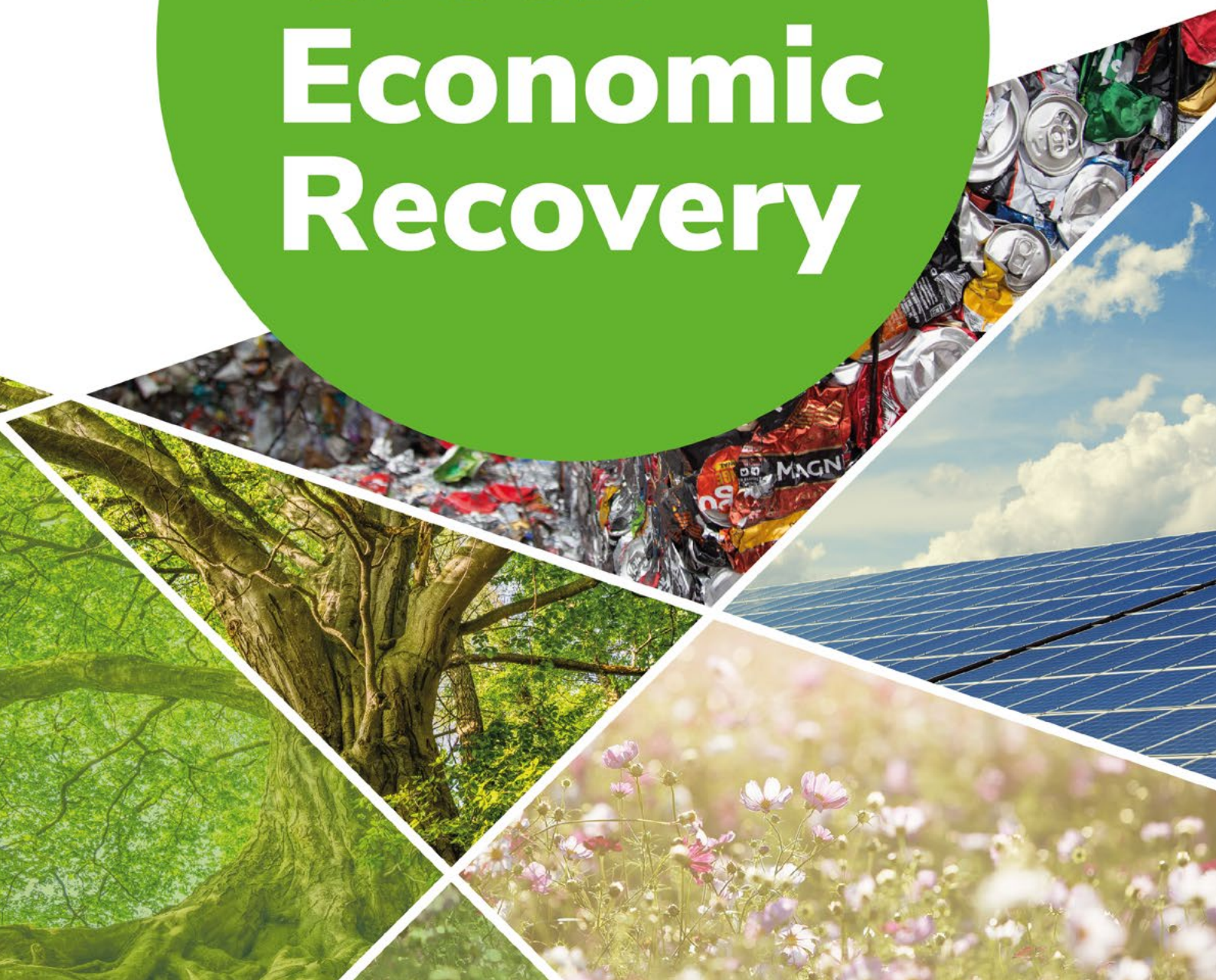
environmental services association

Planning for a Green Economic Recovery



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Foreword

The waste and recycling industry is committed to helping the UK deliver its 2050 net zero target by investing in vital waste management infrastructure which helps build our circular economy and tackles climate change. At the same time, investment in this infrastructure assists the UK in its post pandemic economic recovery, particularly given the political momentum and public desire that this economic recovery should also be a green recovery.

Our industry has already set out its stall on net zero. Now focused on recycling-led services, municipal recycling rates have increased from near zero to 45%, and with higher rates still for commercial and packaging wastes. At the same time, we continue to reduce our reliance on landfill with non-recyclable waste utilised instead for energy recovery, providing local communities with heat and power for their homes. But we want to do more. We want to extract even more of the value and resources from waste and, responding to a noticeable shift in political (and public) attitude, we want to see more of this waste processed in the UK at domestic waste facilities.

With big changes afoot in the way the UK manages its waste, the current White Paper proposals for planning reform have therefore been welcomed by the industry and are perhaps the last opportunity to ensure that the planning system is aligned with the Government's waste policy and is capable of facilitating the timely delivery of the waste management infrastructure needed for our net zero target.

We have therefore taken this opportunity to update ESA's 2017 report, Planning for a Circular Economy. While the technical recommendations in the original report remain just as valid today, the report aims to dovetail into the current debate on planning reform and sets out ESA's expectations for how the planned reforms should facilitate the delivery of infrastructure right across the entire economic spectrum, not just support for the housing sector.

ESA's planning system recommendations

The Circular Economy presents a number of innovative opportunities to improve UK resource efficiency, with the waste and recycling industry playing a key role in developing new and more sustainable material supply chains. Key aspects of the Circular Economy are set to be enshrined in UK legislation and with relevant recycling targets and objectives required to be met over the next 10 to 15 years. ***The Planning White Paper: Planning for the future*** therefore perhaps provides the final opportunity to ensure the planning system is aligned with Circular Economy legislation to ensure that the economic and environmental benefits presented by the Circular Economy are not missed. The following recommendations would help:

- closer integration and alignment of the land-use planning system with resource management, the green economy, energy policy and climate change. Local plans should include robust policies to support the UK's transition to a more circular economy through waste reduction, increased recycling of materials with recycling potential and renewable and low carbon energy capture from the remaining, residual waste.

  In practice, this should help positively plan for, and protect, all forms of essential sustainable waste management infrastructure, from collection, sorting, recycling, re-processing and energy generation infrastructure. The latter should also be supported by encouraging housing, commercial and industrial developers to take advantage of heat offtake opportunities from energy from waste plants wherever possible;

- waste management facilities process recyclable material to produce secondary resources for national and global commodity markets. Materials may flow through a number of different facilities across a broad geographical area in order to achieve the desired market specification. Local authorities should therefore desist from seeking to impose catchment boundaries on waste treatment facilities. It is unrealistic to limit material flows to within any given administrative boundary: not only are such conditions unenforceable but such a practice places local recycling facilities at a commercial disadvantage;

- a shift in planning culture should aim to help planners shrug off the strict "control regime" of the "landfill era" and instead recognise the transition of the waste and recycling industry. Modern recycling facilities now tend to resemble "mainstream" industrial and logistics operations and should not face any additional operational restrictions through planning consent than other, similar industries;

- while every effort should be made to push waste up the waste hierarchy, energy from waste and landfill both have a role to play in realising our Circular Economy objectives and provision should be made accordingly within local plans. Both are compatible with higher rates of recycling as they are simply designed to treat a different part of the waste stream (non-recyclable wastes or residues from recycling processes) while energy from waste provides a source of low carbon energy;

