

# Response to Welsh Government Beyond Recycling – Circular Economy Strategy Consultation

## Introduction

Our purpose is to ensure that the natural resources of Wales are sustainably maintained, used and enhanced, now and in the future.

This response is given in the context of the definition of a circular economy laid out in the strategy consultation as the aim to keep resources in use for as long as possible and avoid waste.

We note the strategy also includes a number of actions focusing on resource efficiency. We understand the reasons to include these as while the circular economy addresses the socio-economic system itself resource efficiency addresses the links between nature and Wales's socio-economic system and is key to achieving one planet living.

We welcome the strategy and the focus on community led approaches and initiatives to increase public involvement and participation. The strategy will further enhance the recycling economy in Wales and move us further along the journey towards making the game changing shifts needed to achieve a circular economy in Wales.

Achieving a Circular Economy in Wales will require significant fundamental changes in how we design, make, consume and use products and commodities that will need drastic changes that build on the measures included in the consultation.

We agree that preventing waste from arising at all sources is the most sustainable use of our natural resources. Moving towards a circular economy will help to keep products that may be ordinarily discarded in service for as long as possible, maximising their value when in use and then, when no longer useful to society, ensuring that those resources are captured for re-use and recycling, and recovery or reintegration, thereby displacing the need for natural resources and protecting ecosystems and the environment.

We will consider the wider circular economy opportunities inherent from the sustainable management of natural resources in the SoNaRR 2020 report currently being produced for publishing later this year.

We appreciated the opportunity to discuss the consultation during the joint focused webinar held between Welsh Government and Natural Resources Wales on the 30 March 2020.

## Our Response

Welsh Government have requested a formal response from Natural Resources Wales (NRW) on the specific questions in the consultation and also for commitments we can make in support of the strategy. This consultation response will focus on these points and also aim to highlight any unintended consequences or risks that could result from actions identified. We give our views from our perspective as a regulator and advisor on recycling and waste and resource management in Wales.

**Become the world leader in recycling: We will work to achieve the highest rates of household recycling in the World, working with local government, and transform the recycling of commercial, and industrial and construction waste.**

### **Question 1: Are the suggested actions the best way to help us recycle more?**

NRW recognise that the actions identified in the consultation will support increasing the quantities and types of materials captured for recycling. However, we believe that applying the waste hierarchy is key to moving towards a circular economy and preventing waste is the priority.

Whilst increasing recycling rates is important, it is essential that mechanisms and drivers are put in place to encourage prevention and re-use of waste as recognised by the Welsh Government waste prevention programme. Manufacturers have a role in assisting householders to prevent waste through designing out waste in products as well as ensuring their products and packaging can be re-used or widely recycled by householders at the end of their use.

Where unavoidable waste is produced, as much as possible must be recycled to a high quality. Recycling supports three objectives of the Well-Being of Future Generations (Wales) Act 2015; a prosperous Wales, a resilient Wales and a globally responsible Wales.

Better quality recyclate is likely to support the retention of material within the Welsh and UK economies, resulting in socio-economic benefits. Recycling retains natural resources, reduces the demand for virgin material, improves resilience to materials market downturns and reduces the risk associated with materials collected for recycling being disposed of or inappropriately managed.

The current, and developing, global restrictions and bans on the exports and imports of waste materials, in particular paper and plastics, has reinforced the need to keep all materials free of contamination and remove all non-target materials.

Increasing the recycling of commercial, industrial and construction waste should be a priority since the majority of waste generated in Wales is produced by these sectors (approximately 86% when excluding mining & quarrying wastes).

We welcome the new business separate collection requirements to build on the success of municipal separate collection requirements. We anticipate this will bring increases to the quantity and quality of recyclable materials captured for recycling. Regulations are only effective if they are supported by robust compliance monitoring, if funded NRW could deliver these regulatory duties.

Whilst we strongly support the principles of waste recovery and the clear benefits to the economy and environment of Wales from the appropriate recycling of wastes as a resource, this can only be in the context of wastes being managed appropriately, with necessary environmental safeguards.

The pace of setting high recycling targets must be matched with the provision of suitable waste facilities and end markets for materials, particularly for materials that are currently difficult to recycle such as mattresses, tyres, black food trays, composite packaging, carpets and furniture etc.

There is a risk that increasing statutory recycling targets without developing complementing statutory waste prevention targets may have perverse outcomes. For example, it could encourage determinations to be made that items, which could be directly re-used, are waste to increase volumes for reporting purposes. This could potentially undermine the overall objective of Welsh Government legislation and the Waste Framework Directive. For example, this issue may arise at local authority 'Re-use' shops located close to or at Household Waste Recycling Centres (HWRCs).

We recommend that there is further consideration on how to prevent or recycle all material types that are currently not widely recycled.

To be a world leader in recycling and ensure that the maximum benefit is obtained from materials, the recycling infrastructure must match the amount and types of material collected in Wales. A better understanding of the end use and destination options for individual waste streams would provide the opportunity to develop waste stream specific targets the future.

## **Question 2: Should recycling arrangements across Wales be consistent?**

We support the Welsh Government Collections Blueprint which was produced following an evidence-based approach.

