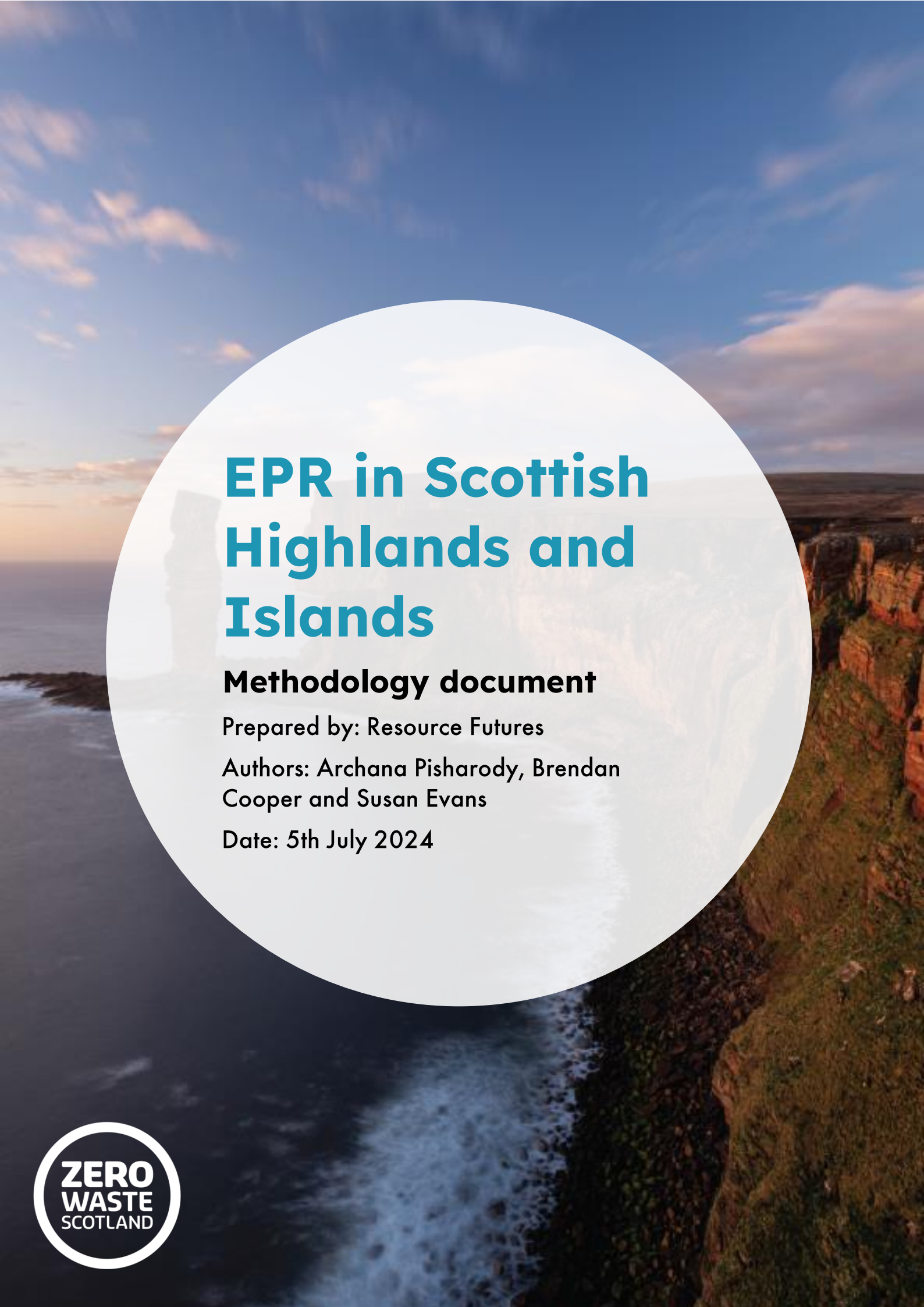

EPR in Scottish Highlands and Islands

Methodology document

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Date: 5th July 2024

ZERO WASTE SCOTLAND

Contents

Abbreviations

EPR	Extended Producer Responsibility
WEEE	Waste Electrical and Electronic Equipment
PIS	Participant Information Sheet
HWRC	Household Waste Recycling Centres
ONS	Office for National Statistics

1 Introduction

This document details the methodology used to conduct the research study on the impacts of implementing the new extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries in more rural and remote areas of the Scottish Highlands and Islands ('focus areas').

The key objectives of the research include:

- A high-level assessment of the current waste management landscape in the focus areas, to understand the key considerations and challenges associated with LA-provided waste services.
- Identifying which challenges are unique or greater compared to other UK LAs and why, as well as the commonalities and differences between the LAs in the focus areas.
- Identifying the impacts from EPR implementation to understand key risks and opportunities to mitigate them, in order to develop a circular economy in the region.
- Identifying cumulative impacts of other waste policies on focus area waste management services and how they may affect EPR implementation.

The research focused on five local authorities (LAs), or 'focus LAs': Argyll & Bute, Eilean Siar (Western Isles), Orkney, Shetland and Highland. According to the Scottish Government's 8-fold Urban Rural Classification,[1] which considers both population and accessibility,[2] the focus LAs cover some of the most remote rural locations in the country (Figure 1).

[1] Scottish Government (2022) Scottish Government Urban Rural Classification 2020
[2] Accessibility is based on drive time to a settlement of 10,000 people or more.

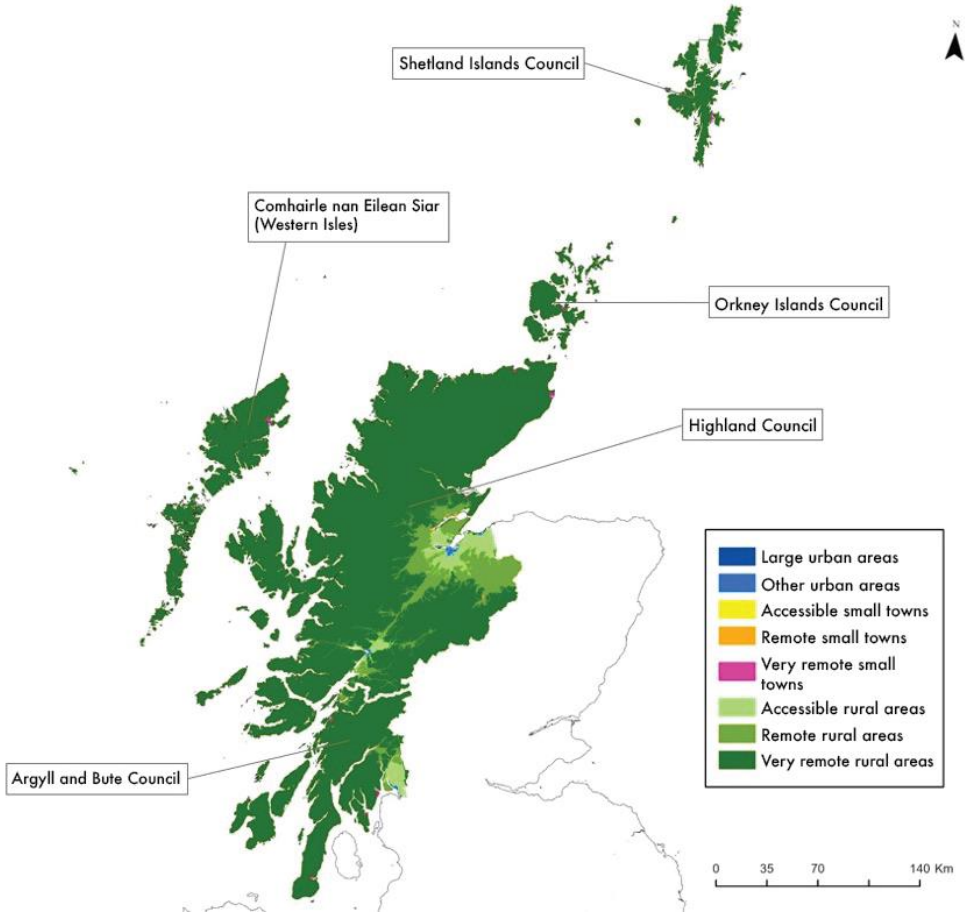


Figure 1: Focus areas as per the Scottish Government 8-fold Urban Rural Classification1

