

Agenda Item	<b>15</b>
Report No	<b>CP/21/21</b>

## HIGHLAND COUNCIL

**Committee:** Communities and Place Committee

**Date:** 12 May 2021

**Report Title:** Approach to appraising the options for the long-term management of residual waste

**Report By:** Executive Chief Officer, Communities and Place

### 1 Purpose/Executive Summary

- 1.1 The purpose of this report is to summarise for Members the work undertaken to date to explore the options for a long-term solution for managing our residual waste. Four separate studies have been commissioned and reported, with the final socio-economic study reporting to the Member Waste Strategy Working Group on 23.4.21.
- 1.2 The report highlights the need to consider cost factors alongside other factors whether derived from statute, the Council's programme and wider community impacts. The report explains that costing different options is complex, with many unknown at this time and it needs to be conducted based on best available evidence, with transparency and challenge around assumptions.
- 1.3 The report proposes a framework for understanding the pros and cons of the options within a wider policy context. This will help to appraise the options holistically and with a view to developing recommendations for Members as soon as possible after the Summer recess. A timeline for governance is proposed. This includes scope for a study visit for Members of the Working Group to one or two operating Energy-from-Waste (EfW) plants in Tayside and Lothian. Alongside the study visits a desk-top review of how EfW plants in the UK have been funded to date will be commissioned. These were agreed by the Member Waste Strategy Working Group on 23.4.21, with the minutes of that meeting reported separately for the Committee.

### 2 Recommendations

- 2.1 Members are invited to note that:
  - i. the Council currently invests approximately £11m per annum on waste disposal, including internal, external and landfill costs. Compared to other Councils our costs

are relatively high (we are ranked 20/32 for low cost performance), the amount of household waste per person sent to landfill is the 2<sup>nd</sup> highest of all Scottish Councils at 0.27 tonnes per person. This creates 297,808 tonnes of CO<sub>2</sub> emissions and places us 5<sup>th</sup> highest for carbon impact per person, with 1.26 tonnes of CO<sub>2</sub> emitted per person. ([Source: SEPA, Scottish Household Waste – Summary Data 2019](#))

- ii. costs have already increased this year with additional budget of £405k agreed at the Council meeting in March 2021. These will continue to increase annually unless a sustainable long-term solution can be found for Highland residual waste.
- iii. four studies have now been concluded and three options remain for managing local authority collected waste: continue landfilling; contract with service providers in other parts of Scotland or in England to receive and treat Highland waste; or develop an Energy-from-Waste (EfW) facility to serve the Highlands.
- iv. appraising these options will involve cost comparisons, with assumptions clarified given uncertainty on prices, markets and funding models, along with wider legislative and climate change duties and the scope for the Council to derive value from regional waste, contributing to economic recovery, asset management and poverty reduction.
- v. Members of the Waste Strategy Group will participate in study visits to one or two operating EfW sites in Tayside and Lothian as soon as possible and ideally during June if that can be made Covid secure.
- vi. Alongside the study visits a desk-top review of how EfW plants in the UK have been funded to date will be commissioned. Different funding models and external funding could make this option more feasible or affordable and needs to be clarified

2.2 Members are asked to agree Appendix 1, agreed by the Member Waste Strategy Group, which sets out:

- i. the framework for critically appraising the pros and cons of the options; and
- ii. the proposed timeline for governance this year to decide on the preferred option.

### **3 Implications**

#### **3.1 Resource implications**

3.1.1 In 2020/21 the Council sent approximately 74,500 tonnes of residual waste to landfill. Expenditure on landfilled waste totalled:

- £6.259m on 4 contracts, including £3.8m on associated landfill tax.
- Disposal costs at our internal landfill sites at Seater (Caithness) and Granish (Aviemore) was £4.56m, including £3.7m on landfill tax.

3.1.2 It should be noted that an impact of Covid reduced the residual waste tonnage in 2020/21 by approximately 5000 tonnes. The total tonnage in 2019/20 was 80,000 tonnes.