We support producing some common elements of consistency across all local authorities and we are beginning to see this in Wales, for example weekly food waste and recycle collections and reducing the frequency of residual waste collections.

Consistency is important to householders in terms of providing clear messages for people to understand how to use the service correctly. Consistency also enables Wales-wide communication campaigns and is important for reprocessors & end markets in terms of supplying high quality recycle for treating and processing into new products.

Producing a one size fits all national standard is challenging. For example, even within one local authority area, there may be a case for different services to meet different needs from densely populated high-rise urban areas to sparsely populated rural areas. Furthermore, there will always be a need to be responsive to specific individual needs, such as households with physical difficulties using the service.

Householders require clear, simple and consistent advice to remain engaged and understand the importance of participation. However, education does not necessarily translate to desired behaviours. Moreover, this challenge comes at a time of sustained and mounting economic pressures for all.

### **Question 3: Are the suggested actions in this theme the right ones? If not, why? What other actions could we consider to achieve the aims of the strategy?**

Persuading more people to take part in recycling is a priority. The challenge for the Welsh Government in partnership with local authorities is considerable, to increase understanding, confront perceptions and change the behaviour of householders. For example, there is still confusion on what types of plastics can be recycled.

WRAP compositional analysis in 2015 provided evidence that almost half (48.9%) of residual waste collected from households at the kerbside is widely recyclable. Food waste was the single biggest contributor of this, despite most households already having access to a weekly separate food waste collection for a number of years prior to this study.

There are significant opportunities for increasing recycling by improving householder participation in current recycling services. This is also the case for business waste as evidenced in the 2019 WRAP compositional analysis of industrial & commercial wastes. The majority of residual waste (74.5%) sent for disposal could be diverted for recycling, which supports regulations to require all non-domestic premises to separate key recyclable materials like households already do.

Understanding the reasons for non-participation in established recycling schemes are complex. Improving householder and business participation in such schemes will require a multifaceted approach to overcome these complexities rather than relying on one approach alone, such as education.

Further work is needed with industry to increase the market confidence in re-used or recycled materials. A priority waste stream for this could be the aggregates market where there is significant recycled material available that could directly replace virgin materials.

We recommend that human behavioural insights experts are consulted in helping to develop solutions to improving participation in recycling schemes.

#### **Our role**

NRW will continue to;

- fulfil its duties as monitoring authority for the Local Authority Recovery Targets by ensuring that all local authorities have submitted data in accordance with their obligations and reconcile any identified inaccurate or inconsistent data that has been submitted.
- advise the 'Dyfodol Gwyrdd Glân' to develop an absorbent hygiene product collection and recycling solution for Wales.
- work with others to provide increased market confidence in the quality of products made from waste to encourage greater recovery and recycling, e.g. through the use of resource frameworks such as the quality protocols.
- ensure that wastes and materials are correctly described and categorised.

**Make more efficient use of our food: We will lead the way in eradicating avoidable food waste by looking at the whole supply chain and working with businesses from farm to fork to minimise waste and maximise resource efficiency.**

**Question 4: What actions could we take to further promote the work on prevention and re-use that occur in our communities?**

Recognising the expertise and experience that WRAP Cymru have in advising on waste minimisation, and in particular their Love Food Hate Waste Campaign, Welsh Government and WRAP Cymru may want to consider how they could further assist and support Welsh Government to deliver these actions.

Welsh Government could consider mechanisms to provide funding and support for initiatives such as repair cafes and community rental schemes for things like toys, bikes and gardening equipment would promote waste prevention and reuse within communities. This could also have wider benefits, including increasing community spirit and wellbeing, economic savings for residents and understanding of resource use and consumption.

Welsh Government could consider how existing third sector organisations that repair, refurbish and sell used items could be supported to expand these operations and broaden or expand their services to cover priority goods and materials such as textiles, furniture, WEEE etc. Support could be given to increase the number of these organisations to cover all areas and communities in Wales.

Work is needed to further promote using and buying used goods and remove the social stigma that deter people from doing this.

Existing initiatives often focus on people and parts of the community that are already engaged. To achieve the ambitions of the strategy, wider engagement and involvement is needed across all parts of the community.

**Question 5: Do you agree we should develop and expand the work we do in schools on waste prevention and re-use?**

We agree that education is one of the key factors that can drive behaviour change and support further work in this area. However, to be effective it needs to be combined with other factors such as motivation, ability and triggers that play a role in prompting particular behaviours.

Environmental education has been on the school curriculum for a number of years so we consider the focus should be on updating and developing the current syllabus rather than expanding it. If education in schools is not supported 'in the home' it will not have the required impact to make a societal change. 'Pester power' by children is limited in its impact if parents are not engaged.

We would support expanding the education bracket to include colleges and universities to drive behavioural change in students where studies have shown there is a low interest and uptake in recycling.

To drive the widespread fundamental changes required to move towards a circular economy, everyone in society needs to be engaged so any expansion in education at schools needs to be combined with wider awareness and take-up across all generations and groups.