Their unique geography and relatively greater levels of rurality and remoteness can influence the type and extent of waste service they provide. This can make the provision of consistent and efficient waste service significantly more challenging for the focus LAs, compared to other less remote areas in the UK. The UK government has recognised these variations by grouping together LAs with similarities in their waste services and costs to ensure that EPR reimbursements are reflective of their circumstances and made against similar cost parameters. Consequently, the focus LAs are grouped together under the Government's LA groupings, to ensure that their unique challenges and costs for implementing the new EPR schemes are taken into consideration.

This research will contribute towards the body of evidence that will be used by UK Government to guide the design of the specific measures and financial mechanisms under each EPR scheme. Recognising the variations that affect waste service provision in the design of the new EPR schemes can, therefore, also help to deliver a just transition for the LAs and the communities they serve.

To ensure a just transition, whereby change can be implemented 'in partnership with' and achieves 'a fairer, greener future' for the stakeholders it impacts, [3] the unique circumstances of the five focus areas and their waste services were analysed based on stakeholder feedback on the same. The study also explored opportunities to mitigate the impacts of EPR schemes, for

[3] Scottish Government (n.d.) Just Transition Commission

example through waste prevention; and to maximise the benefits of the transition to local communities.

2 Methodology

This study was originally conceived as a detailed quantitative and qualitative exercise, which included gathering quantitative estimates of EPR-specific waste material as well as waste management costs associated with the same. The qualitative research envisaged as part of that study was based on field visits to some of the focus areas, with in-person interviews and observational assessments of waste services. However, due to time and budget constraints, the scope of the study was limited to a qualitative study to be conducted via remote engagement with focus area stakeholders, for which a revised methodology was submitted to and approved by Zero Waste Scotland. To support the fulfilment of the original research objectives, this study draws out key uncertainties and areas of knowledge gap that can be considered in the design of a future quantitative study. These insights have been shared as reflective findings which are included in the main report.

The revised methodology for this project was based on a participatory approach. This allowed research to be undertaken collaboratively with stakeholders impacted by the policy changes and the transition to net zero, thereby aligning with Scottish Government's just transition process. It also allowed the research team to capture lived experience of the waste services in the focus areas, meeting the requirements of the original design of the study.

The approach involved systematically examining the current waste management system in each focus area and to understand the likely impacts of EPR. It recognised that EPR is being implemented alongside other policy and legislative changes which may have cumulative impacts. Therefore, a high-level assessment of some of the cumulative impacts was also undertaken.

A key aspect of stakeholder engagement based on the participatory approach is to treat all relevant stakeholders as research 'collaborators' rather than 'subjects'. A combination of a workshop and individual interviews were used to engage a wide range of stakeholders. This enabled them to openly communicate their views, which could inform policy design and to identify opportunities to develop a circular economy within their local communities. Desk-based research was also undertaken to supplement the findings with publicly available information around the key research questions.

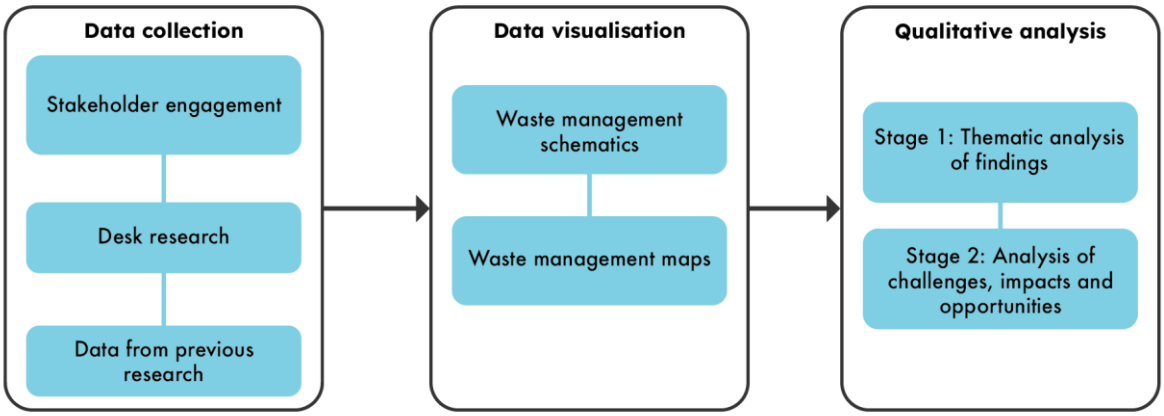


Figure 2: Overview of the methodology

The following sections outline the approach at each stage of the research and analysis.

2.1 Data collection

The research study was primarily based on data obtained from relevant stakeholders in the focus areas, through a workshop and one-to-one interviews. This was supplemented with desk-based research and data shared by Zero Waste Scotland from previous research. This includes any available information about waste management services provided by focus LAs previously gathered by Zero Waste Scotland. Research conducted through this study helped to verify and update this data and fill any gaps in information.

2.1.1 Stakeholder engagement

Stakeholder identification

Stakeholders included representatives from LA waste management teams, private waste management companies, transportation companies (ferry operators), community and business groups, and academia.

The aim of engaging stakeholders involved in managing or transporting waste was to gather descriptive insights into the waste services in each focus area, key challenges, how EPR and other waste policy changes were expected to impact these, and opportunities to mitigate risks or leverage benefits to achieve a just transition to a circular economy.

The aim of engaging stakeholders not directly involved in waste management was to capture wider perspectives and insights, including with regard to opportunities for local communities to mitigate risks or leverage benefits of EPR and other policies, and to contribute to a just transition to a circular economy.

LA stakeholder selection and engagement was supported and facilitated by Zero Waste Scotland, drawing on their previous experience of working with the LAs in question. Where possible, multiple stakeholders from each focus area were invited to participate, to provide insights into both operational considerations of day-to-day waste service delivery and strategic considerations around the anticipated impacts of EPR and other policies.

Other stakeholders were initially identified and prioritised through desk research as well as on the recommendation of Zero Waste Scotland, with a view to capturing insights from a range of sectors and geographical areas. In some cases, additional interviewees were identified by stakeholders and if approved by the project team, were contacted where possible.

The workshop and interviews were conducted online via Microsoft Teams. A participant information sheet (PIS) was shared with each participant in advance. This provided them with details of the research objectives, data sought and how research outputs would be used. A consent form seeking permission for recording and transcribing was also shared, and consent for this was confirmed again verbally at the start of each interview and the workshop. The PIS and consent forms are provided in Appendix B.

Workshop

A workshop served as the first contact between the Resource Futures team and LA stakeholders, where they were introduced to the project and inducted as research collaborators. The aims of this workshop were to facilitate open and collaborative discussions around common waste management challenges, their views on how their LAs differed to other UK LAs and their concerns regarding upcoming policy changes. (Each LA stakeholder

subsequently had an opportunity to raise any more specific or sensitive concerns separately in a one-to-one interview.)

