687,607	-97,228,199	-99,267,663	-100,769,624	-104,112,354	-100,942,537	-103,381,605	-100,589,203	-103,807,886	-100,713,163	-103,305,857
Resources: depletion of abiotic resources	kg antimony-Eq	-750,360	-816,308	-999,816	-1,425,738	-802,791	-772,400	-839,637	-1,417,230	-825,600	-766,045	-825,077	-1,413,915	-815,433
Normalised data (Eur.Person.Eq)	Unit													
Acidification potential: average European	Eur.Person.Eq	-1,586	-1,556	-1,867	-3,042	-1,437	2,568	2,585	1,137	2,709	2,907	2,892	1,627	2,977
	% change from baseline		-2%	18%	92%	-9%	-262%	-263%	-172%	-271%	-283%	-282%	-203%	-288%
Eutrophication potential: generic	Eur.Person.Eq	636	388	385	1,589	437	2,621	2,391	3,583	2,442	2,677	2,493	3,454	2,528
	% change from baseline		39%	39%	-150%	31%	-312%	-276%	-463%	-284%	-321%	-292%	-443%	-297%
Freshwater aquatic ecotoxicity: FAETP infinite	Eur.Person.Eq	-6,009	-6,476	-6,474	-5,850	-6,365	-6,536	-6,990	-6,350	-6,874	-6,496	- 6,936	-6,295	-6,857
	% change from baseline		8%	8%	-3%	6%	9%	16%	6%	14%	8%	15%	5%	14%
Human toxicity: HTP infinite	Eur.Person.Eq	-4,886	-5,058	-5,195	-4,919	-5,022	-5,098	-5,268	-5,107	-5,231	-5,089	-5,252	-5,096	-5,227
	% change from baseline		4%	6%	1%	3%	4%	8%	5%	7%	4%	7%	4%	7%
Resources: depletion of abiotic resources	Eur.Person.Eq	-9,418	-21,125	-25,874	-36,896	-20,775	-19,988	-21,728	-36,676	-21,365	-19,824	-21,352	-36,590	-21,102
	% change from baseline		9%	33%	90%	7%	3%	12%	89%	10%	2%	10%	88%	9%
Note: For the % change from baseline, a positive value is an improvement in performance and a negative value is a deterioration in performance														

Appendix H: Detailed assessments of scenarios

Refer to options appraisal scoring spreadsheet.

NOTE!

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