3.1.3 Latest SPI data for 2019/20 places the Council in the 3<sup>rd</sup> quartile (ranked 20<sup>th</sup> of all Scottish Councils for low waste disposal costs per premises, at £103.62).

3.1.4 In 2020/21 the Council's expenditure on disposing of recyclate totalled £2.7m over 18 contracts.

3.1.5 As in previous years pressures exist in the waste budget from increasing disposal costs either from contract cost increases and/or increases in landfill tax. For 2021/22 the following budget feeds were agreed at Council on 4<sup>th</sup> March 2021 to deal with waste disposal cost increases:

- £238k of expected landfill tax increases
- £147k for waste contract increases
- £20k for renegotiating the lease of the Seater landfill Access Road

Pressures are expected to recur annually until a sustainable solution is found.

3.1.6 Capital expenditure of £14.978m was approved in December 2020 to proceed with 3 new the waste transfer stations (Inverness, Aviemore and Fort William) and other plant, infrastructure and banks. £40k revenue was approved as a pressure for the lease of the Longman Transfer Station site. New transfer station infrastructure enables the Council to sort waste collected for onward disposal and will reduce reliance on external providers.

3.1.7 If the Council continues to manage Highland residual waste as it does just now, costs will continue to increase because:

- more waste is expected to be generated associated with household growth, with housebuilding increasing by around 1,000 homes per annum;
- of inflationary costs and unpredictable markets for the procured services we rely on; and
- ongoing increases in landfill tax which could become even more punitive as we approach the revised date for the ban on biodegradable municipal waste being sent to landfill.

3.1.8 Other options for managing residual waste have been explored and an assessment of their costs is needed for recommendations to be made on a preferred way ahead. Other options will bring new costs too, either through:

- extending and renegotiating contracts for dealing with residual waste either on an interim or long-term basis. Many of these costs are unpredictable and will be determined by market forces. This brings new pressures and risks to the revenue budget; and/or
- developing and EfW facility in the region, with potential capital as well as revenue costs depending on funding models available and external funding support.

3.1.9 Assessing the costs of doing nothing, relying on private sector contracts or developing and EfW facility is not straightforward. It also does not, on its own, provide enough information for recommendations to be made to Members on a preferred option. Wider implications for the Council and the community need to be considered.

3.1.10 Accurately assessing costs is not straightforward because:

- some costs are not known, and would either be based on estimates or assumptions which may or may not be accurate;
- the Council does not control many of the costs involved as procured services reflect market conditions;
- the future of landfill tax is not known. Although it currently costs around £8m a year we expect this to increase. We have no information on any potential future taxes or penalties associated with waste post the implementation of the landfill ban;
- the Council does not control the income it can generate. While finding value in our waste by generating electricity can provide an important new income stream, the

income is hard to predict. Generally, energy prices have increased but they are also volatile;

- it is too early to assess the impact the new transfer station infrastructure may have on our operational budgets as the stations are not yet built and how they will operate requires further assessment this year, particularly around in-sourcing options and the wider impact our transfer stations and our use of them will have on residual waste contracts;
- consideration is needed on what should be counted as costs, what could off-set the costs and whether the costs affect the Council and/or the wider community, and if so, how these are factored in. For example, electricity generated could:
  - be supplied to the grid for income, off-setting costs to an extent;
  - be used for a district heating scheme to help reduce fuel poverty or, if used in Council buildings, would avoid future energy bills and costs;
  - be used to power an electric fleet, reducing fuel costs and consequently provide opportunities for depot re-location and improvement in workplace health and safety;
  - create jobs and bring wider social benefit, preventing costs to the wider public purse;
- there are linkages with legislation outwith the sphere of waste operations that need to be considered;
- there are linkages with other Council policies and priorities, including climate change duties and ambition, economic recovery, asset management and poverty reduction. All of these are relevant and have associated costs and benefits to the Council and to the community; and
- external funding to support the options could make one option more feasible or affordable and needs to be clarified.

