

SEA Scoping Report

Perth and Kinross Waste Management Plan



Contents of Scoping Report

Key Facts
Abbreviations and Acronyms 4
Section 1: Introduction
1.1 Requirement for SEA 5
1.2 Background to current waste management in Perth and Kinross
1.3 Plan Purpose and Objectives
1.4 Other relevant Legislation, plans programmes and strategies
1.5 Map of Area Covered9
Section 2: Establishing the Baseline & Scope of the Report 10
2.1 Environmental Baseline10
2.2 Scoping of Environmental Topics16
2.3 Environmental Problems 18
2.4 State of the Environment with the PPS 19
Section 3: Alternatives and Assessment Methodology
3.1 SEA Objectives
3.2 Discussion of Alternatives
3.3 Methodology for Assessment
3.4 Assessment Criteria
3.5 Assessment of Cumulative Effects25
3.6 Mitigation of Impacts25
Section 4: Proposed Consultation
4.1 Proposed Consultation
4.2 Next Steps
Appendix 1: Consultation Response Table

Submit the finalised report to:

SEA Gateway Scottish Government Area 1 H (Bridge) Victoria Quay Edinburgh EH6 6QQ

OR

sea.gateway@scotland.gsi.gov.uk



1.1	Name of Responsible Authority	Perth & Kinross Council
1.2	Title of Plan, Programme or Strategy	Perth and Kinross Waste Management Plan
1.3	Contact Name	Erin Scott
1.4	Job Title	Waste Awareness Co-ordinator
1.5	Address	The Environment Service, Pullar House, 35 Kinnoull Street, PERTH, PH1 5GD
1.6	Telephone Number	01738 477979
1.7	Email	EScott@pkc.gov.uk

- **1.8** In the view of Perth & Kinross Council (please tick the appropriate box):
 - X The PPS falls under the scope of Section 5[3] of the Act and <u>requires an SEA</u> under the Environmental Assessment (Scotland) Act 2005 **OR**

The PPS falls under the scope of Section 5[4] of the Act and <u>requires an SEA</u> under the Environmental Assessment (Scotland) Act 2005 **OR**

The PPS does <u>not require an SEA</u> under the Environmental Assessment (Scotland) Act. However, we wish to carry out an SEA on a voluntary basis. We accept that, as the SEA is voluntary, the Consultation Authorities cannot guarantee a response containing their views within the statutory five week timescale.

Signature (Electronic signature is acceptable)

- · Scall

Date

29 June 2009

Abbreviations and Acronyms

CA	Consultation Authorities
DERL	Dundee Energy Recycling Limited
HS	Historic Scotland
LCA	Life Cycle Analysis
РКС	Perth & Kinross Council
PPS	Plan, Programme or Strategy
SEPA	Scottish Environment Protection Agency
SG	Scottish Government
SOC	Strategic Outline Case
SOA	Single Outcome Agreement
SoE	Perth & Kinross Council State of the Environment Report
SNH	Scottish Natural Heritage
WIP	Perth and Kinross Waste Implementation Plan
WMP	Waste Management Plan
WRATE	Waste Resources Assessment Toolkit for the Environment
SOC	Strategic Outline Case
SWMR	Strategic Waste Management Review



Section 1: Introduction

1.1 Requirement for SEA

Perth & Kinross Council has prepared this Scoping Report for the Perth and Kinross Waste Management Plan in accordance with Section 15 of the Environmental Assessment (Scotland) Act 2005. This report sets out the coverage, level of detail and assessment methodology that will be used in the Environmental Report, as well including the proposed timetable and consultation period for completion of the Report. The contents may be amended based on consultation with Historic Scotland, Scottish Natural Heritage and the Scottish Environment Protection Agency.

This document sets out the background information that will be used in the preparation of the Environmental Report, which includes:

- The level of detail (spatial, temporal and technical)
- An outline of the assessment approach
- Proposed objectives
- Proposed alternatives
- A proposed timetable for completion of the Environmental Report and draft plan

A number of questions are identified in the scoping report and comments on these in particular would be welcomed:

- 1 Do the Consultation Authorities agree with the proposed scope for the SEA?
- 2 Given the results of the compatibility assessment, would the Consultation Authorities suggest changes to any of the SEA objectives?
- 3 At this stage are there any other alternatives which the Consultation Authorities would suggest are considered?
- 4 Do the Consultation Authorities agree with the proposed methodology for assessing the environmental effects?

1.2 Background to current waste management in Perth and Kinross and need for a review of the Waste Management Plan.

The current Perth and Kinross Waste Implementation Plan (WIP) was approved at the Executive Sub Committee of the Environment Committee on 23 April 2003. The Implementation Plan detailed how Perth & Kinross Council intended to meet the actions and targets set out in the Tayside and National Waste Plans.

