Worcestershire Minerals and Waste Development Framework

Authority Monitoring Report

April 2015 to December 2015

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Executive Summary

Under the Town and Country Planning (Local Planning) (England) Regulations 2012, the County Council is required to produce an Authority Monitoring Report (AMR) of the Minerals and Waste Local Development Framework, which during the monitoring year consisted of saved policies from the County of Hereford and Worcester Minerals Local Plan (1997), and the Worcestershire Waste Core Strategy (2012). The purpose of the AMR is to review the progress against the County's Mineral and Waste Local Development Scheme (LDS) and to assess the extent to which the objectives of the Minerals and Waste Local Development Framework are being implemented.

The waste indicators monitored in this AMR reflect the objectives of the Waste Core Strategy, which was adopted on the 15th November 2012. Due to the lack of objectives in the 1997 Minerals Local Plan, the minerals indicators currently being monitored reflect a combination of issues identified in the National Planning Policy Framework, data from the Local Aggregates Assessment, and mirror some of the issues in the Waste Core Strategy's objectives.

The monitoring period for this Authority Monitoring Report (AMR) is 1st April 2015 to 31st December 2015.

Local Development Scheme (LDS)

The LDS adopted in 2012 was in place during the first part of the 2015 monitoring period. It covered the final stages of the preparation of the Waste Core Strategy and the development of a new Minerals Local Plan for Worcestershire. Performance against the 2012 LDS was off target, with activity behind schedule. An updated Local Development Scheme was adopted on 24th April 2015.

Significant progress was made during the monitoring period towards drafting the Minerals Local Plan in accordance with the 2015 LDS for the 3rd Detailed Proposal Consultation scheduled for mid-2016.

Section	Performance
Performance against adopted LDS.	The Minerals and Waste Local Development Scheme was revised in 2015.

Waste Core Strategy

The adopted Waste Core Strategy includes 8 plan objectives and a set of indicators, targets and milestones to monitor the achievement of these objectives. Performance against the majority of waste indicators was good, with targets for 20 of the 38 indicators being met, meaning that 6 out of the 8 objectives were being delivered.

Objective	Performance
WO1: To base decisions on the need to reduce greenhouse gas emissions and to be resilient to climate change.	This objective is largely being delivered.
WO2: To base decisions on the principles of sustainable development by protecting and enhancing the County's natural resources, environmental, cultural and economic assets, the character and amenity of the local area and the health and wellbeing of the local people.	This objective is largely being delivered.
WO3: To make driving waste up the waste hierarchy the basis for waste management in Worcestershire.	The performance of this objective cannot be assessed due to incomplete data.

Objective	Performance
WO4: To ensure that the waste implications of all new development in Worcestershire are taken into account.	This objective is largely being delivered.
WO5: To enable equivalent self-sufficiency in Waste Management in the County by addressing the "Capacity Gap" over the life of the strategy to 2027 and safeguard existing waste management facilities from incompatible development.	This objective is largely being delivered.
WO6: To involve all those affected as openly and effectively as possible.	There are significant failings in delivering this objective.
WO7: To develop a waste management industry that contributes positively to the local economy.	This objective is largely being delivered.
WO8: To direct development to the most appropriate locations in accordance with the spatial strategy.	This objective is largely being delivered.

Many of the areas which were below target were expected to improve following the adoption of the Validation Document in February 2015. As the validation document was adopted one month before the start of this monitoring period, many applications determined in this monitoring period were submitted and made valid before the adoption of the validation document. Therefore the failure to meet targets in this monitoring year is seen to be a short-term failure in most cases.

However, in the case of the requirement for planning applications for waste management to include a consultation statement, none of the planning applications permitted during the monitoring period contained this statement, against a target of 100%. In this case a misunderstanding over whether the Validation Document requires all applications to submit a consultation statement, even in cases where no pre-application discussion was undertaken has been identified with Development Control colleagues. Discussion to understand any difficulties they are facing implementing the Validation Document will be conducted, and if necessary further training will be undertaken.

One of the areas where targets are not being met is delivery of waste management facilities in accordance with the Waste Core Strategy's Geographic Hierarchy. Only 50% of the new permitted waste development for new re-use, recycling, storage, sorting and transfer capacity was located at level 1 or 2 of the geographic hierarchy in this monitoring period, against a target of 100%. This is an improvement over the 2014-15 monitoring period where 33% of new permitted waste development for new re-use, recycling, storage, sorting and transfer capacity was located at level 1 or 2 of the geographic hierarchy. However, only two relevant applications were determined during the 2015 monitoring period, of which only one application was permitted outside levels 1 and 2 of the geographic hierarchy. The low number of applications and the improvement in the performance of the indicator from the previous year mean that the failure of this indicator has been judged to be a short term failure.

Strong performance is being seen in indicators measuring the delivery of Objective WO2 for sustainable waste management development which contributes to for the protection and enhancement of the county's natural resources.

Although some progress is being seen in driving waste up the waste hierarchy (Objective WO3), no overall conclusion can be drawn on its performance due to the lack of reliable data which prevents effective monitoring of re-use, recycling and recovery of construction and demolition waste, as well as Household, Commercial and Industrial waste. However, the proportion of Local Authority Collected Waste (LACW) managed in Worcestershire being disposed of in landfill has remained steady at 50% and the construction of the Energy from

Waste Plant at Hartlebury is expected to improve performance of LACW waste undergoing re-use, recycling and other recovery. Re-use, recycling and other recovery rates of hazardous waste were in excess of the 2020 target.

Good progress has also been seen towards achieving equivalent self-sufficiency[1] in the waste management capacity which exists in the county for managing all waste streams through re-use, recycling and other recovery, and landfill capacity remains adequate for the life of the Waste Core Strategy.

Minerals Local Plan

The adopted County of Hereford and Worcester Minerals Local Plan does not contain monitoring indicators. There is however a role for the AMR to monitor the supply of minerals and the decision making process and it is the Council's intention to continue to monitor minerals indicators set out in previous AMRs, which reflect issues identified in national policy, the Local Aggregates Assessment and mirror issues from the Waste Core Strategy indicators, until the new Minerals Local Plan is sufficiently developed.

Issue	Performance
Applications determined for minerals development.	The performance of this set of indicators shows poor performance.
Steady and adequate supply of aggregate mineral resources.	The performance of this set of indicators shows poor performance.
Steady and adequate supply of industrial minerals.	The performance of this set of indicators shows good performance.
Economic benefit of minerals development.	The indicators in this section are being monitored to provide a baseline to inform the development of the new Minerals Local Plan.

Many minerals indicators failed to meet their targets in the 2015 monitoring period. However, developing and adopting the new Minerals Local Plan will be key to improving performance in most areas, as well as establishing appropriate targets and indicators.

In particular, the provision of aggregate minerals was below target during the monitoring period. The new Minerals Local Plan will help to address this by providing an up to date policy framework to give the minerals industry greater certainty and confidence to bring sites forward.

Statement of Community Involvement (SCI)

The SCI was updated in February 2015.

No information was available to monitor satisfaction with the Development Plan process/service in this monitoring period, but future consultations will outline the consultation methods used and ask an additional question during the consultation process to establish whether these are satisfactory or whether other methods could be used.

Response rates to planning policy consultations were considered adequate.

Satisfaction levels with the planning application process/service were also considered satisfactory, with no complaints being wholly upheld by the ombudsman, court decisions against the council or, appeals upheld. However one complaint was partially upheld by the ombudsman. In response to this the Council has invested in a software package which will assist with workflow monitoring and highlight at an early stage if there are delays in responding to complaints.

Conclusion

[1] See page 39 for definition

Overall 6 waste objectives showed good performance, with no issues identified which have long term implications for the objectives and vision of the adopted Waste Core Strategy to be delivered. Progress on the development of a new Minerals Local Plan was continuing in accordance with the LDS. Work arising from this monitoring report will continue into 2016 to address the identified issues and to rectify data issues in partnership with the data owners.

2. Introduction

Purpose of the AMR

1.1.2. This Authority Monitoring Report (AMR) covers the period from 1st April 2015 to 31st December 2015

1.1.3. Under the Town and Country Planning (Local Planning) (England) Regulations 2012, the County Council is required to produce an AMR of the Minerals and Waste Local Development Framework. The AMR assesses the Minerals and Waste policy framework, which during the monitoring year consisted of saved policies from the County of Hereford and Worcester Minerals Local Plan 1994-2004, and the Worcestershire Waste Core Strategy 2012-2027.The purpose of the AMR is to:

- Review the progress of implementing the County's Mineral and Waste Local Development Scheme (LDS), particularly whether the Council is meeting the timescales and milestones set out in the Scheme;

- Assess the performance of the objectives of the adopted Waste Core Strategy (WCS) based on the indicators and targets set out in the WCS;

- Monitor strategic issues in relation to minerals development and provide baseline data for the emerging Minerals Local Plan. Once adopted the Minerals Local Plan will include monitoring indicators which will be reported on in the AMR;

- Assess whether the policies in the components of the Development Plan Documents prepared by the County Council as Minerals and Waste Planning Authority need to be adjusted or replaced;

- Assess whether the policies prepared by the City, Borough and District Councils as Local Planning Authorities accord with the Minerals and Waste Development Framework; and

- Monitor consultation activities and the indicators set out in the Statement of Community Involvement.

1.1.4. The AMR is published alongside an annual update on the Local Aggregates Assessment (LAA) in Annex 1: LAA, and activities undertaken by the Council in line with the Duty to Co-operate on the preparation of the Minerals Local Plan during 2015 in Annex 2: Duty to Cooperate statement.

1.1.5. Borough, City and District Council Local Development Documents are assessed in the AMRs prepared by the responsible authorities.

1.1.6. The AMR for this and previous years is published on the Council's website: www.worcestershire.gov.uk/amr

Format and Content

1.1.7. The format and content of this AMR differs from previous years in several ways. Previous AMRs published by Worcestershire County Council have considered the financial year, reporting from April-March. However not all of the data sets used in the AMR are reported in this time frame, with most of the data relating to the throughput and capacity of waste operations only available for calendar years. In cases where data between January 2015 and March 2015 was analysed in the 2014-15 AMR we have ensured that this does not skew the results through double counting of this data between AMRs.

1.1.8. The Council has therefore decided to publish this AMR covering the time period 1st April 2015 to 31st December 2015 and will publish all subsequent AMRs to cover the appropriate calendar year.

1.1.9. In addition the waste and minerals indicators are now considered in separate sections due the very different nature of these indicators. The waste indicators are set out in the adopted Waste Core Strategy Local Plan and are intended to monitor the delivery of the plan. The adopted Minerals Local Plan does not contain monitoring indicators so mineral indicators have been included that are similar to those in the Waste Core Strategy, however these are used to monitor a baseline and inform the development on the emerging Minerals Local Plan rather than monitor plan delivery. Once adopted the new Minerals Local Plan will include a monitoring schedule to be reported on in the AMR.

1.1.10. Please contact us if you would like to comment on the report or would like to suggest targets or indicators which could be considered for inclusion in the emerging Minerals Local Plan or in any future review of the Waste Core Strategy.

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3. Implementation of the Council's Minerals and Waste Local Development Scheme

The Minerals and Waste Local Development Scheme was revised in 2015.

No action is required.

Indicator Analysis

2.1. Worcestershire County Council is the Local Planning Authority for minerals and waste planning for the county of Worcestershire. Section 15 of the Planning and Compulsory Purchase Act 2004, as amended, sets out the requirement for Local Planning Authorities to prepare and maintain a scheme and schedule of planning policy documents that it intends to produce, known as a Local Development Scheme. The Minerals and Waste Local Development Scheme (LDS) has two main purposes:

- To inform the public about the preparation and adoption of planning documents; and
- To establish and reflect Council priorities and enable work programmes to be set for the preparation of the documents.

2.2. The LDS adopted in 2012 was in place during the first part of the 2015 monitoring period. It covered the final stages of the preparation of the Waste Core Strategy and the development of a new Minerals Local Plan for Worcestershire. Performance against the 2012 LDS was off target, with activity behind schedule (as shown in Table 1).

Development document	Stage of Preparation	2012	2013				2014				2015			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Minerals Local Plan	Initial concept consultation (Reg 18: Public Participation)	✓												
	Second stage issues consultation (Reg 19: Publication of local plan)					✓	✓							
	Draft Plan consultation: detailed proposals (Reg 19: Publication of local plan)													
	Statutory publication and period for representations (Regs 19 and 20: Publication and representations)													
	Submission to Secretary of State (Reg 22: Submission of documents and information)													
	Examination (Reg 24: Independent examination)													
	Adoption (Reg 26: Adoption of plan)													

Milestone target

✔ Activity undertaken

2.3. The first stage of the preparation of the Minerals Local Plan took place in Winter 2012-2013 meeting the Local Development Scheme target. The Second Stage Consultation (Reg 19 Issues consultation) was programmed to take place during Q2/Q3 of 2013. This actually commenced in Q4 2013 ending in Q1 of 2014. The Draft Plan (Third Stage) consultation did not take place within the monitoring year.

2.4. Further work was undertaken on the plan development which was essential to meet the requirements of plan development as set out in the NPPF, but had not been included within the 2012 LDS including undertaking a detailed analysis of minerals resource, and conducting two calls for minerals sites. The initial call took place in summer 2014 and the second in summer 2015 as insufficient sites were identified in the first call for sites.

2.5. A significant factor in this delay was that a much greater level of assessment and analysis of the county's mineral resources was required and commenced. This proved to be more complex than originally anticipated, because of a gaps and conflicts in the available data resulting in more time being required than scheduled. This assessment is a fundamental part of the evidence base to enable the successful development of a sound plan.

2.6. During autumn 2015, there were also some significant changes to the Minerals and Waste Planning Policy Team. The Minerals and Waste Planning Policy Manager took early retirement and one of the two Principal

Minerals and Waste Planners took maternity leave for 12 months. In combination these staff changes represented a significant loss of skills and experience to the team, and correspondingly slowed the development of the new Minerals Local Plan. These changes to the team were unfortunately subsequent to the adoption of the 2015 LDS and were not reflected in its time table.

2.7. For these reasons, an updated Local Development Scheme was adopted on 24th April 2015.

Stage of Preparation	2012	2013				2014				2015				2016				2017				2018			
	Q4	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
Concept Consultation **Reg 18**	✓	✓																							
Response			✓																						
2nd Issues and vision Consultation Reg 18				✓	✓	✓																			
Response to Consultation						✓	✓	✓																	
Updating evidence								✓	✓	✓															
Drafting Plan											✓	✓	✓												
3rd Detailed Proposal Consultation Reg 19																									
Response																									
Statutory "soundness" Consultation (Reg 19 and 20)																									
Submission to Secretary of State (Reg 20)																									
Examination																									
Reg 26 **Adoption**																									

Legal Challenge																								

Conclusion

Significant progress was made during the monitoring period towards drafting the Minerals Local Plan in accordance with the 2015 LDS for the 3rd Detailed Proposal Consultation scheduled for mid-2016. Therefore, no action is required.

4. Community Involvement

This objective is being delivered.

No action is required.

Indicator	Target	2015 Result
SCI1: Satisfaction levels with the Development Plan process/service.	Satisfaction with consultation methods employed.	Not able to monitor
SCI2: Response rates to planning policy consultations.	The SCI does not set specific targets.	0
SCI3: Satisfaction levels with the planning application process/service.	Zero complaints upheld by the Local Government Ombudsman, court decisions against the council or, appeals upheld.	One complaint partially upheld

Indicator Analysis

SCI 1: Satisfaction levels with the Development Plan process/service

3.1. There is no information available to assess the performance of indicator **SCI1: Satisfaction levels with the Development Plan process/service**. Previously satisfaction with the Development Plan process was measured by sending satisfaction surveys to contacts on the Planning Unit's consultation database. Worcestershire County Council found that these surveys were not useful due to the complications in distinguishing between the county and district development plan consultations and the development control process. In the 2014/15 AMR it was established that in future this process would be streamlined through the introduction of an additional question asked as part of future consultations to determine whether respondents were satisfied with the consultation process. As the 2014/15 AMR was published after the end of the monitoring period of this AMR, this question was not in this monitoring period.

3.2. To enable the monitoring of this indicator in the future the Council will ask whether respondents were satisfied with the consultation process.

SCI 2: Response rates to planning policy consultations

3.3. Indicator SCI2: Response rates to planning policy consultations has no set target. Although response rates are relatively easy to measure, they do not necessarily indicate satisfaction with the Development Plan or consultation process. A low response rate could indicate general satisfaction with proposals, or it could indicate that consultation methods have not been satisfactory in engaging interest in the process. A high response rate may indicate a good level of positive involvement, or a high level of dissatisfaction, or increased interest due to a particular development proposal.

3.4. During this monitoring period a limited consultation was undertaken, this consultation consisted of a call for sites alongside a consultation focusing on infrastructure to be safeguarded, and on a suite of background documents. Due to the wider scope of the 2015 call for sites consultation a higher response

rate is expected compared to the call for sites consultation undertaken in the 2014 monitoring year. The 2014 "call for sites" contacted 727 people and received a 2.5% response rate, in 2015, 713 people were contacted and a response rate of 3.6% was achieved. Due to this indicator SCI2 has been judged to be performing adequately.

SCI 3: Satisfaction levels with the planning application process/service.

3.5. There were no appeals determined during this monitoring period.

3.6. One complaint to the Local Government Ombudsman was received during the monitoring period. This was a complaint that the County Council had failed to stop neighbouring land being used as a waste transfer station and that the County Council had failed to properly monitor the site or take account of the local resident's evidence. The Ombudsman concluded that the Council had acted correctly, however, this complaint was partly-upheld as it was determined that the Council failed to promptly respond to the complainant. (Complaint reference: 13 020 242). Subsequent to this judgement the Planning Unit has put additional procedures in place to address this concern.

3.7. No applications were made to, or judgements made by, the High Court about Worcestershire County Council's planning service or decisions during the monitoring period.

Conclusion

There are three indicators monitoring the performance of Community Involvement. There is no information available to assess the performance of indicator SCI1: Satisfaction levels with the Development Plan process/service. Performance of the other two indicators shows adequate performance in this monitoring period. No action is required. Therefore the performance of this group of indicators has been judged to be performing well.