Further research and evidence may identify the most effective forms of education and other approaches to drive behavioural change, for example finding out what people find hard to do or don't understand what they should do. Behavioural Insight specialists may be best placed to advise on the most impactful intervention or 'nudge'.

### **Question 6: What do you think are the key steps that we need to take to further reduce avoidable food waste?**

Robust data is needed on where and when food waste is generated throughout the whole supply chain, from growers through to final use.

Once this is available, analysis will then identify the actions needed that are targeted at the relevant sector or processes. This could include a range of measures for example designing durable packaging to protect food in transit, discouraging bulk purchase offers from retailers or restricting portion sizes to reduce food waste from restaurants.

Wherever possible surplus food should be used to feed people first. Where this can't be done, then wherever possible it should then be used in animal feed. This can replace the need to grow crops for use in animal feeds and have financial benefits for food and drink companies.

The potential unintended consequences from bans, restrictions or taxes/levies on plastic packaging that could lead to increases in food waste being produced need to be fully considered. For example, shortening shelf life, increased losses through damage to fruit and vegetables during transit and in store etc.

### **Question 7: Are the suggested actions in this theme the right ones? If not, why? What other actions could we consider to achieve the aims of the strategy?**

Preparation for re-use is preferable to recycling in the waste hierarchy and is the preferred waste management option. Statutory local authority recovery targets already encourage local authorities to send waste for preparation for re-use since this waste activity counts towards achieving their current targets. A preparation for re-use target would not discourage the creation of waste.

A statutory waste prevention target should be considered since it would encourage direct re-use of items, however it is recognised this would be difficult to design, measure and monitor. This is likely to be more effective in helping Wales to achieve zero waste by 2050 compared to a minimum preparation for re-use target.

Consideration could be given to working with producers and retailers to discourage marketing practices that can lead to over purchasing and increased food waste. An obvious example is 'buy one get one free' where consumers are encouraged to purchase twice as much as they could practically consume within the products shelf life.

A mandatory requirement for all food retailers to give surplus unsold food to food banks could also be considered.

Voluntary commitments and schemes, such as The Courtauld Commitment, could be strengthened and expanded to support achieving these actions.

Clearer labelling and understanding of best before and use by dates could reduce edible food being unnecessarily thrown out.

## **Our role**

As the public body responsible for the natural resources in Wales we will ensure that we take steps to adopt sustainable procurement, resource efficiency and waste prevention and become an exemplar public body.

**Prioritise the purchasing of wood, remanufactured and recycled content:** We will prioritise the use of wood and recycled content as well as prioritising re-used and remanufactured content in the goods that the public sector procures.

## **Question 8: Are the materials we have listed ones we should focus attention on?**

It is difficult to align the actions with the overarching objective and further detail is needed on the specific materials the strategy is focusing on and the risks and issues that make each of these materials a priority.

NRW have concerns for a number of wastes that are either hard to recycle or not commonly recycled, have limited markets, have a high value that can encourage theft or a high treatment cost that increases the risk of waste crime or results in a lack of investment for appropriate treatment. These include tyres, textiles, carpets, furniture, mattresses, batteries, farm plastics etc.

All materials have an impact during their production and when managed at their end of their life, so preventing unnecessary products being produced and keeping things in use as long as possible must be a priority. Where things must be produced, the most appropriate material, with the lowest full life cycle impacts, should be used.

Global bans and restrictions on exports and imports of certain materials have shown how dynamic and vulnerable waste and recycle markets can be and that actions, priorities and Regulations need to be able to keep pace with these changes.

Care must be taken to avoid the unintended consequence of promoting the use of certain materials, for example wood, that could drive the consumption of resources and discourage the re-use or recycling of existing goods and materials. A clear understanding of demand and markets could help prevent this occurring.

If used appropriately timber is a renewable, sustainable material for a range of products and construction applications. When used for durable products with a long life span, for example furniture, timber locks up carbon, and displaces carbon emissions associated with other materials.

Where locally grown timber is used it can also reduce carbon emissions from transport and can boost local communities through employment and enterprise.

As a productive resource, recent data (Welsh Government, 2019) indicates that the forestry sector contributes a total GVA of £664M per annum to the Welsh economy.

### **Question 9: Are design changes in products using the materials listed an area to focus on?**

To achieve the fundamental changes required for a circular economy any material that cannot be re-used or recycled at the end of its life must no longer be used.

When something can no longer be used the aim must be to recycle it back into a valuable product through a 'closed loop' system.

Manufacturers must ensure that any goods they produce can be used for as long as possible and can be recycled at the end of its life.

Significant changes are needed across a number of packaging materials which are currently commonly being used including black food trays, mixed polymer plastics (e.g. a PET bottle with a PE lid and a PVC sleeve) and composite materials (e.g. drinks cups etc).

Durable, long lasting alternatives must be developed for the majority of disposable or single use items. There will be situations where single use items are needed, for example for medical materials, but these must be minimised as far as possible.

Producers of consumer electronic and electrical equipment must stop producing products with built in obsolescence, sealed components and make spare parts available to repair the goods.

A move to a truly circular economy will need to go beyond looking at the sale of products and start to consider the provision of services. For example, rather than buying a washing machine you lease a washing service where the supplier retains the responsibility for repairing and servicing the washing machine over a period of time.