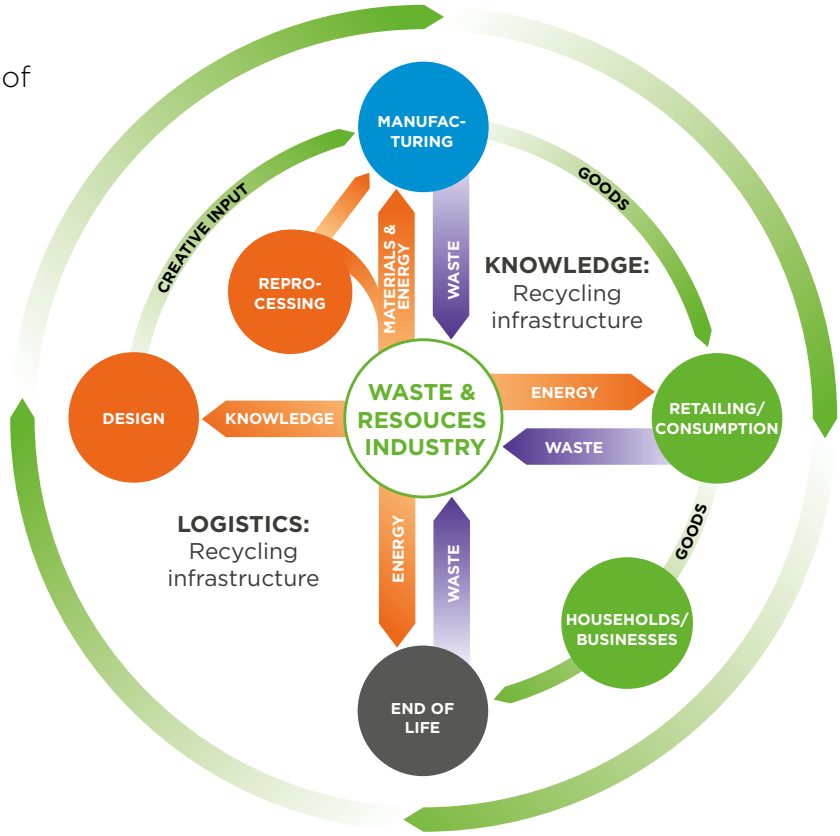
- sensible development proposals on closed landfill sites which meet wider sustainability and climate changes objectives should be supported by local planning authorities;

- policies designed to encourage housing supply should recognise and safeguard existing and proposed operational waste management infrastructure. Otherwise the result is simply solving a housing problem but creating a waste management problem in the process. The planning system needs to accommodate competing forms of development, not simply become a housing delivery system at the expense of everything else which society needs and Government wants to achieve;

- planning authorities should seek to engage developers on draft conditions attached to planning consent prior to submission to planning committee. This would help to firstly identify and then address those conditions which might unreasonably impact on the operational use or commercial viability of waste management development.

Waste & Resources Industry at the centre of the Circular Economy

Source: WasteEd



Section 1.
Introduction

The Government's 25 Year Environment Plan, Resources and Waste Strategy and Environment Bill commit the UK to an ambitious waste management agenda, with a suite of measures aimed at not only increasing recycling but ensuring as much of this recycling as possible is done in the UK rather than exported abroad. These measures are welcomed by the industry and also underpin wider circular economy and climate change objectives. Taken together, these policies, plans and strategies herald something of a "game changer" for the UK's management of waste and establish an increased and compelling need for additional waste management capacity. Quite simply, the UK does not currently have sufficient waste management facilities and capacity to meet these new targets and objectives.

That said, with the right policy framework in place – in which relevant waste management measures across different Government portfolios are more closely aligned and integrated – our industry stands ready to invest £10 billion in new recycling and waste recovery infrastructure, and in the process create 50,000 new green jobs while delivering further carbon savings than the 50mt CO2e already avoided by the sector's current recycling and recovery operations.

The planning system clearly has a crucial role to play in helping to facilitate this investment by converting high level, national waste management policies and objectives into consents for specific waste management infrastructure on the ground. The challenges sometimes presented by the planning system are well documented and the upshot is that for many waste management development proposals the planning system remains a major element of project risk. Decision timescales can exceed statutory timeframes, and decision outcomes are often contrary to recommendations and policy, whilst also containing onerous and prescriptive conditions. However, there are also some very good examples, which prove that waste planning can be done well when applied properly.

The Government's proposals for planning reform, as set out in its White Paper: Planning for the future are therefore broadly welcomed by the industry. A streamlined plan making process, with plans produced more quickly and in which local plan policies more closely mirror national planning objectives should, in principle, help instil greater certainty and confidence in the planning process.

While the emphasis of the White Paper is on the delivery of new housing it should equally be recognised that the success of the Government's planning policy objectives relies upon the efficient delivery of new recycling and waste recovery infrastructure through the local plan process. Waste management infrastructure is not only a fundamental part of the UK's economy in its own right but, at the very least, plays a vital role supporting the delivery of new housing; not only in processing of waste during its construction but also in the post-occupation of such.

Section 2.
Who we are

The Environmental Services Association (ESA) is the voice of the recycling and waste management industry in the UK. Our members turn waste into valuable resources while protecting the environment. Representing all the major companies, we help raise industry standards and lobby constructively for a policy framework which enables ESA members to invest responsibly for the benefit of the environment.

The ESA at a glance:

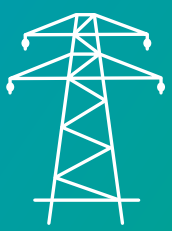
Members combined annual turnover:
£7.5bn

Directly employment: **43,000 people** (including waste collection, treatment and materials recovery)

Operate **more than 100** local authority collection contracts

Provide services to **more than 300,000** private and public sector customers

Operate from **more than 1,500** regulated sites across the UK



Collectively, ESA members divert **more than 10 million tonnes** of material from landfill each year and use waste to generate energy instead, producing over 5TWh of low-carbon electricity each year or enough to **power 1.5 million average UK homes**

Section 3.
The need for more waste management infrastructure

There is a pressing and urgent need for new waste management capacity to be planned for and delivered through the planning system. The Environmental Permit application system administered by the Environment Agency is another, significant development consent hurdle which needs urgent attention, but this report is focused on the land-use planning system.

While the UK has made great strides in its recycling performance, leaping from single digit figures at the turn of the century to nearly 50% today, more needs to be done. Each year the UK recycles nearly 28 million tonnes of municipal waste but additional collection and sorting is needed to meet the future recycling targets of the Resources and Waste Strategy (65% recycling by 2035).

Once sorted, this material also needs to be reprocessed (into the raw materials for manufacturing into new products) thereby also necessitating an increase in reprocessing capacity. More fundamentally of course, progress towards higher rates of recycling is reliant on a viable and sustainable end market demand for collected and reprocessed material.

The UK has traditionally relied upon reprocessing capacity overseas as well as in the UK to meet its recycling requirements but the political landscape has now shifted in favour of more of this material staying in the UK and being processed at domestic facilities.