A presentation with discussion topics, polls, surveys and open questions was shared during the online meeting with the participants (Appendix D). Recording and transcription was undertaken with the permission of all the participants.

Interviews

A total of 15 interviews (14 online video calls and one via email correspondence) were conducted as part of this research. These spanned six LAs interviews and nine with organisations from other stakeholder categories.

Separate topic guides were developed for each category of stakeholders. These were not static but were adapted through the course of the research in order to tailor the questions to specific individuals and to build on the insights from previous interviews. The initial topic guides are provided in Appendix C.

LA topic guides focussed on:

- The day-to-day provision of waste management services, including key considerations and challenges, with a focus on services relevant to the new EPR schemes.
- The availability and type of waste management infrastructure.
- Types and scale of costs associated with waste management.
- Views on commonalities and differences among the focus areas and how their situation compared to other rural LAs on the mainland.
- Likely implications of EPR, and the cumulative impacts of EPR and other policies, on all of the above.
- Opportunities to mitigate any negative impacts and drive the development of a circular economy locally.

The topic guides were further customised for each LA interview to reflect information that had been gathered through other means, enabling verification and a focus on filling in information gaps. Findings from the workshop also helped inform the selection of questions.

For other stakeholders, the questions were initially tailored to the main stakeholder categories and later to individuals. The questions were designed to interrogate:

- The role of non-LA actors in supporting delivery of relevant waste services (if any) in the focus areas and how they perceive key considerations and challenges associated with this.
- Opportunities for community organisations, businesses, residents or other actors to support a just transition to a circular economy through local waste management, waste minimisation, reuse and repair initiatives.
- What the stakeholders perceive as unique challenges and opportunities in their/all focus area(s).

The customised questionnaires developed from the topic guides were shared with each stakeholder prior to the interview. This enabled them to familiarise themselves with the objectives of the research and key information requests. This also offered them the opportunity to decline the invitations if they felt they could not contribute to the research, or to indicate which questions they could help with, enabling further customisation of questionnaires. As part of the participatory approach, feedback from initial interviews was used to adapt the questionnaires for subsequent interviews to make the questions more relevant and relatable.

The interviews were conducted as semi-structured discussions that were guided by the shared questionnaires but kept open enough to allow organic conversations to develop. This helped the interviewer to build a rapport with the interviewee, allowing the latter to feel comfortable in sharing their views and concerns. Interviewees were also encouraged to raise relevant issues that were not explicitly covered in the questions.

Where necessary, transcripts were edited to correct any inaccuracies in spellings or details recorded by the Microsoft Teams software. All non-verbal conversational elements and repetitions typical of natural speech were retained.

2.1.2 Desk research and data from previous research

Supplementary data was gathered through desk research. This included details regarding waste services available via LA websites, details of specific policies under consideration and examples of ongoing initiatives published online. Data on waste services previously gathered by Zero Waste Scotland was also considered in the analysis. This included specific waste collection scheme details and any additional stakeholder insights. The type of supplementary research and examples of other data sources used for findings related to challenges and policy impacts have been described in section 2.4 and detailed in Appendix A.

2.2 Data visualisation

Local authority waste management services and waste streams that are likely to be impacted by the three EPR schemes, in each LA area, were identified and mapped. These include services that capture and handle typical household packaging items, WEEE and batteries.

A combination of schematics and maps were used to enable visualisation of different aspects of these services, highlighting key pathways, processes, and challenges. These include:

- Kerbside collection schemes, bring sites and household waste recycling centres (HWRCs) that capture materials in scope.
- Waste transfer processes and infrastructure.
- Waste treatment sites (within the LA and beyond) currently used by each LA.
- Waste stream journeys from collections, through transfer and transport to their end destinations for treatment/processing.[4]

Data for schematics and maps was gathered during stakeholder engagement (see Section 2.1.1) and from Zero Waste Scotland's previous research.

2.2.1 Waste management schematics

Individual schematics were produced for each focus area. Each schematic outlines the waste collection, transfer and first treatment steps for each relevant material (packaging, WEEE and batteries) collected by the focus area authority. Steps taken to produce the schematics were as follows:

1. A review of existing data shared by Zero Waste Scotland, which included comparing the information with that available on each LA's website.

[4] End destinations covered within the scope of this research includes the first (treatment or processing) destination a particular waste stream is sent to outside the local authority. Any subsequent treatment or processing facilities are excluded.

2. Developing questions regarding information gaps and any other data needs for inclusion in the topic guides for the workshops and interviews (see Section 2.1.1). These were further customised to create questionnaires for each individual interview to reflect the specific data requirements for that LA.
3. Interviews with representatives from each LA, where possible from both operational and strategic roles, for detailed information gathering. Information gathered previously was also verified during interviews or via email.

The schematics were produced and delivered to Zero Waste Scotland in Microsoft PowerPoint, as well as being included in the technical report. This was to facilitate edits or additions in the future, should new or updated information become available.

Each schematic comprises the following components:

Type of collection scheme and materials captured:

Each waste stream is represented in a separate colour to allow traceability of waste journeys and consistency in representation across different schematics.

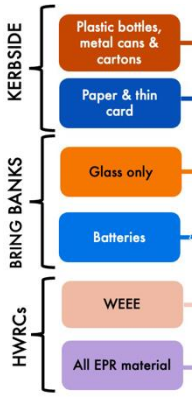
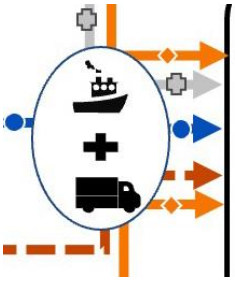


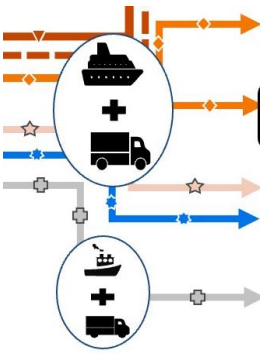
Figure 3: Collection schemes and waste streams

Arrows and icons representing waste journeys and type of transportation used:

- Arrows match the colours of waste stream boxes they emerge from to allow traceability of waste journeys and to indicate the direction of flow.
- Different icons represent the stage and type of transportation. For example, ferries transporting waste between islands within a focus area (inter-island waste transfer) are shown using a different icon to ferries transporting waste to the mainland.



(LHS)



(RHS)

Figure 4: Inter-island waste journeys (LHS)and waste journeys to the mainland involving ferries and overland haulage (RHS)

Destinations (interim and end) of each waste stream post- collection:

- These are represented in the same colour as the arrows to allow traceability of waste journeys.
- Each destination box includes the type, name and location of the facility, where this information was available.
- Interim destinations typically include any sorting or transfer stations located within the focus area authority.
- End destinations are the facilities where the waste is first sent to once it leaves the focus LA.

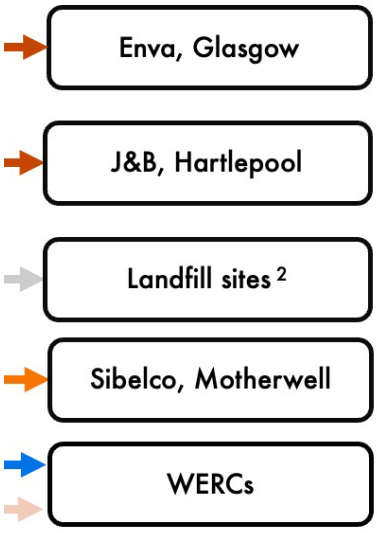


Figure 5: Interim or end destination stops by waste stream

Legends to represent elements of schematics:

All elements described above are detailed in a legend to allow each schematic to be interpreted accurately and independently.