5. Waste Core Strategy indicators

5.1 Introduction

Changes to the way the Waste Core Strategy is monitored in the AMR

Re-focusing on the performance of Plan objectives

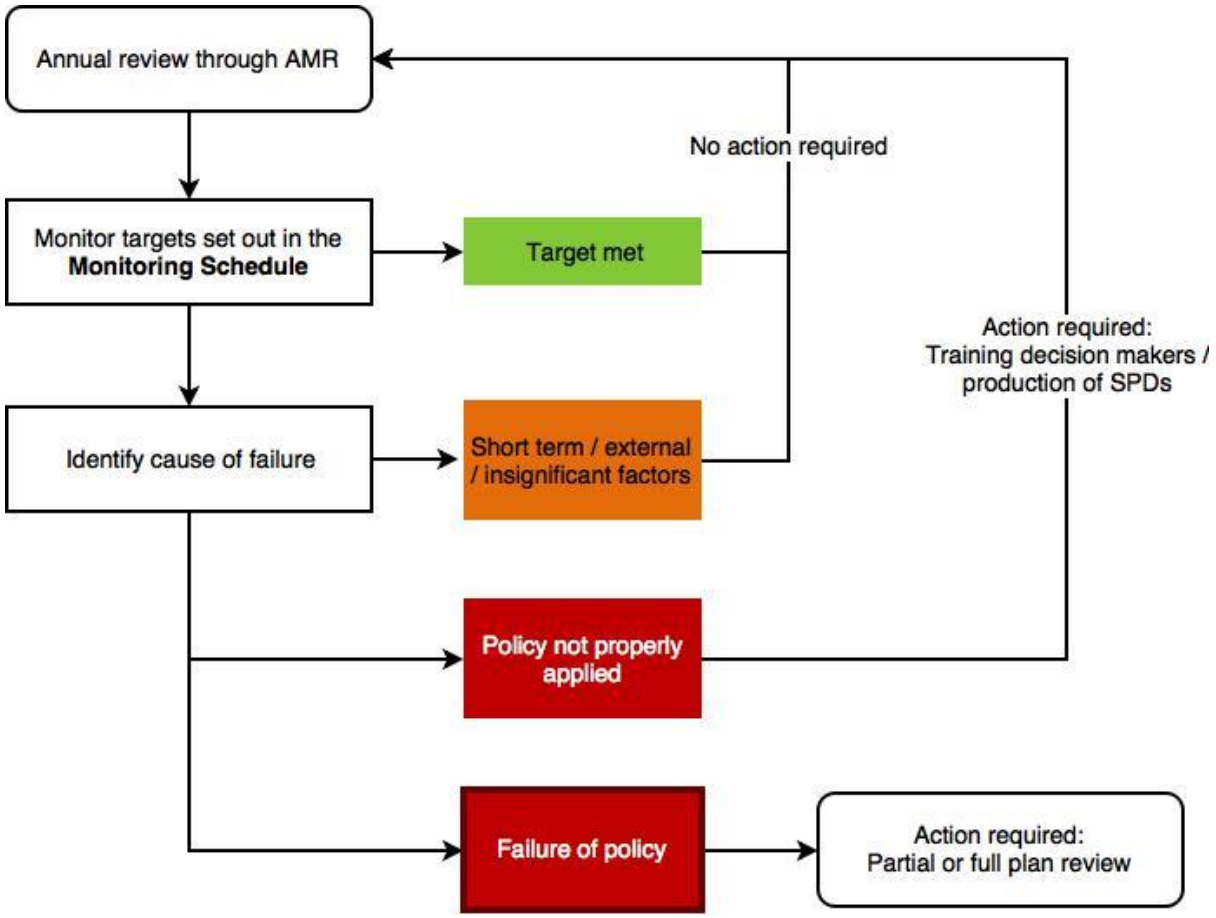
4.1. The adopted Waste Core Strategy Local Plan includes 8 plan objectives and a monitoring schedule which sets out indicators, targets and milestones to monitor the achievement of these objectives. The AMR reports on these indicators and includes 5[2] supplementary indicators where greater clarity was needed to be able to assess the performance of the objectives of the Waste Core Strategy.

4.2. In previous AMRs the performance of each indicator was assessed and reported on, but the assessment of whether the plan objective was being achieved was less clear. The revised structure of this AMR assesses the performance of each of the Waste Core Strategy objectives in turn, based on the performance of the indicators. Each objective contains a summary of the indicators, objective performance and whether any actions have been identified, followed by analysis of each indicator, and an overall conclusion of the performance of the objective. This is intended to make the assessment of the plan more transparent. In addition the analysis of indicators is split into a textual analysis, with data tables found in Appendix A, rather than embedded in the text as was the case in previous AMRs.

4.3. As there are multiple indicators monitoring each objective it is possible that in some cases one target or milestone can be missed without compromising the delivery of the objective in the long-term, however in other cases the failure to meet a single target or milestone might be of such significance that there is considered to be a failure to deliver the objective. Where relevant the rationale for such decisions is set out in the conclusion to the objective analysis. The approach is consistent to the monitoring process set out in figure 18 in the adopted Waste Core Strategy, which has been amended and set out below in figure 1 to provide greater clarity:

[2] W16b, W16c, W16d, W17d, W25b

Figure 1. Indicator review process



4.4. If monitoring indicates that targets have been missed, the process outlined in Figure 1 will be followed. This process will establish whether a failure to meet a target is significant, in which case the Waste Core Strategy may need to be reviewed, or whether it is the result of short-term or other factors which are not significant. It may also be possible to correct some failures through mechanisms such as adopting a Supplementary Planning Document (SPD) rather than formally reviewing the entire Strategy

4.5. To classify how an indicator is performing there is a visual representation of the performance of each relevant indicator at the beginning of the analysis for each objective. The colour coding used is consistent with the flow chart in Figure 1.

4.6. Once the performance of each indicator has been assessed the performance of the objective is reviewed. This review is based upon professional judgement. A summary of the classifications can be seen in Table 1.

Table 1. Objective performance classifications.

Meaning	Colour
Objective is being delivered	
Failure to deliver objective – Actions identified	
Failure in policy. Actions would not be adequate to address this. Full plan review is required.	

Addressing data errors and omissions

4.7. The review of the style of the AMR has been accompanied by a streamlining of the way in which data is recorded and analysed to inform the report. This has flagged up inconsistency in the way in which some data was reported in the past and has highlighted omissions or errors in some of the data from external sources. These issues are outlined in more detail in the relevant sections, however throughout this AMR figures have been recalculated to ensure accuracy, with any errors corrected. Systems have also been put in place to prevent such errors occurring again. Where there have been any changes in the data this AMR

includes analysis of the data over the last 5 years in addition to analysis of the current monitoring year. However the overview of whether the objective is being achieved remains applicable to 2015 only.

Indicator milestones

4.8. In the Waste Core Strategy, 2015 is used as the interim target year to monitor progress towards delivering the waste management treatment in line with the waste hierarchy and meeting Worcestershire's waste management treatment capacity gap as identified in the Waste Core Strategy. This year therefore presents an opportunity to assess the performance of each indicator and objective against set interim targets, rather than looking for progress towards targets as undertaken in previous AMRs.

4.2 WO1: Basing decisions on the need to reduce greenhouse gas emissions and to be resilient to climate change.

This objective is largely being delivered.

No action is required to improve the performance of indicator W3.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W1: Permissions for waste management development granted contrary to the EA advice on flooding	0 (Zero)	0
W2: Permissions for waste management development granted contrary to the EA advice on water quality	0 (Zero)	0
W3: Permissions for waste management development that include measures for energy efficiency	100%	0%
W4: Permissions for waste management development with a gross floor space of over 1000m2 gaining at least 10% of energy supply annually from renewable energy supplies	100%	No relevant Applications
W5: Permissions for waste management development that include measures for water efficiency	100%	No relevant Applications
W6: Permissions for new landfill capacity that include landfill gas management systems	100%	No relevant Applications

Indicator Analysis

4.9. There are 6 indicators that monitor the performance of this objective. Indicators **W1: Permissions for waste management development granted contrary to the EA advice on flooding** and **W2: Permissions for waste management development granted contrary to the EA advice on water quality** both met their target, with no applications being approved against the Environment Agency's advice on these issues.

4.10. The target for indicator **W3: Permissions for waste management development that include measures for energy efficiency** was not met, with no approved new waste management facilities including measures for energy efficiency. This indicator has failed in the past and previous AMRs expected the Validation Document (adopted in February 2015) to improve the performance of this indicator, however this has not been the case. Further investigation has established that the failure of this indicator is due to the nature of applications in this monitoring period. As the only application for new built development was for an extension to an existing single-skin building which would house minimal processing plant and equipment, this gave little scope to apply the relevant policy (WCS11) which requires proposals to demonstrate that "the design of buildings, layout, landscaping and operation of the facility… [reduce] energy demand where possible and considering energy efficiency in the design and operation of all new built development". It is therefore considered that the failure of this indicator to meet targets is not significant and does not indicate a failure of the Waste Core Strategy's policies and no specific action is required.

4.11. There were no applications in this monitoring period relevant to indicators:

- **W4: Permissions for waste management development with a gross floor space of over 1000m2 gaining at least 10% of energy supply annually from renewable energy supplies**; or
- **W5: Permissions for waste management development that include measures for water efficiency**

4.12. In addition, there were no applications relevant to indicator **W6: Permissions for new landfill capacity that include landfill gas management systems**. Although two applications involving landfilling were permitted, these were for limited landfilling where landfill gas management systems would not be practicable.

Conclusion

Three of the indicators monitoring the performance of this objective had no relevant applications in this monitoring period. Of the remaining three indicators, two met their targets. Indicator W3: Permissions for waste management development that include measures for energy efficiency failed to meet its target due to a lack of suitable opportunities to implement measures for energy efficiency in this monitoring period due to the nature of applications. However, no action is required at this time.

Therefore it has been determined that this objective is being delivered.

4.3 WO2: Basing decisions on the principles of sustainable development by protecting and enhancing the County's natural resources, environmental, cultural and economic assets, the character and amenity of the local area and the health and wellbeing of local people.

This objective is largely being delivered.

No action is required to improve the performance of indicator W7 due to the nature of applications received in this monitoring period.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W7: Permissions for new built waste management development that include provision for biodiversity enhancement	100%	0%
W8: Permissions that have an unacceptable adverse impact on landscape character, scheduled ancient monuments, listed buildings, conservation areas, battlefields or registered historic parks and gardens	None	0
W9: Permissions for new waste management development granted in the Malvern Hills or Cotswolds AONB	No unacceptable adverse change	0
W10: Permissions for waste new management development that take into account local characteristics	No unacceptable adverse impact	No unacceptable adverse impact
W11: Permissions for new waste management development [that] take into account amenity considerations	No unacceptable adverse impact	No unacceptable adverse impact
W12: Permissions for new waste management development on greenfield sites	None	0
W13: Permissions for new waste management development in the Green Belt	No unacceptable cumulative impact on the purposes of Green Belt designation	0
W14: Permissions granted in accordance with highways advice.	100%	100%

Indicator Analysis

4.13. The indicators monitoring this objective show good results, with only one indicator failing to meet its targets. This was indicator **W7: Permissions for new built waste management development that include provision for biodiversity enhancement** where one application for new built waste management was permitted without provision for biodiversity enhancement. This was due to the red line boundary of the planning application being the same as the proposed building leading to no opportunities for biodiversity enhancement, as acknowledged by the comments from the WCC ecologist. It is therefore considered that

the failure of this indicator to meet targets is not significant and does not indicate a failure of the Waste Core Strategy's policies and no specific action is required.

4.14. The targets for the following indicators were achieved:

- **W8: Permissions that have an unacceptable adverse impact on landscape character, scheduled ancient monuments, listed buildings, conservation areas, battlefields or registered historic parks and gardens;**
- **W10: Permissions for new waste management development take into account local characteristics;**
- **W11: Permissions for new waste management development take into account amenity considerations; and**
- **W14: Permissions granted in accordance with highways advice.**

4.15. There were no applications granted within the Malvern Hills or Cotswolds AONB, meaning indicator **W9: Permission for new waste management granted in the Malvern Hills or Cotswolds AONB** also met its target.

4.16. In addition, no applications were approved on greenfield sites, or within the Green Belt, meaning the targets indicators for **W12: Permission for new waste management development on Greenfield sites** and **W13: Permission for new waste management development in the Green Belt** were met.

Conclusion

Overall this objective is being achieved. Seven of the indicators monitoring the performance of this objective met their targets. Indicator W7: Permissions for new built waste management development that include provision for biodiversity enhancement failed to meet its target due to a single application where specific circumstances limited the scope to apply policy WCS9. However, no action is required at this time.

Therefore it has been determined that this objective is being delivered.

4.4 WO3: Making driving waste up the waste hierarchy the basis for waste management in Worcestershire

The performance of this objective cannot be assessed due to incomplete data.

Once these data issues have been addressed, further analysis to understand trends in both re-use, recycling and other recovery, and landfill rates will be able to be performed.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W16a: Local Authority Collected Waste sent to landfill	Decrease in % of waste managed sent to landfill	Increase
W16b: Commercial and Industrial waste sent to landfill		Increase
W16c: Construction and Demolition waste sent to landfill		Unable to monitor
W16d: Hazardous waste sent to landfill		Increase
W17a: Re-use, recycling and 'other recovery' of LACW waste	By 2020: 78% with minimum of 50% re-use and recycling	Below milestone
W17b: Re-use, recycling and 'other recovery' of Commercial and Industrial waste	By 2020: 75% with minimum of 55% re-use and recycling	Below milestone
W17c: Re-use, recycling and 'other recovery' of Construction and Demolition waste		Unable to monitor
W17d: Re-use, recycling and 'other recovery' of Hazardous waste	By 2020: 75%	Above milestone
W18: Adoption of appropriate policies regarding managing waste arisings from all new development in City, Borough and District Councils DPDs	Adopted by all City, Borough and District Councils	Adopted by all City, Borough and District Councils
W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery milestones in Table 5 and Policy WCS 2.	Achievement of headline delivery milestones in Table 5 and Policy WCS 2.	Achieved

Indicator Analysis

4.17. There are 10 indicators that monitor the performance of this objective.

4.18. The indicators for this objective differ from previous years.

4.19. There is significant overlap between Indicator **W15: Progress towards equivalent self-sufficiency in re-use and recycling** and Indicator **W20: progress towards self-sufficiency in re-use and recycling capacity based on headline delivery milestones in Table 5 and Policy WCS2 as set out in the Waste Core Strategy**.

4.20. In this AMR indicator **W15: Progress towards equivalent self-sufficiency in re-use and recycling** is now monitored under Indicator **W20: progress towards self-sufficiency in re-use and recycling capacity based on headline delivery milestones in Table 5 and Policy WCS2**, to avoid duplication caused by both indicators using the same target. This is reported in chapter 4.8.

4.21. **Indicator W16: Waste sent to landfill** and Indicator **W17: Re-use, recycling and 'other recovery' of waste** are each split into four parts:

- part a for Local Authority Collected Waste,[3]
- part b for Commercial and Industrial waste,[4]
- part c for Construction and Demolition waste,[5] and
- part d for Hazardous waste.[6]

4.22. Indicators **W16: Waste sent to landfill** and **W17: Re-use, recycling and 'other recovery'[7] of waste** monitor different aspects of waste management, but these treatment options constitute the main components of waste management. This means that there is an inverse relationship between them, for example a fall in landfill rates would be mirrored by a corresponding increase in recycling and 'other recovery' rates.

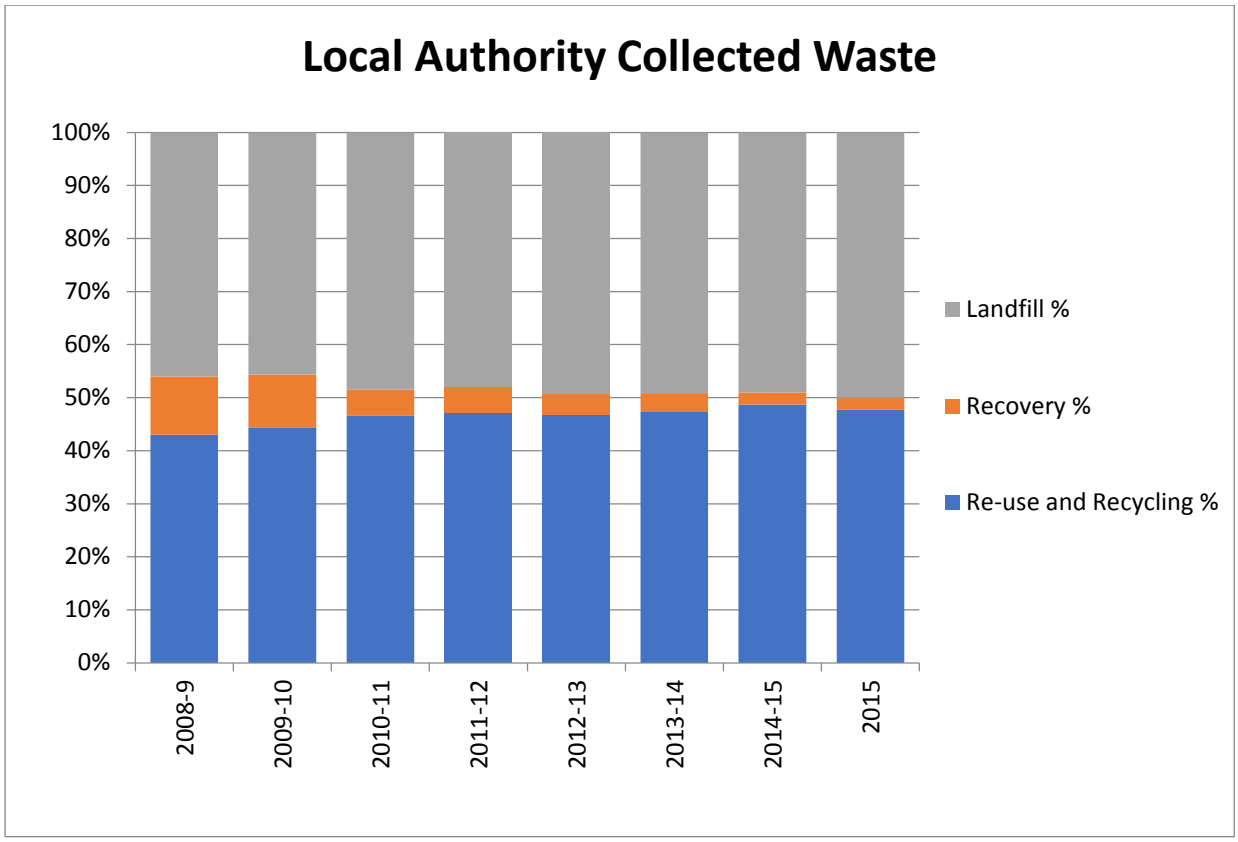
4.23. Previous AMRs have only monitored the recycling rates of Commercial and Industrial waste due to limitations in available data, however in this AMR the total amount waste being managed in Worcestershire and the tonnages of waste managed by each treatment option are also monitored to improve the accuracy of the AMR, as this gives a fuller picture of trends in the waste management industry in the County.

Local Authority Collected Waste

4.24. Figure 2 shows the proportion of Local Authority Collected Waste (LACW) produced in Worcestershire that was managed at each level of the waste hierarchy.[8]

[3] Waste collected by local authorities, principally domestic waste.
[4] Includes commercial waste arising from wholesalers, catering establishments, retail premises and offices, and industrial waste arising from factories, industrial plants, and packaging waste.
[5] Waste produced as a result of building, engineering or other activities which include construction, demolition or excavation.
[6] Waste that contains hazardous properties that may render it harmful to human health.
[7] 'Other recovery' is defined in the Waste Core Strategy as "any recovery facilities" that do not fall into the category of 're-use', 'recycling' or 'disposal'.
[8] In this AMR the monitoring period has changed from financial years to calendar years.

Figure 2. Worcestershire's Local Authority Collected Waste shown by management method (data from the Environment Agency Waste Data Flow).



Indicator W16a: Waste sent to landfill

4.25. Landfill rates of LACW have remained fairly stable over the last 5 years. In this monitoring period the landfill rate was 50%, a slight increase over 2014 when landfill rates were 49%.