The UK is also heading for serious under-capacity for the treatment of residual waste (that waste which is left over after all practical efforts to recover material for recycling) and needs significant additional Energy from Waste capacity to complete the move away from landfill and to complement recycling. Equally important is maintaining critical landfill capacity, for those non-combustible residual wastes that are not suited for the tight input specification of Energy from Waste. This is estimated at 15 million tonnes per annum, landfill capacity for which is running out.[1] Overall, the Resources and Waste Strategy points to a residual waste capacity gap within the range of 7.5-8 million tonnes, which is broadly in line with industry estimates.

The UK can no longer afford to take a "business as usual" approach to waste management, and the proposed planning reforms as set out within the Government's Planning White Paper therefore resonate strongly in our industry. Stripping out the rhetoric on housing supply, there are sufficiently strong signals within the White Paper that proposals for planning reform extend to infrastructure delivery across the piste, and logically should therefore equally apply to waste management planning.

1 https://www.biffa.co.uk/-/media/files/download-pdfs/the-reality-gap-2017.ashx

Section 4.
White Paper planning reforms

The proposals for planning reform in the White Paper are broadly welcomed by the industry, and planning for waste management should therefore not be lost within the need for the planning system to rebalance housing supply, which has grabbed most of the headlines. As the UK emerges from the pandemic there is clearly a strong public and political desire for our economic recovery to also be a green recovery. Our industry has a key part in this green recovery by incorporating carbon reductions within the sustainable management of waste, as well as facilitating a greater proportion of the country's waste and resources to be managed within the UK.

We therefore offer the following commentary on key elements of the proposed planning reforms, highlighting where such might be of benefit to waste management planning, or where other concepts might require further attention to ensure the planning system is more responsive to the needs of our industry.

1. Designated land categories

ESA welcomes proposals to simplify local plans whereby land would be designated as one of three categories (growth; renewal; and protected areas) and with growth areas earmarked for sustainable development and benefiting from outline approval. Waste management infrastructure is clearly an essential component of sustainable development, as it enables the UK to meet its targets for recycling and low carbon energy generation.

However, it can often prove something of an uphill struggle to convince planning authorities of the 'sustainability' merits of a proposed waste management development, and with developers sometimes bogged down in protracted discussions with the local authority in justifying the development on the basis of "need" and its environmental credentials.

To ensure a consistent approach across all local plans, we recommend that national guidance not only clearly identifies waste management development as sustainable development, key to the climate change agenda and national carbon reduction commitment, but also advises local authorities that this is an appropriate form of development for growth areas and which should be accommodated in local plans accordingly.

While welcoming the principle of land designations, we suggest that the descriptors applied to the proposed land designations could be clearer. For example, "growth" areas which carry consent in principle seem logical, as do "renewal" areas where there is a presumption in favour of development but with applications judged on their merits (similar to the current system).

However, "protected areas" should relate more closely to areas protected under statute, such as National Parks and AONB, rather than wider policy-test based areas like the green belt. Some resource and waste management facilities which serve urban areas are not suitable for locating within those urban areas themselves, but still need to be close to these population centres, which may in some cases mean a development site in the surrounding green belt areas. This is particularly the case for anaerobic digestion plants for recycling food waste and composting facilities for garden waste. In its Resources & Waste Strategy the Government has expressly proposed mandatory food and green waste recycling collections from homes and business from 2023 and while more waste infrastructure will clearly be needed, such facilities need not compromise the policy purpose of the green belt.

2. Duty to co-operate

ESA is deeply concerned by the proposal to remove the duty to co-operate from the local plan and plan examination process. Most waste management facilities perform a strategic role, serving wider market areas than a single local authority, or even a single region. This requires a strategic, joined up approach between neighbouring authorities in planning for or determining the merits for such development. For all its perceived failings, the duty to co-operate at the very least facilitates these strategic discussions between authorities.

That said, there are examples where consideration of the wider, regional context is often overlooked and could be improved, particularly in the case of London, which in fact relies more than most authorities on waste management facilities outside its boundaries to help manage its waste.

Collecting and managing data on the quantity and type of waste arisings, future trends and treatment capacity requirements is a complex process and the data requires detailed analysis to inform the development of policies for adoption within local plans. This exercise is predominately on household waste arisings and needs to extend in focus to include management of all waste streams. However, it is unlikely that this data processing exercise and the provision of technical advice could be conducted consistently and cost effectively if performed by each individual planning authority.

In removing the test from the plan examination process the Government should take care to avoid a policy vacuum and ESA strongly recommends that a resource is made available which offers

local authorities strategic and technical advice and relevant waste data to inform the preparation of local plans. Whether the principles of the RTABs (Regional Technical Advisory Bodies) could be retained (or rejuvenated as the case may be) in the establishment of a new and improved body – or this resource is provided centrally by Defra and MHCLG – the evidence base underpinning strategic planning for waste (including the commercial and industrial waste stream) should be improved rather than removed altogether.

3. National needs assessment

Linked to the above, ESA suggests that critical, strategic infrastructure for which there is an identified national need (such as waste management development) would benefit from a nationally consistent approach to calculating and informing a needs assessment within local plans. This data would in turn allow for a more structured and informed discussion between authorities in meeting their duty to co-operate (or whatever guise this duty might take in the new plans).

We note that the Planning White Paper includes provision for such in relation to housing only, but if rolled out more widely to other strategic policy areas, (including waste), such an approach would help improve the prospect of delivering plans which address strategic, cross boundary issues in line with the new tests and the objectives of the National Planning Policy Framework (NPPF).

4. Integrate waste planning into the general planning function

Proposals for reform would provide an ideal opportunity to review the interface of waste planning with the wider planning function and policy.

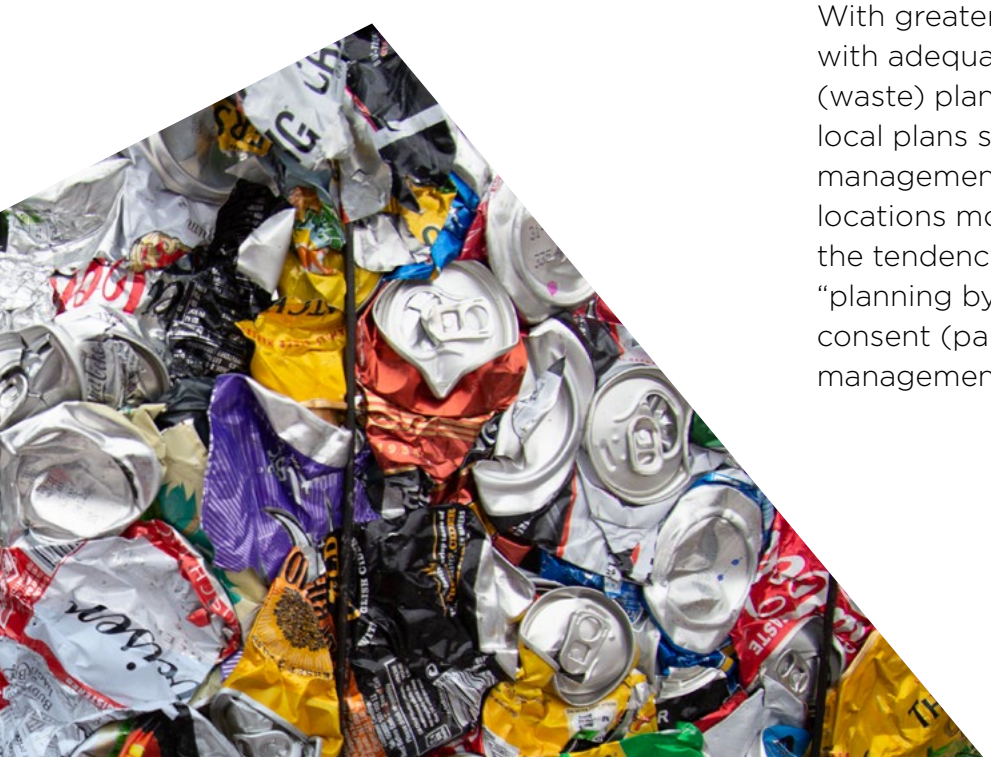
Waste planning is often considered a separate planning function from "mainstream" planning applications and, for legacy reasons, tends to be bundled in with local authorities' mineral planning functions. Similarly, the National Planning Policy for Waste (NPPW) sits separately from the NPPF and is therefore unlikely to be referred to by anyone other than waste planning authorities.