3.1.11 Alongside the study visits a desk-top review of how EfW plants in the UK have been funded to date will be commissioned.

3.1.12 The report proposes a way of assessing the costs and benefits of the options holistically based on the best evidence available, drawn from external and internal advice and expertise.

### 3.2 Legal implications

3.2.1 The Council's Waste Management service operates in a highly regulated environment. The key requirement is to deploy a long-term solution which complies with the Waste (Scotland) Regulations 2012, which amongst other matters, prohibits the landfilling of residual waste from 1<sup>st</sup> January 2026.

3.2.2 Scottish Government's circular economy plans may require the development of new waste collection streams and the expansion of existing collection activities. A separate report to the Member Working Group identifies a new funding stream for the Council to bid for new resources to improve recycling infrastructure.

### 3.3 Community (Equality, Poverty and Rural) implications

3.3.1 This report proposes that community and poverty implications are included in the options appraisal process, with some examples in paragraph 3.1.9.

- 3.3.2 This community perspective is supported by the Scottish Government's Heat Networks (Scotland) Bill, passed on 23<sup>rd</sup> February 2021 with the aims of:
- attracting greater investment in heat networks;
  - increasing consumer and supplier chain confidence in this emerging market; and
  - reducing costs for households and businesses, thereby contributing to Scotland's statutory targets to eradicate fuel poverty and make businesses more competitive.

The Bill also requires public sector building owners to assess the potential for their estate to connect to a heat network, in order to increase the robustness of Heat Network Zones.

### 3.4 Climate Change implications

- 3.4.1 The Council generates the 2<sup>nd</sup> highest amount of household waste per person of all Scottish Local Authorities at 0.53 tonnes per person (2019) and compared to a Scottish average of 0.44 tonnes per person. In 2019 this led to 297,898 tonnes of CO<sub>2</sub> being emitted. The Council had the 5<sup>th</sup> highest level of emissions per person of all Scottish Council at 1.26 TCO<sub>2</sub>e per person compared to a Scottish average of 1.04 TCO<sub>2</sub>e. These data reflect the relatively low proportion of waste that is recycled in Highland, at 41.3% in 2019 compared to a Scottish average of 44.7% and the higher proportion of household waste that is landfilled. We have the 3<sup>rd</sup> highest rate of household waste going to landfill at 51.2%. (Source: [SEPA, Scottish Household Waste – Summary Data 2019](#))
- 3.4.2 The two alternatives to landfilling identified within this report both have less intense carbon footprints than landfilling.
- 3.4.3 One of the aims of the Waste (Scotland) Regulations 2012 is to improve environmental performance. The decisions taken for long-term waste management by Highland Council will need to be cognisant of this.
- 3.4.4 SEPA, within its Thermal Treatment of Waste Guidelines 2014 stated that energy from residual waste is a partially renewable energy source, or a low carbon energy source.
- 3.4.5 In 2019/20, landfill waste from Council buildings/operations accounted for 3% of the Council's total corporate carbon footprint (1,227tCO<sub>2</sub>e from a total of 40,622tCO<sub>2</sub>e). As a result of the Scottish Government's own declaration of a climate emergency and to ensure public sector compliance with revised national net zero targets, the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020 ("the Order") came into force in November 2020, and a letter dated 4th February 2021 from the Cabinet Secretary for Environment, Climate Change and Land Reform, Roseanna Cunningham was issued to all Council leaders and Chief Executives setting out the new duties for local authorities. This letter sets out that the Council will be required to provide the following in annual reports from reporting year 2021/22 onwards:
- a target date for achieving zero direct emissions of greenhouse gases, or such other targets that demonstrate how the body is contributing to Scotland achieving its emissions reduction targets;
  - any targets for reducing indirect emissions of greenhouse gases;
  - how the Council aligns its spending plans and use of resources to contribute to reducing emissions and delivering its emissions reduction targets;
  - how the Council will publish, or otherwise make available, its progress towards achieving its emissions reduction targets; and
  - how the Council is contributing to Scotland's Adaptation Programme.