### **Wood**

Wood has to be treated for a wide range of its most common uses and this can significantly reduce the recycling options once the products can no longer be used. This has led to cases of inappropriate and unlawful treatment and disposal.

Promotion of wood as an appropriate material could include;

- expanding the recognition of sustainable wood products with FSC and PEPC labels and the UKWAS certification.
- promoting wood products e.g. wooden rather than plastic chairs, as carbon stores.
- Developing a Welsh Timber brand



It is vital to engage with all parts of the wood sector from architects, specifiers, timber mills, timber growers etc to achieve a coordinated supply chain action to support a circular economy.

Consideration must be given of the impacts from displacing an alternative source material, for example plastic. Treated wood has less options for recycling at the end of its life than some plastics that can be recovered in closed loop systems.

Understanding the whole life cycles and fate of waste and their carbon impact must be appropriately considered.

**Question 10: Are the suggested actions in this theme the right ones? If not, why? What other actions could we consider to achieve the aims of the strategy? Are there other materials we could focus on and why?**

There may be opportunities to strengthen the markets for the reuse of recycled content by specifying its use via the planning system. Introducing requirements for developers to use recycled content at this stage will ensure that new developments are designed in such a way that it promotes the use of recycled content and reduces unnecessary demand on virgin materials.

The Circular Economy Fund is currently restricted to plastic, paper, card and textiles so in order to achieve this commitment this would need extending to other materials such as wood.

The Circular Economy Fund currently only allows the consideration of waste materials. This means that the material eligible for the fund has to have become a waste and then must be recovered into a new product. There is a huge potential for by-products exchange and industrial symbiosis within industry that could be supported through funding. This would allow a greater understanding of waste prevention and enable better capture of waste prevention evidence to inform any new targets.

### Bio Plastics

The term bio-plastics is used to cover a wide range of materials which causes confusion in what the products are produced from and how they should be treated when they become waste. This confusion is particularly felt by the general public not knowing which recycling stream they should put the products into.

A clear definition and classification is required for these materials to make it clear the difference between 100% bio plastics, bio-based (containing a significant proportion of petrochemical plastic polymers), compostable and other bio-degradable replacement materials.

Clear classification and identification is also required to ensure the material is treated in the appropriate way when it becomes waste and does not contaminate plastic waste streams. For example, some bio-based plastics can be recycled with PE plastics, but bio-degradable plastics cannot.

Where any form of plastics or materials containing plastics are treated incorrectly there is risk to both air quality and the land and water environments. For example,

compostable materials that have not been treated in an industrial composting process (that meets the conditions needed to break down the item properly) may contaminate the compost and if spread on land will not break down in the natural environment.

Better collaboration between retailers and manufactures is needed with the waste management industry. There is the potential need for manufacturers and retailers to initiate take-back schemes if the waste management industry does not have the infrastructure of treatment process needed for such materials.

A full life cycle assessment is needed to determine the most environmentally appropriate product to be used in different situations.

### Reduce waste exports

Global restrictions and bans on the exports and imports of plastic waste are increasing, so we believe action towards achieving this ambition must be a priority. Prevention is key to reduce the quantity of waste produced and reduce the need to export waste for recycling and recovery overseas. Removing difficult to recycle plastics and composite products will enable more plastic to be recycled in Wales and the UK and reduce the reliance on overseas reprocessors.

Where unavoidable plastic waste is produced it must be collected and handled in a manner to ensure that its quality is retained so that it can be recycled to produce quality recycled polymer. Sufficient domestic infrastructure will be needed to replace the recycling currently undertaken overseas. A clearer understanding of the quantities and type of plastic recyclate produced in Wales that are exported will be needed to identify the infrastructure that is needed.

Amendments to the Basel Convention and International Waste Shipment (IWS) Regulations will tighten the controls on the exports of some plastics overseas, including the requirement to notify NRW before waste plastic is exported. This will provide data on the quantities and destination of exported plastics.

Planned reforms of the IWS Regulations will provide the opportunity to place further requirements and restrictions on the export of plastic wastes.

Plastic recycling sites need significant financial investment and the appropriate environmental permit and other relevant authorisations, therefore it's important that there is sufficient time given for infrastructure to be developed in Wales.

Closed loop recycling solutions must be a priority and care must be taken to ensure that plastic is not down cycled to a lower grade of material.

In a global market there will continue to be a demand for recycled plastic, so recyclers in Wales must be able to produce a recycled plastic product that meets the quality specification required by these manufacturers.

## Eliminate plastic litter

We recognise that eliminating plastic litter from our environment must be a priority and is extremely ambitious. It would be helpful to have clarification on whether

eliminating in this context means no more plastic litter entering the environment or if it also includes removal of existing persistent litter.

Eliminating plastic waste in the natural environment will need huge parallel actions to change attitudes and behaviour, waste collection and recycling infrastructure etc.

Further evidence is needed to understand the occurrence and distribution of plastic litter in the environment and how it differs on land, rivers and streams, the ocean water column and the seabed.