Of course, modern waste recycling and treatment facilities now tend to resemble "mainstream" industrial processes and it is therefore perhaps now time to consider (and plan for) waste infrastructure within local authorities' general planning functions rather than being perceived as *sui generis* and a specialist, stand-alone planning function.

Quite simply, the commercial landscape that the waste and recycling industry now operates has changed considerably in recent years, with less in common with minerals and in many respects now resembling any other logistics enterprise, handling, processing and transporting materials to commodity markets.

The current round of proposed reforms arguably offers the final opportunity to put in place a planning system that reflects the aspirations and operations of the modern waste management industry, enabling it to help meet the Government's recycling targets and Circular Economy objectives. The NPPW should not be considered at the fringes of the planning system and should be subsumed into the NPPF. This would help mainstream waste planning functions and ensure that relevant NPPF policies apply equally to waste (which is not always the case at present).

This "mainstreaming" of waste management planning might help reduce the friction that often exists in two tier areas around planning for waste management, and help ensure that district authorities are more sympathetic to waste planning (particularly in taking steps to avoid residential encroachment on existing (or allocated) waste sites).



5. A streamlined local plan process

The drafting and approval of local plans can often prove a long, protracted process which in turn can make it difficult for the industry to meaningfully engage and help shape local plans. A lack of up to date plans (and suitable site allocations) reduces certainty for the industry's investment decisions and can generate conflict from the outset with applicants having to justify the need for a development proposal in the first place, as new and innovative approaches to waste management can in many cases constitute a departure from the local plan.

We therefore welcome proposals in the White Paper to speed up and simplify the plan making process and, if focused more on genuinely local matters, we feel that there is a realistic prospect of achieving the proposed new 30 month time limit for plan approval. The proposed shorter time period afforded to the industry to engage in the plan making process could be mitigated in part by extending outline planning approvals for waste management development within growth areas.

With greater local plan coverage and with adequate provision towards national (waste) planning policy, the new style local plans should help guide new waste management development to appropriate locations more efficiently thus reducing the tendency for developers to reply upon "planning by appeal" to secure planning consent (particularly for larger scale waste management development).

Section 5.
An improved planning culture

The Planning White Paper contains a number of bold measures for planning reform which, if implemented properly, will undoubtedly help make a significant difference and efficiently deliver the development needed for the UK's post-pandemic green recovery. However, in many respects the measures set out in the White Paper are only half the story, with the prospects of realising greater certainty (espoused by the proposed new growth areas); the closer alignment of plans with national policy; and a stronger emphasis on meeting statutory determination deadlines all reliant on a corresponding shift in culture within planning authorities.

The culture within many planning authorities towards planning for waste management can often be somewhat outdated. The UK's transition from its reliance on landfill for the disposal of waste to more sustainable and innovative solutions for the recycling and recovery of society's waste has been a remarkable success story, more so given how rapid this change has been. However, in many respects the local authority development management regime has lagged behind and with a strict control culture continuing to prevail.

Such an approach undoubtedly has its roots within the "landfill era" where the remit of planners was to regulate the supply of landfill capacity and to control the daily operations of consented sites through detailed and prescriptive conditions.

Of course, modern waste recycling and treatment facilities now tend to resemble "mainstream" industrial processes and should therefore face no greater operational restrictions than those imposed on any other business occupying industrial or employment land. In fact, if anything, planning authorities should take comfort in that the operations of consented waste management facilities are subject to an additional layer of control through the Environment Agency's environmental permitting regime.

Quite simply, the commercial landscape that the waste and recycling industry now operates has changed considerably in recent years and, as noted above, in many respects the industry now resembles any other logistics enterprise, handling, processing and transporting materials to commodity markets. However, this tends not to be reflected in local waste plans, particularly older ones awaiting review.

There are significant commercial challenges to investing in new recycling facilities, accentuated further in recent years by volatile and sometimes depressed global commodity prices. Planning authorities should therefore aim to make planning consents for new waste management facilities as helpful and operationally flexible as possible, in order to help stimulate investment in much needed infrastructure.

Flexibility is key: the waste management industry supplies recycling materials to commodity markets, with these materials managed and transported as regulation, customers, and commercial factors dictate. The industry needs to adapt to this evolving and dynamic commercial environment and looks to the planning system to do the same.

The next section of this report outlines key aspects of the planning system that can often frustrate the development of new waste management infrastructure and would benefit from review to ensure a closer fit with the aspirations of the Planning White Paper.

Section 6.
Catchment boundaries

The planning system should promote the recycling and recovery of waste which enables movement of materials to areas where they can cost-effectively input into manufacturing processes. It is therefore entirely reasonable to expect the sub-regional movement of waste and the movement of waste across local administrative boundaries, with waste transported to the nearest appropriate facility.

However, in interpreting net self-sufficiency, some planning authorities have sought to impose mileage limits on the haulage of waste to and from waste and recycling facilities (i.e. imposing catchments) either within local plan policies or through planning conditions on consented development.

Such an approach is not only anti-competitive and difficult to enforce, but fails to acknowledge that some waste facilities could have a highly specialised role requiring a large catchment area extending beyond a planning authority's administrative boundaries.

Waste management facilities of course take on an array of different sizes and technologies, but each is designed to treat waste in the most efficient way. Some may therefore require considerably different catchments to make them viable, and with industry investment made on the assumption that minimum waste inputs can be secured over a payback period. Unless the catchment is sufficiently large to facilitate a minimum waste input, investments are unlikely to be forthcoming.

By way of example, given the relatively small tonnages of hazardous waste produced within any one local authority area it is unrealistic to expect each authority to provide relevant capacity within their individual area. One hazardous waste treatment facility might therefore be built to serve a number of authorities (or may even be designed to serve a national need) and would require waste from a number of areas, perhaps even an entire region, to ensure the economic viability of the plant.

Imposing catchments on new waste facilities restricts the market available to that facility while existing facilities (within the local authority area and in adjoining areas) would be able to compete in these restricted areas. It is inevitable that new facilities would be at a competitive disadvantage to those facilities which did not have restricted catchments. Facilities with restricted catchments would be deemed a higher risk for investors which ultimately could prevent the delivery of modern waste infrastructure.