It should be noted that emissions arising from the treatment of waste, for the purposes of the above, are not classed as “direct emissions”, but are rather classed as Scope 3 “indirect emissions”. Therefore, whilst the Council is not legally bound to set a target date for achieving net zero emissions from the treatment of its own residual waste, it must still set targets in respect of how much it plans to reduce indirect emissions from landfill waste.

### 3.5 Risk implications

3.5.1 There are risks with doing nothing and risks with pursuing a different option. The process for appraising options will define the risks as they are understood as comprehensively as possible, drawing on external and internal advice and expertise. The risk of not making a timely, informed decision brings reputational and potential legal damage by failing to comply with statute. From an operational perspective continual deferment hinders strategic planning and invites pressures, including financial pressures, through short-term solutions and market-based solutions.

### 3.6 Gaelic implications

There are no known Gaelic implications arising from this report.

## 4 **Chronology of expert advice and governance from 2018**

4.1 Following a redesign review, permission to explore the Council’s preferred long-term arrangements for the management of its waste, in particular whether an Energy-from-Waste (EfW) plant located in the Inner Moray Firth might be viable, was sought at the Environment, Development and Infrastructure Committee of 17<sup>th</sup> May 2018, through paper [EDI/35/18](#). The Committee agreed to the recommendation ([EDI/35/18 minutes](#)). Subsequently, there have been steps taken to begin the process of sourcing information and creating knowledge which will support future decision-making. The following paragraphs outline the steps taken thus far.

### 4.2 **Study 1: Residual Waste Project, Non-Capital Waste Treatment Options**

4.2.1 Highland Council commissioned SLR Consulting Ltd to undertake a short study on 11 June 2019 to examine non-capital waste treatment options. The study reported at the end of June 2019.

4.2.2 The analysis was conducted to assess the indicative cost range for a non-capital expenditure solution to managing the Council’s residual waste, not constructing a Waste Transfer Station (WTS) in Inverness and continuing the Council’s reliance on external providers to bulk up waste for onward shipment to processors based outwith the Highlands.

4.2.3 The analysis was conducted during a period when the landfill ban was expected to come into force on 31 January 2021.

4.2.4 SLR considered end destination facilities which were either operational or in construction, and also understood to have merchant capacity. In particular, SLR considered the following main end-route options:

- Option 1 – Central Scotland (e.g. Levensat)
- Option 2 – Central Scotland (e.g. Dunbar Energy Recovery Facility)
- Option 3 – North East England (e.g. Teesside)

4.2.5 The report concluded that while the overall costs of the non-capital solutions may seem quite attractive when compared to a Longman WTS capital investment alternative, the options carry significant risk, both in terms of cost and deliverability in the medium term, and may also incur unknown substantial cost increases, even in the short term, and particularly over the implementation period of the landfill ban from 2021.

### 4.3 **Study 2: Energy-from-Waste Facility, Feasibility Assessment**

4.3.1 As notified and noted under Agenda Item 20 at the 7 November 2019 Environment Development and Infrastructure Committee (Report No. [EDI/82/19](#) and [minutes](#)), on 4 December 2019 the Council commissioned SLR Consulting Ltd to assess the business case for developing an EfW plant at the Longman site in Inverness to process local authority collected waste, and to compare that with the alternative option of continuing to utilise waste management contracts (a non-capital solution) for the future management of this residual waste through the third-party merchant sector.

4.3.2 The report was received on 5 June 2020. The Consultant's advice was reported to Members at:

- 7.8.21 Member Waste Strategy Group, where the Consultants presented their findings
- 19.8.21 Communities and Place Committee, [Item 8i](#)

4.3.3 The capital solution focused on creating an EfW plant at the Longman former landfill site, Inverness. The report was prepared during a period where the landfill ban was expected to commence January 2025.