Action

4.26. The target set out in Indicator **W16a** for a reduction in landfill was not been achieved in 2015, however the total quantity of LACW collected was slightly lower in 2015 than in 2014 and, as a consequence, there was a small reduction in the tonnage of waste sent to landfill. In addition, planning permission was granted in 2012 for an Energy from Waste facility in Worcestershire to manage LACW arising in Worcestershire and Herefordshire with a capacity of 200,000tpa. This was under construction in 2015 and commenced operation in 2017. This is anticipated to make a significant contribution to the reduction in the landfill rate of LACW waste. Therefore the failure to meet this indicator in this monitoring year is not considered significant because the failure will be rectified by the Energy from Waste plant which is under construction and no action is proposed.

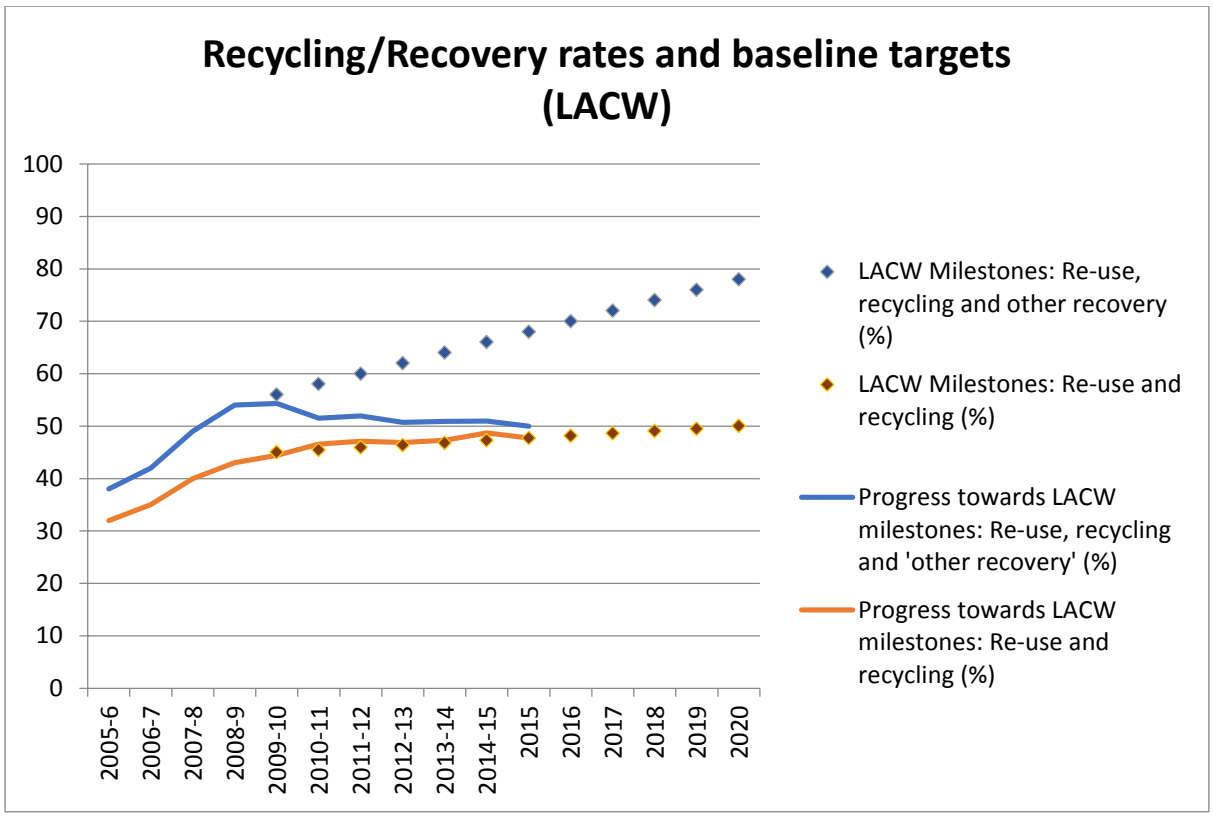
Indicator W17a: Re-use, recycling and 'other recovery' of waste

4.27. **Indicator W17a: Re-use, recycling and 'other recovery' of waste** monitors recycling and recovery rates for LACW. **Table 1** shows the targets and baseline for LACW recycling/recovery rates. **Figure 3** shows progress towards these targets.

Table 2. LACW Recycling and Recovery targets and baseline.

	2009-10	2015-16[9]	2020-21[10]
LACW (re-use and recycling)	45%	48%	50%
LACW (re-use, recycling & other recovery)	56% (Baseline)	68%[11]	78%

Figure 3. *Recycling/Recovery rates and baseline targets (LACW).*[12]



4.28. Progress towards LACW reuse and recycling targets is good, with a 47.7% re-use and recycling rate in this monitoring period, achieving the 2015 milestone of 47.7%. If this trend continues the target of 50% re-use and recycling in 2020 is achievable. The contribution of 'other recovery' is however very limited, accounting for just 2.27% of treatment of LACW from Worcestershire. This means that the overall proportion of waste being re-used, recycled or undergoing other recovery is 50% for this monitoring period. This is far below the milestone of 68% and raises concerns about the achievement of the target of 78% re use, recycling and other recovery by 2020.

Action

4.29. Only a small amount of Worcestershire's LACW was treated by "other recovery" during the monitoring year. However planning permission was granted in 2012 for an Energy from Waste facility in Worcestershire to manage LACW arising in Worcestershire and Herefordshire with a capacity of 200,000tpa. This was under construction in 2015 and commenced operation in 2017. As this operation is classified as "other recovery", this is anticipated to make a significant contribution to the delivery of the target of 78% re-use, recycling and other recovery by 2020. It is therefore considered that the failure to

[9] In previous years this milestone was incorrectly listed as 2014-15.
[10] In previous years this milestone was incorrectly listed as 2019-20.
[11] In previous years this target was incorrectly listed as 65.8%.
[12] Please note: some figures in this figure were previously incorrectly reported. This figure has been updated to show correct data.

meet the milestone in this objective is due to short-term factors and does not indicate a failure of the Waste Core Strategy which would require review.

Commercial and Industrial Waste

Data Limitations

4.30. **Indicators W16b: C& I Waste sent to landfill** and **W17b: Re-use, recycling and 'other recovery' of C&I waste** seek to monitor how Commercial and Industrial waste arising in Worcestershire is managed. However there is no reliable data available to assess this.

4.31. The Environment Agency Waste Data Interrogator (WDI) gives combined data for Household[13] and C&I waste managed in Worcestershire. This is the best available data and will be used unless better data becomes available in the future. However there are several limitations with this data:

- It does not record the geographical origin of the waste managed.

- It does not record waste managed under an Environment Agency exemption[14] or C&D waste managed through mobile plant or on construction sites.

- Waste managed at Energy from Waste facilities is not recorded in the WDI. This is due to these facilities being classed by the Environment Agency as industrial and benefitting from industrial installation permits not waste management permits. It is possible to supplement data in the WDI with Environment Agency Waste management for England Official Statistics which provides data for the Incineration Input and Capacity for Municipal and/or Industrial & Commercial waste streams, however planning permissions must also be referred to in considering whether this is recovery or disposal capacity.

4.32. There are additional issues with the data available from the WDI for Worcestershire, as the WDI does not provide consistent data for waste management operations in the county. When analysing the data in the WDI to assess landfill and recycling rates it was identified that for the years 2009, 2013 and 2014 there is data missing for at least one of the three active landfill sites in the county, but with no consistency over which sites was missing in each of the years. It is estimated that this could potentially account for between 20% and 80% of Worcestershire landfill throughput depending in the site in question. This impacts on the ability to assess landfill rates but also the recycling and recovery rates as the total waste managed is not known. This is reflected in the analysis below.

4.33. Data presented for the assessment of this indicator in previous AMRs therefore contained errors relating to both inaccurate throughput figures, which were not noticed at that time, and the erroneous inclusion of elements of transfer capacity as recycling capacity for several data sets. In this AMR additional analysis has been undertaken to re-assess the years 2010-2014 as well as analysing the 2015 monitoring period to present accurate recycling and recovery data and omit the landfill throughput where data is known to be missing from the Waste Data Interrogator.

Performance

Indicators W16b: C&I waste sent to landfill and W17b: Re-use, recycling and 'other recovery' of C&I waste

4.34. Indicator W17b: Re-use, recycling and 'other recovery' of waste monitors recycling and recovery rates for commercial and industrial waste. Table 3 shows the targets and baseline for C&I recycling/recovery rates. Figure 3 shows progress towards these targets.

[13] Please note, LACW and Household waste streams are not interchangeable, therefore LACW cannot be deducted from HCI figures to derive C&I data.

[14] A waste exemption is a waste operation that is exempt from needing an environmental permit from the Environment Agency. Each exemption has specific limits and conditions that the holder must operate within.

Table 3. C&I Recycling and Recovery targets and baseline.

	2009	2015	2020
C&I targets (Re-use and recycling)	36% (Baseline)	46.5%	55%
C&I targets (re-use, recycling & 'other recovery')	36% (Baseline)	57.3%	75%

Figure 4. Recycling/Recovery rates (HCI) and baseline targets (C&I)[15]

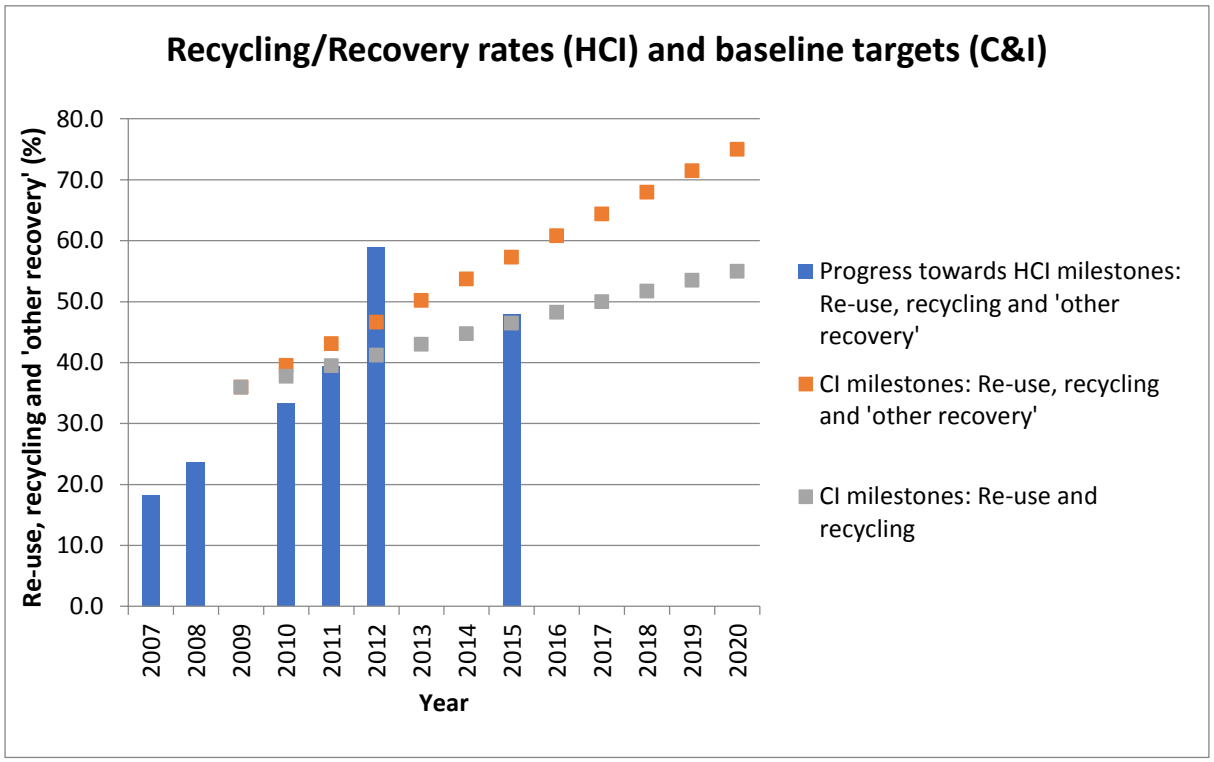
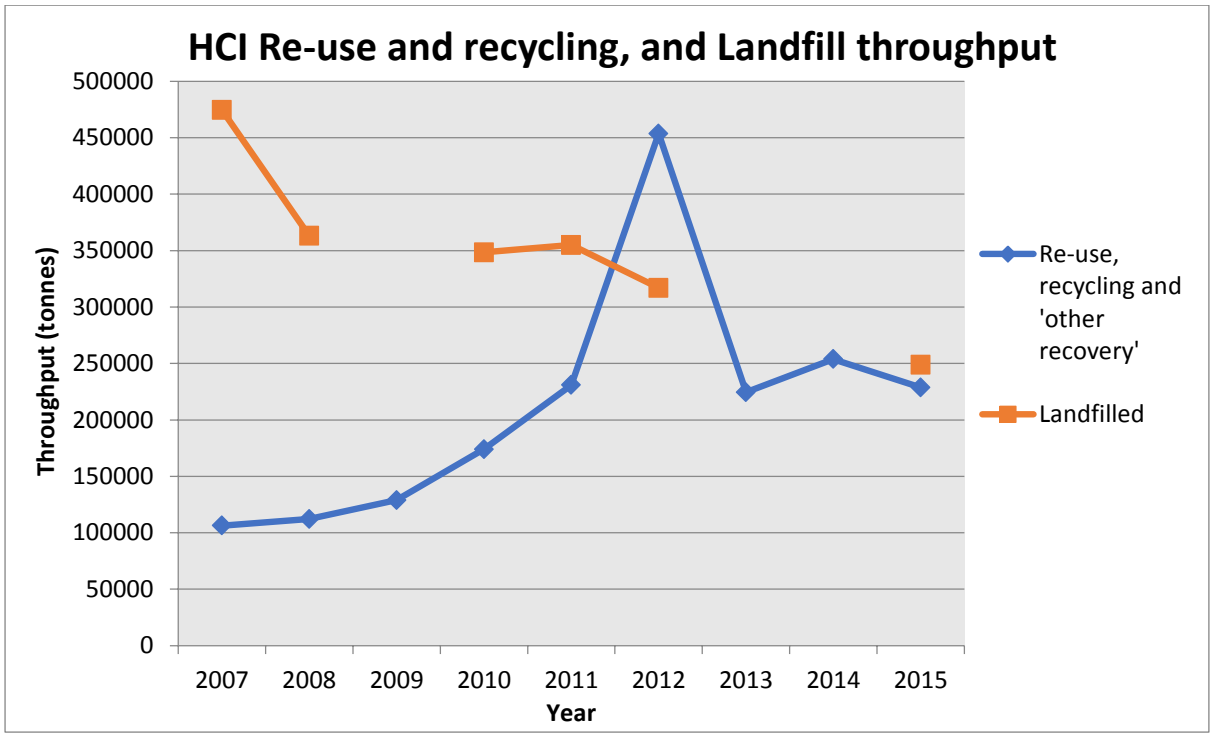


Figure 5. HCI Re-use and recycling, and Landfill throughput.



2010 – 2012

4.35. Between 2010 and 2012 there was a steady increase in recycling rates and decline in the proportion of HCI waste sent to landfill. This is likely to be due to a combination of factors including a 33% increase in landfill tax during that period[16] and increased recycling capacity in the county with record throughputs of 454,000 tonnes. The majority[17] of the increase in recycling throughput between 2010 and 2012 was accounted for by one site which increased its throughput between 2010 and 2012 by 2.5 times. This increase is thought to

[15] Progress towards HCI milestones was incorrectly shown in previous years.
[16] The Standard rate for waste increased from £48 per tonne in April 2010 to £64 per tonne in April 2012.
[17] Over 99%.

be due to a commercial decision to stockpile waste at the site. In 2012 this site, Sims recycling centre at Long Marston, managed 81% of all HCI waste recycled in Worcestershire. Therefore indicator **W17b: Re-use, recycling and 'other recovery' of C&I waste** met its target in 2012.

4.36. Overall, levels of waste managed in the county increased by 47% between 2010 and 2012. Although it is not possible to measure the amount of HCI waste arising within Worcestershire over this period, it is unlikely than arisings would have increased by this magnitude, therefore it is reasonable to assume that this rapid increase in waste managed is primarily due to changes in cross-boundary movements as a result of increased recycling capacity due to the implementation of new planning permissions in the county,[18] rather than an increase in waste arisings.

4.37. The percentage of waste deposited of at the county's landfill sites was 41% in 2012, compared with 67% in 2010. This was due to the tonnage of waste sent to landfill which was 32% lower in 2012 than 2010 and for the first time recycling of waste managed in Worcestershire accounted for more than landfill. Therefore indicator **W16b: C&I waste sent to landfill** met its target in 2012.

2013

4.38. Data for the total HCI waste managed is not available for 2013.[19]

4.39. The throughput of recycling facilities in Worcestershire in 2013 was half that recorded in 2012, reducing from 453,652 tonnes to 224,535 tonnes. This is largely explained by a fire at Sims recycling centre at Long Marston (May 2013). Whilst this site saw a 244,000 tonnes reduction in recycling throughput, reductions in Worcestershire as a whole were lower at 229,000 indicating other sites increased their throughput in this monitoring year, marginally offsetting the loss from that site.

4.40. It is not possible to assess the tonnages of waste sent to landfill in Worcestershire due to deficiencies in available data[20] and it is therefore not possible to calculate the recycling and landfill rates. As such it is not possible to conclude whether targets for indicators **W16b** and **W17b** were met in 2013.

2014

4.41. Data for the total HCI waste managed is not available for 2014.[21]

4.42. The county saw a small increase in overall recycling throughput in 2014 compared to 2013 (from 224,550 tonnes to 253,850 tonnes). The Long Marston recycling centre remained operational, however in 2014 throughput declined by a further one third to operational throughput levels which were comparable with those in 2010. Whilst throughput at the majority of other sites remained consistent with 2013 in this monitoring year the small increase in recycling throughput is attributable to Worcester Sewage Treatment Works, managed by Severn Trent Water Ltd. This site saw an approximately 60% increase in throughput in 2014 compared to the previous year.

4.43. It is not possible to assess the tonnages of waste sent to landfill in Worcestershire due to deficiencies in available data[22] and it is therefore not possible to calculate the recycling and landfill rates. As such it is not possible to conclude whether targets for indicators **W16b** and **W17b** were met in 2014.

2015

4.44. The total amount of waste managed in Worcestershire was 38% lower in 2015 than in 2012[23].

[18] See indicator W20.
[19] The Waste Data Interrogator does not include data for one of the landfill sites known to be operational in Worcestershire during this period.
[20] The Waste Data Interrogator does not include data for one of the landfill sites known to be operational in Worcestershire during this period.
[21] The Waste Data Interrogator does not include data for one of the landfill sites known to be operational in Worcestershire during this period.
[22] The Waste Data Interrogator does not include data for one of the landfill sites known to be operational in Worcestershire during this period.

4.45. Recycling throughput reduced by 10% between 2014 and 2015. This is due in part to the Worcester Sewage Treatment Works, which saw a return to throughput comparable to 2013 levels after the significant increase in throughput in 2014. Dialogue with the operator to determine the cause of this fluctuation in waste managed is ongoing. Throughput at Sims recycling centre at Long Marston remained similar to 2014 levels.

4.46. The percentage of waste disposed of at the county's landfill sites was 52% in 2015, an increase from the 41% seen in 2012, however, the tonnage of waste disposed of at the county's landfill sites was 21% lower in 2015 than 2012. There continued to be no recovery throughput for non-hazardous HCI during this time.