Figure 6: Legend for each schematic

2.2.2 Waste management mapping

Maps were created using ArcGIS to ensure compatibility with the software used by Zero Waste Scotland. Each project within ArcGIS was prepared in such a way as to easily share it with the client and to enable future additions and alterations, should new data become available.

Mapping focus areas and other geographical boundaries:
The five focus areas were mapped using the open-source Office for National Statistics (ONS) shapefiles of each LA (applying December 2023 district boundaries for the UK).[5] The five

[5] ONS, (n.d.) Open geography portal

focus areas were separated out to form five layers. A sixth layer was created to include the outline of the UK.

Plotting relevant waste infrastructure and waste destinations:
Information gathered from stakeholder engagement and desk-based research was compiled into a Microsoft CSV file. Attribute data for this included:

- Name of LA.
- Geographical coordinates for infrastructure located within each focus area (local recycling point, HWRC, landfill, incineration, transfer station).
- Waste streams collected.
- Geographical coordinates for end destinations of waste streams obtained via desk-based research and stakeholder interviews. End points within mainland Scotland were identified, where possible. Any destinations beyond Scotland were not specifically located. Instead, they were indicated using arrows to indicate transportation outside Scotland.
- Locations and names of the main islands within the five target areas.

The CSV files were uploaded into ArcGIS to plot the infrastructure locations on each focus area map.

Additional shape files used in the GIS mapping
Other open-source shape files to support the waste service visualisation were obtained through desk-based research and uploaded to ArcGIS. These included:

- Scottish ferry ports obtained from publicly available data sources.[6] This was used to map waste transportation routes to and from the focus areas.
- Overland transportation routes were obtained, through open-source data. Only main transportation routes in the five target areas were retained for this layer. For example, residential roads, secondary roads and public rights of way were not included.
- Urban rural classifications were obtained from data.gov.uk. This layer was used for the Highland council only as all other local authorities were majority Very Remote Rural Areas.

Two maps for each of the five target areas were created. The first map shows each local authority and the locations of key waste infrastructure, including bring banks, HWRC sites, landfill sites, transfer stations and incineration facility sites. Bring bank locations are only included if they receive relevant (EPR) material. For example, bring banks that only receive engine oil have not been included. The main transportation routes, including road network and ferry routes, have been included in these layers. It was not possible, within the scope of the research, to show granularity regarding the number and specific locations of bring banks capturing different EPR material type (if multiple items were being captured) or to gather quantitative data regarding the geographical extent of coverage of individual service type.

The second map was designed to show the key waste streams arising from each focus area and their first destinations outside the focus area. Each map highlights the relevant focus area,

[6] Spatialdata.gov.scot (2022) Scottish ferry ports

in relation to the whole of Scotland. The type of waste and the end destination are highlighted on the map. Waste that is sent to England is also without specific locations of the destinations.

2.3 Qualitative analysis of challenges, risks and opportunities

A process of thematic analysis was used to analyse stakeholder feedback. This involved identification of themes around key issues affecting waste services, such as types of materials included or excluded within the collection service, considerations around waste transportation, design of services and factors impacting costs. This helped distil the feedback to identify the key issues and concerns raised by local authorities and identify which ones were common across more than one focus LA and those that were specific to individual LAs. Analysis was also conducted thereafter to identify commonalities and differences between issues faced by focus LAs as group and other LAs in the UK.

Due to time and budget constraints, the identification of specific comparator LAs to support the comparative analysis was excluded from the scope of the research. The methodology was therefore designed to capture insights the stakeholders being interviewed, regarding their views on perceived commonalities and differences. This was achieved by including specific lines of enquiry as part of the engagement with each stakeholder group interviewed. These questions were reviewed and customised for suitability for each stakeholder based on what was already known at the time of the interview.

The steps used for the **thematic analysis** of the key findings are as follows:

- The transcripts from the workshop and interviews were systematically reviewed to identify the key themes emerging that were relevant to the research questions.
- A matrix was developed to analyse the themes by focus area and different categories such as transports, costs, service design, etc. (Figure 7).

	Focus area 1	**Focus area 2**	**Focus area 3**	**Focus area 4**	**Focus area 5**
Category	Theme: - Data shared by focus area	Theme: - Data shared by focus area	Theme: - Data shared by focus area	Theme: - Data shared by focus area	Theme: - Data shared by focus area
Waste collection service					
Transport					
Infrastructure					
Costs					

Figure 7: Template of the matrix to analyse interview/workshop feedback.

- The issues affecting waste service provision were listed as categories in the first column. Relevant findings from each transcript were captured for each category to identify emerging themes for the relevant focus area. For example, the themes identified under the category of transportation included ferry capacity and weather impacts. The bulleted list below each theme details the quotes or paraphrased information shared by stakeholders for that particular focus area.

Analysis of challenges:
This was followed by a comparative analysis of the identified themes into:

- Common challenges and opportunities – challenges and opportunities that are common across the focus areas and other LAs in the UK.
- Differentiated challenges and opportunities – those that are likely to be experienced somewhat differently by the focus areas compared to other LAs in the UK.
- Unique challenges and opportunities – those that are unique to the focus areas.

Findings from supplementary desk research and insights from Resource Futures' in-house experience and understanding of LA waste management systems in the UK were also used to assess to what extent the key stakeholders concerns and challenges faced by focus LAs may be relevant or applicable in the context of other LAs. Examples and references from publicly available sources were provided where possible. The assessment considered underlying factors such as related to geography and transportation links with key waste infrastructure and end destinations. Differences and commonalities among the focus areas were also similarly assessed.

Analysis of policy impacts
The identified challenges were further analysed to identify impacts of EPR and other policies on the focus area waste management.

- This analysis will consider how EPR and other policies impact service provision and costs associated with waste management in the focus area.
- Interactions between policies and cumulative impacts as a result of this will also be analysed.

Stakeholder views on EPR and other policy impacts were limited due to the current uncertainties and lack of detail on policy measures considered in this research. The identification of impacts was, therefore, guided by the key concerns regarding each policy raised by stakeholders and supplemented by desk research around the limited available information on policies. Examples of this include updates on public body websites like Gov.uk and Zero Waste Scotland or opinion pieces published in waste industry news websites such as Circular online or Letsrecycle.com. Impacts from EPR schemes were first separately identified and then viewed against the cumulative impacts from other upcoming waste policies. Since the focus of this research was EPR, the assessment of interactions between EPR and other policies was limited to high-level research around publicly available information on the same.

Identification and analysis of risks and opportunities:
Impacts with potentially negative consequences were identified as risks. As risks may hamper the provision of consistent and adequate waste services in focus areas and affect the availability or access of waste services for communities in these areas, they were collectively identified as just transition risks. Similarly, identification of opportunities, which was also

stakeholder-driven, focussed on how the focus LAs can be empowered to be able to provide these services within their constraints and challenges, whilst receiving the active participation and engagement of the wider community to drive regional circular economy.

2.4 Reflective findings

Throughout the research period, observations were noted about the research process, including what went well and any challenges encountered. Drawing on this, in the final stages of the project, the Resource Futures research team met to reflect on the research process, its strengths and weaknesses, and how it could be improved in a future iteration.

The team captured and collated reflective findings on:

- The willingness of different stakeholder categories to participate.
- Observations on the engagement, including quality of responses received from different stakeholder categories.
- The effectiveness of different question types and styles and their relevance for different stakeholder groups.

It was also important to capture information on project limitations and areas meriting further investigation, including:

- Any data not obtained during the study due to time constraints or lack of timely responses.
- Aspects of waste services which were identified as being more sensitive to policy changes than others and might therefore benefit from further investigation through deep-dive studies.
- Aspects of the research which may benefit from quantitative research.