Focus must also be given to microplastics and the impact on soils, sediments and freshwater and marine environment which has a long-term negative effect on these ecosystems. Actions are required to address the two common forms of micro plastic pollution; micro fibres and micro beads.

This could include focusing on products and manufacturers that use primary microplastics in manufacturing or generate secondary microplastics in order to reduce their release into the environment. There could be further attention paid to reducing the manufacture of plastics which are known to breakdown easily into secondary microplastics.

Marine litter is a global problem and litter originating in other countries can end up on Welsh shores, therefore a wider strategy is needed to combat this issue. This needs to include a focus on the collection and recycling of abandoned, lost or discarded fishing gear, and end of life fishing gear. This would need an effective system in place to incentivise and facilitate the collection and recycling of this fishing gear by the fishing industry and could include extended producer responsibility obligations being placed on fishing gear.

## Using Government levers

**Phase out single use plastic:** We will make Wales become the first country to send zero plastic to landfill. We will press ahead with game changing reforms including introducing Extended Producer Responsibility for packaging, a Deposit Return Scheme for drinks containers, and applying bans or restrictions to phase out the use of unnecessary, highly littered, single use plastic.

**Take full responsibility for our waste:** We will take full responsibility for our waste in Wales, ensuring that we do not export waste to be a problem elsewhere. We will work in partnership with other parts of the globe to help them to tackle their waste issues.

**Question 11: Is our focus on improving resource efficient procurement within the Public Service a priority area?**

We support the principle of this commitment and believe the public sector in Wales has the opportunity to be an exemplar sector to champion systems and processes that can then be expanded to other sectors and businesses in Wales.

Local authorities and other public-sector organisations, including Natural Resources Wales, must ensure that they take steps to influence sustainable procurement so that it optimises low waste.

We recognise how challenging it will be to specify and deliver this commitment. Everything that is produced has an impact, therefore detailed consideration is required to the parameters, indicators or measurements used to assess this.

Prevention is again key to reduce the amount and quantity of new things that are produced or manufactured and that once produced items are kept in use for as long as possible.

Sharing resources by the public sector organisations in Wales could be an impactful action and include initiatives such as office furniture hubs. The increased buying power of a shared service would increase the influence the public sector would have on suppliers, for example specifying minimum packaging is used.

#### **Question 12: Is our focus on materials used and resource efficiency in construction a primary consideration to implement for the future?**

Construction and demolition waste is estimated to account for 47% of total waste generated in Wales of all waste generated in Wales (excluding mining & quarrying). We support the focus on reducing waste and increasing resource efficiency in this sector.

There are significant opportunities to improve resource efficiency within the construction and demolition sector, primarily through more effective design. We are currently in discussion with the Planning Officers Society for Wales and WG planning division to look at ways that resource efficiency provisions can be strengthened through the current planning regime.

Markets for recycled construction and demolition waste must be developed to promote the use of recycled material over virgin materials. This will need to include building further confidence in the quality and suitability of the products that can be assisted by the use of quality protocols.

#### **Question 13: Are the suggested actions in this theme the right ones? If not, why?**

We believe that preventing waste is a priority to move towards a circular economy and we support the target to phase out all unnecessary waste.

The actions need to be further developed to clearly link with the headline objectives and identify how the actions will achieve the desired outcomes.

NRW would support consideration of measures that encourages manufactures to make decisions or choices around eradicating unnecessary products and packaging,

particularly where it is limited to single use. Examples of single use items that can cause problems if disposed of inappropriately include wet wipes, cigarette butts, chewing gum, plastic straws etc.

Whilst we recognise plastic as a material has its place and use it should only be considered where there is no better alternative. Disposable, single use items may be needed for medical and healthcare uses.

## Litter Plan

In order to be effective a litter prevention plan would need;

- effective communications and clear information
- deliver behavioural change
- sufficient penalties and appropriate enforcement tools, powers, and regulatory resources.

## Extended Producer Responsibility (EPR)

NRW welcomes the proposals to introduce legislation to require producers to pay the full net cost of managing their products at end of life to incentivise more sustainable use of resources and to place fees and charges on producers to cover these costs.

NRW is working closely with Welsh Government, DEFRA, the other UK Devolved Administrations and UK Regulators on the reform of the current producer responsibility regulations. NRW are committed to supporting the development of producer responsibility systems that are proportionate and fit for Wales. We will need to ensure that any proposals can be effectively regulated and that any regulatory duties placed on NRW are adequately resourced, including the appropriate IT systems.

Once developed, the principles of extended producer responsibility can be applied to the other materials identified and other materials such as fishing gear etc.

## Deposit Return Scheme (DRS)

Wales currently has a high recycling rate as a result of the existing legislation and the infrastructure which supports the current collections systems. Adoption of the 'blueprint for collection in Wales' would have greater benefit than an 'All in' DRS model. There is evidence that the introduction of a DRS could help to reduce litter and improve recycling of drink containers consumed 'on-the-go' in Wales. An 'all-in' model is not likely to further improve recycling rates of these containers in Wales as there is a well-established kerbside collection recycling infrastructure.

Preventing fraud throughout the UK requires further detailed consideration for the DRS and Producer Responsibility system. For example, DRS collected glass bottles that are excluded from a Producer Responsibility system could be included in a Producer Responsibility evidence system (as crushed/broken glass).