4.3.4 Section 7 of the report undertook preliminary modelling to screen an agreed long list of options; 3 capital options and 5 non-capital options. The technical costs model considered capital, operating, lifecycle and transportation costs and revenue streams, for analysis, comparison, sensitivity testing and shortlisting.

4.3.5 Section 8 of the report undertook a financial appraisal of the shortlisted options - 2 capital options and 2 non-capital options - under two financing options, a publicly funded Design, Build and Operate approach (DBO) and a Design, Build, Finance and Operate (DBFO), privately funded model.

4.3.6 The financial model of the shortlisted options was prepared for a 25-year period in accordance with HM Treasury Green Book guidance on public sector investment projects, identifying inflationary, financing, optimism bias and risk figures within the analysis. The purpose of the financial analysis being to forecast the total life-cycle costs, and the costs per tonne of waste treated, that would accrue to the Council under the shortlisted options for treating its local authority collected waste (LACW) stream.

4.3.7 Section 9 of the report assessed and compared the carbon impacts of the shortlisted capital and non-capital solutions based on established Lifecycle Assessment principles and utilised the associated software, Waste and Resource Assessment Tool for the Environment' (WRATE). WRATE was designed by waste management planners, originally developed for the Environment Agency, but now a software product owned and supported by Golder Associates (UK) Ltd, part of the WSP engineering consultancy.

- 4.3.8 The outcome from the carbon analysis of the shortlisted capital and non-capital options confirmed that both options represent a substantial improvement on the carbon cost from the Council's current landfill-based waste management arrangements. The analysis also indicated that in general, the capital solutions provided a reduced carbon impact compared with the non-capital solutions (assuming the EfW plant is developed as a Combined Heat & Power [CHP] facility rather than a 'power only' plant). The use of rail haulage, if practicable, rather than road, provides a significant benefit to the non-capital solutions.
- 4.3.9 A key conclusion from the report was that the development of a Council-owned EfW facility is feasible and offers potential long term commercial and carbon benefits over a non-capital solution. Realising these benefits, however, is contingent on the outcome of a programme of actions, as well as securing the necessary project funding and planning consent.
- 4.3.10 Further, the earliest that an EfW plant could be developed and opened would be 2027 (perhaps now 2028). Therefore, an interim non-capital solution for the management of Council's collected waste is going to be required for at least the next 6-7 years.
- 4.3.11 The use of a non-capital merchant solution potentially offers a lower cost option to the Council in the short-medium term, particularly if a local supplier and/or a rail-based haulage solution is found.
- 4.3.12 Given the minimum 6-7 years contract term required, the service contract arrangements will provide the Council with useful cost data with which to benchmark and assess any future EfW contract procurement process.
- 4.3.13 The volume of waste available for an EfW plant will determine the size of plant required and affect the costs involved. The Waste Team has assessed the likely future waste volumes available, although this is a forecast and not a prediction with certainty. This was presented to the September 2020 Officers' Waste Strategy Project Board and concluded that Option 2 of the SLR report should be used as the current 'best estimate' scenario, that is a throughput of circa 88,000 tonnes of residual waste per annum, with further revision following engagement with Scottish Government and potential partner local authorities.
- 4.3.14 The report identified that the capex for developing a technically feasible EfW facility at the Longman site, capable of processing 88,000 tonnes of residual waste per annum, is likely to be a base cost of £95m, excluding any internal Council costs, uplifts for risk, optimism bias and funding.
- 4.3.15 When incorporating adjustments for risk, optimism bias, cost escalation allowance for inflation post 2019/20 and interest during construction, the report forecasts the total Option 2 funding requirement at £185m.
- 4.3.16 To enable a comparison between the options of developing an EfW facility at the Longman site and managing the residual waste through service contracts the Consultant annualised the costs, from a start year of 2027, based on 2019 prices.