These reflective findings and recommendations were included in the concluding sections of the technical report.

Appendix A

Reflective findings from the use of this methodology and areas for further research are provided below to inform and support the design of any follow-up studies or future iterations.

- Due to a lack of detail around EPR implementation plans and timelines, the quality of responses received from different stakeholders varied greatly, indicating uncertainty and a lack of information. As more detail on EPR schemes emerges, the LA stakeholders in particular may be able to provide additional detail around some of the key questions in this research. Therefore, conducting repeated engagement in the current or modified form may be beneficial. This may be included as part of or conducted after the detailed quantitative study planned by Zero Waste Scotland in the future.
- Most stakeholders contacted showed general readiness to participate.
- Many of the stakeholders (including representatives of LAs, waste management companies and ferry operators) were facing demands on their time from multiple policy engagement activities over the same period. This was recognised and managed to a certain extent during this project, for example by adjusting the timing of the engagement activities. However, more forward planning and connections across public bodies involved in policy consultations would increase the opportunities to minimise the burden on stakeholders.
- The combination of a workshop and one-to-one interviews with LA stakeholders worked well. The workshop helped to get ideas flowing and allowed the stakeholders to highlight some differences among the focus areas. It also demonstrated the collaborative nature of the study to the stakeholders and encouraged their participation in the subsequent stages of the projects based on the involvement of their partners and peers. The individual interviews enabled more detail to be captured and encouraged participants to speak freely.
- The engagement was limited to an LA workshop and 15 interviews, with at least one representative from each focus LA and nine organisations from other stakeholder categories, including waste management companies, ferry operators, community and business groups, and academia. This enabled a range of perspectives to be gathered but limited the breadth and depth of insight available within each stakeholder category. It would be beneficial to seek further insights through additional interviews with stakeholders other than LA. For example, exploring just transition opportunities, risks with a wider range of community and business groups, covering more of the focus areas and capturing greater detail around the lived experience of support services outside those provided by the LAs that enable a circular economy.
- There was limited scope in this study to systematically assess comparator LAs. It would be beneficial in a future study to engage with key stakeholders, such as LA representatives, in a selection of comparator LAs, to test the findings regarding whether challenges and policy impacts are "unique". These could include, for instance, the least densely-populated LAs in the rest of the UK; and Aberdeenshire, as a

comparator LA which faces similar weather to the focus LAs but different impacts (for example, it is not reliant on ferries to transport waste). The findings around challenges could be explored in further depth. A stakeholder workshop including representatives of the focus LAs and key comparator LAs would enable them to compare their experiences and challenge or confirm certain assumptions.

- A more nuanced understanding of service delivery challenges and just transition opportunities could be gained by undertaking observational assessments through field visits to the focus areas. This could assist in adding further detail to findings around challenges regarding waste flows and pathways, and to those around just transition risks and opportunities.
- Details like the transportation routes typically used for waste and population density of the remoter areas may be included in the maps. This may help highlight specific challenges around operational and logistical aspects waste services like, areas where kerbside service may not be feasible for EPR material. While schematics capture the overall waste flows, individual schematics to show the variations of service, for different islands for instance, may be produced.
- There could be an opportunity to increase awareness of forthcoming policy changes, generate new connections, and inspire actions related to the just transition in a future project, by convening groups of stakeholders—either within individual LAs (bringing together community and business groups with LA and waste management stakeholders, for instance), or across the focus LAs (for example connecting community waste reduction initiatives).
- A review of the key research questions around EPR is recommended if a similar study is repeated, based on any new information available regarding EPR schemes at the time. For instance, this may allow an opportunity to enquire about specific impact areas or cost categories, if specific information about EPR schemes is available.
- The cumulative impacts from EPR and other policies were obtained through a high-level review and interviews with stakeholders who may not have systematically assessed policy interactions. In a future study, it would be useful to explore the cumulative impacts separately in further detail, with input from experts (for example in national-level government, industry associations or academia), in order to develop clear supporting information and more refined questions and prompts for stakeholders in the focus areas.

Appendix B

Participant Information Sheet

<Date>

Resource Futures
The Create Centre
Smeaton Road
Bristol
BS1 6XN

Dear <Name>,

You have been invited to take part in a study to understand the impacts of implementing the upcoming Extended Producer Responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE), and batteries in rural and inaccessible areas in Scotland.

1. About the study

Resource Futures has been commissioned by Zero Waste Scotland to investigate the challenges and considerations around the implementation of the EPR scheme in five island/inaccessible rural local authority areas in Scotland. These five authorities, hereafter referred to as 'focus areas', include:

- Argyll and Bute Council
- Comhairle nan Eilean Siar (Western Isles Council)
- Orkney Islands Council
- Shetland Islands Council
- The Highland Council

Through this study, we will gather relevant information to inform the design of appropriate elements of the EPR schemes that reflect the specific requirements of the focus areas. This includes understanding the uniqueness of the waste management systems in the focus areas, to ensure that local authorities are adequately supported through the EPR payment mechanism, which aims to cover the cost of the delivery of local authority waste management services.

2. Outputs from the study

The study will produce a detailed internal report which will be shared within Zero Waste Scotland, Scottish Government and the Department of Environment, Food & Rural Affairs. This report will not be shared with the public. It is expected to include mentions of the local authority focus areas and, due to the size of these Local Authorities, quotes may be identifiable. Quotes will only be used when they are relevant to the narrative of the report. Participants will be able to consent to or refuse the use of quotes or other identifiers that may identify specific individuals.

A shorter version of the internal report (an external report) will also be produced for publication. This will contain the key findings and overarching results of the study, without references to any specific organisations. Specific Local Authorities may be mentioned or identifiable from descriptions of services, challenges and other barriers and opportunities; however, should quotes be used, they will not be identifiable.

3. About us

Resource Futures is an environmental consultancy with 30 years' experience in the waste and resources sector. We work with businesses, NGOs, and governments in the UK and globally, and are a non-profit distributing B-Corp. We have been selected by Zero Waste Scotland to conduct this study on their behalf.

Resource Futures will serve as the data processor for the research. upon completion, All data and evidence collected during the study will be transferred to Zero Waste Scotland, the data controller, upon completion of the study.

4. Key research questions

We have developed broad categories of research questions including:
How are waste management services delivered in the focus areas, including:

- Service models and waste streams covered
- Logistical and other operational considerations
- Infrastructure availability
- Challenges and gaps in the service provision
- Factors affecting the cost of service provision

What is likely to happen once the EPR schemes are implemented, including:

- waste services and material streams likely to impacted by EPR implementation
- anticipated impact on operations and cost of service delivery due to EPR implementation
- cost categories that are likely to be impacted by EPR implementation and description of the impacts

5. Why you have been chosen

You have been invited to participate as you are a stakeholder who:

- has an operational, strategic or other relevant role in the waste service provision in one of the five focus areas.
- has a role in a public or private waste management company providing waste services in the one or more of the five focus areas.
- provides associated services integral to the waste management value chain in the focus area(s), such as a ferry operator providing waste transfer service or community group supporting local authority waste communications or services.
- Is a member of a regional or Scotland-wide waste sector organisation.
- has specific expertise in the waste management service provision and challenges in the focus areas.
- has wider waste management industry experience and knowledge, including understanding of the EPR scheme implementation.

We, therefore, hope you will be able to provide insights and information relevant to the key research questions in this study, based on your experience and knowledge of the waste industry, in the focus areas or more broadly.