There is a growing body of evidence from Planning Inspectorate casework and elsewhere which confirms that catchment boundary restrictions are neither justified nor supported by national planning policy.[2]

2 (PINS/X0225/429/3); (APP/Z0116/A/10/2132394); and (APP/U3100/A/09/2119454)

Section 7.
Change of use

Many modern industrial units are intentionally designed to be suitable for a wide range of industrial processes and occupiers, and many are therefore suitable for the processing of waste or recyclables with little or no requirement for modification. In most circumstances all that is required is the installation of plant and equipment.

Facilities for the processing of waste materials clearly fall within the definition of an "industrial process" of Article 2 of the use classes order and are therefore B2, and should be able to utilise existing industrial units without the need for planning permission. Where no processing of waste is involved (for example bulking of waste at a transfer station) then B8 (storage and distribution) would be applicable.

Opportunities to use industrial units for relevant waste management development should not be missed simply because of confusion within planning authorities about application of the use classes order. As above, local authorities should be reassured that any waste management facility which would benefit from change of use would still fall within the scope of the environmental permitting regime. A waste or recycling facility which benefited from change of use simply could not operate without an environmental permit from the Environment Agency.

Section 8.
Greater flexibility in planning conditions

Recycling and waste treatment facilities require operational flexibility to respond to dynamic customer and market requirements like any other manufacturing and logistics industry and therefore planning authorities should provide for greater flexibility in planning conditions than that currently afforded. To clarify, the industry is by no means calling for de-regulation of the planning regime, but certain aspects of the consenting regime can unnecessarily shoehorn waste and recycling facilities, thereby placing them at a disadvantage to other similar industrial processes.

Waste types/inputs

There is much inconsistency within conditions attached to planning permission on the types of waste that facilities (Material Recovery Facilities, Transfer Stations and the like) are able to accept, with some containing long, prescriptive lists of acceptable waste inputs or those that are excluded. Interpretation of how a particular waste stream fits within the waste definitions used by planning conditions can vary between authorities, impacting upon the efficient operation of the facility.

Some planning conditions are cross referenced with the site's environmental permit (issued and regulated by the Environment Agency) which can become out of date following changes agreed with the Agency (or to the site's working plan).

ESA has long maintained that the control of waste inputs (and associated definitions of acceptable waste inputs) is a matter for the Environment Agency in regulating a site's environmental permit. This is perhaps an example of "planning creep", with planning authorities seemingly reluctant to relinquish control of 'pollution control' policies despite such matters best left with and dealt with by the environmental regulator.

Consent conditions

Legislation came into force in 2018 prohibiting pre-commencement conditions from being imposed without prior agreement of the applicant. While such measures were broadly welcomed, this nonetheless is likely to be of more relevance to housing developers. Instead, it is inappropriate use by planning authorities of operational conditions and non-material amendments that is of greater concern to our industry.

Overlapping interests and requirements within both the planning and permitting (pollution control) regimes leads to duplication of information requests and additional administrative burdens in the form of costs and time for both developers and competent authorities. Planning authorities should therefore refrain from duplicating the work of the Environment Agency by seeking to regulate pollution control issues through planning consent conditions.

When negotiating the interface between the planning and permitting regimes, planning authorities should seek to consent development in accordance with development plan policies and should work on the assumption that the relevant pollution and control regime will be properly applied and enforced.

Whilst potential environmental impacts may be deemed to be a material consideration, the weight applied by planning authorities to potential impacts should be reduced in so far as they are addressed and mitigated by the Environment Agency in fulfilling its statutory duties.

Operating times

The industry would welcome greater flexibility on planning conditions which specify consented site opening (and operational) hours. The standard, '9-5, 5-day a week' format is somewhat dated and perhaps a legacy from the regulation of landfill activities. The demands of our customer base is changing: some operate 24 hours a day, while contracts may stipulate that waste or recycling collections are conducted outside standard office hours to avoid the busiest and more congested periods of the day. The collection of waste from schools, for example, before the start of the school day should not be curtailed simply because the local waste facility is not consented to open until later in the day.

Most waste management facilities are of course sited within enclosed buildings on industrial estates where noise is less of a concern than it might otherwise have been in the past. Other industrial activities are not restricted on operating hours, and such habitual restrictions placed on waste operators through planning conditions makes it more challenging for the industry to invest and meet the needs of its customers.

Section 9.
Green belt

Few aspects of the planning system ignite more interest than the green belt and in recent years there has been a noticeable public and political backlash against large scale housing development on green belt sites, particularly since the publication of the National Planning Policy Framework (NPPF). Unfortunately our industry has been left to face the consequences as, in the face of such opposition, the Government opted for a tougher stance on green belt development in its 2014 revision of the National Planning Policy for Waste (NPPW).

In the Resources & Waste Strategy and the Environment Bill, the Government has proposed mandatory food and green waste recycling collections from homes and business from 2023 as one measure to help increase recycling. More waste infrastructure will therefore be needed to process this material.

As noted earlier, anaerobic digestion facilities for food waste and composting facilities for garden waste are not suitable for urban area locations, yet still need to be close to those urban areas generating the waste. While this may potentially put these sites in conflict with green belt policy around major cities, the Circular Economy role they help support should be more positively recognised and therefore seen as potentially appropriate types of development in such areas rather than inherently inappropriate, as current policy implies.

To clarify, there is no general push to develop waste management facilities in the green belt or any threat that great swathes of green belt would be "lost" to recycling infrastructure. We simply suggest that there is greater scope for Circular Economy and land-use planning objectives to be better aligned, rather than clashing as they presently do.

More generally, and within the constraints of current planning policy, when recognising the strategic nature of sustainable waste infrastructure it is important that local planning authorities should take account of the specific benefits arising from modern waste management development and to apply added weight when considering the very special circumstances for proposals located within the green belt.

As landfills reach the end of their operational life (in some cases earlier than planned as legislative and economic drivers divert more waste away from landfill for recycling) this presents an ideal opportunity to "re-think" the future uses of such sites and consider how, upon restoration, they might usefully help meet Government policy objectives for sustainable development.

The siting of landfill development is of course dictated by the location of previous quarrying activities (often on the urban fringe) and which means that green belt policy is often a factor when considering potential after-uses of such sites. In addition to development sites for other types of necessary waste management infrastructure, former landfill sites – which have tended to be returned to low grade agricultural use – could in fact present opportunities for other forms of sustainable development, such as renewable energy. The Appendix offers further details.

While there are undoubtedly a number of technical and economic factors to consider in converting closed landfill sites into, for example, solar parks or energy storage schemes, from a planning perspective green belt policy often proves the biggest constraint in realising sustainable development opportunities.

In allowing greater flexibility on after-use of previously worked mineral and waste sites within the greenbelt (and rural areas), we suggest that local authorities adopt a sequential test, in which greater weight is applied to development on previously used land over greenfield sites. Improved provision within local plan policies in support of renewable and alternative energy projects, particularly those able to make continued use of an existing connection to the national grid would also go some way towards meeting wider Circular Economy and sustainable development goals.

Section 10.
Residential encroachment

While local authorities have targets to increase housing supply, meeting housing demand should not be at the expense of other vital components of the economy.

Over recent years residential areas (or sites allocated for residential development) have been encroaching on existing waste management facilities (or land designated in plans as sites suitable for waste management development) with land re-zoned to accommodate housing demand. The proximity of housing (or similarly sensitive receptors) can place additional operational constraints on existing or new waste management development, and thus proving potentially detrimental to its economic role.