4.47. Although recycling rates were lower in 2015 than 2012 due to the factors outlined above, at 47.9% they met the re-use and recycling milestone of 46.5% which forms part of indicator **W17b**, however recycling rates failed to meet the re-use, recycling and 'other recovery' milestone which also forms part of indicator **W17b**. Therefore, the target for Indicator **W17b** has therefore not been met.

4.48. Due to the increase in the percentage of waste sent to landfill in this monitoring period, indicator **W16b: C&I waste sent to landfill** has failed to meet its target, however as the tonnage of waste has decreased this has been determined to be a short term failure caused by the reduction in total waste managed.

Action

4.49. The targets set out in indicators **W16b** and **W17b** were missed in 2015. Due to limitations in the data it is difficult to identify whether this is a long-term trend in the county or due to short-term factors. However based on the information available it is clear that since the adoption of the Waste Core Strategy (2012) there has been a reduction in recycling throughput.

4.50. The fire at Sims, Long Marston (2013) had a significant impact, however, the throughput of recycling facilities remained fairly stable between 2013 and 2015. The recycling industry in the county is also more balanced in 2015 than when the Waste Core Strategy was adopted in 2012. In 2012 81% of recycling throughput was at the recycling centre at Long Marston, with the remaining facilities only accounting for 88,000 tonnes of throughput. However between 2012 and 2015 there was a 30% increase in the number of recycling facilities[24] and a 57% (51000 tonnes) increase in throughput at these smaller sites,[25] indicating that the Strategy is enabling new facilities to be developed and existing facilities to expand.

4.51. Tonnages of waste landfilled were lower in 2015 than 2012, continuing the steady decline seen over the previous 5 years.

4.52. Given these considerations and the need to identify trends in the county over time, no action is proposed in response to indicators W16b and W17b at present. However the Council will continue to monitor this issue in future years, taking account of the impact of facilities under construction and planning applications permitted. In addition, the Council is conducting ongoing discussion with the Environment Agency to resolve errors in the Waste Data Interrogator. Once these data issues have been addressed, further analysis to understand trends in both re-use, recycling and other recovery, and landfill rates will be able to be performed.

Construction and Demolition Waste

4.53. Indicator W16c: C&D waste sent to landfill and W17c: Re-use, recycling and 'other recovery' of C&D waste seeks to monitor recycling and recovery rates for Construction and Demolition (C&D) waste. There is no reliable data however on how C&D waste arisings in Worcestershire are managed. The lack of reliable data is a concern nationally and was acknowledged in 2013 by the Chartered Institution of Wastes Management (CIWM).[26] As of 2015 this concern was ongoing and not resolved. 75% recycling and recovery will be

[23] The most recent year where the Waste Data Interrogator appears to provide comprehensive data of waste management throughput in Worcestershire.
[24] Increase from 13 to 17 sites.
[25] All sites excluding the Sims recycling centre at Long Marston
[26] CIWM Report 2013 "Commercial and Industrial Waste in the UK and Republic of Ireland"

retained as a target for C&D waste and this will be monitored if better data becomes available in the future, but at present it is not possible to monitor this effectively.

Hazardous Waste

Data Limitations

4.54. Indicators **W16d: Hazardous waste send to landfill** and **W17d: Re-use, recycling and 'other recovery; of Hazardous waste** seek to monitor how hazardous waste is managed in Worcestershire. The best available data for this comes from the Environment Agency Hazardous Waste Data Interrogator (HWDI).[27] However, this dataset has a number of limitations.

4.55. Firstly this dataset does not allow throughputs of individual sites to be assessed, leading to difficulties in determining the cause of trends seen in the data. As a result of the way data is presented in the HWDI, hazardous waste has not always been reported thoroughly and correctly in previous AMRs, because of this this AMR will re-assess the years 2010-2014 as well as analysing the 2015 monitoring period to present accurate hazardous waste data.

4.56. Secondly, this dataset records re-use, recycling and 'other recovery' as "Recovery", because of this re-use and recycling trends cannot be monitored separately, and therefore these indicators only monitor the targets for re-use, recycling and 'other recovery'.

Performance of Indicators W16d: Hazardous waste sent to landfill and W17d: Re-use, recycling and 'other recovery' of Hazardous waste

4.57. Indicator W17d: Re-use and recycling and 'other recovery' of Hazardous waste monitors recycling and recovery rates for hazardous waste. Table 3 shows the targets and baseline for hazardous re-use, recycling and 'other recovery'. Figure 3 shows progress towards these targets.

Table 4. Hazardous Recycling and Recovery targets and baseline.

	2009	2015	2020
Hazardous (re-use, recycling & recovery)	3% (Baseline)[28]	42.3%[29]	75%

27 Although hazardous waste is recorded in the Waste Data Interrogator, this dataset is known to incomplete and as such, the Environment Agency do not advise the use of the Waste Data Interrogator for reporting on Hazardous waste.

28 Baseline figure has been calculated using the method used to calculate the baseline for C&I waste streams.

29 Interim targets have been calculated to create an incremental rise between the baseline and 2020 target figures.

Figure 6 Hazardous waste Re-use, recycling and 'other recovery' rates and baseline targets.

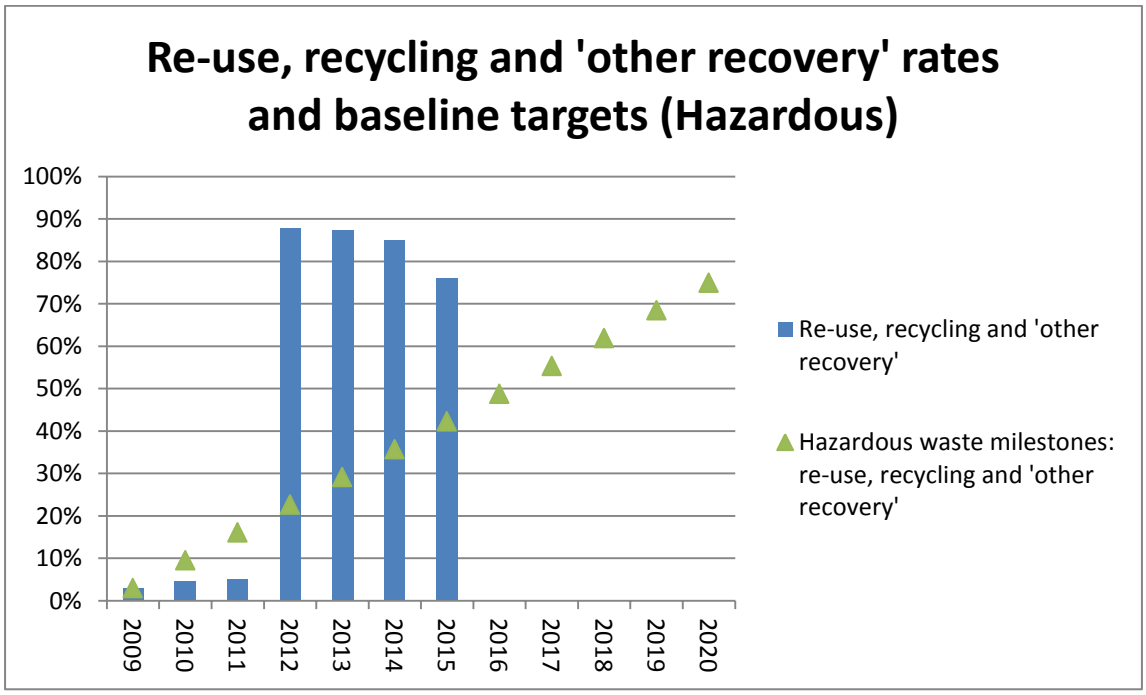
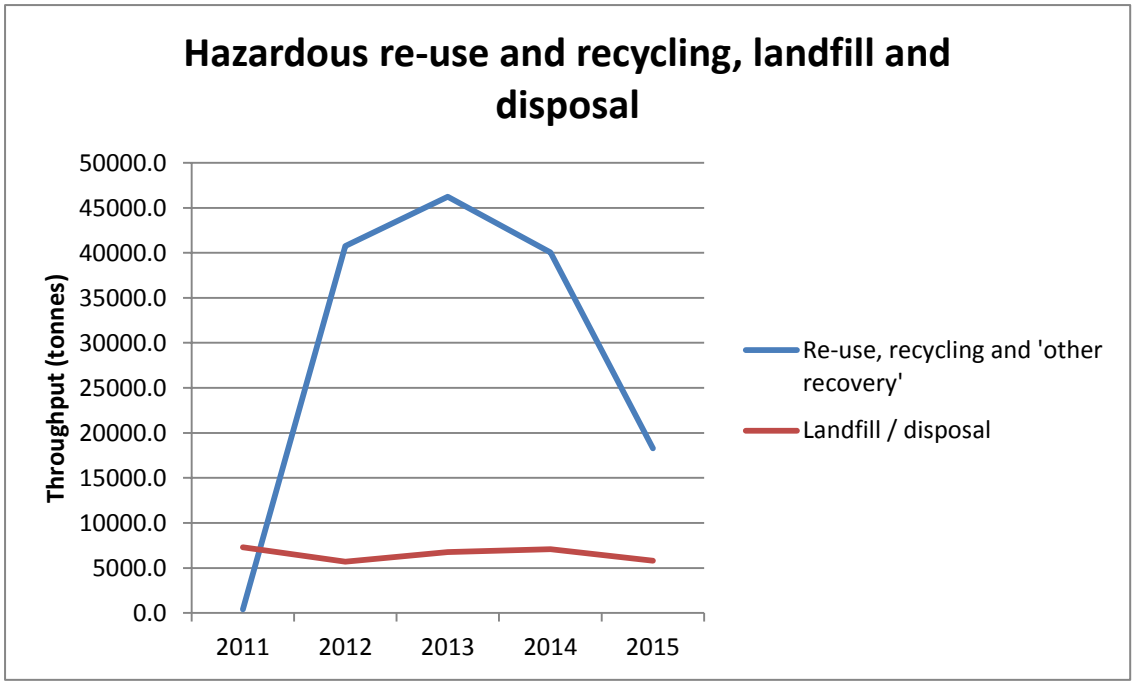


Figure 7 Hazardous re-use, recycling and 'other recovery', landfill and disposal tonnages



2012

4.58. Between 2011 and 2012 the percentage of hazardous waste undergoing re-use and recycling increased from 5% to 88%. This was due to an increase in recorded throughput at hazardous waste sites from a reported 390 tonnes to 40,700 tonnes. This meant recorded capacity exceeded the projected target derived from the WCS for the first time in 2012, meeting indicator **W17d: Re-use, recycling and 'other recovery' of Hazardous waste**.

4.59. The percentage of waste being sent to landfill or disposal fell from 95% to 12% between 2011 and 2012. In 2012, no hazardous waste was sent to landfill. However 5,700 tonnes was disposed of through incineration without energy recovery. This is assumed to be the incineration of clinical waste at a facility in Redditch. The decrease in the percentage hazardous waste sent to landfill or disposal meant that indicator **W16d: hazardous waste sent to landfill or disposal** was met for 2012.

2013

4.60. Between 2012 and 2013 re-use, recycling and 'other recovery' rates dropped very slightly (by 1%). Tonnages of hazardous waste undergoing re-use, recycling or other recovery Increased from 40800 tonnes to 46200 tonnes. Given the limitations of the hazardous waste data interrogator it is not possible to identify if this was from an increase in throughput at single or multiple sites. The reduction in the percentage of waste being re-used or recycled is due to an increase in the amount of waste being sent to landfill or disposal, which increased from 12% (5700 tonnes) to 13% (6800 tonnes). Despite reductions in reuse, recycling and 'other recovery' rates of hazardous waste, they were 60% above the target, which stood at 27% in the 2012-13 monitoring period and therefore indicator **W17d: Re-use, recycling and 'other recovery' of Hazardous waste** was met in this monitoring period.

4.61. Due to the small increase in the percentage of waste sent to landfill or disposal in this monitoring year indicator **W16d: hazardous waste sent to landfill or disposal** failed to meet its target in 2013, which was a decrease in the hazardous waste managed in this way. However, in 2013 no waste was sent to landfill, with the entire 6800 tonnes being disposed of through incineration without energy recovery. This is assumed to be the incineration of clinical waste at a facility in Redditch. Disposal rates were still 500 tonnes lower than seen in the 2011 monitoring period.

2014

4.62. Between 2013 and 2014 re-use, recycling and other recovery rates dropped from 87% to 85%, the second year in a row where rates declined. However, unlike 2013 the tonnage of waste being re-used or recycled also reduced by 13.4% to 40,000 tonnes. Given the limitations of the hazardous waste data interrogator it is not possible to identify if this was from an increase in throughput at single or multiple sites.. Despite this fall, the percentage of hazardous waste being re-used, recycled or recovered was 52% above the target of 33% in 2014 and therefore indicator **W17d: Re-use, recycling and 'other recovery' of Hazardous waste** met its target.

4.63. The percentage of hazardous waste sent to landfill increased from 13% to 15%, due to a 5% increase in tonnages to 7100 tonnes. In this monitoring year, 87 tonnes of this waste was sent to landfill, with the remaining 7013 tonnes being disposed of through incineration without energy recovery. This is assumed to be the incineration of clinical waste at a facility in Redditch.

4.64. Due to the rise in the percentage of hazardous waste sent to landfill or disposal **W16d: hazardous waste sent to landfill or disposal** failed to meet its target in 2014.

2015

4.65. Between 2014 and 2015 the tonnage of hazardous waste sent to landfill or disposal fell by 18% to 5800 tonnes. Despite this fall the percentage of waste sent to landfill or disposal increased from 15% to 24% in 2015, therefore indicator **W16d: Hazardous waste sent to landfill or disposal** has failed to meet its target in this monitoring period. Due to the reduction in tonnages, this fail is not believed to be a significant failure, and more a result of the reduction in total waste managed in the county, which decreased by 43% between 2014 and 2015. In this monitoring year, 16 tonnes of this waste was sent to landfill, with the remaining being disposed of through incineration without energy recovery. This is assumed to be the incineration of clinical waste at a facility in Redditch. No action is required to improve the performance of this indicator.

4.66. The percentage of hazardous waste being managed through re-use, recycling or other recovery fell for the third consecutive year from 85% in 2014 to 76% in 2015. This was due to a 54% reduction in the tonnage of waste being re-used, recycled or undergoing 'other recovery' from 40000 tonnes to 18,300 tonnes. Due to limitations in the data it is impossible to assess the cause of this drop on a site-by-site basis, however the County Council is aware that at least one site has changed from conducting treatment to dealing with the transfer of waste, which could partly explain this reduction. Overall, re-use and recycling rates stood at 76%, slightly above the 2021 target of 75%, and far above the indicator milestone for 2015 of 39%. Therefore indicator **W17d: Re-use and recycling of waste** has met its target in this monitoring period.

Action

4.67. Although re-use, recycling and "other recovery" rates for hazardous waste declined in 2015, the target for 2020 has been met in this monitoring period; therefore no action is required to improve performance.

4.68. Despite the increase in the disposal rate of hazardous waste in 2015, the entire throughput is at a single site. This site is an incinerator in Redditch (disposal) which fulfils a subnational role dealing with clinical waste[30]. Due to the role of this site, and as the Waste Core Strategy can't influence individual commercial decisions; no action is required to improve the performance of indicator W16d.

Development Plan Documents (DPDs)

4.69. The Waste Core Strategy is the Development Plan Document for waste planning in Worcestershire and should be read alongside the City, Borough and District Councils' Local Plans. However, there is a need to ensure that other Development Plan Documents do not inadvertently contradict the requirements of the Waste Core Strategy, and to ensure that they encourage sustainable waste management solutions to be embedded within non-waste management development.

4.70. There were no DPDs adopted within the monitoring period relevant to indicator **W18: Adoption of appropriate policies regarding managing waste arisings from all new development in City, Borough and District Councils' Development Plan Documents**. However, the Council formally commented on waste matters during the preparation of the Wyre Forest Local Plan and the South Worcestershire Development Plan. There were no other development plans in Worcestershire being consulted on in this monitoring year.

Conclusion

Re-use and recycling rates of Local Authority Collected Waste (LACW) show good performance, and landfill rates of LACW have remained steady. The factors which have affected the performance of re-use, recycling and 'other recovery' rates of LACW in this monitoring period are not considered to be significant in terms of performance of the Waste Core Strategy, as they are already being addressed through investment in an energy from waste facility, which during this monitoring period was still under construction.

The performance against Commercial and Industrial Waste (C&I) indicators W16b and W17b is difficult to assess as C&I waste data is only available alongside household waste data as Household, Commercial and Industrial waste (HCI). In addition there are deficiencies in the data currently available from Defra with significant gaps in treatment data for 3 of the last 8 years. However performance targets for re-use, recycling and 'other recovery' rates, and landfill rates have failed to be met in this monitoring period.

There is no data available to monitor C&D waste at the current time.

Re-use, recycling and other recovery rates of Hazardous waste has fallen slightly in this monitoring year, although no action is required due to the rate being in excess of the 2020 target. Landfill and disposal rates of hazardous waste rose, although no action has been identified to improve performance.

There were no DPDs adopted within the monitoring period relevant to indicator W18: Adoption of appropriate policies regarding managing waste arisings from all new development in City, Borough and District Councils' Development Plan Documents.

Therefore the performance of this objective cannot be assessed.

[30] For more information into clinical waste see: http://www.worcestershire.gov.uk/downloads/file/1282/leb_19_worcestershire_waste_core_strategy_background_document_waste_arisings_from_healthcare_and_related_activities_clinical_waste_and_low_level_radioactive_waste_-_march_2011

4.5 WO4: Ensuring that the waste implications of all new development in Worcestershire are taken into account.

This objective is being delivered.

No action is required at this time.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W18: Adoption of appropriate policies regarding managing waste arisings from all new development in City, Borough and District Councils DPDs	Adopted by all City, Borough and District Councils	Ongoing engagement
W19: Development permitted within 250m of waste management facilities against County Council advice	None	None

Indicator Analysis

4.71. The Waste Core Strategy is the Development Plan Document for waste planning in Worcestershire and should be read alongside the City, Borough and District Councils' Local Plans. However, there is a need to ensure that other Development Plan Documents do not inadvertently contradict the requirements of the Waste Core Strategy, and to ensure that they encourage sustainable waste management solutions to be embedded within non-waste management development.

4.72. There were no DPDs adopted within the monitoring period relevant to indicator W18: Adoption of appropriate policies regarding managing waste arisings from all new development in City, Borough and District Councils' Development Plan Documents. However, the Council formally commented on waste matters during the preparation of the Wyre Forest Local Plan and the South Worcestershire Development Plan. There were no other development plans in Worcestershire being consulted on in this monitoring year.

4.73. During the 2013-14 monitoring period the Council commented on an application for a 400 berth marina in Stourport-on-Severn (Wyre Forest District Council application reference 13/0553/EIA). The applicant identified that the proposed development site is less than 250m from a waste management facility (OSS Oil Recovery Depot) and as such Policy WCS 16 was considered relevant to this application. The County Council recommended that the applicant should provide an assessment of the implications of the proximity of the application to the existing OSS site to demonstrate that the proposed development would not be unacceptably adversely affected by bio aerosols or other emissions from the waste management operation, and without this the District Council would be expected to refuse permission on the grounds that it would compromise the achievement of the Waste Core Strategy. This application has yet to be determined and will be reported on in the next AMR.