6. How we will gather information

The study will involve an online workshop and semi-structured interviews with local authorities and non-local authority organisations that support waste service delivery. This will include:

- One workshop, bringing together waste industry stakeholders from local authority and non-local authority backgrounds, to capture different perspectives, raise issues not previously identified and clarify the requirements for this project.
- Individual or small group (1-3 persons) interviews to capture deep lived in experiences of waste management in the focus areas and EPR focussed insights or provide expert insights on considerations around EPR in the focus areas

7. Confidentiality and anonymity

If you are happy to take part, please complete the consent form, making clear if there are any parts of the research you would prefer not to take part in. The outputs from the study will be the Intellectual Property of Zero Waste Scotland, who will use the anonymised data in publications and in developing support and policy. You (or your company) will not be able to be identified in any reports or publications unless you give your permission.

If you provide permission Zero Waste Scotland will retain the contact information for up to 3 years. The contact information you provide will not be matched to the anonymised transcripts during this time. If you wish to opt out or you would like to request to that your contact details are removed at any point, then please contact Zero Waste Scotland using the contact details in section 11.

You can ask for feedback about our findings. All the information that we collect during the interview will be kept confidential and used only for the purposes set out in this Information Sheet.

8. Recording

We will seek your permission to record any interviews to assist with data collection and enable transcription of the interview. We may also record your (or your company's) details. Transcripts of the interviews will be used to analyse data and will be shared with Zero Waste Scotland, along with your (and your company's detail) as an output of the research project.

If you do not wish to be identified for the study, your details will be anonymised appropriately. If you do not consent to transcription of interviews, we will disable automatic transcription and take detailed notes without identifying you or your organisation (based on the consent level) instead. We will contact you directly to clarify any questions or concerns regarding the data gathered.

All recordings will be deleted upon project completion. Automatic transcripts will be directly shared with Zero Waste Scotland and deleted from Resource Futures' servers upon completion of the project.

9. Right to withdraw

You have the right to stop taking part in the research at any time, including during the data collection or afterwards up to the point at which the data is analysed. You also have a right not to answer specific questions or to ask for audio and video-recording to stop.

If you choose not share your contact details (name, role and organisation details), then withdrawing your data may be challenging, as it might not be possible to identify which data specifically relates to you.
If you would like to retract consent for retaining your contact details, this can be requested through ZWS contact details in section 11.

10. Ethical and Data Management

This research is conducted under Resource Futures' Integrated Management System and their Data Management policy, which is available on request.

11. Queries, Concerns or Complaints

If you have any questions about this research project or would like to remove consent to opt out of us storing your personal details, please contact us by post, telephone or email using the contact information below.

Resources Futures	Zero Waste Scotland contact details
Head Office	Moray House,
The Create Centre	Forthside Way,
Smeaton Road,	Stirling
Bristol	FK8 1QZ
BS1 6XN	research@zerowastescotland.org.uk
Privacy Policy	Privacy Policy

If you are dissatisfied with the way the research is conducted, please contact the Project Manager **xxx** in the first instance. If you feel the problem has not been resolved, please contact **research@zerowastescotland.org.uk**

Thank you for taking the time to read this information sheet.

We very much hope you will take part.

Consent form

Understanding the impacts of EPR implementation in Scottish islands and inaccessible rural local authorities
Consent Form

By participating in this research, you are agreeing that:

- I have read the participant information sheet on the **Understanding the impacts of EPR implementation in Scottish islands and inaccessible rural local authorities.**
- The objectives of this research have been explained to me.
- I confirm that I am 18 or over.
- I understand that I am free to withdraw from the research and ask for my data to be destroyed if I wish by notifying the investigator by 29.2.24.
- I understand that because my interview answers will be fully anonymised, it will not be possible to withdraw them from the study once I have participated.
- I understand that some of my contact data (name, email address, phone number, role and organisation details) will be shared with Zero Waste Scotland and held for 3 years, unless I expressly state otherwise, but will be anonymised in any external publications.
- All material from the interview will be stored securely and treated confidentially by the investigator. A recording of the conversation will be made for transcription purposes, unless I expressly state otherwise.
- I understand that the investigator of this work will have attempted, as far as possible, to avoid any risks.

Under these circumstances, I agree to participate in the research. Additionally:

☐ I give my permission for recording of conversations I participate in
☐ I consent to the use of this written research data for reports, presentations, and publications.
☐ I consent for my interview responses to be used, anonymised and stored as described in the Participants Information Sheet.
☐ I consent for my contact data (name, email address, phone number, role and organisation details) to be used and stored as described in the Participants Information Sheet.
☐ **I consent to the use of any quotes from my anonymised transcript to be use in the internal report, which could potentially identify me and will be shared within Zero Waste Scotland, Scottish Government and Department of Environment, Food & Rural Affairs.**

Signed		Date	
Print name			
Organisation			
Telephone		Email	

Please return a copy of this form to the investigator.

Please keep a copy of this form and the information sheet for your own records.

Appendix C

Topic guides by stakeholder group

Interviewer notes

[Checklist to review when preparing for and conducting interviews]

- ☐ Review notes about individual contact from stakeholder mapping list.
- ☐ Tailor the question list to the xx priority questions and an additional 5 optional questions. Share both categories of question with the interviewee.
- ☐ While planning the interview, set aside at least 10 minutes spare for the interview to raise any new points or questions.
- ☐ Prompts are provided as examples to use to clarify/explain the question to the interviewee. Ideally, these should be tailored to each authority being interviewed based on the available information.
- ☐ Check that consent forms have been completed and returned and make note of any permissions given or denied.
- ☐ When choosing questions and conducting the interview, remember to investigate any comparison with non-island authorities or non-remote authorities on the mainland.
- ☐ Before sharing the finalised question list to interviewees (ahead of the interview), check for relevance to that authority and delete prompts.

Notes to interviewees

[Checklist of information to be provided and checks to be made with interviewees at the start of each interview]

- ☐ Reiterate research goals (in brief!). These should have already been shared with the interviewee in advance.
- ☐ Set out in the beginning, that the interview is envisioned as an open discussion, where the interviewee can raise any issues not covered by question list.
- ☐ State anticipated length of interview and use of priorities vs additional questions (if time permits)
- ☐ State data protection and confidentiality measures and ask if the interviewee has any concerns.
- ☐ Make sure that they have read and understood the PIS. If not, briefly cover key points from the same. Mention the following:
    a. For the shorter summary report, which may be published, only LAs will be identified where the narrative requires it, to answer the key research questions.
    b. For the detailed longer report to be used internally only by ZWS, LAs and in some cases, quotes may be identified. This will be done only where appropriate.
- ☐ Seek permission to record and transcribe the meeting, stating why this is needed (refer to PIS). Transcripts will be shared with ZWS.

Topic guides by stakeholder group

Local authorities

Service delivery

[The questions in this section will help us understand the current types and levels of waste service provision in XX Council. They focus on the services that most likely capture EPR-specific materials such as packaging items, batteries and waste electrical and electronic equipment (WEEE). Information about other service (not directly relevant to EPR implementation) is not sought.]

1. We would like to confirm our understanding of the current collection schemes that capture EPR-specific material (packaging, WEEE and batteries) including the Council's kerbside collections, bring bank collections and HWRCs. In addition:
    a. Please indicate if one service captures some EPR-specific material to a greater extent than the others. For example, batteries and WEEE may be captured via HWRCs and not kerbside.
    b. Which types of service is the predominant waste collection system, if so?
2. Please describe the remit and activities of actors, other than the Council (e.g., LA, private waste management company, community group) who might be involved in or support service delivery?
3. What are the key challenges in the delivery of kerbside collections, operating bring banks and HWRCs?
    a. If possible, please comment on any challenges you think are unique to your Council when compared to other island authorities or mainland rural/non-remote authorities?