This appears somewhat counter intuitive: householders rely on local waste management facilities to sort and recycle their waste, encroachment onto which would likely affect their ability to operate efficiently. While modern waste management facilities strive to be good neighbours and can of course co-exist with other types of development, more sensitive development (such as housing) should be prevented from encroaching within 200 metres of existing waste management facilities or allocated waste sites. In addition to the statutory consultation undertaken with the Environment Agency and other statutory consultees, we recommend that an operator of a waste management facility should be consulted if a new development is proposed within 250 metres of a waste site boundary.

Existing and allocated sites for waste management development should be safeguarded from encroachment by sensitive landuses to avoid situations where sites, operating in full compliance with consent (and environmental permit) conditions, incur complaints from surrounding residential properties. In situations where there is little option but to consent sensitive development in such locations, planning conditions attached to the design of new housing (e.g. position of balconies etc) could also help reduce potential for nuisance.

Furthermore, the safeguarding of sites allocated for waste management development should not be undermined by local authorities imposing time-limits on the retention of protection afforded to such sites. The planning system remains a major element of project risk and it can take years of work to firstly identify a suitable site, gather data and perform relevant assessments even before a planning application is submitted to the local authority.

Given such complexities it would be entirely inappropriate to set time-limit thresholds for site retention. During periods of depressed commodity values or market downturns, new waste management facilities are unlikely to be forthcoming on allocated sites, only for demand for such sites to increase again when market conditions improve. Time-limited policies would be entirely unresponsive to the cyclical nature of global commodity markets thus potentially constraining growth and development.

Planning policies to liberalise the conversion of industrial premises to dwelling houses further compounds the pressure on waste management development.

Planning authorities often allocate industrial/employment land within local plans as suitable sites for waste management development, rather than making specific land allocations (or criteria) for such development. Consequently, proponents of waste management development are required to compete with 'mainstream' industrial development for available sites.

The ability to convert an industrial premises into residential would likely increase the value of that property, effectively pricing-out proponents of waste management development, and other industrial users, in seeking to develop that site.

Policies to encourage the conversion of industrial buildings to dwelling houses not only reduces the availability of potential land for waste management development, but could also render surrounding land around a residential conversion (as a sensitive receptor) potentially unsuitable for waste management development.

Section 11.
Energy from waste

The transition towards a Circular Economy is as much about reducing our reliance on fossil fuel power generation as it is on closing the resource loop on materials. Energy from waste (EfW) therefore has a key role to play by supplying low carbon energy to homes and businesses.

EfW is supported by the waste hierarchy as a means of recovering the value of the energy embedded in residual waste, those waste fractions remaining after all practicable efforts to extract materials for reuse and recycling. EfW is entirely compatible with efforts to further increase rates of recycling, as even the sustainable material flows espoused by the Circular Economy model will produce a residual waste stream.

EfW is a broad term which is applied to a range of different waste management technologies, which between them offer the potential to produce electricity, heat, gas (to the National Grid) and fuel for transport. The deployment of Combined Heat and Power (CHP), in which both electricity and heat is produced at the same time from the same fuel source, significantly increases the efficiency in which energy is recovered from wastes. However, while an EfW plant operating in "electricity only" mode can be connected to the National Grid with relative ease, maximising the heat off-take from EfW-CHP involves more sophisticated technology and is reliant upon additional off-site infrastructure, such as a local heat pipe network and connections within heat-customer premises.

If such technical barriers can be overcome, EfW-CHP not only helps improve security of supply but also helps decarbonise the UK's power generation.

However, opportunities for incorporating CHP into EfW remain constrained by un-coordinated public (planning) policy and as such most EfW, while "CHP ready", nonetheless operate in electricity-only mode. It is worth nothing that while EfW-CHP operates under the strict terms of an Environment Agency permit, it is the role of the planning system to both encourage and facilitate CHP and ensure such is integrated into the built environment.

To deliver the additional environmental and socio-economic benefits offered by CHP, EfW operators require a reliable, continuous demand for the heat produced. While there are many issues to consider when seeking to match heat supply with heat customers (pipeline investment, heat contracts etc) at the most fundamental level this process is reliant upon a planning system which ensures that end-users (e.g. industry and local communities) are located in the right place to benefit from the heat offtake.

Unfortunately, examples of such are rare in the UK: in response to public perceptions EfW schemes are often situated well away

from those communities and centres of populations that would benefit from the heat. Until a more strategic approach is adopted, one which better aligns waste and energy policy, the planning system will likely remain a barrier to realising the full benefits of CHP.

Local authorities could help in this regard by adopting more robust sustainability criteria within local plans, including renewable energy targets to help promote development of low carbon and alternative energy provision. Heat mapping should be considered alongside other workstreams (such as waste management, population forecasts and housing needs) in developing the evidence base for the local plan process. Such mapping exercises would help improve local authorities' strategic understanding of the requirements of both CHP providers and heat users. All too often, CHP is considered by planners as a "bolt on" and something to consider after EfW has secured planning consent.

Use of available heat from local EfW-CHP schemes, or a requirement to meet an agreed CO2 reduction target could form a condition of planning consent for new housing and industrial development. The proposed new Infrastructure Levy could be used to contribute towards the cost of district heating infrastructure.

Delays in planning consents for EfW schemes undermine potential heat customers' confidence: as without consent in place it is difficult to enter into formal contractual arrangements for the heat off-take.