Option	Design Build & Operate or Service Contract	Design Build Finance & Operate
2	£180/tonne	£183/tonne



4	£183/tonne	n/a
5	£162/tonne	n/a

Where:

- Option 2 is an EfW facility at the Longman site processing 88,000 tonnes of residual waste per year.
- Option 4 is road hauling 88,000 tonnes of residual waste per year to a 3<sup>rd</sup> party processor in Central Scotland and paying a gate fee for each tonne of waste treated.
- Option 5 is transporting 88,000 tonnes of residual waste per year by rail to North East England (assumes suitable railhead infrastructure at both ends of the line) and paying a gate fee for each tonne of waste treated.

To note:

- Two other EfW facility options (1 and 3) are also covered in the detail of the SLR Feasibility Study.
- Option 1 EfW facility was scaled to manage 72,000 tonnes of residual waste throughput per annum. Option 3, the largest at 128,000 tonnes per annum.
- Option 2 is considered the scale most aligned to Highland Council's likely future requirement by the Council's Waste Team based on likely waste tonnages, recycling performance and minimising exposure to relying on commercial contracts to fill waste processing headroom within the EfW facility.

4.3.17 Over the 25-year term the report identified a potential benefit from a capital solution over the service contract solutions due to the expected increase in the costs of treatment by an external contractor more or less in line with inflation, whereas the costs of running a Council-owned EfW plant, once commissioned, would be expected to increase less than inflation, since the capex would be a fixed cost so only operational and maintenance costs would rise with inflation. The modelling suggests that the balance would be expected to tip within the favour of a DBO EfW facility at Longman within 10 years of the 25-year term against Option 5, and sooner (within 4-5 years) against Option 4. The balance would tip circa 3 years later for a DBFO EfW facility against Option 5.

4.3.18 The necessary operational requirement to secure a medium-term service contract to manage residual waste will produce real market figures which will provide a live assessment of how these projected figures may be realised in market conditions.

4.3.19 Whichever option is ultimately followed, an important aspect to note is that it most likely be more expensive, on an operational cost comparison basis, than the Council's 2019 service costs for the management of almost 81,000 tonnes of residual waste (£145/tonne).

4.3.20 Whilst the feasibility report provided technical and financial advice on the options for dealing with the local authority collected waste, along with advice on carbon emissions, further work was required to understand:

- The feasibility of securing grid connections enabling electricity distribution for an EfW facility, and
- Any wider socio-economic benefits of an EfW solution.

#### 4.4 **Study 3: Distribution Network Feasibility Study**

4.4.1 On 17 July 2020 Highland Council placed a request with Scottish & Southern Electricity Networks (SSEN) to assess the feasibility of the current locality infrastructure's ability to support the connection of an EfW CHP generator at the Longman site in Inverness.

Highland Council sought to understand the existing distribution infrastructure and the impact this would have on any eventual connection application (i.e. what connection Highland Council should be looking to apply for).

- 4.4.2 The results were delivered by SSEN on 18 November 2020, although Highland Council sought some clarifications. Initial feedback was provided to this Working Group's 23 December 2020 meeting and to Communities and Place Committee on 24 February 2021. The initial feedback intimated that SSEN has a capital project to commission a new primary substation at Longman Drive, Inverness at design stage. A connection to this grid for any Council EfW plant at the Longman would be via this primary sub-station.
- 4.4.3 The SSEN report indicated that the cost of providing a connection to the proposed new primary sub-station would be in the range £270k - £500k, dependent upon the power output of the EfW plant. For the power output expected from the Option 2 EfW facility discussed above the estimated connection cost was £300k. These costs, however, assumed unmade excavation and that adequate ducts would be in place under the A9.
- 4.4.4 The SSEN results also notified that it was being assumed that the customer's acceptance of a point of connection would be received prior to the design finalisation of the Longman Drive Primary, to permit allowance of the space on the power board. SSEN could neither advise when Highland Council would need to provide acceptance in order to ensure it was submitted before the design would be finalised, nor what potential extra cost Highland Council might incur should an acceptance be submitted post finalisation of the sub-station design. SSEN is not willing to commit to further information on timescales and costs until they are in receipt of a full application for connection. It should be noted that the feasibility document received so far is not an offer of connection.