Materials streams collected

[The questions in this section focus on the materials captured by the Council's existing waste services, that are within the scope of the three EPR schemes in focus (packaging, batteries and WEEE). They seek to explore the impact on collection services and associated processes from the implementation of the EPR schemes.]

4. What is the reason for not providing collections of xx via the kerbside service? (if applicable)
5. What material-specific challenges do you face?
    a. If possible, please comment on any challenges you think are unique to your Council when compared to other island authorities or mainland rural/non-remote authorities.
6. What are your concerns around the introduction of any new material stream collections, including as part of EPR implementation in the future?
    a. What would be the most efficient/effective way to achieve this?
    b. Please indicate why this may not be possible, if so.
    c. If possible, please comment on any issues that may be unique to your council when compared to other island authorities or mainland rural/non-remote authorities.

Waste management flows and infrastructure

[The questions below seek to understand key processes and flows of waste material post collection and key issues and challenges associated with the same, faced by the Council currently. Where appropriate, we would also like to understand how challenges or considerations around these issues compare against those relevant to non-island authorities or non-remote authorities on the mainland.]

7. Please describe the pathways and processes post collection, including bulking, transfer, treatment etc., for waste collected at the kerbside, bring banks and HWRCs, including any inter-island waste transfers, processes at ports etc.?
    a. What are the key challenges associated with these?
    b. How do these challenges vary in comparison to non-island authorities or non-remote authorities on the mainland
    c. Is there any scope of improvement?
8. For the waste sent out, what are the key drivers for choice of treatment type and location (e.g., cost, limitation of transportation mode)?
9. Please share the locations of the bring banks operated by the Council?
    a. Please indicate any limitations to the current bring bank network's ability to serve the waste collection needs of the community.
10. Please share the locations of the HWRCs operated by the Council?
    a. Please indicate any limitations to the current HWRC network's ability to adequately serve the waste collection needs of the residents.
11. What are your current concerns about waste infrastructure provision to adequately manage the waste generated within the local authority area?
12. Are you familiar with the current government plans and proposals around the implementation of the three EPR schemes under considerations?
13. How would the current infrastructure be impacted by the implementation of EPR?
14. What impacts do you anticipate on recycling and residual waste streams from the ban on biodegradable waste to landfill?
15. Please indicate any other challenges you anticipate from other upcoming policy changes for the Council's current waste management systems and what these are.

Waste management costs

16. How are waste management costs are captured, including level of granularity, potential amalgamation with other services etc.?
17. Please share the key cost burdens associated with waste management costs, commenting on specific concerns such as value of materials, seasonality impacts, operational costs etc.
    a. If possible, please comment on how you think these vary from other island authorities or mainland rural/non-remote authorities.
18. Specific costs aside, which cost categories according to you are likely to be directly impacted by the implementation of the three EPR scheme?

Other

19. Please describe any waste minimisation or other circular initiatives that can support the implementation of EPR through behaviour change, or influencing supply chain changes for supermarkets and businesses?
20. What changes or improvements would you like to see in an ideal waste service and how can EPR help with that?

Ferry/transport services

[Explain EPR in brief (if needed) including anticipated changes that LAs might face and the need for this research in that context. Mention that when talking about waste, we are interested in materials in scope of EPR regulations only (i.e., especially household or other packaging, WEEE or batteries).]

1. Please describe your role in supporting local authority (LA) waste management systems in the focus areas (Orkney, Shetlands, Western Isles, Argyll & Bute and the Highland Councils)
    a. Do you work in all the five focus areas?
2. Please describe any other support activities (other than waste transport via ferry) you currently provide for LAs in the focus areas.
3. What are the main considerations and challenges around handling or transporting waste via ferries? These may be related to:
    a. Types of waste, including any seasonal variations.
    b. Volumes of waste, including any seasonal variations, or hard limits to capacity.
    c. Manner of handling or transporting waste.
    d. Time of year & seasonal challenges e.g. weather.
    e. Other issues (please describe).
4. Please suggest any changes or interventions that might help overcome these challenges or improve waste transportation to and from islands.
5. (If you operate in more than one of the listed focus area authorities) How do the processes related to waste transport by ferry differ between the different focus areas authorities?
    a. Therefore, in your opinion, how do the challenges faced (in waste transportation) by each authority differ?
6. What impacts or issues do you foresee if any of the islands you serve required greater ferry capacity or frequency:
    a. due to increased waste quantities?
    b. Greater variety of separated waste material types?
7. The aim of the EPR policies is to support waste minimisation and a shift to more reuse and recycling. What role (if any) could you see for ferry operators in supporting this shift?
8. If possible, please comment on any way in which other stakeholders such as communities or local businesses can contribute towards building resilience for LA waste management systems and improving circularity within the focus area authorities.

Waste management companies

[Check understanding of EPR and if needed, explain in brief including anticipated changes that LAs might face and the need for this research in that context. Mention that when talking about waste, we are interested in materials in scope of EPR regulations only (i.e., especially household or other packaging, WEEE or batteries)]

1. Please briefly describe your company's involvement in waste management in the focus areas [name all five authorities if needed]?

2. Please share your thoughts on key challenges that the focus area authorities [name all five authorities if needed] face around waste management. [Some examples include prohibitive haulage costs, waste transfer infrastructure and costs and access to sorting capabilities.]
    a. Please share any recommendations or potential solutions to address these is possible.
3. With regards to EPR-specific waste services [explain which services if needed], what do you view as:
    a. the key differences in services between the focus areas?
    b. differences between services in the focus areas and those in mainland or non-rural authorities?
4. What opportunities are there (if any) for the authorities to learn from each other/the mainland, or share resources to improve efficiency?
5. How might EPR impact the existing waste services and/or infrastructure? Do you see it as an opportunity or a burden? (Please share examples where possible.)
6. Which other policies or legislation are likely to impact the current waste management system and how?
7. As EPR is introduced, what opportunities do you see to improve service provision for EPR-specific (and other) waste streams?
8. What role can non-LA actors like community groups, local businesses, private waste management companies or others play in supporting waste minimisation or developing a circular economy in the focus areas?

Membership/Community organisations

[Check understanding of EPR and provide a brief explanation (if needed), including anticipated changes that LAs might face and the need for this research in that context. Mention that when talking about waste, we are interested in materials in scope of EPR regulations only (i.e., especially household or other packaging, WEEE or batteries).]

For local organisations with likely insights for one authority only

1. Please describe your organisation and any role it currently has in supporting waste management and the circular economy in [name the authority]?
   [If they are familiar with waste management in general or in particular within the focus areas]
2. With regards to EPR-specific waste services [may have to explain which ones] alone, what do you view as:
    a. differences between services in the [name the authority] and local authorities in the mainland or non-rural authorities?

   [Alternative to Q2 if waste management is not their focus]
3. How do you see your [community focussed/business related/other] work being different on the island compared to similar organisations on the mainland
4. The aim of the EPR policies is to support waste minimisation and a shift to more reuse and recycling.

   a. What opportunities (if any) do you see for [name the authority] to make this shift?
   b. Do you anticipate any risks or challenges around this?
5. What role can non-LA actors like community groups, local businesses, private waste management companies or others play in supporting waste minimisation or developing a circular economy in the focus areas?