Preventing waste arising is the most sustainable use of our resources and is the most preferred option of the waste hierarchy.

A DRS does not encourage reduction in single use packaging items owing to the refund of a deposit, so there is likely to be no reduction in waste arisings. Therefore, the introduction of a DRS in isolation will not achieve the best and most desirable environmental outcome for these types of waste streams.

Further detail was given in our [response to the UK consultation](#) in May 2019.

### [Bans and restrictions from energy recovery or landfill.](#)

Disposal of waste at landfill is the least sustainable use of our resources. The Landfill Allowance Targets and the Landfill Disposals Tax have been successful in reducing the volume of wastes being sent to landfill. However, there will continue to be certain waste types for which landfill represents the only management option, for example, asbestos and there may also be times when landfill should be used as a contingency, or to address a temporary shortfall in capacity at more sustainable alternatives. The targets already in place should ensure that this is minimised.

Disposal of waste through energy recovery is the next least sustainable use of our resources. As we move to a circular economy incineration is needed to deal with waste streams that can't be recycled and there is no current alternative solution. There will be occasions where incineration may continue be the most appropriate method of managing certain wastes, for example medical waste, treated hazardous wood or plastics containing persistent organic pollutants. Where incineration does occur both heat and power should be recovered to ensure the maximum benefit is recovered from the waste.

Restrictions on both landfill and energy recovery would divert waste to other waste treatment options. One of the most likely options would be Anaerobic Digestion which may be impacted through both the introduction of unsuitable waste streams and an increase in outputs where there may not be available capacity or markets, for example a lack of available land-bank for digestate.

The use of residual heat from CHP plants in Wales has not been maximised. It may be appropriate to consider how best to utilise a significant energy source at existing plant, as well as strengthening the requirements for a heat customer to be available at new CHP developments.

### [Mandatory electronic waste tracking system](#)

Complete, accurate and accessible waste data is vital to achieving the ambitions laid out in this strategy.

We recognise that we our approach to regulation could be more effective by using data and information, so we have a better understanding of where waste is generated and where it goes, including where it leaks through the system or is handled illegally, either domestically or abroad. NRW are working with the UK governments, regulatory agencies to create a mandatory electronic waste tracking system which will record all waste movements within the UK, including products derived from waste. This will lead to better waste regulation and policy, helping drive improved business productivity and investment, and supporting effective management of resources.

NRW are contributing as subject matter experts, to the steering committee and as UK project board members. This work is currently unfunded but requires considerable input from NRW, we have requested funding for this critical work from Welsh Government for a post to support this project to ensure that a UK system meets the needs of NRW and Welsh Government.

### What other actions could we consider to achieve the aims of the strategy?

The negative impacts of plastic are now widely understood but other materials can pose similar risks and impacts so the focus on plastic should be extended to all avoidable wastes and in particular single use items. An evidence based approach should be used through a full life cycle and carbon assessment of materials and processes.

These actions must all be closely linked to communications, education and behavioural change.

Behavioural taxes can have a key role to disincentive disposal but also in the use of raw materials. The disincentive principle of taxing disposals could be broadened into other waste management methods such as incineration, export for recovery and recycling.

### Our role

NRW will continue to;

- work with Welsh Government and the UK Government to support the development of a DRS Scheme as required.
- be a partner in the mandatory waste data tracking project. Funding for a post to support this work is critical to ensure that a UK system meets the needs of Wales.
- deliver the Fly-tipping Action Wales programme on behalf of Welsh Government.
- work with Welsh Government, DEFRA, the other UK Devolved Administrations and UK Regulators on the reform of the current producer responsibility regulations.
- support this commitment through building this into our procurement policy and processes.
- support the implementation of the Circular Economy Package in Wales and carry out regulatory duties in line with our regulatory principles.
- fulfil our waste regulatory duties, in line with our regulatory principles, in over 50 pieces of legislation including;
  - Environmental Permitting
  - Duty of care
  - Producer Responsibility (packaging, WEEE and Batteries)
  - International waste shipments
  - Hazardous Waste Regulations
- tackle waste crime to ensure legitimate business is not undermined.
- work with the Regional Waste Group and Local Planning Authorities to ensure that new waste infrastructure is developed in such a way that meets the needs of Wales without having a negative impact on local communities.

**Enable communities to take collective action: We will support citizens and communities to do the small things that add up to making a big difference. We will engage young people so they can actively learn about and be part of resource efficiency action through the education sector and beyond.**

**Create the conditions for business to seize the opportunities: We will support all businesses in Wales to reduce their carbon footprint and become more resource efficient. This will enable our businesses to save and make money as well as being more resilient and able to compete in new and emerging markets whilst also achieving positive environmental outcomes.**

**Question 14: Is our continued business support to make them more resource efficient a priority action?**

NRW support this as a priority action and believe that resource efficiency is key the sustainable management of natural resources and supporting a move to a circular economy. NRW has embedded the principles of sustainable management of natural resources throughout our organisation's activities and regulatory responsibilities. Examples include work to prevent diffuse pollution in agriculture and our general land strategy.