#### 4.5 **Study 4: Socio-economic Study**

- 4.5.1 A study into the wider benefits that might accrue from developing an EfW facility at the Longman, Inverness was commissioned from the Council's Energy & Sustainability Team on 8 October 2020. The progress of this study was notified at the Members' Waste Strategy Working Group meeting of 23 December 2020 and the 24 February 2021 Communities and Place Committee.
- 4.5.2 The final report was delivered on 19 February 2021 and presented to the Officers' Project Board on 2 March 2021. A presentation of the principal findings was made to the Members' Waste Strategy Working Group and the presentation is circulated separately to all Members of the Committee.
- 4.5.3 The study concludes that wider socio-economic benefits include:
- a less carbon-intensive method of treating waste than the current landfill practice and displacement of current sources of heat and power;
  - providing electricity to support district heating networks, especially for East Inverness where new development is planned, including the scope for a new secondary school;
  - exporting electricity for sale to the grid;
  - providing electricity for electric vehicle charging and potential for generating hydrogen to use in powering vehicles. This brings further opportunities to consider Council fleet use and potential depot re-location; and
  - potential beneficiaries of an EfW plant located at Longman may also include whisky distillers, transport operators and land sector enterprises such as the Forestry Commission.

- 4.5.4 The report identifies that the most socio-economically advantageous option for using the electricity generated by an EfW plant would be exporting it to the grid and then entering into an agreement to offset this electricity against consumption on Council buildings. The most socio-economically advantageous option for using the heat output an EfW located at the Longman site would generate is identified by the report as being to establish a district heating network to service Raigmore hospital and housing estate, UHI, Inverness Retail Park and the Inverness East development. (Note: there would be separate, significant capital costs involved for a developer seeking to establish a district heating network).
- 4.5.5 The report also demonstrates that these developments require considerable, additional capital investment, planning, negotiation and time to deliver.

## **5. Developing Recommendations for Long Term Waste Management**

- 5.1 With results available from the four studies, these need to be synthesised and critically appraised in order to develop recommendations on how to proceed. These need to be evidenced and open to scrutiny and challenge. A proposed framework for presenting the evidence is attached at **Appendix 1**.
- 5.2 In addition to presenting the evidence, it is proposed that:
- officers seek peer challenge and scrutiny internally and externally. Methods for this will be discussed at the new officer Recovery, Improvement and Transformation Board and will draw on the wider Executive Leadership Team as required; and
  - that a study visit to an operating EFW plant is arranged for key officers and Members. An invite has been extended from FCC Environment (operating a modern EfW plant at Millerhill on the outskirts of Edinburgh) and can be arranged for when it is safe to travel. This could be in June 2021. There is also an offer from SLR Consulting to facilitate a visit to MVV's plant which they operate on behalf of Dundee City Council.

## **6. Conclusions**

- 6.1 Highland Council has been gathering a significant body of information to assist with the process of making a long-term waste management decision.
- 6.2 The information requires to be synthesised and critically appraised against a framework for understanding the pros and cons of 3 options which includes taking a comprehensive view of costs and benefits of a long-term waste solution. The framework is attached at Appendix 1 for discussion at the Working Group. The three options are:
- do nothing (continue to landfill residual waste);
  - continue to procure contracts with service providers in other parts of Scotland or in England to receive and treat Highland waste (Options 4 and 5 from the table at paragraph 4.3.16); and
  - develop an Energy-from-Waste plant in Inverness (Option 2 from the table at paragraph 4.3.16)

Designation: Executive Chief Officer, Communities and Place

Date: 19 April 2021

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**Proposed framework for critically appraising 3 long-term waste management options, with evidence documented and internal and external peer challenge (agreed at the Member Waste Strategy Working Group 23.4.21)**