For organisations with a view of more than one authority

1. Please describe your organisation and any role it currently has in supporting waste management and the circular economy in the focus areas [mention all five authorities]?
2. [If they are familiar with waste management in general or in particular within the focus areas]
   What considerations/risks can you see around implementing changes to waste collection or other services in the future?
3. What opportunities are there (if any) for the authorities to learn from each other/the mainland, or share resources to improve efficiency?
   [If they are familiar with waste management in general or in particular within the focus areas]
4. With regards to EPR-specific waste services [may have to explain which ones] alone, what do you view as:
   a. differences between services in the [name the authority] and local authorities in the mainland or non-rural authorities?

   [Alternative to Q2 if waste management is not their focus]
5. How do they see their [community focussed/business related] work being different on the island compared to similar organisations on the mainland
6. The aim of the EPR policies is to support waste minimisation and a shift to more reuse and recycling.
   b. What opportunities (if any) do you see for [name the authority] to make this shift? +
   c. Do you anticipate any risks or challenges around this?
7. What role can non-LA actors like community groups, local businesses, private waste management companies and others play in supporting waste minimisation or developing a circular economy in the focus areas? (Please share examples where possible)
   [If they are familiar with waste management systems or policies]
8. Which other policies or legislation are likely to impact the current waste management system and how?

Appendix D

The project

- UK is bringing in new rules on EPR for packaging, WEEE, and batteries.
- Resource Futures is working on behalf of Zero Waste Scotland to understand the unique challenges and costs of delivering waste services in the Highlands & Islands.
  - Argyll and Bute Council;
  - Comhairle nan Eilean Siar (Western Isles Council);
  - Orkney Islands Council;
  - Shetland Islands Council;
  - The Highland Council.
- We are carrying out workshops and interviews to help ensure future policies are well designed and suited to local conditions.

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A just transition is both the outcome – a fairer, greener future for all – and the process that must be undertaken in partnership with those impacted by the transition to net zero.

(Scottish Government)

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What is EPR?

- Ensuring producers bear responsibility for the environmental impacts of products they place on the market and are incentivised to reduce impacts.
- New legislation aims to ensure producers pay the **full costs** of correct waste management at end of life.
- In time, this should result in more circular product design choices, where products are designed to be recycled, reused, repaired and remanufactured rather than disposed of.

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EPR schemes

Packaging

Reporting commences in April 2024 with producer fees coming in from 2025.

WEEE

Policy development ongoing. UK-wide consultation started on 28 December 2023 and closes 7 March 2024.

Batteries

Policy development ongoing, with consultation dates to be confirmed.

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Impacts of EPR on waste services

- EPR schemes will involve additional requirements for separate collections and more ambitious material-specific recycling targets.
- For **packaging**, plastic film and flexible packaging is to be collected for recycling by 2027.
- For **WEEE**, the current proposal is that producers will fund a kerbside collection for WEEE from households.
- For **batteries**, it is likely that separate collections of batteries will be required and producers will face more challenging recycling targets.

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Waste service models

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Typical service model

Kerbside collections

- Typically, dry mixed recycling or source-segregated recycling
- Typical materials include packaging items such as plastic bottles, metal cans & tins, paper, cardboard

Bring banks

- Overlap with kerbside material streams
- Items such as small electricals, textiles

HWRCs

- A much broader range (including kerbside and bring bank items)

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Discussion

1. **What are the factors influencing collection models and materials captured?**

2. **What are your concerns (if any) around the introduction of any EPR-specific material collection?**

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Discussion

4. **How might the introduction of the following EPR schemes affect your waste service model?**

- ❑ Packaging EPR
- ❑ WEEE EPR
- ❑ Batteries EPR
- ❑ All the above
- ❑ All the above **and** a deposit return scheme for drinks containers

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Infrastructure

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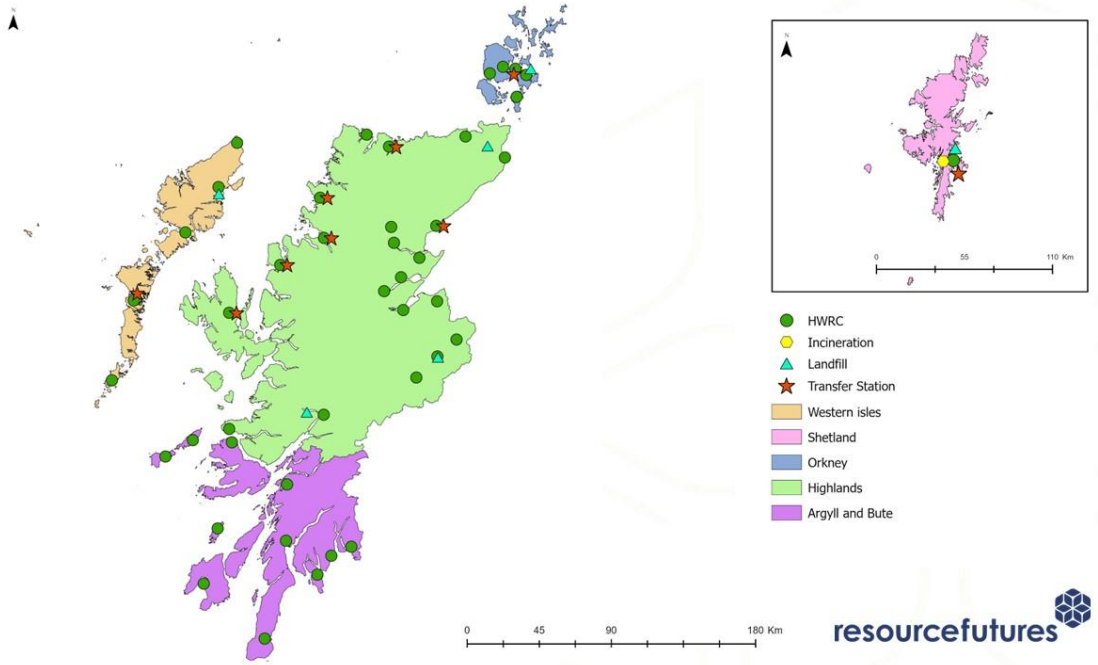

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Discussion
1. Is there any sharing of waste infrastructure in your area?
2. What are the main gaps and challenges around waste infrastructure availability?
3. How might EPR or other policies (e.g. bio ban, DRS) impact infrastructure provision?
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Waste management costs and challenges
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Discussion:
Current challenges related to costs

1. **What are the challenges that increase your waste management costs?**
   - ❑ Poor material value compared to material value for mainland authorities
   - ❑ Seasonality
   - ❑ Tourism
   - ❑ Collecting certain material streams
   - ❑ Others (please specify)

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Discussion:
Impacts on costs from EPR and other policies

2. **Which cost categories are likely to be affected by EPR implementation?**
   - ❑ Collection costs
   - ❑ Logistical costs (internal)
   - ❑ Logistical costs (external)
   - ❑ Waste treatment and disposal
   - ❑ Others (please specify)

(Visit menti.com and use code **2116 5325**)

3. **How might related policies impact costs (e.g. bio ban, DRS)?**

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Discussion

1. **What key risks do you expect from the implementation of EPR?**
   - ❑ Not being able to cover 'net costs'
   - ❑ Significant changes to current collection service
   - ❑ Not having scalable quantities of material
   - ❑ Increased pressure on current storage or bulking infrastructure
   - ❑ Impact on existing contractual arrangements
   - ❑ Other (please specify)

2. **What opportunities do you see to leverage EPR to improve circular resource use in your area?**
   - ❑ Greater participation of residents, local businesses, community groups
   - ❑ Ability to control material coming in and out of the authority
   - ❑ Engaging local retailers and businesses to innovate supply chains
   - ❑ Other (please specify)

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Discussion

3. **Please share examples of local initiatives around building or improving circularity around packaging, batteries or WEEE**

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