Conclusion

No developments were permitted within 250m of waste management facilities against County Council advice. There were no relevant DPDs adopted in this monitoring period. Therefore, no action is required at this time.

Therefore it has been determined that this objective is being delivered.

4.6 WO5: Enabling equivalent self-sufficiency in waste management in the County by addressing the "Capacity Gap" over the life of the strategy to 2027 and safeguarding existing waste management facilities from incompatible development.

This objective is largely being delivered.

No action is required at this time.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W19: Development permitted within 250m of waste management facilities against County Council advice	None	None
W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery milestones in table 5 and Policy WCS 2.	Achievement of headline delivery milestones as set out in Policy WCS2	Achieved
W21: Progress towards equivalent self-sufficiency in 'other recovery' capacity, based on headline delivery milestones in table 5 and Policy WCS 2.		Achieved
W22: Maintain equivalent self-sufficiency in sorting and transfer capacity.	No capacity gap for sorting and transfer	Achieved
W23a: Maintain equivalent self-sufficiency in disposal and landfill capacity for non-inert waste.	No capacity gap for disposal and landfill	Achieved
W23b: Maintain equivalent self-sufficiency in disposal and landfill capacity for inert waste.		Achieved
W23c: Maintain equivalent self-sufficiency in disposal and landfill capacity for hazardous waste.		Achieved
W24: Applications for Waste Management development determined within 13 weeks.	100%	100%
W25a: Proportion of waste management applications discussed with Worcestershire County Council at pre-application stage.	Increase	Decrease
W25b: Number of waste management proposals discussed with Worcestershire County Council at pre-application stage.	Increase	Decrease

Indicator Analysis

Indicator W19: Development permitted within 250m of waste management facilities against County Council advice

4.74. During the 2013-14 monitoring period the Council commented on an application for a 400 berth marina in Stourport-on-Severn (Wyre Forest application reference 13/0553/EIA). The applicant identified that the proposed development site is less than 250m from a waste management facility (OSS Oil Recovery Depot) and as such Policy WCS 16 was considered relevant to this application. The County Council recommended that the applicant should provide an assessment of the implications of the proximity of the application to the existing OSS site to demonstrate that the proposed development would not be unacceptably adversely affected by bio aerosols or other emissions from the waste management operation, and without this the District Council would be expected to refuse permission on the grounds that it would compromise the achievement of the Waste Core Strategy. This application has yet to be determined and will be reported on in the next AMR.

Indicator W24: Applications for waste management development determined within 13 weeks

4.75. Indicator W24 shows good performance, with 100% of applications for waste management development determined within 13 weeks (16 weeks for EIA development), or within an agreed extension of time.

Indicator W25a: Proportion of waste management applications discussed with Worcestershire County Council at pre-application stage

Four of the six waste applications (67%) determined within the monitoring period had pre-application discussion. This is a decrease from 85% of applications (11 of 13 waste applications determined) in 2014 therefore indicator W25a: Proportion of applications discussed with Worcestershire County Council at pre-application stage has failed to meet its target.

4.76. WCC actively encourages applicant to engage in pre-application discussion, but as set out in NPPF paragraph 189, LPAs "cannot require that a developer engages with them before submitting a planning application, but they should encourage take-up of any pre-application services they do offer."

4.77. To encourage the take-up of pre application advice, the County Council does not charge for this service and always offers the opportunity for pre-application advice for potential applicants. Pre-application advice is included in the SCI (updated February 2015) which provides details on the service available and further promotes the service. No further action has been identified which would help improve the performance of this indicator.

Indicator W25b: Number of waste management proposals discussed with Worcestershire County Council at pre-application stage

4.78. During this monitoring period 21 proposals for waste management were discussed with WCC at pre-application stage, this is a decrease from 30 proposals discussed in the 2014-15 monitoring period. Therefore indicator **W25b: Number of proposals discussed with Worcestershire County Council at pre-application stage** has failed to meet its target. However, as this monitoring period is shorter than the 2014-15 monitoring period to accommodate the change from financial year monitoring to calendar year (as outlined in the introduction), a reduction of this magnitude is expected. Therefore no action is required at this time.

Progress towards equivalent self-sufficiency (Indicators W20, W21, W22, and W23)

4.79. One of the objectives of the Waste Core Strategy (WCS) is to achieve equivalent self-sufficiency in waste management.[31] This means delivering waste management capacity that is equal to the amount of waste produced (waste arisings) in the County, but recognises that cross-boundary movements are a normal part of the waste management industry.

Data limitations

Waste arisings

4.80. There is data available for LACW and hazardous waste arisings in Worcestershire but no robust data on C&I or C&D arisings in Worcestershire. However, the Waste Core Strategy includes projections of waste arisings based on modelling under taken at a regional level. The Council is in discussion with the West Midlands Resource Technical Advisory Body for Waste about updating projections of waste arisings but the Waste Core Strategy projections were subject to examination in public and will be used to monitor capacity gap until better information is available.

Waste management capacity

4.81. There is no single measure of waste management capacity, but capacity is often considered as either:

- Actual capacity: This is the throughput of operational facilities with both valid planning permissions and waste management licences, permits or exemptions and refers to the actual quantity of waste which the facility manages.

- Notional capacity: This is the potential throughput which could be achieved if operations were to work to the maximum levels permitted in their planning permission or waste management licence or permit or exemption.

4.82. The Waste Core Strategy considered actual capacity rather than notional capacity as notional capacity is often skewed by arbitrary banding in regulatory regimes rather than reflecting practical constraints on a site. There are however limitations in using actual capacity throughputs as these vary on an annual basis based on the market and other commercial factors and may not always reflect the throughput a site is capable of managing. To address some of these issues the Waste Core Strategy calculated capacity using the highest throughput figure for each waste management site from either the previous 5 years of data taken from the WDI, or the throughput as recorded in the 2009 Waste Sites Survey conducted by Worcestershire County Council. The Waste Sites Survey is used in addition to the WDI to capture sites that have an exemption from the Environmental Permitting regime[32] which would mean the sites is not recorded in the WDI.

4.83. There are also limitations to this approach. The data held in the Waste Sites Survey is dated and it is the Council's intention to update this information in preparation for the 2016 AMR, however it is estimated that approximately a significant proportion of Worcestershire's waste management capacity is at sites with exemptions. Therefore, it is still considered important to include this data in the calculations. Limitations with the WDI are outlined in paragraphs 4.30-4.33 above. In addition significant reductions in capacity may be masked until the higher throughput figures for a site are outside the 5 year window used to calculate overall capacity.

4.84. However this AMR continues to use this method as it was tested through the independent examination of the adopted Waste Core Strategy. Sites known to have ceased operation and to have an alternative land use have also been excluded from the capacity data. This method was not applied consistently in previous AMRs, therefore the data in this AMR corrects any errors in calculating capacity. The analysis of this data therefore analyses trends from 2010 – 2015. The capacity for re-use and recycling, other recovery, and sorting and transfer in Worcestershire is shown in Table 4.

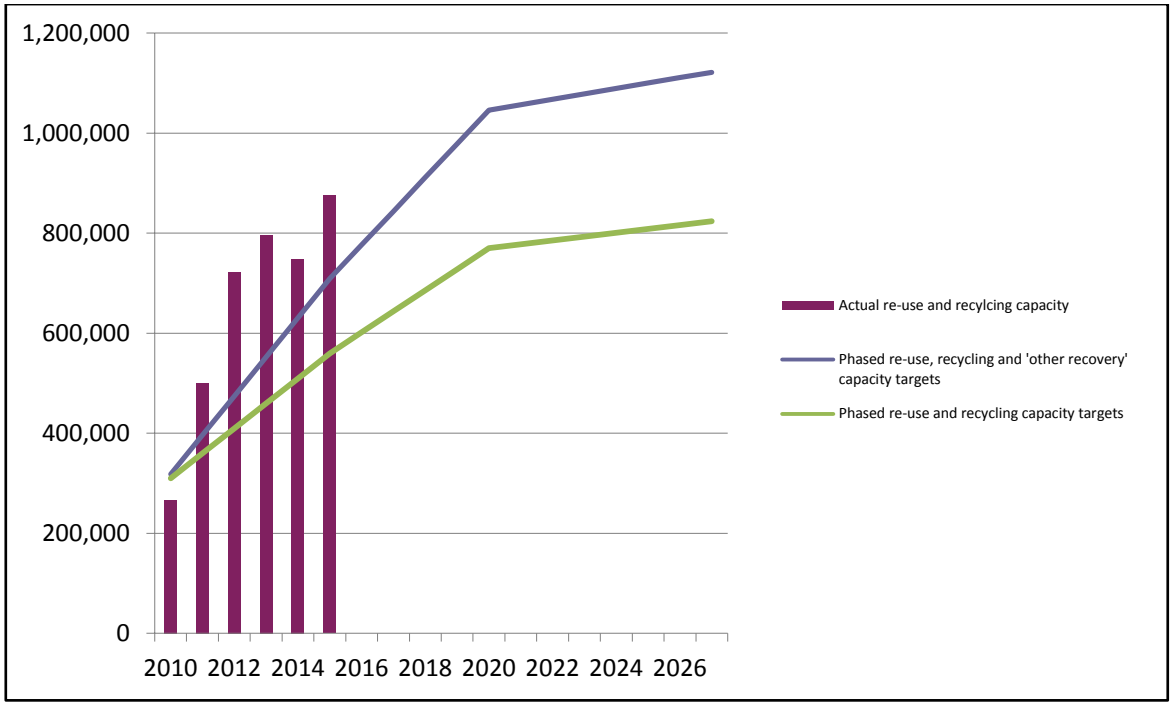
[31] Equivalent self-sufficiency means Worcestershire's capacity to manage the waste that arises in the County, while taking into account both imports and exports in recognition that cross-boundary movements are inevitable.

[32] A waste exemption is a waste operation that is exempt from needing an environmental permit. Each exemption has specific limits and conditions that the holder must operate within. Exemptions must be registered with the Environment Agency and each registration lasts 3 years. https://www.gov.uk/government/collections/waste-exemptions-treating-waste

W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery milestones in Table 5 and Policy WCS2

4.85. The Waste Core Strategy set out a phased approach to achieving equivalent self-sufficiency by 2020 and maintaining equivalent self-sufficiency beyond that point. This was based on projected waste arisings. Policy WCS2 sets out minimum milestones for re-use and recycling and identifies the "remaining" capacity requirement which should be met through a combination of re-use and recycling and other recovery capacity. The phased capacity targets are shown in Figure 8 Re-use and recycling capacity.

Figure 8 Re-use and recycling capacity



2012

4.86. Actual capacity was below the phased delivery requirements for both re-use and recycling for and re-use, recycling and other recovery until 2012. The increase in capacity in 2012 was primarily at metal recycling sites and end of life vehicle facilities, which saw a 108% overall increase in capacity. This was due to an intensification of activities at two existing sites; Sims recycling centre at Long Marston and R&C Metals Recycling, Worcester, as well as new operations at Alutrade Ltd, Redditch. The increase in capacity meant that indicator **W20** was met in 2012.

2013

4.87. There was a 10% increase in re-use and recycling between 2012 and 2013, with significant increases in physical treatment and biological treatment capacity.

4.88. Over half of this increase was due to a 20% increase in physical treatment capacity, which resulted from new operations at two new waste management sites in Worcestershire: Sandhills Farm, Astwood Bank and Stourport waste oils facility, as well as an intensification of activities at Arrow Gypsum Recycling, Worcester.

4.89. One third of the overall increase was accounted for by a 40% increase in biological treatment capacity between 2012 and 2013. This was due to the commencement of waste management operations at Defford Airfield and an intensification of activities at Worcester Sewage Treatment works.

4.90. The remaining increase in reuse and recycling capacity was from a modest 1% increase in capacity at metal recycling and end of life vehicle sites.

4.91. The targets in indicator **W20** continued to be met.

2014

4.92. There was a 6% decrease in re-use and recycling capacity between 2013 and 2014. This decrease was due to a decline in capacity at metal recycling sites and end of life vehicles facilities of 16,800 tpa. The closure of Alutrade Ltd, Redditch resulted in 23,000 tpa lost capacity, however this was offset to some extent by new operations at two sites in the county.

4.93. There was a 60% increase in biological treatment capacity, largely as a result of further intensification of activities at Worcester Sewage Treatment Works, but also as a result of a new facility at the CSG site, Pershore. There was also a 20% increase in physical treatment capacity due to the intensification of activities at 8 existing waste management facilities, particularly Lick Hill Quarry, Stourport Waste Oils Facility and Houndsfield Recycling facility.

4.94. The targets in indicator **W20** continued to be met.

2015

4.95. There was a 17% increase in re-use and recycling capacity between 2014 and 2015, with a 15% increase in biological treatment capacity from an intensification of activity at most existing sites, and a 2% increase in capacity at metal recycling sites and end of life vehicle facilities.

4.96. There was a 13% decrease in physical treatment capacity between 2014 and 2015 primarily due to a decline in activities at the OSS group site, Stourport.

4.97. The targets in indicator **W20** continued to be met and the milestones for delivery in 2015 set out in policy WCS 2 were achieved.

Conclusion

4.98. Re-use and recycling capacity shows good performance across all 5 years, with capacity far above the phased delivery requirements for both re-use and recycling for and re-use, recycling and other recovery each year since 2012. The milestones for delivery in 2015 set out in policy WCS 2 were met. Capacity was 21% higher in 2015 than in 2012, despite a small reduction occurring in 2014. Therefore the target set out in **indicator W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery milestones in Table 5 and Policy WCS2** has been met.

W21: Progress towards equivalent self-sufficiency in other recovery capacity based on headline delivery milestones in Table 5 and Policy WCS2

Limitations

4.99. There is an inconsistency between policy WCS2 which sets out minimum milestones for re-use and recycling and identifies the "remaining" capacity requirement which should be met through a combination of re-use and recycling and other recovery capacity and indicator W21 which implies a minimum level of capacity from other recovery facilities. It is the intention of the WCS to delivery waste management capacity at the highest level of the waste management hierarchy in line with the Waste Framework Directive therefore this section will consider other recovery capacity in its analysis but will also take account of re-use and recycling capacity in determining whether indicator W21 is being achieved.

Other Recovery Capacity

4.100. The Waste Core Strategy identifies a capacity gap for other recovery. However at present and during the previous 5 years all other recovery capacity is for "construction related activity" or recovery through "disposal of waste to land". As this capacity will get "used up" in a similar way to landfill void space it is not appropriate to include this form of other recovery capacity in calculations of long-term capacity provision (i.e. tonnes per annum)

Table 5: other recovery throughput

	Throughput				
	2011	2012	2013	2014	2015
Type of recovery: Construction	0	2,200	22,600	2,400	8,900
Type of recovery: Deposit of waste to land	0	38,300	100,900	0	148,600

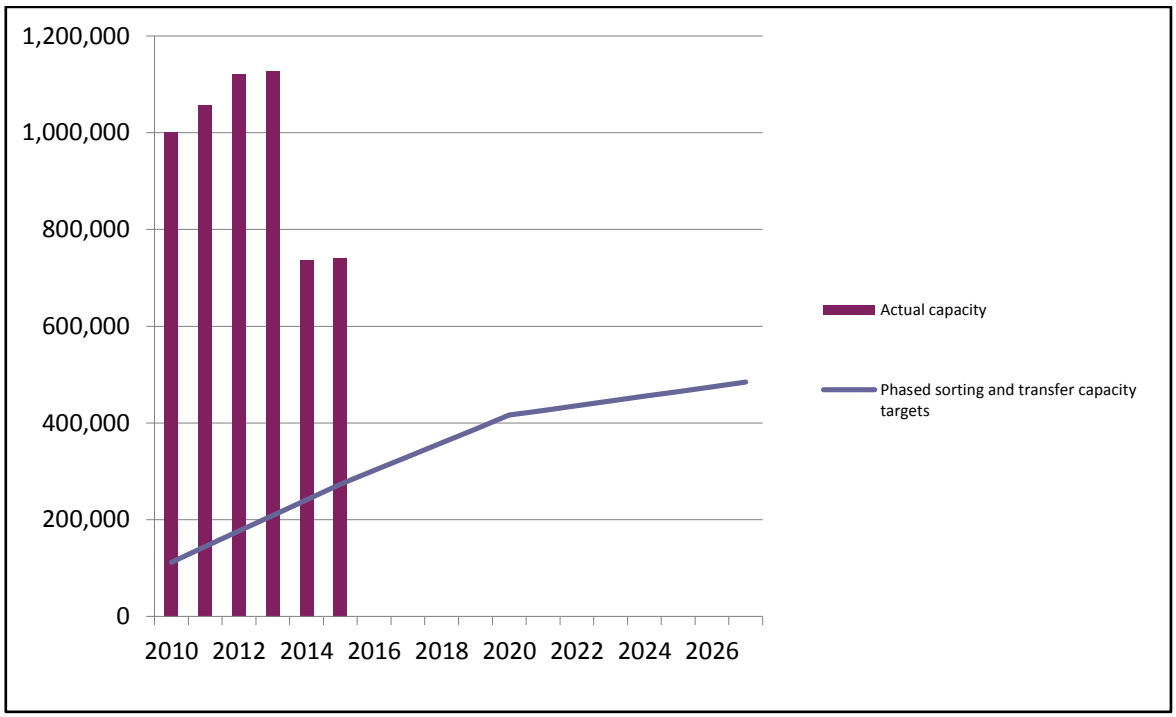
Conclusion

4.101. The phased delivery requirements for both re-use and recycling for and re-use, recycling and other recovery have been met by re-use and recycling capacity between 2012 and 2015 (see above). Therefore indicator W21 has been met. In addition planning permission was granted in 2012 for an Energy from Waste facility in Worcestershire to manage LACW arising in Worcestershire and Herefordshire with a capacity of 200,000tpa. This was under construction in 2015 and commenced operation in 2017. This will contribute towards the delivery of the 2020 milestone for this indicator.

W22: Maintain equivalent self-sufficiency in sorting and transfer capacity

4.102. Sorting and transfer capacity includes capacity at household waste sites (HWS), waste transfer stations (WTS) and materials reclamation facilities (MRF). These are facilities where waste is collected and bulked, or sorted for re-use, recycling, recovery or disposal but where no actual treatment takes place. The Waste Core Strategy identifies the need for waste transfer capacity as being one third of projected waste arisings.

Figure 9. Sorting and Transfer capacity.



2012

4.103. Sorting and transfer capacity exceeded the phased sorting and transfer requirements in 2012 meaning that the targets in indicator **W22** were met. Capacity increased by 6% between 2011 and 2012. The closure of Augean Waste Transfer station, Worcester, was off-set by an intensification of activities at other sites.

2013

4.104. The targets in indicator **W22** were met with sorting and transfer capacity remaining stable and continuing to exceed total projected sorting and transfer requirements.

2014

4.105. Sorting and transfer capacity decreased by 35%, but continued to exceed total projected sorting and transfer requirements, meeting the targets in indicator **W22**.