- i. Ambitious Highland, Health and Prosperity Strategy 2021-22' was approved at the Highland Council meeting of 4th March 2021 as a core part of the Council's Revenue Budget 2021/22 to 2023/24 report. Waste is designated as one of the nine Improvement and Transformation Programme initiatives. Within that Waste Strategy is one of two workstreams. Its aim is to support the alternative to landfilling waste and conclude the options appraisal into the feasibility of an Energy-from-Waste plant including a review of the wider socio-economic and environmental benefits. The option chosen will affect how Highland Council will use the new and planned infrastructure of waste transfer stations, it will affect the Council's future relationship with the market in waste transfer, haulage and disposal; and it will support wider climate change work.
- ii. There are three principal options for managing local authority collected waste:
  - a. Continue landfilling.
  - b. Contract with service providers in other parts of Scotland or in England to receive and treat Highland waste.
  - c. Develop an Energy-from-Waste (EfW) facility to serve the Highlands.
- iii. There is a requirement to determine the Council's preferred long-term residual waste treatment option which has the potential to meet the business need and which has the potential to generate net benefits for the Highlands.
- iv. Within the first phase a three-step process is proposed:
  - a. officers examine the pros and cons of the three options through a qualitative consideration of the existing evidence, critically appraising the strengths and weaknesses of the options against a range of PESTLE, risk and feasibility considerations. (PESTLE includes consideration of Political, Environmental, Social, Technological, Legal and Economic factors).
  - b. officers and Members of the Working Group attend one or two study visits to EfW plants in operation in Tayside and Lothian as soon as possible and in June if this is permitted and can be Covid secure; and
  - c. if required a scored options appraisal is undertaken based on criteria borne out of the qualitative consideration and the study visit(s).
- v. Examples of criteria that would be considered under the PESTLE analysis include:
  - a. Political – scope to work with Scottish Government and symbiosis with Scottish Government waste management aims (to make Scotland a zero-waste society with a circular economy) and Highland Council's programme commitments.
  - b. Environmental – accord with Highland Council's targets of a low carbon Highlands and a carbon neutral Inverness, contributing to a less carbon-intensive production of energy.

- c. Social – impact on Highland fuel poverty, impact on energy supply options and job creation potential.
  - d. Technological – engineering implications of ground conditions at the Longman site, how scalable are the options.
  - e. Legal – consistency with climate change legislation, with Scottish Government’s Waste (Scotland) Regulations 2012 and SEPA’s 2014 Thermal Treatment of Waste Guidelines.
  - f. Economic – income by exporting to the grid and off-setting cost agreements for energy used within Council buildings, supporting scope to relocate depot operations and contribute to asset rationalisation intentions, the costs incurred in pursuing each of the options directly and subsequently to take advantage of further opportunities (e.g. heat network investment, hydrogen production investment).
  - g. Feasibility – likelihood of securing funding, on-going affordability, longevity of solution.
  - h. Risk – capital availability, ground conditions, contract management complexity, regulatory change affecting viability of a solution, reliance on third parties for continued viability, revenue expenditure assuredness, workforce health and safety, public relations management.
- vi. It is proposed that this is completed by the end of June 2021.
  - vii. Alongside the study visits a desk-top review of how EfW plants in the UK have been funded to date will be commissioned.
  - viii. The second phase would be to arrange officer peer challenge and scrutiny of the appraisal, with options to be considered at the new officer Recovery, Improvement and Transformation Board. This would be completed by the end of August 2021.
  - ix. The third phase would be to present draft recommendations to Members for scrutiny and challenge. This would be initially to the Member Working Group and given the wide interest in this work, a subsequent Member seminar is proposed, open to all Members by the end of September 2021. Recommendations could then be finalised and reported either to Council on 28<sup>th</sup> October or to the Communities and Place Committee on 10<sup>th</sup> November. An update report would be provided to the Communities and Place Committee in August 2021.