Permitted Industrial sites in Wales regulated by NRW have a statutory requirement to ensure resource efficiency. NRW impose permit conditions that require sites to report their energy and water use, helping to focus on resource efficiency. Further requirements could be added to permits requiring companies to publish their resource use. This could provide comparison across sectors, to encourage reductions and behaviour change.

Industries in Wales are exploring industrial symbiosis and material exchange to identify where by-products or process losses from one activity can be used or are a benefit to another activity. An example of this is the use of slag from steel production to produce stone wool. These principles could be developed across the wider business sectors and similar principles. Incentives could be considered to further promote this. A list of wastes or by-products from industry could be developed as a resource list for other companies to utilise.

**Question 15: How would you view starting a Zero Waste Town area?**

We recognise that Zero Waste Towns can provide an opportunity to test pilot projects and approaches before being expanded to other communities. Initiatives such as this can increase community engagement and participation that would help deliver the ambitions of the strategy.

However, we believe confusion exists in what a zero waste designation means and what activities and part of the community are covered. For example, not all businesses in a town need to be signed up for the town to achieve the status and people can be confused when they see litter bins and waste still being collected from commercial areas and householders. Clear clarification of what a designation or status means would also remove the potential conflict and confusion with publicly available waste data and statistics.



We suggest that an alternative scheme could be developed in Wales that better reflects the aspirations of the strategy. One option may be to adapt the principles of the Plastic Pact to make it applicable to communities.

Clear objectives and communications could also help to inform the wider community on what a designation means, for example zero waste to landfill rather than zero waste.

To ensure wider engagement across the whole of Wales a scheme should be applicable across all sizes of communities from villages to cities and possibly even up to Local Authorities.

**Question 16: Are the suggested actions in this theme the right ones? If not, why? What other actions could we consider to achieve the aims of the strategy?**

We support the actions that have been proposed and that these are the type of complex and big changes needed to start to move towards a circular economy.

As an organisation we have developed a Carbon Positive Project to take an ambitious approach to understand our carbon impact and to identify opportunities to address it. This has included;

- evaluating our net carbon status, accounting for both greenhouse gas emissions and carbon sequestration across the whole of our owned and managed estate.
- identifying mitigation opportunities to reduce our carbon impact as an organisation, and delivering projects to demonstrate these measures.
- planning for future implementation of mitigation measures and embed carbon management across the organisation.
- sharing our approach and experience as an example of best practice in carbon management across the Welsh public sector.

Many of the proposed actions will require significant behavioural change that are unlikely to be delivered purely by education. A particular challenge will be the wider engagement and public participation needed to make these changes a success. All parts of the community will need to be engaged and this may need focused campaigns targeted at specific groups.

The actions also need to consider the different socio-economic factors facing different parts of Wales.

People need to take responsibility for waste we produce, and this must include knowing how they can reduce the waste they produce, what should be done with the waste and what needs to happen to it once it leaves their homes. Information, education and clear communications are all key to informing the public.

## **Our Role**

NRW will continue to;

- Ensure the resource efficiency requirements are met by sites that we regulate.

- Support business in considering options for industrial symbiosis and ensuring that these meet regulatory requirements and controls.
- Deliver our Carbon Positive Project
- Ensure the sustainable management of natural resources is central to all our activities, for example in area statements.
- Work with partners, including WRAP Cymru, to promote and encourage resource efficiency and the sustainable management of natural resources.

**Invest in clean technology for materials collection:** We will modernise the way we collect the material from our homes and businesses to reduce transport emissions of carbon dioxide and improve air quality by introducing zero emission vehicles and investing in the infrastructure to renewably charge and power them.

**Question 17: Are the initiative actions mentioned here those we should aim to provide supporting infrastructure for?**

To be a world leader in recycling and ensure that the maximum benefit is obtained from materials, the recycling infrastructure must match the amount and types of material collected in Wales.

We believe that in order to progress from a recycling economy to a circular economy we need to move away from thinking about infrastructure as simply collecting and processing waste. To move towards a circular economy where we do produce waste, we should be prepared to manage it as close to the point of generation as feasible.

Preventing waste will reduce the capacity and the breadth of infrastructure that is required to handle and treat waste. This will allow the infrastructure to be focused on recycling activities that produce good quality products.

**Question 18: How can we work regionally to ensure resource efficient decision making?**

The role of Natural Resources Wales in the Waste Infrastructure Procurement Programme has been limited to providing waste data and advice to Regional Waste Groups where required. We do not have a view on the management of the Waste Infrastructure Procurement Programme.

We will continue to work with the Planning Officers Society for Wales to look at ways to embed resource efficiency in the construction sector via the planning regime.

As an organisation we have adopted a place based approach to deliver our duties and responsibilities across Wales. At the beginning of April we launched our first iterations of our 7 area statements.

The area statements build on evidence and local knowledge about the natural resources in that area, how they are used, managed, their pressures, and potential benefits. They explore how the national priorities, risks and opportunities for the sustainable management of natural resources are reflected in that place.

The area statements will shape how we develop future corporate and place based plans and also inform, and be informed by, the local well-being Assessment and Well-being Plans produced by Public Services Boards.