4.106. There was a 28% reduction in capacity at household waste sites (HWS), with reduced capacity recorded at 8 of the 10 sites in the county. This is a significant reduction, however there have been no clear operational changes, such as reduced opening hours, site remodelling or changes in plant that are likely to account for this pattern of reduction across all of these sites. It is therefore likely that the reduced capacity figures are due to an acknowledged limitation in the method for calculating capacity, which is based on the highest throughput in the last 5 years (see paragraph 4.82 above). In 2009, throughputs at HWS recorded in the waste data interrogator were 70% higher than the average throughputs between 2008 and 2015[33]. The 2009 throughput is no longer included in the calculation of available capacity in the 2015 data as it is outside of the 5 year time-frame used. However closer examination of the data and cross referencing with LACW waste returns shows significant discrepancies between throughput figure in the waste data interrogator data set and other data sources. This will be investigated further with Defra and updated in subsequent AMRs if appropriate.

4.107. The drop in overall sorting and transfer capacity was also contributed to by a 35% reduction in capacity at waste transfer stations (WTS) and material recovery facilities (MRF). This was primarily due to loss of capacity at The Forge, Kidderminster following a fire and an 85% reduction in capacity at Bromsgrove Bulking Bay, which experienced a similar peak in activity in 2009 as the county's HWS and faces the same potential data issues (see discussion above). Small reductions in capacity were seen at a further 5 sites in Worcestershire, but 7 sites increased their capacity balancing out overall capacity.

2015

4.108. The targets in indicator **W22** were met with sorting and transfer capacity remaining stable and continuing to exceed total projected sorting and transfer requirements and the delivery milestone for 2015. There was little change to overall capacity of HWS or MRF and WTS facilities.

Conclusion

4.109. Although sorting and transfer capacity has decreased between 2012 and 2015 it has remained above total projected sorting and transfer requirements and continued to exceed the targets and milestones for indicator **W22: Maintain equivalent self-sufficiency in sorting and transfer capacity**. The apparent reduction in capacity is due in part to the method used, which discounts peak 2009 throughput as in indicator of capacity from 2014 onwards. Despite issues with the method this it is still considered to be the best approach available. It is therefore not considered that any action is required to alter the monitoring methods at this time.

Indicator W23: Maintain equivalent self-sufficiency in disposal and landfill capacity.

4.110. Indicator W23 measures whether equivalent self-sufficiency in disposal and landfill capacity is being maintained. In previous AMRs each waste stream formed part of the same indicator; however this year the indicator has been split into three separate indicators to consider non-inert, inert and hazardous waste streams separately. This has been done to ensure each waste stream is being assessed in isolation without the performance of other waste streams affecting the overall outcome as it is not usually possible for individual sites to easily convert between landfilling or disposing of different types of waste due to the different environmental standards associated with the management of each waste stream.

W23a monitors landfill capacity for non-inert waste

W23b monitors landfill capacity for inert waste[34]

W23c monitors landfill and disposal capacity for hazardous waste

[33] Years for which complete WDI data is currently available.

[34] Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

4.111. There was no disposal capacity for non-inert or inert waste in Worcestershire between 2012 and 2015, therefore W23a and W23b concentrate on landfill capacity. W23c takes account of the landfill and disposal capacity for hazardous waste.

4.112. Landfill capacity is monitored in the Environment Agency's waste management for England data tables, which provide information on landfill void space annually. In some cases void space increases or decreases at a different rate than the amount of waste deposited. This is not uncommon and results from re-assessments of void space by the Environment Agency, the creation of new cells at existing sites, or by a void increasing as mineral workings which have planning permission to be restored by landfilling are excavated.

Data Limitations

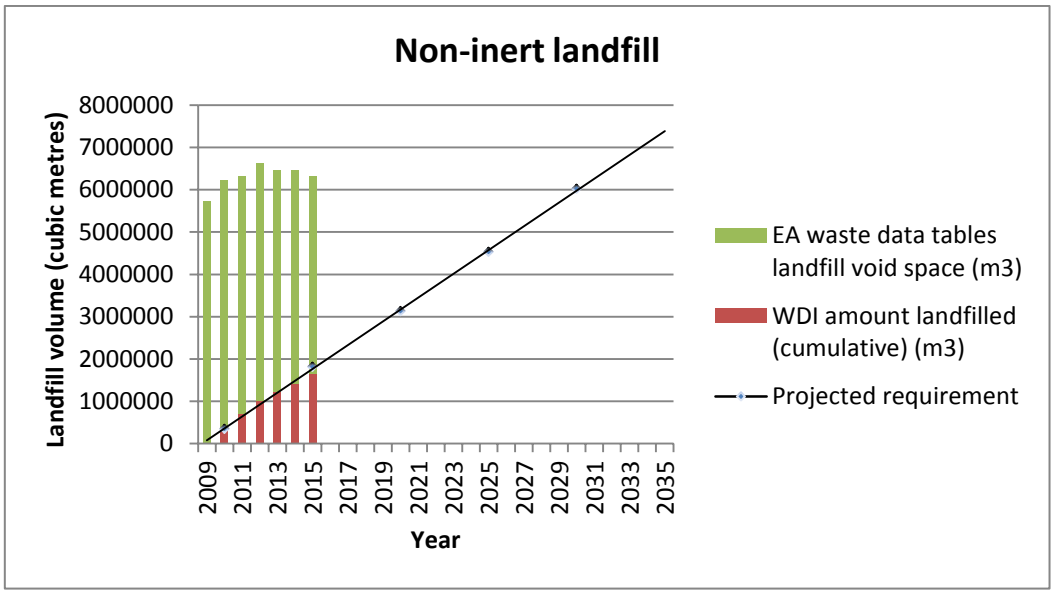
4.113. Due to the issued identified in paragraph 4.32 relating to incomplete landfill data in the Waste Data Interrogator in 2009, 2013 and 2014, the cumulative landfill totals used in the analysis of this indicator will be underestimates of the total amount landfilled.

4.114. Discussion of how to rectify these issues is being undertaken with the Environment Agency and future AMRs will re-analyse these indicators once the data limitations have been overcome.

W23a: Maintain equivalent self-sufficiency in disposal and landfill capacity for non-inert waste

4.115. Figure 10 shows the projected landfill requirement as set out in the Waste Core Strategy, the cumulative amount of non-inert landfill in Worcestershire since 2010 (baseline year for this data set) and the

Figure 10. *Non-inert landfill, amount landfilled and void space.*

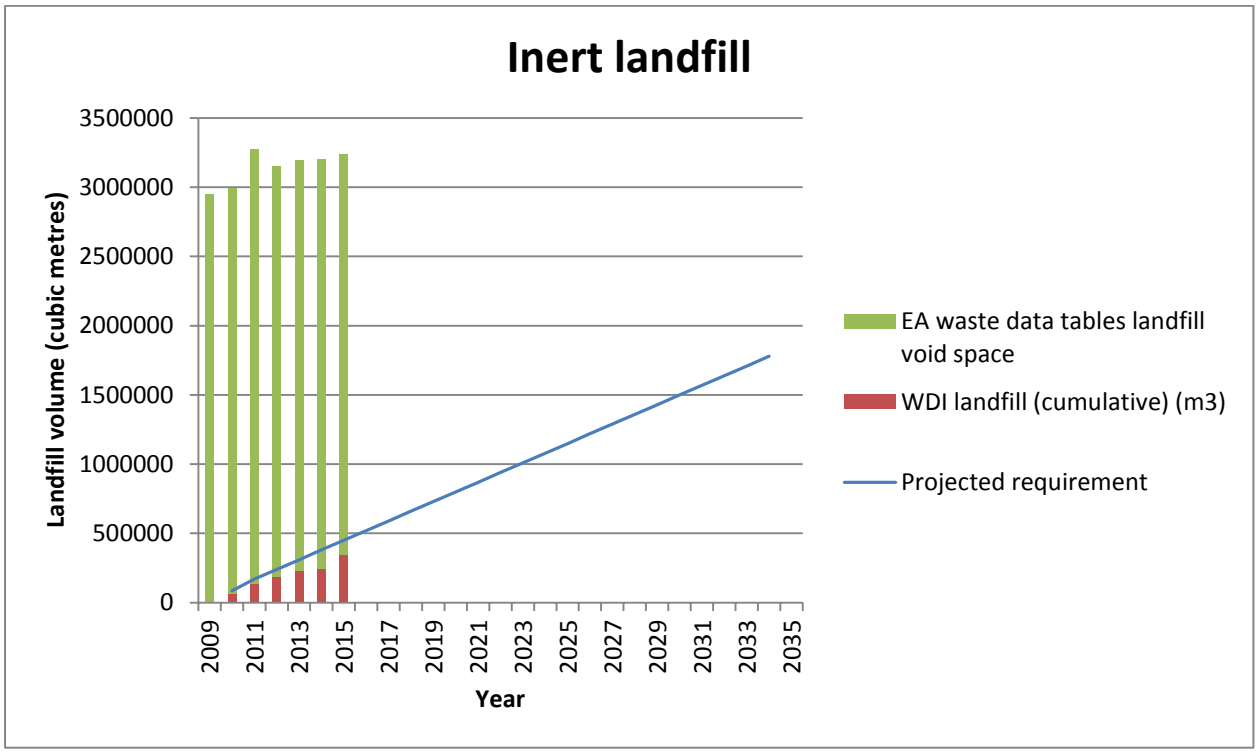


4.116. The amount of non-inert waste landfilled in Worcestershire in 2015 was 248,900 tonnes across three sites, leading to a cumulative 1,661,000 tonnes of non-inert waste landfilled in the county since 2009. This is 8% below the projections made in the Waste Core Strategy. This means that there is more non-inert landfill capacity remaining at this stage in the Waste Core Strategy than was projected.

4.117. As void space is in line with the projected void space for 2015 as set out in the Waste Core Strategy, indicator **W23a** has met its target in this monitoring year.

W23b: Maintain equivalent self-sufficiency in disposal and landfill capacity for inert waste

Figure 11 Inert landfill, amount landfilled and void space.

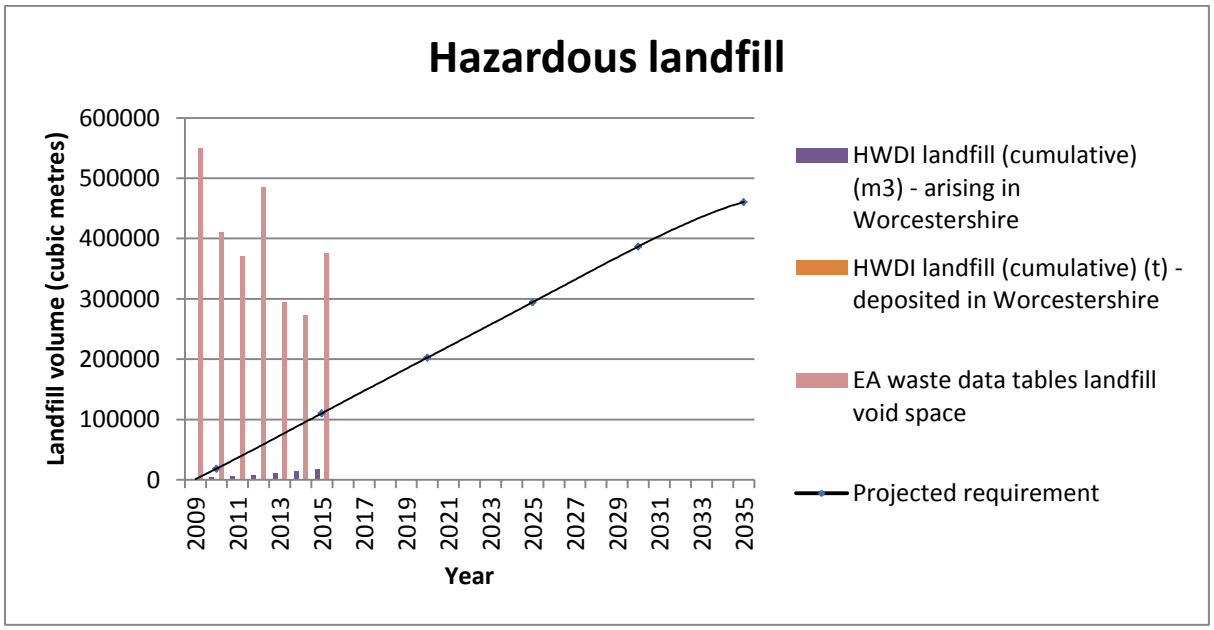


4.118. The cumulative amount of inert waste landfilled in Worcestershire in 2015 was 105,000 tonnes across 5 sites, leading to a cumulative total of 347,400 tonnes of inert waste landfilled in the county since 2009. This is approximately 23% below the projections made in the Waste Core Strategy. This means that there is more inert landfill capacity remaining at this stage in the Waste Core Strategy than was projected.

4.119. Therefore, indicator **W23b** has met its target in this monitoring year.

W23c: Maintain equivalent self-sufficiency in disposal and landfill capacity for hazardous waste

Figure 12 Hazardous landfill and void space.



4.120. There are no dedicated hazardous landfill sites in Worcestershire. However, there is one landfill site which has an environmental permit allowing it to receive Stable Non-Reactive Hazardous Wastes (SNRHW)[35]. The Environment Agency's waste data tables show the county's void space for "non-hazardous with SNRHW (Stable Non-Reactive Hazardous Wastes) cell", but this capacity is for both hazardous and non-hazardous wastes. Therefore, the full void space is therefore unlikely to be available for hazardous waste, and the Waste Core Strategy assumes that half of the void space might be available for hazardous waste. This assumption has been tested at examination and remains the based for the analysis in the AMR. Therefore the landfill void space displayed in Figure 12 is half that recorded in the Environment Agency waste data tables.

4.121. The HWDI provides data on the actual levels of hazardous waste arising in Worcestershire, and how much of this was disposed of to landfill both within and out of the county. Just 16 tonnes of hazardous waste were landfilled within the county in 2015, leading to a cumulative total of 103 tonnes since 2009. The amount of hazardous waste arising in Worcestershire which was disposed of to landfill anywhere in the country in 2015 was 1830 tonnes, leading to a cumulative total of 16700 tonnes since 2009. This is approximately 80% below the projections made in the Waste Core Strategy.

4.122. Void space[36] within Worcestershire has significantly increased in this monitoring year compared to 2014, although it has declined overall since 2009. This is thought to be due to the creation of a new cell, creating a spike in void space in this monitoring year that will reduce in future as the cell gets filled.

4.123. In addition to landfill, 5777 tonnes of hazardous waste was managed by disposal within Worcestershire. 994 tonnes of this was hazardous waste that arose in Worcestershire, with the rest imported from other areas. A further 785 tonnes of hazardous waste which arose in Worcestershire was exported and deposited at specialist facilities elsewhere in the country.

4.124. The amount of hazardous waste landfilled and deposited in the county far exceeds the amount of hazardous waste arising in Worcestershire. Therefore indicator **W23c** has met its target in this monitoring year.

[35] Defined as hazardous waste for which the leaching behaviour will not change adversely in the long-term, under landfill design conditions or foreseeable accidents: in the waste alone (for example, by biodegradation); under the impact of long-term ambient conditions (for example, water, air, temperature or mechanical constraints); or by the impact of other wastes (including waste products such as leachate and gas).

[36] Environment Agency Waste Data Tables "non-hazardous with SNRHW (Stabilised Non-Reactive Hazardous Waste) cells". The Waste Core Strategy assumed that that half the "non-hazardous with SNRHW cells" void space might be available for hazardous waste.

Conclusion

Good progress has been made towards equivalent self-sufficiency in re-use and recycling capacity, and "other recovery" capacity, based on headline delivery milestones set out in table 5 and Policy WCS 2.

No developments were permitted within 250m of waste management facilities against County Council advice.

The number of proposals undertaking pre-application advice, as well as the percentage of applications received which had undertaken pre-application advice has both decreased in this monitoring year. No actions have been identified to improve the performance of these indicators.

No capacity gap has been identified for sorting and transfer capacity for any waste stream. Finally, No capacity gap has been identified for landfill and/or disposal for any waste stream. Non-inert and inert landfill rates are in line with or lower than predictions and remaining capacity is sufficient for the life of the Waste Core Strategy. No action is required in these areas. For hazardous landfill, the rate of hazardous waste arisings being deposited in landfill (within or beyond the county) is significantly lower than predicted.

Therefore it has been determined that this objective is being delivered.

4.7 WO6: Involving all those affected as openly and effectively as possible.

There are significant failings in delivering this objective.

Actions have been identified to improve performance of indicator W26.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W26: Permitted applications for waste management which include a consultation statement	100%	None
W27: Decisions where there are no policies in the Development Plan which are relevant to the application or relevant policies are out of date at the time of making the decision	None	None

Indicator Analysis

4.125. There were no decisions where there were no relevant policies in the development plan, or where policies were absent or out of date, in this monitoring period. Therefore the target for indicator **W27: Decisions where there are no policies in the Development Plan which are relevant to the application or relevant policies are out of date at the time of making the decision** has been met.

4.126. No applications approved within this monitoring period included a consultation statement[37], therefore indicator **W26: Permitted applications for waste management which include a consultation statement** failed to meet its target.

4.127. The absence of consultation statements submitted by the applicants raises concerns about the delivery of Waste Core Strategy Objective 6. In previous AMRs it was hoped that the adoption of the Validation Document alongside the Waste Core Strategy would support the delivery of this objective. However despite the adoption of the Validation Document in February 2015 the performance of this indicator has remained poor. A misunderstanding over whether the Validation Document requires all applications to submit a consultation statement, even in cases where no pre-application discussion was undertaken has been identified with Development Control colleagues.

[37] The 2015 Validation Document states that "Applications must be supported by a statement setting out how the applicant has complied with the requirements for pre-application consultation set out in Worcestershire County Council's adopted SCI, demonstrating that the views of the local community have been sought and taken into account in the formulation of development proposals".

Action

4.128. Discussion will be undertaken with Development Control colleagues to understand any difficulties they are facing implementing the Validation Document, and if necessary further training will be undertaken.

Conclusion

The Development Plan included relevant policies to make decisions on all planning applications submitted during the monitoring period and as such the target of no decisions being made where there are no policies in the Development Plan which are relevant to the application, as set out in **indicator W27** was met. In addition, there were also no cases where policies were considered to be out of date, or where the development plan was silent on substantive issues.

However, none of the applications approved within this monitoring period included a consultation statement, therefore indicator **W26: Permitted applications for waste management which include a consultation statement** failed to meet its target. This issue is significant enough to have resulted in a failure to meet this objective in 2015. Discussion will be undertaken with Development Control colleagues to understand any difficulties they are facing implementing the validation document, and if necessary further training will be undertaken.

Therefore it has been determined that there is a failure to deliver objective. Actions have been identified to address this.

4.8 WO7: Developing a waste management industry that contributes positively to the local economy.

This objective is being delivered.

No action is required at this time.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery milestones in table 5 and Policy WCS 2.	Achievement of headline delivery milestones in Table 5 and Policy WCS 2.	Achieved
W21: Progress towards equivalent self-sufficiency in 'other recovery' capacity, based on headline delivery milestones in table 5 and Policy WCS 2.		Achieved
W22: Maintain equivalent self-sufficiency in sorting and transfer capacity.	No capacity gap for sorting and transfer	Achieved
W23a: Maintain equivalent self-sufficiency in disposal and landfill capacity of non-inert waste.	No capacity gap for disposal and landfill	Achieved
W23b: Maintain equivalent self-sufficiency in disposal and landfill capacity of inert waste.		Achieved
W23c: Maintain equivalent self-sufficiency in disposal and landfill capacity of hazardous waste.		Achieved
W28: Increase in GVA in Worcestershire from Waste Management.	Increase	Increase

Indicator Analysis

4.129. Full analysis of indicators W20 to W23c can be found in chapter 4.6.

4.130. No capacity gap has been identified for sorting and transfer capacity for any waste stream in this monitoring year. Therefore indicator **W22: Maintain equivalent self-sufficiency in sorting and transfer capacity** has been met.