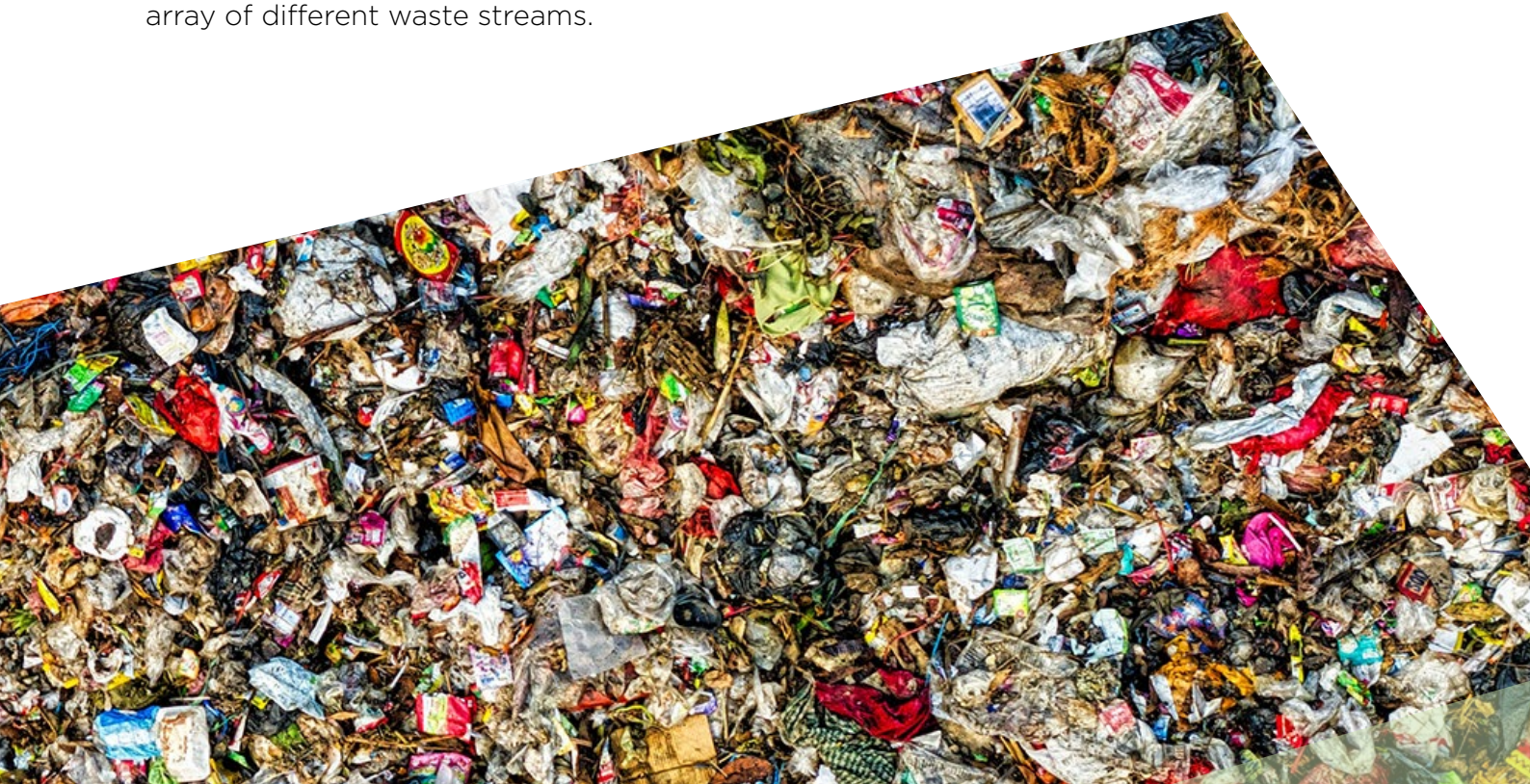
The upfront (pipeline) installation costs may also pose a barrier to the uptake of many potential heat customers. However, by incorporating heat networks into large development ("anchor") projects, the heat output from an existing EfW-CHP scheme becomes more cost effective to other, smaller heat customers than might otherwise have been the case, allowing scope for further roll out of the scheme to more heat users within the vicinity.

Section 12.
Landfill provision

The Circular Economy rightly places an emphasis on shifting the management of waste further up the waste hierarchy. But this is not to suggest that waste management options towards the bottom of the waste hierarchy have no role to play in the UK's Circular Economy, rather each stage of the waste hierarchy should be considered as dealing with a certain waste stream in a particular way. Planning authorities should therefore make provision for waste management capacity across all levels of the waste hierarchy.

The emphasis on moving towards higher rates of recycling does not mean that there will be no need for a continuing supply of landfill capacity. In fact landfills have a key, strategic role to play in the UK's Circular Economy for the disposal of residues from those recycling and waste treatment processes further up the hierarchy. The flexibility offered by landfills not only provides a useful contingency measure, but also offers the safest and most viable option for the handling of an array of different waste streams.

However, with all the publicity and attention focused on recycling and moving waste management options up the waste hierarchy, planning for continued landfill provision has somewhat fallen from grace and, for all intents and purposes, largely ground to a halt. This is a mistake: landfill is the only waste management option which is consumed as it is used and therefore some degree of replacement capacity is going to be required.



Based on latest input rates, England is estimated to have sufficient non-hazardous landfill capacity until 2024 (albeit the national figure masks some regional variation). Planning for replacement capacity is not simply negated by the projected reduction in landfilling rates and there remains significant volumes of waste for which there is no viable alternative to landfill (including recycling and treatment residues; specialist, niche waste streams; and non-combustible residual wastes).

The overall trend is of course one of reduced reliance on landfill as the industry aligns itself towards even greater rates of recycling and energy recovery. Many landfill sites are set to close or be mothballed, with only those sites optimally located to handle reduced volumes and those niche, residual waste streams referred to above likely to remain viable. In turn, the remaining, operational landfill sites will likely take on even greater significance and strategic value with further demands placed on this remaining capacity, as they receive more wastes from further afield. The importance of a strategic approach to waste planning therefore takes on greater significance, and the future provision of landfill capacity should form a key element in local authorities' duty to co-operate.

Given the pressures on remaining landfill capacity, flexibility is crucial to "future proofing" this waste management option, with planning conditions on end dates and restoration schemes of many consents likely to need amending to reflect a reduction in residual waste arisings. During this extended period of operation, landfills will continue to provide a disposal option for waste which cannot be treated higher up the waste hierarchy, thereby serving the wider, integrated network of waste management facilities while continuing to produce energy through the utilisation of landfill gas. It is therefore vital that these assets are offered relevant planning safeguards to help them operate at maximum efficiency and to prevent encroachment by housing and from other sensitive receptors.

Appendix: Realising value from closed landfill sites

Landfills continue to provide value even upon cessation of activities, with closed sites a source of low carbon energy generation. The restoration of landfill sites to their original landuse (or some other productive use) is of course a stipulation of planning consent and restoration schemes have tended to focus on converting former landfill sites to nature reserves, outdoor recreation or low grade agriculture.

However, there is scope to adopt a more innovative approach to development opportunities on closed sites, which not only ensures that such continue to provide a positive legacy long after cessation of landfilling activities but also enables local authorities to fully realise wider sustainable development and Circular Economy goals.

Some relevant examples are provided below, and which have the added benefit of prioritising previously developed land over development of greenfield sites.

1.1 Solar parks

Closed landfill sites offer significant potential for solar generation, with the ability to utilise on-site electricity generation assets and grid connection from the existing landfill gas engines, thereby reducing project costs. By way of example, a 10 hectare solar park is capable of generating 3.5MWhr. As landfill gas capture rates diminish following cessation of landfilling activity (methane production peaks at 10-15 years) output from solar power generation could potentially help make up the shortfall.

Situated at ground level rather than requiring deep foundations, installation of ground mounted solar panels (arrays) is relatively un-intrusive and so unlikely to affect the landfill cap layer or associated infrastructure. Favourable slope gradients over a relatively large, open area further improves the commercial viability of such projects.

Further advantages offered by landfill sites include the utilisation of previously developed land over agricultural or greenfield land (which would meet national planning objectives); remote sites tend to be located away from sensitive receptors (or with a sufficient buffer); and such sites are predominately non-sensitive habitats.

However, ground settlement and stability will likely limit development opportunities to those landfills (or areas within landfills) where landfilling activities have long ceased (at least 10 years).

Financial viability is a key consideration since the reduction in Government support for renewable energy projects.

Consented development includes:

- Broadpath Landfill (Viridor), Devon – 5MW
- Westbury Landfill (Viridor), Wiltshire – 3.5MW
- Ockendon Landfill (Veolia), Essex – 38MW

1.2 Energy Crops

Closed (and operational) landfill sites offer potential to grow energy crops, which when harvested can be used as a source of biomass for the generation of low carbon electricity.

FCC Environment grows energy crops at 13 of its landfill sites, covering 350 hectares in total. By way of example, 30 hectares are capable of yielding 350 tonnes of biomass annually.