Bringing together data, information, organisations, and ways of engaging others will help better understand the many complex relationships between the environment and people and where action can be taken.

Feedback from the engagement with stakeholders to inform area statements highlighted a significant desire to work collaboratively to support resource efficiency and a circular economy, particularly in the procurement of goods and services within the public sector. It is clear that public services boards will have a significant role to play in supporting regional working.

**Question 19: Are the suggested actions in this theme the right ones? If not, why? What other actions could we consider to achieve the aims of the strategy?**

We understand there is an ambition to change the waste collection fleet in Wales to electric vehicles. We consider there is scope to also consider other renewable power sources including bio-gas/methane from anaerobic digestion (AD) plants etc.

NRW supports these initiatives and is committed to a similar approach in our fleet of vehicles through adopting a travel hierarchy that promotes reducing unnecessary travel, using public transport and moving our vehicle fleet to electrical vehicles.

Preventing waste being produced in the first place will give the greatest reductions in emissions and other impacts through the reduction in the number of collections required.

Where waste is produced, reprocessing this as closely as possible to the source will reduce the impacts from further transport and shipment.

### Overseas Donations

Care must be taken to ensure that any equipment donated to other countries is fit for purpose and suitable for use for a reasonable amount of time and that there are facilities and options for those materials to be handled correctly at the end of its working life. This could include longer term support for maintenance and spares and repair. It must be ensured that the end of life management of donated items is not a burden to the overseas recipient.

Overseas donations pose regulatory challenges where this is used to disguise exports for disposal and can provide opportunities for criminal activity.

Second hand vehicles may meet the definition of end of life vehicles which are be classified as waste and would need to be exported in line with International Waste Shipment controls.

## Welsh language:

### Question 20 & 22

To ensure that all the communities, young people, businesses and public in general fully understand the proposals and actions to achieve the desired goals towards a circular economy, all communication – verbal, written or other should be available in

“Clear Welsh” (Cymraeg Clir). Having all information available in the preferred language will help to ensure full understanding of the importance of the actions required to achieve the ambitions of this strategy. Ensuring that both languages are treated equally at all times will help Welsh Government build trust with those they deal with to achieve this goal.

## General views on the strategy:

**Question 22: We have asked a number of specific questions. If you have any related issues which we have not specifically addressed, please use this space to address them.**

Achieving a Circular Economy in Wales will require significant fundamental changes in how we design, make, consume and use products and commodities that will need drastic changes that build on the measures included in the consultation.

This strategy provides an opportunity to link to wider regulatory and strategic development to deliver a circular economy in Wales. In particular agricultural, water and energy sectors which are all inter-connected, and place demands on each other and have the possibility to increase resource efficiency, move towards a circular economy and reach one planet living.

Wales is part of a global market for many of the materials and products covered by this strategy so any actions must take this into account and consider how Wales can influence the wider supply chain and economies.

## Our Key Points;

Our key points in response to this strategy can be summarised as;

- Wales is transitioning to a high recycling nation which is a necessary component of a circular economy. However more needs to be done to prevent waste from being generated if we are to achieve zero waste and one planet living. The pace of becoming a high recycling nation must be matched with the provision of suitable waste facilities and end markets for materials, particularly for material streams that are currently difficult to recycle.
- The waste hierarchy is key. Whilst recycling is a better option than recovery or disposal it still has a footprint, it can only lengthen the time that we have resources available, it doesn't solve the problem. Once the waste is generated it's almost too late, the best we can try to do is to ensure that it goes to the right site, it is managed appropriately and as much of the resources are recovered as possible.

- Preventing waste arising from all sources is the most sustainable approach to our natural resources. The public sector, including ourselves, have got a big role to play in terms of that sustainable procurement.
- Unavoidable waste generated must be seen as a resource, ensuring its storage, collection and management limits contamination and retains the quality of recyclable material. Keeping resources within the economy as long as possible can only be possible if they are of a high enough quality.
- Until we change the way we consume, we will always produce waste. This wastes valuable resources and provides opportunities for others to exploit vulnerabilities and profit from illegal activities.
- There are considerable amounts of recyclable material still present within the residual waste stream. Improving householder and business behaviours to participate in the separation of recyclable waste at source is vital for producing and supplying high quality recycle to end recycling markets.
- Producing better quality material is likely to support the retention of material within the Welsh and UK economies, resulting in socio-economic benefits. Recycling retains natural resources and reduces the demand for virgin material. This supports the objectives of the Well-Being of Future Generations (Wales) Act 2015, improves resilience to materials market downturns and reduces the reputational risk associated with the fate of materials collected for recycling.
- Waste can be viewed as a resource or burden. In both of these views there is an opportunity for criminals to make money. A mandatory waste data tracking system is key to understanding waste and resource flows and to be able to target and focus interventions.
- We are committed to continue to support Welsh Government in developing the policy and regulations that are required to deliver the aims and ambitions of this strategy. In particular we can assist in identifying, and mitigating against, united consequences and risks, and accepting it is impossible to foresee everything to help develop policy and regulations that are agile enough to react.