4.131. Good progress has been made towards equivalent self-sufficiency in re-use and recycling capacity, based on headline delivery milestones set out in table 5 and Policy WCS 2 with rates 21% higher in 2015 compared to 2012. The performance of re-use and recycling also means that progress towards equivalent self-sufficiency in re-use, recycling, and "other recovery" capacity, based on headline delivery milestones set out in table 5 and Policy WCS 2 has also been met in this monitoring year. Therefore the targets for indicators **W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery**

milestones in table 5 and Policy WCS 2 and **W21: Progress towards equivalent self-sufficiency in 'other recovery' capacity, based on headline delivery milestones in table 5 and Policy WCS 2** have been met.

4.132. No capacity gap has been identified for landfill and/or disposal for any waste stream. Non-inert and inert landfill rates are in line with or lower than predictions and remaining capacity is sufficient for the life of the Waste Core Strategy. Therefore indicators **W23a: Maintain equivalent self-sufficiency in disposal and landfill capacity of non-inert waste** and **W23b: Maintain equivalent self-sufficiency in disposal and landfill capacity of inert waste** have met their targets.

4.133. For hazardous landfill, the rate of hazardous waste arisings being deposited in landfill (within or beyond the county) is significantly lower than predicted. Due to this, the target of indicator **W23c: Maintain equivalent self-sufficiency in disposal and landfill capacity of hazardous waste** has been met.

Gross Value Added (GVA) of the waste sector

	2010	2011	2012	2013	2014	2015[38]	% change (2010-2015)
Waste management[39] GVA (£m)	113	157	180	197	237	244	+116%
Worcestershire GVA (£m)	9,780	10,158	10,586	10,922	11,516	11,796	+21%
% contribution from waste management	1.2%	1.6%	1.7%	1.8%	2.1%	1.9%	

Source: Annual Business Inquiry/Business Register and Employment Survey

4.134. Gross Value Added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy. In this case the value of the waste sector to the overall economic value of Worcestershire.

4.135. Please note that the Office for National Statistics (ONS) revises GVA figures each year as new data and information becomes available and as methods change, due to this data shown in the table for pervious years may not match that reported in previous AMRs.

4.136. The GVA from waste management is only a small part of Worcestershire's GVA, standing at 1.9% in 2015. Actual GVA from waste management has increased every year since 2010, creating an overall rise of 116% between 2010 and 2015. Despite a small decrease as proportion of the total Worcestershire GVA in 2015 compared to 2014, reflecting a fast paced growth in the wider Worcestershire economy, the waste sector continues to grow, with a 2.95% growth between 2014 and 2015 in the waste sector, compared to a 2.4% growth in the overall Worcestershire economy in the same timeframe. Therefore, indicator **W28: Increase in GVA in Worcestershire from Waste Management** has been met.

[38] Estimates for 2015 are provisional.

[39] Due to a change in methodology, figures in this table may differ from previous years. The following sectors are included:

37: Sewerage

38: Waste collection, treatment and disposal activities; materials recovery

39: Remediation activities and other waste management services. This division includes the provision of remediation services, i.e. the clean-up of contaminated buildings and sites, soil, surface or ground water.

Conclusion

Good progress has been made towards equivalent self-sufficiency in re-use and recycling capacity, and "other recovery" capacity, based on headline delivery milestones set out in table 5 and Policy WCS 2.

No capacity gap has been identified for sorting and transfer capacity for any waste stream. Finally, No capacity gap has been identified for landfill and/or disposal for any waste stream. Non-inert and inert landfill rates are in line with or lower than predictions and remaining capacity is sufficient for the life of the Waste Core Strategy. No action is required in these areas. For hazardous landfill, the rate of hazardous waste arisings being deposited in landfill (within or beyond the county) is significantly lower than predicted.

The contribution of waste management development to the GVA of Worcestershire shows good performance, with 3% growth in this monitoring period.

Therefore it has been determined that this objective is being delivered.

4.9 WO8: Directing development to the most appropriate locations in accordance with the spatial strategy.

This objective is largely being delivered.

No action has been identified to improve the performance of indicator W30 at this time.

Full results available in: Appendix A.

Indicator	Target	2015 Result
W29: Permitted 'other recovery' and disposal (excluding landfill) capacity at each level of the geographic hierarchy.	100% of new 'other recovery' and disposal (excluding landfill) capacity at level 1 and 2 of the geographic hierarchy.	No relevant applications
W30: Permitted re-use, recycling, storage, sorting and transfer capacity at each level of the geographic hierarchy.	More than 50% of new re-use, recycling, storage, sorting and transfer capacity at level 1 and 2 of the geographic hierarchy.	50%

Indicator Analysis

4.137. There were no applications for new 'other recovery' or disposal (excluding landfill) capacity in this monitoring period, therefore indicator **W29: Permitted 'other recovery' and disposal (excluding landfill) capacity at each level of the geographic hierarchy**[40] is not relevant to the performance of this objective within this monitoring year.

4.138. There were two permissions granted for re-use, recycling, storage, sorting, or transfer capacity within the monitoring period, of these, one application was located in level 5 of the geographic hierarchy. This is the level of the geographic hierarchy containing the settlements that have the smallest role in managing the county's waste management needs. This application was for the extension of a building at an existing waste transfer facility, as the extension of this building has enabled the ongoing transfer of waste through the creation of additional indoor processing space it has been deemed relevant to this indicator under the wording of policy WCS3, despite not providing additional capacity. The other application was located at level 1 of the geographic hierarchy, the level with . Therefore the target for indicator **W30: Permitted re-use, recycling, storage, sorting and transfer capacity at each level of the geographic hierarchy** has not been met. Despite the failure to meet the target of "more than 50% of new re-use, recycling, storage, sorting and transfer capacity at level 1 and 2 of the geographic hierarchy", due to the low number of applications 50% of applications meeting this target has been deemed as a short term failure. The performance of this indicator will be monitored in future monitoring periods however no action is required at this time.

[40] Settlements within Worcestershire perform different waste management functions. The broad geographic hierarchy takes into account current waste arisings, resource demand and existing waste management capacity of each settlement. The settlements which have a major role to play in waste management are in the top levels and those which have only a minor role are in the bottom levels of the geographic hierarchy.

Conclusion

50% of permitted re-use, recycling, storage, sorting and transfer capacity was at level 1 or 2 of the geographic hierarchy, however due to the low number of applications 50% of applications meeting this target has been deemed as a short term failure. The performance of this indicator will be monitored in future monitoring periods and no action is required at this time.

Therefore it has been determined that this objective is being delivered.

6. Minerals Indicators

6.1 Introduction

5.1.1 Format and Content

5.1. The adopted County of Hereford and Worcester Minerals Local Plan does not contain monitoring indicators. There is however a role for the AMR to monitor the supply of minerals and the decision making process.

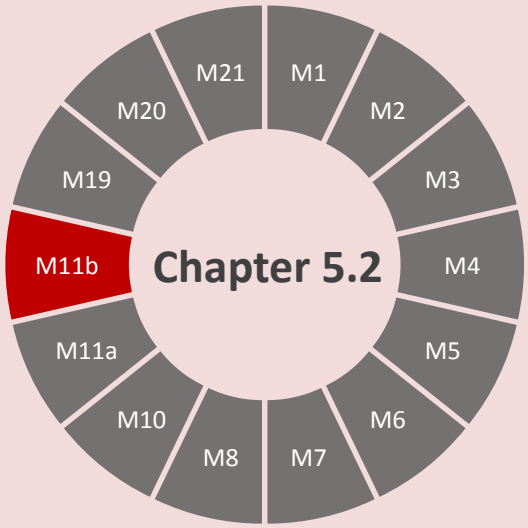
5.2. For aggregates this is done through the Local Aggregates Assessment, which is set out in Annex A and summarised in chapter 5.3. These indicators have no set targets and are instead used to establish a baseline and inform the development of the emerging Minerals Local Plan rather than to monitor delivery of the adopted plan.

5.3. For industrial minerals, indicators have been included in this AMR to enable a baseline to be established, and inform the development of the emerging Minerals Local Plan. These indicators contain no targets and the issues monitored by the indicators mirrors the aims of aggregate minerals indicators. These indicators can be found in chapter 5.4.

5.4. In addition, indicators to monitor the impacts of permissions for all types of mineral development in the county have been included mirroring the indicators set out in the Waste Core Strategy where these have been deemed relevant to minerals development. The targets of these indicators are in line with the Waste Core Strategy.

5.5. It is the Council's intention to continue to monitor these indicators through the AMR until the new Minerals Local Plan is sufficiently developed, at which point the AMR will monitor the objectives and indicators set out in the new plan.

5.2 Applications determined for minerals development



The performance of this set of indicators shows poor performance.

A new Minerals Local Plan is being prepared to improve performance.

Full results available in: Appendix C.

Indicator	Target	2015 Result
M1: Permissions for minerals development granted contrary to Environment Agency advice on flooding.	None	No applications
M2: Permissions for minerals development granted contrary to Environment Agency advice on water quality.	None	No applications
M3: Permissions for minerals development that include provision for energy efficiency.	100%	No applications
M4: Permissions having an unacceptable adverse impact on landscape character, scheduled ancient monuments, listed buildings, conservation areas, battlefields or registered historic parks and gardens.	None	No applications
M5: Permissions granted in the Malvern Hills or Cotswolds AONB.	No unacceptable adverse change in the quality or character of the landscape.	No applications
M6: Permissions for minerals development take into account local characteristics.	No unacceptable adverse impact on local characteristics.	No applications
M7: Permissions for minerals development that take into account amenity considerations.	No unacceptable adverse impact on amenity.	No applications
M8: Permissions granted in accordance with highways advice.	100%	No applications
M10: Applications for waste management/minerals development determined within 13 weeks.	100%	No applications
M11a: Proportion of approved applications discussed with Worcestershire County Council at pre-application stage.	Increase	No applications
M11b: Number of proposals discussed with Worcestershire County Council at pre-application stage	Increase	Decrease
M19: Permitted applications for minerals development which include a Consultation Statement.	100%	No applications
M20: Decisions where there are no policies in the Development Plan which are relevant to the application or relevant policies are out of date at the time of making the decision.	None	No applications
M21: New mineral development in 'preferred areas'.	100% in Preferred Areas identified in the Adopted Hereford and Worcester Minerals Local Plan.	No applications

Indicator Analysis

5.6. The performance of indicators M1 to M8, M10, M11a, and M19 to M21 cannot be assessed in this monitoring period as there were no applications for minerals development determined in 2015.

Indicator M11b: Number of proposals discussed with Worcestershire County Council at pre-application stage

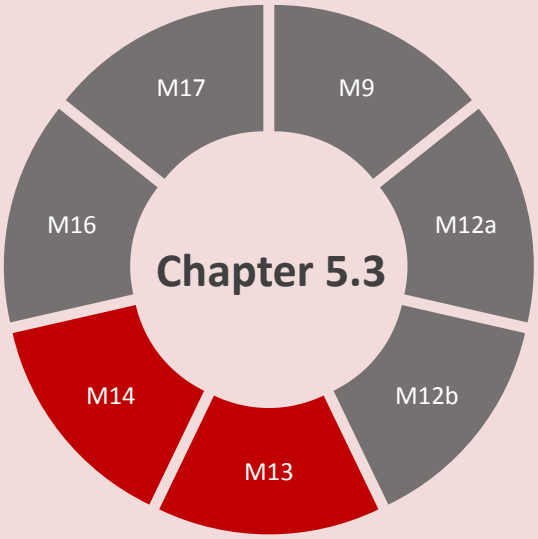
5.7. During this monitoring period 6 proposals for minerals development were discussed with WCC at pre-application stage, this is a decrease from 13 proposals discussed in the 2014-15 monitoring period. Therefore indicator **M11b: Number of proposals discussed with Worcestershire County Council at pre-application stage** has failed to meet its target. It is possible that this is partly due to this monitoring period being shorter than the 2014-15 monitoring period to accommodate the change from financial year monitoring to calendar year (as outlined in the introduction), and a reduction could be expected.

5.8. It could also be due to the lack of remaining deliverable preferred areas and policy certainty to encourage mineral developers to bring sites forward. A new Minerals Local Plan is being prepared to address this.

Conclusion

The indicators in this section will continue to be monitored until the new Minerals Local Plan is sufficiently developed to replace these indicators. No other action is required at this time to improve performance.

5.3 Steady and adequate supply of aggregate mineral resources



The performance of this set of indicators shows poor performance.

A new Minerals Local Plan is being prepared to improve performance.

Full results available in: Appendix C.

Interim Indicator	Target	2015 Result
M9: Production of secondary and recycled aggregates.	Monitor baseline	No data
M12a: Annual production of primary land won aggregates (Sand and Gravel).	Monitor baseline	0.538 million tonnes
M12b: Annual production of primary land won aggregates (Crushed Rock).	Monitor baseline	0 tonnes
M13: Landbank of permitted sand and gravel reserves.	Minimum 7 years	1.41 – 1.48 years
M14: Landbank of permitted crushed rock reserves.	Minimum 10 years	0 years
M16: Sufficient productive capacity for sand and gravel supply.	Monitor baseline	6 sites
M17: Sufficient productive capacity for crushed rock supply.	Monitor baseline	0 sites

Indicator analysis

5.9. Full analysis of the steady and adequate supply of aggregate minerals is set out in the LAA (Annex 1). This section summarises key points raised in the LAA.

Indicator M9: Production of secondary and recycled aggregates

5.10. National policy states that, so far as practicable, planning authorities should "take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials".[41] Secondary aggregates is a term often used to describe mineral that is produced as a by-product of other mining or quarrying activities or as a by-product of an industrial process. There are currently no industrial processes in Worcestershire which are known to produce secondary aggregates. However, there is potential for some provision of secondary aggregates in the future. An Energy from Waste Plant at Hartlebury, near Kidderminster, was currently under

[41] Department for Communities and Local Government (March 2012) National Planning Policy Framework, paragraph 143

construction during 2015.[42] This plant is predicted to produce 40,000 tonnes per annum of incinerator bottom ash which may be capable of being used as secondary aggregate, although further processing would be required to enable this. A separate application was also under consideration in this monitoring period, this was for a facility to process 120,000 tonnes per annum of incinerator bottom ash at Veolia's Sandy Lane site near Bromsgrove.[43] The status of this application will be reported in future AMRs.

5.11. Recycled aggregates arise from several sources, notably construction and demolition waste (C&D waste) such as the demolition of buildings, asphalt planings from road resurfacing and railway track ballast. "Recycling" aggregates involves the processing of waste materials to remove unwanted or inappropriate material such as fines, wood, plastic and metal. It will usually include crushing and screening. The recycled aggregate is then re-used, usually for a less demanding application.

5.12. Paragraph 4.53 addresses CD+E waste and concludes that no data is available about the volume processed by mobile plant.

Sand and Gravel (Indicators M12a, M13 and M16)

5.13. In 2015, there were 6 sites in the County, of which 4 were "active" (in production for some time during the year) and two "inactive" (worked in the past and contain permitted reserves). Annual production of sand and gravel in Worcestershire stood at 0.538 million tonnes. There are no targets currently set for indicator **M16: Sufficient productive capacity for sand and gravel supply** or **M12a: Annual production of primary land won aggregates (Sand and Gravel).**

5.14. The total permitted reserves for sand and gravel at 31st December 2015 was 0.895-0.945 million tonnes. Based on the production guideline set out in the 2016 LAA (Annex 1) of 0.637 million tonnes per annum, Worcestershire had a landbank of 1.41-1.48 years at 31st December 2015. This is far below the 7 year landbank required by national policy and therefore indicator **M13: Landbank of permitted sand and gravel reserves** has failed to meet its target.

Crushed Rock (indicators M12b, M14 and M17)

5.15. In 2015, annual production of crushed rock in Worcestershire stood at 0 tonnes.

5.16. There were no sites with permitted reserves of crushed rock at 31st December 2015, and no planning applications for working crushed rock are pending decision. This means that Worcestershire has no permitted reserves, no productive capacity and no landbank for crushed rock. Therefore indicators **M13: Landbank of permitted crushed rock reserves** has failed to meet its target. There are no targets currently set for indicator **M17: Sufficient productive capacity for crushed rock supply**.

5.17. However, there has been very limited market interest in working crushed rock in Worcestershire for many years and there are multiple factors relating to crushed rock resources in Worcestershire which may make it difficult for them to be worked. Of the land containing crushed rock resources in Worcestershire:

5.17.1. Approximately 15% is adjacent to or within 2.5km of Bredon Hill Special Area of Conservation;

5.17.2. 99.5% is within the Cotswolds AONB (which includes Bredon Hill) or Malvern Hills AONB; and

5.17.3. The Malvern Hills Conservators control approximately 75% of the land containing crushed rock in the county and have a unique responsibility to protect land in their control from harm from quarrying activities as set out in the Malvern Hills Act 1924.

5.18. The delivery constraints outlined above, the lack of interest in Worcestershire's resources shown by the minerals industry since the closure of Broadway quarry in 2010, and the fact that no sites for crushed rock

[42] Further information about the development of the Energy from Waste Plant can be viewed at http://www.severnwaste.com/recovery/envirecover-project/

[43] Application number 13/000027/CM. This application was refused in November 2016 for reasons of harm to the Green Belt

have been proposed in response to "calls for sites" in 2014 and 2015 indicate that it is unlikely that Worcestershire will be able to provide crushed rock for the foreseeable future.

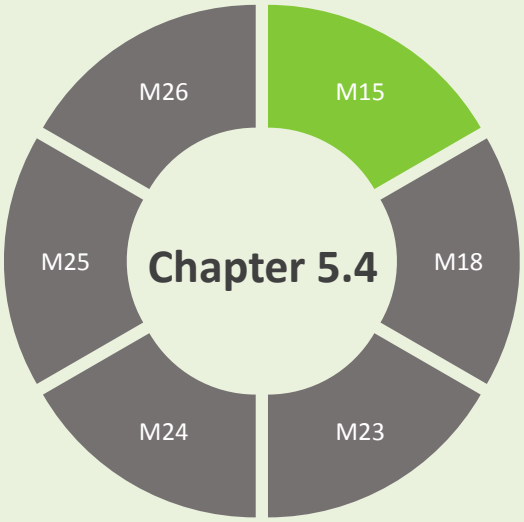
Action

5.19. This issue will be addressed in the emerging Minerals Local Plan and at date of publication (Nov 2017) is the subject of duty to cooperate discussion with the West Midlands Aggregate Working Party (AWP), other neighbouring AWPs and relevant Minerals Planning Authorities.

Conclusion

The baseline will continue to be monitored and a new Minerals Local Plan produced to secure the steady and adequate supply of aggregate minerals.

5.4 Steady and adequate supply of Industrial minerals



The performance of this set of indicators shows good performance.

No action is required.

Full results available in: Appendix C.