In addition to providing fuel for low carbon energy generation, the crops provide further benefit in helping the landfill restoration process and in returning the site to agricultural use.

Proximity of landfill sites to (biomass) power generators is likely to be a key consideration, as is the removal of ROC support for energy crops uplift in standard co-firing.

1.3 Wind farms

Wind turbines on closed landfills require particular consideration, as excavation of turbine foundations would likely preclude extensive areas of landfilling activities from development. As such, turbines on landfill sites are likely to be quite small scale, limited to just a few turbines, and also limited to the fringes (i.e. non-landfilling areas) of the site. Availability of suitable land is therefore a constraining factor. Despite being relatively small-scale, projects have nonetheless tended to face similar planning challenges as any other wind farm development (landscape; visual impact; cumulative impact; and ecology etc).

Consented development includes:

- Greengairs landfill (FCC), Lanarkshire (9 turbines, 27MW)
- Gallymoor landfill (FCC), Yorkshire (2 turbines, 1.8MW)
- Lawrence landfill, Dyfed (2 turbines, 1.6MW)

1.4 Heat recovery

Existing ground source heat technology could potentially be applied to closed landfills to extract the heat generated within, with the heat off-take used in the on-site leachate treatment process. However, there is currently no known practical application of such.

Ground source heat pumps have, however, been deployed at a landfill site in Cork, allowing the heat to be captured for use in the site's administration buildings (space heating and hot water).

1.5 Energy Storage

Existing connections to the National Grid make closed (and operational) landfill sites a potentially attractive prospect for energy storage. Short Term Operating Reserve (STOR) allows for better management of energy supply and demand and can take many forms, including batteries, gas and oil engines or cryogenics.

Following an award of Government funding, a demonstration plant has been successfully operating at Viridor's Pilsworth landfill site, Bury.

1.6 Landfill mining

Mining closed or historic landfill sites offers a number of potential benefits: the recovery of valuable materials and the reclamation of high-value land for re-development. Land value would likely have a more significant bearing on the economic viability of any such project and would therefore limit opportunities for such to areas of the country where land is at a premium.

While economic viability (land value), rather than planning or permitting constraints is likely to limit opportunities for landfill mining, a 2013 report commissioned by Zero Waste Scotland nonetheless noted that the following situations offered greatest potential for landfill mining:

- on-site energy recovery (following stabilisation of mined waste)
- excavation, shredding and screening of mined waste for the recovery (and sale) of ferrous metals and recovered soils used for daily cover. Remaining waste compacted and replaced within excavated area (or used in the construction of a development platform)
- off-site energy recovery where wastes were intended to be excavated anyway (site engineering or to mitigate pollution) and the alternative was to incur landfill disposal costs.

Examples of landfill mining include:

- Sandford farm, Reading: mining and remediation of a 20ha site in which 240,000m^3 of landfilled waste was excavated. Remediated site re-developed for housing.

1.7 delivering net-biodiversity gain

The principle of net biodiversity gain – in which developers are required to ensure that habitats are enhanced over and above site baseline conditions - is gaining momentum. Likely to become law with the passing of the Environment Act it has consequences for the planning regime. In fact some planning authorities have adopted this principle and are already requiring developers to demonstrate net biodiversity gain.

There will likely be flexibility afforded to developers in discharging this new requirement, with enhancements delivered on or off site. If off site provision is to be made it might in some cases be more appropriate to secure biodiversity enhancement on previously developed (rather than virgin) land, and with (former) landfill sites affording significant potential to accommodate net biodiversity gain as part of their restoration.

2. Partly completed or mothballed sites

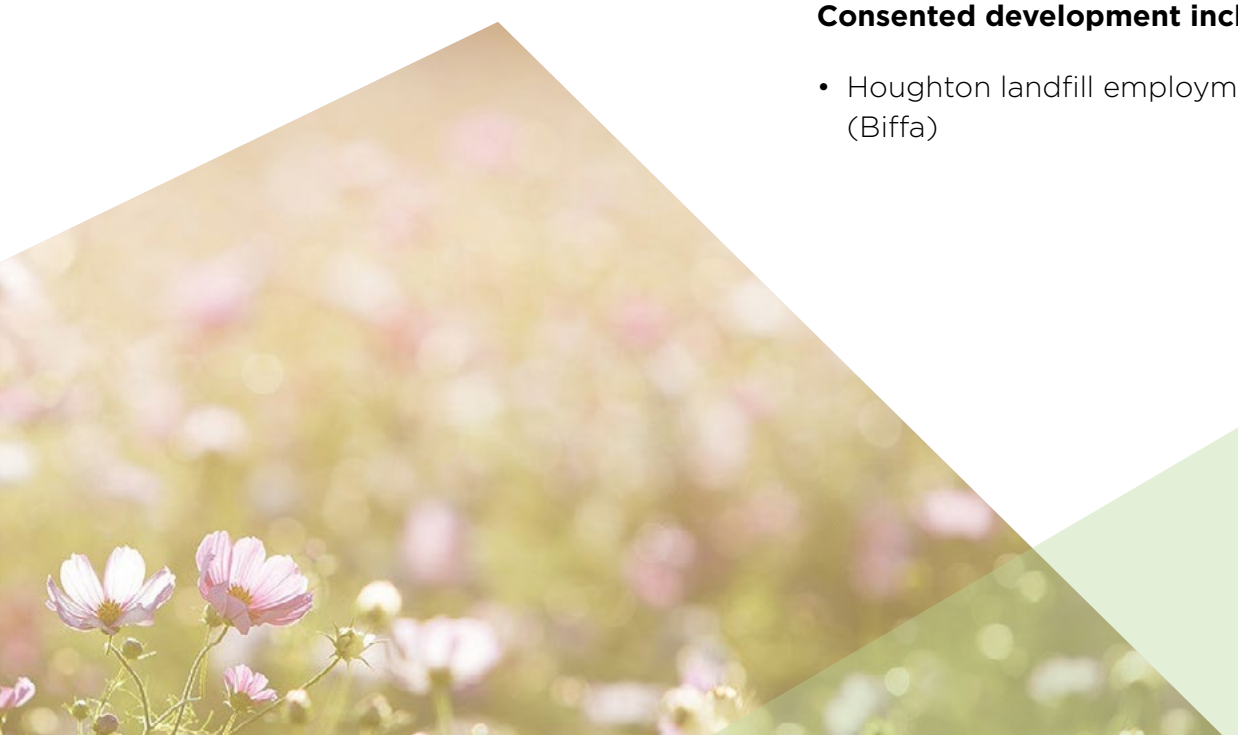
Legislative measures and economic drivers to further divert waste from disposal in landfill continue to exert pressure on landfill sites resulting in site closures, or winding down of operations. While some sites may be mothballed - safeguarded for future, strategic value – there are alternative development opportunities for those partially completed landfill sites in which remaining void capacity is unlikely to have any future value as landfill.

While opportunities will vary depending on local circumstances, examples include the foregoing of consented landfilling in favour of the disposal of much smaller volumes of inert materials to create suitable development platforms for recycling infrastructure, or employment parks etc.

While such would have the advantage of realising the cessation of landfilling activities earlier than planned and return the land to a more productive, economic use, such development would nonetheless most likely constitute a departure from both the local plan and from the previously approved scheme for restoration (contours) and end-use.

Consented development includes:

- Houghton landfill employment park (Biffa)



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