Indicator	Target	2015 Result
M15: Landbank of permitted clay reserves.	Minimum 25 years	71 to 78 years[35]
M18: Sufficient productive capacity for clay supply.	Monitor baseline	2 sites
M23: Annual production of silica sand.	Monitor baseline	Unknown
M24: Landbank of permitted silica sand reserves.	Monitor baseline	Unknown
M25: Annual production of building stone.	Monitor baseline	0
M26: Landbank of permitted building stone reserves.	Monitor baseline	0

Indicator analysis

5.20. At present, clay and silica sand are the only industrial materials produced in the county.

Clay (Indicators M15 and M18)

5.21. Clay is worked in Worcestershire at two sites in Hartlebury, at New House Farm and Waresley quarries, with associated brickworks (both owned by Wienerberger); together these brickworks are capable of producing over 2 million bricks per week. The operator is the largest brick producer in Europe and the brickworks in Worcestershire their largest in the UK. The county's stock of permitted reserves in 2014 was approximately 71 to 78 years based on past sales estimates.[44] Data for 2015 is not available. This exceeded the minimum 25 year target, therefore indicator **M15: Landbank of permitted clay reserves** is meeting its target.

5.22. Despite clay being worked at two sites in the county, both these sites are owned by the same operator, raising concerns over security of productive capacity, although no targets are currently set for indicator **M18**.

Silica Sand (Indicators M23 and M24)

5.23. Two quarries currently produce very small volumes of silica sand as an ancillary activity to the working of aggregate sands. The 2014 Annual Minerals Raised Inquiry (AMRI) survey is the most recent dataset available

[44] 71 years estimate based on correspondence with Weinerberger (02.12.2014) and 78 years estimate based on sales average (Mineral Extract: Great Britain Reports 2002 – 2011) and Weinerberger estimate of permitted resource (02.12.2014).

which reports on silica sand production. In 2014 the production figure was withheld for confidentiality reasons and therefore indicators **M23** and **M24** cannot be monitored.

Building Stone (Indicators M25 and M26)

5.24. Building stone has not been produced since the closure of Fish Hill Quarry near Broadway (2010) when it was worked as ancillary to crushed rock. Due to this the annual production of building stone is 0 tonnes in this monitoring period, and the landbank of permitted building stone reserves is 0 years. There are currently no targets set for indicators **M25** and **M26**.

Conclusion

The baseline will continue to be monitored and a new Minerals Local Plan produced to secure the steady and adequate supply of industrial minerals.

5.5 Economic benefit of minerals development

The indicators in this section are being monitored to provide a baseline to inform the development of the new Minerals Local Plan.

No conclusion on overall performance has been drawn.

Full results available in: Appendix C.

Indicator	Target	2015 Result
M27: Increase in GVA in Worcestershire from minerals development	Monitor baseline	Increase

Indicator analysis

5.25. Indicator M22 has been added this year, in previous years this was combined with waste development in indicator W28. Indicator M22 has no set targets and is designed to establish a baseline.

	2010	2011	2012	2013	2014	2015[45]	% change (2010-2015)
Minerals development GVA (£m)[46]	3	3	3	3	4	6	+100%
Worcestershire GVA (£m)	9,780	10,158	10,586	10,922	11,516	11,796	+21%
% contribution from minerals	0.03%	0.03%	0.03%	0.03%	0.03%	0.05%	

Source: Annual Business Inquiry/Business Register and Employment Survey

5.26. Gross Value Added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy; in this case the value of the minerals sector to the overall economic value of Worcestershire.

5.27. Please note that the Office for National Statistics (ONS) revises GVA figures each year as new data and information becomes available and as methods change. Due to this, data shown in the table for previous years may not match that reported in previous AMRs.

5.28. The GVA from minerals development is only a small part of Worcestershire's GVA, standing at 0.05% in 2015. Actual GVA from minerals development has doubled between 2010 and 2015 from 3 to 6 million pounds. The growth in the minerals sector has occurred faster than the overall growth of GVA in Worcestershire, which grew by 21% in the same timeframe. Because of this, the contribution the minerals sector makes towards the overall GVA for Worcestershire has increased from 0.03% in 2010 to 0.05% in 2015. No target has been set for indicator **M22**.

Conclusion

[45] Estimates for 2015 are provisional.

[46] Due to a change in methodology, figures in this table may differ from previous years. The estimates assume that output per worker in mining and quarrying is the same as output per worker for the production sector and as a result may under or overestimate GVA.

The baseline will continue to be monitored.

Appendix A: Data Tables - Waste Core Strategy indicators

Where a cell is grey, this indicates a lack of applications relevant to this indicator, except where further clarification is given, for example where data is not available.

Indicator	Objective	Target	2011	2012	2013	2014	2015
W1: Permissions for waste management development granted contrary to the EA advice on flooding.	WO1	0	0	0	0	0	0
W2: Permissions for waste management development granted contrary to the EA advice on water quality.	WO1	0	0	0	0	0	0
W3: Permissions for waste management development that include measures for energy efficiency.	WO1	100%	0%	0%	0%	0%	0%
W4: Permissions for waste management development with a gross floor space of over 1000m² to gain at least 10% of energy supply annually from renewable energy supplies.	WO1	100%					
W5: Permissions for waste management development that include measures for water efficiency.	WO1	100%	0%	27%	13%	0%	
W6: Permissions for new landfill capacity that include landfill gas management systems.	WO1	100%					
W7: Permissions for new built waste management development that include provision for biodiversity enhancement.	WO2	100%	44%	45%	62%	38%	0%
W8: Permissions having an unacceptable adverse impact on landscape character, scheduled ancient monuments, listed buildings, conservation areas, battlefields or	WO2	0	0	0	0	0	0

Indicator	Objective	Target	2011	2012	2013	2014	2015
registered historic parks and gardens.							
W9: Permissions granted in the Malvern Hills or Cotswolds AONB.	WO2	No unacceptable adverse change in the quality or character of the landscape	No unacceptable adverse change				
W10: Permissions for new waste management development take into account local characteristics.	WO2	No unacceptable adverse impact on local characteristics	Not monitored	No unacceptable adverse impact			
W11: Permissions for new waste management development that take into account amenity considerations	WO2	No unacceptable adverse impact on amenity	No unacceptable adverse impact				
W12: Permission for new waste management development on Greenfield sites.	WO2	0	0	1	0	0	0
W13: Permission for new waste management development in the Green Belt.	WO2	No unacceptable cumulative impact on the purposes of Green Belt designation	No unacceptable cumulative impact				
W14: Permissions granted in accordance with highways advice.	WO2	100%	100%	100%	100%	100%	100%
W16a: LACW waste sent to landfill.	WO3	Decrease in % of waste managed sent	48%	49%	49%	49%	50%

Indicator	Objective	Target	2011	2012	2013	2014	2015
		to landfill.					
W16b: Commercial and Industrial waste sent to landfill.	WO3	Decrease in % of waste managed sent to landfill.	61%	41%	Incomplete data		52%
W16c: Construction and Demolition waste sent to landfill.	WO3	Decrease in % of waste managed sent to landfill.	No available data				
W16d: Hazardous waste sent to landfill	WO3	Decrease in % of waste managed sent to landfill.	95%	12%	13%	15%	24%
W17a: Re-use, recycling and 'other recovery' of LACW waste	WO3	By 2020: 78% with minimum of 50% re-use and recycling	47.1%	46.9%	47.3%	48.7%	47.7%
W17b: Re-use, recycling and 'other recovery' of Commercial and Industrial waste	WO3	By 2020: 75% with minimum of 55% re-use and recycling	39%	59%	Incomplete data		48%
W17c: Re-use, recycling and 'other recovery' of Construction and Demolition waste	WO3	By 2020: 75% with minimum of 55% re-use and recycling	No available data				
W17d: Re-use, recycling and 'other recovery' of Hazardous waste	WO3	By 2020: 75%	5%	88%	87%	85%	76%
W18: Adoption of appropriate policies regarding managing waste arisings from all new development in City, Borough and District Councils DPDs	WO3 WO4	Adopted by all City, Borough and District Councils	None adopted				

Indicator	Objective	Target	2011	2012	2013	2014	2015
W19: Development permitted within 250m of waste management facilities against County Council advice	WO4 WO5	None	0	0	0	0	0
W20: Progress towards equivalent self-sufficiency in re-use and recycling capacity based on headline delivery milestones in Table 5 and Policy WO 2.	WO3 WO7	Achievement of headline delivery milestones in Table 5 and Policy WCS 2.	500061 tonnes	72887 tonnes	796161 tonnes	748176 tonnes	875513 tonnes
W21: Progress towards equivalent self-sufficiency in 'other recovery' capacity, based on headline delivery milestones in table 5 and Policy WO 2.	WO5 WO7	Achievement of headline delivery milestones as set out in Policy WCS2	0 tonnes	40500 tonnes	123500 tonnes	2400 tonnes	167500 tonnes
W22: Maintain equivalent self-sufficiency in sorting and transfer capacity.	WO5 WO7	No capacity gap for sorting and transfer	1056001 tonnes	1120846 tonnes	1127493 tonnes	737533 tonnes	740821 tonnes
W23a: Maintain equivalent self-sufficiency in disposal and landfill capacity for non-inert waste.	WO5 WO7	No capacity gap for disposal and landfill	5606419 tonnes	5609217 tonnes	5233320 tonnes	5041202 tonnes	4659000 tonnes
W23b: Maintain equivalent self-sufficiency in disposal and landfill capacity for inert waste.	WO5 WO7	No capacity gap for disposal and landfill	3134542 tonnes	2962000 tonnes	2964000 tonnes	2957850 tonnes	2894000 tonnes
W23c: Maintain equivalent self-sufficiency in disposal and landfill capacity for hazardous waste.	WO5 WO7	No capacity gap for disposal and landfill	370000 tonnes	485000 tonnes	294000 tonnes	273196 tonnes	375000 tonnes

Indicator	Objective	Target	2011	2012	2013	2014	2015
W24: Applications for Waste Management development determined within 13 weeks.	WO5	100%	33%*	0%*	48%	95%	100%
W25a: Proportion of waste management applications discussed with Worcestershire County Council at pre-application stage.	WO5	Increase	37%	81%	76%	85%	67%
W25b: Number of waste management proposals discussed with Worcestershire County Council at pre-application stage.	WO5	Increase	Not monitored				21
W26: Permitted applications for waste management which include a consultation statement	WO6	100%	19%	45%	39%	29%	0%
W27: Decisions where there are no policies in the Development Plan which are relevant to the application or relevant policies are out of date at the time of making the decision	WO6	None	0	0	0	0	0
W28: Increase in GVA in Worcestershire from Waste Management.	WO7	Increase	£157m	£180m	£197m	£237m	£244m
W29: Permitted 'other recovery' and disposal (excluding landfill) capacity at each level of the geographic hierarchy.	WO8	100% of new 'other recovery' and disposal (excluding landfill) capacity at level 1 and 2 of the geographic hierarchy.				50%	

Indicator	Objective	Target	2011	2012	2013	2014	2015
W30: Permitted re-use, recycling, storage, sorting and transfer capacity at each level of the geographic hierarchy.	WO8	More than 50% of new re-use, recycling, storage, sorting and transfer capacity at level 1 and 2 of the geographic hierarchy.	40%	44%	0%	33%	50%

* This figure does not include applications where an extension of time was agreed

Appendix B: Waste Sites

Site Name	Post Code
Household Waste Sites	
Bilford Road Household Waste Site	WR3 8PU
Bonemill Household Waste Site	DY13 8AS
Droitwich Household Waste Site	WR9 7DX
Green Street Depot Kidderminster	DY10 1HA
Hoobrook Waste Recycling Centre	DY10 1HY
Malvern Household Waste Site	WR14 1BE
Quantry Lane Household Waste Site	B61 0QT
Redditch H W S	B98 7SN
Tenbury Wells H W R C	WR15 8BB
Upton Upon Severn Household Waste Site	WR8 0HU
WTS & MRF	
A - Z Skips Limited	B60 4JZ
Arrow Road Recycling Centre	B98 8NT
Blackpole Recycling W T S	WR3 8DJ
Bromsgrove Bulking Bay	B60 3EX
C R & S J Willis - Clinical Waste Transfer Station	GL20 7EE
Crossgate Road Transfer Station	B98 7SR
CSG Worcester EPR/FP3532NV	WR4 9FE
Davies Skip Hire	DY10 1HY
Envirosort	WR5 2PU
Grove House Yard	WR8 0PW
Hallow Road (Severn Waste transfer Station in EA data)	WR2 6BZ
Hill & Moor Landfill Site	WR10 2LW
Land At Lydstep	WR11 8JT
Maile Skips	WR13 5EQ
Materials	B98 9DP
Mission Recycling	WR11 8DX
Pencroft	DY11 7SL
Pendragon Close Depot	WR14 1GA
Quinetiq Pershore	WR10 2JH
Recyclign Centre	WR13 5EQ
Redditch & Lower Park Skip Hire	B97 6RG
Redditch Bulk Bays	B98 7SN
Redditch Bulk Bays	DY10 1HY
Stephen Betts & Sons Ltd	DY11 6TN
Talbot	DY13 9JP
The Nathan Transfer Station	WR7 4LN
Unit 5 Crossgate	B98 7SN
W H Cossey Skip Hire	B98 7SR
Wyre Forest Recycling Ltd Transfer Station	DY13 9QB
MRS & ELV	
Arrow metals	B98 8JY
Blackpole Metals Limited	WR3 8TJ
Court Reclamation And Salvage Ltd	WR14 1AT

Delrene Motors	B98 8NG
ACD	B98 9DT
R K R / Malmoco	WR4 9AB
Evesham Auto	WR11 7QF
Portway Motor Services Ltd	B48 7HX
R & C Metals	WR11 7QF
R & C Metals (Recycling) Ltd	WR11 7QF
craddocks	B98 9AH
Carmas 96	DY10 1HY
Kidderminster Car Dismantlers	DY11 7DL
Land At Hewell Road	B97 6AN
Long Marston Metal Recycling Centre	CV37 8AQ
A - Z Skips Limited	B60 4JZ
Pavillion Commercials	B98 9DT
Jones & Sons Metals Ltd	DY10 1HY
Associated Commercial Dismantlers	B98 9DT
Materials Recycling Facility	B98 9DP
Physical treatment	
24/7 Grab Hire Houndsfield Recycling Facility	B47 5QR
Arrow Gypsum Recycling	WR5 2BA
Barracks Road	DY13 9RW
Houndsfield	B47 5QR
i&R	DY13 9QA
Lye Bridge Depot	B48 7RT
O S S Group Ltd	DY13 9RW
S E Davis And Son, Sandhills Farm	B96 6BG
Stevalex	DY10 4RE
Stourport Waste Facility	DY13 9RW
Stourport Waste Oil Facility	DY13 9RW
Summerway Landfill	DY13 9JP
Unit 15	B98 8YP
Biological treatment	
C S G Pershore	WR10 2EY
Croome Composting EPR/UP3530NL	WR8 9ES
Defford Airfield	WR8 9ES
Pendock Environmental	GL19 4PR
Worcester Sewage Treatment Works	WR2 4BN
Recovery	
Abbots Wood	WR5 3QJ
Strensham Court Lake	WR8 9LP
Landfill	
Hartlebury Landfill Site	DY10 4HB
Hill and Moor Landfill Site	WR10 2LW
Pinches 3 Landfill Site	B61 0RF
Sandy Lane Landfill Site	B61 0QT
Weights Farm Landfill Site	B97 6RG
Other Disposal	
Polkacrest, Redditch	B98 7UB

Appendix C: Data Tables - Minerals indicators

Where a cell is grey, this indicates a lack of applications relevant to this indicator, except where further clarification is given, for example where data is not available.

Indicator	Target	2011	2012	2013	2014	2015
M1: Permissions for minerals development granted contrary to Environment Agency advice on flooding.	None	0	0		0	
M2: Permissions for minerals development granted contrary to Environment Agency advice on water quality.	None	0	0		0	
M3: Permissions for minerals development that include provision for energy efficiency.	100%	0%	0%		0%	
M4: Permissions having an unacceptable adverse impact on landscape character, scheduled ancient monuments, listed buildings, conservation areas, battlefields or registered historic parks and gardens.	None	0	0		0	
M5: Permissions granted in the Malvern Hills or Cotswolds AONB.	No unacceptable adverse change in the quality or character of the landscape.	0	0		0	
M6: Permissions for minerals development take into account local characteristics.	No unacceptable adverse impact on local characteristics.	Not monitored	0		0	
M7: Permissions for minerals development that take into account amenity considerations.	No unacceptable adverse impact on amenity.	No unacceptable adverse impact			No unacceptable adverse impact	

Indicator	Target	2011	2012	2013	2014	2015
M8: Permissions granted in accordance with highways advice.	100%	0	0		0	
M9: Production of secondary and recycled aggregates.	Monitor baseline	No data available				
M10: Applications for waste management/minerals development determined within 13 weeks.	100%	Not monitored	0%		100%	
M11a: Proportion of approved applications discussed with Worcestershire County Council at pre-application stage.	Increase	0%	100%		50%	
M11b: Number of proposals discussed with Worcestershire County Council at pre-application stage	Increase	Not monitored			13	6
M12a: Annual production of primary land won aggregates (Sand and Gravel).	Monitor baseline	0.758 million tonnes	0.524 million tonnes	0.626 million tonnes	0.620 million tonnes	0.538 million tonnes
M12b: Annual production of primary land won aggregates (Crushed Rock).	Monitor baseline	0 tonnes	0 tonnes	0 tonnes	0 tonnes	0 tonnes
M13: Landbank of permitted sand and gravel reserves.	Minimum 7 years	4.42 years	5.7 years	4.42 years	Unknown	1.41 – 1.48 years
M14: Landbank of permitted crushed rock reserves.	Minimum 10 years	0 years	0 years	0 years	0 years	0 years
M15: Landbank of permitted clay reserves.	Minimum 25 years	Unknown			71 to 78 years	71 to 78 years
M16: Sufficient productive capacity for sand and gravel supply.	Monitor baseline	6 sites	6 sites	6 sites	6 sites	6 sites
M17: Sufficient productive capacity for crushed rock supply.	Monitor baseline	0 sites	0 sites	0 sites	0 sites	0 sites
M18: Sufficient productive capacity for clay supply.	Monitor baseline	2 sites	2 sites	2 sites	2 sites	2 sites

Indicator	Target	2011	2012	2013	2014	2015
M19: Permitted applications for minerals development which include a Consultation Statement.	100%	0%	0%		0%	
M20: Decisions where there are no policies in the Development Plan which are relevant to the application or relevant policies are out of date at the time of making the decision.	None	1+	1+		1	
M21: New mineral development in 'preferred areas'.	100% in Preferred Areas identified in the Adopted Hereford and Worcester Minerals Local Plan.	Not monitored				
M23: Annual production of silica sand.	Monitor baseline	Unknown				
M24: Landbank of permitted silica sand reserves.	Monitor baseline	Unknown				
M25: Annual production of building stone.	Monitor baseline	0 tonnes	0 tonnes	0 tonnes	0 tonnes	0 tonnes
M26: Landbank of permitted building stone reserves.	Monitor baseline	0 years	0 years	0 years	0 years	0 years
M27: Increase in GVA in Worcestershire from minerals development	Monitor baseline	£3million	£3million	£3million	£4million	£6million