The Implementation Plan was an essential step towards developing a range of integrated actions for dealing with the area's waste in accordance with the Best Practicable Environmental Option (BPEO) set out in the Tayside Area Waste Plan. The Plan also formed a key element of the Council's partially successful bid in 2004 to the (then) Scottish Executive Strategic Waste Fund.

The original proposal in the WIP was for this Council to share the DERL Energy from Waste facility with Dundee City and Angus Councils. However it was subsequently found that due to the reduced operational capacity of the DERL plant and the long term contractual arrangements between DERL, Dundee City and Angus Councils, there was not sufficient capacity available at DERL for Perth & Kinross Council.

The subsequent Strategic Outline Case funding bid submitted by the three Tayside Councils, to the then Scottish Executive in 2005 revised the WIP proposals, with a recommendation that PKC should procure residual waste treatment (energy from waste facility), with an estimated requirement, based on 60,000 tonnes per annum. This approach was approved by the Environment Committee on 18 January 2006 (report number: 06/24(p).

Subsequent Developments

Since the WIP in 2003 and the SOC in 2005, several significant developments occurred which have created the current circumstances, and will influence the Councils future strategic waste proposals. These developments include

- In January 2008, the Scottish Cabinet Secretary for the Environment announced a new policy approach to Scotland's waste, based on a concept of "zero waste".
- Review of the National Waste Plan, currently underway
- Review of Landfill Allowance Scheme (LAS) as part of its new approach, the Scottish Government announced a review of the Landfill Allowance Scheme. Pending the outcome of the review, the LAS scheme has been suspended.
- Abolition of the 'ring-fenced' Strategic Waste Fund (SWF)
- Waste Framework Directive The revised Waste Framework Directive was adopted by the EU in October 2008, and has to be transposed into UK legislation within the next two years.
- Climate Change Bill in December 2008 the Scottish Government introduced the Climate Change Bill for consideration.

It is therefore proposed to develop a new Perth and Kinross Waste Management Plan that maps out a way forward for Perth & Kinross Council in terms of:

- Achieving the national recycling and composting rates
- Achieving landfill allowance scheme targets (if re-instated)
- Initiatives to control waste arisings and waste growth
- Look at potential partnership agreements
- Recommendations on the way forward for the procurement of residual waste treatment
- Determine a future budget strategy for waste management in Perth and Kinross

For further information please see a copy of the related committee report that went to Perth & Kinross Council Environment Committee in early 2009 at

http://www.pkc.gov.uk/Council+and+government/Councillors+elections+and+democracy/Minutes+agendas+and+reports/Environment t+Committee/Environment+Committee++25+March+2009.htm

1.3 Plan Purpose & Objectives

The key aim of the review of the Perth and Kinross Waste Management Plan for Perth & Kinross Council is to:

Provide clear strategic direction for municipal waste management in Perth and Kinross that will inform future decisions and shape resources allocation.

This aim is supported by the objectives in Table 1.0

Ref	Plan Objectives
1	To provide householders and businesses with a suitable range of services for managing their waste.
2	To ensure the plan can be delivered taking into account current and anticipating future regulatory and financial circumstances.
3	To ensure the planned infrastructure is technically feasible and robust.
4	To ensure the plan can provide flexibility to deal with issues such as population growth and changes in consumption patterns.
5	To make effective use of existing waste management facilities and resources.
6	To ensure systems for municipal waste management are developed that encourage efficient use of resources and minimise the environmental impact of waste at an acceptable cost.
7	To provide direction for development planning policy in Perth and Kinross*

Table 1.0 Perth and Kinross Waste Management Plan Objectives.

* The Plan will not provide site specific guidance or information.

This plan will not provide absolutes as to all the future provision of waste management in Perth and Kinross. Changes in legislation, technology and population growth are all likely to occur and may have significant impacts on the plan. The plan itself will remain fluid and open to change as and when required.



1.4 Other relevant Legislation, plans programmes and strategies

The WMP may be influenced by or influence other existing plans, programmes or strategies (PPSs). The relationship of the WMP to other relevant PPSs and legislation therefore requires to be explored. This allows the Council as the Responsible Authority to assess the potential impact of other PPSs on the WMP and establish links between the WMP and other PPSs. A full analysis will be carried out and included in the Environmental Report. (Please note this list is not exhaustive and is representative of legislation and other PPS's that this WMP may impact upon).

Legislation

- Animal by-products (Scotland) Regulations 2003
- At Landfills (Scotland) Direction 2005
- Climate Change Bill 2007
- Contaminated Land (Scotland) Regulations 2000
- End-of-Life Vehicles (Storage and Treatment) Regulations
- Environmental Act 1995
- Environment Protection Act 1990
- EU Water Framework Directive 2000/60/EC
- Landfill (Scotland) Regulations 2003
- Landfill (Scotland) Amendment Regulations 2003
- Landfill Allowance Regulations (Scotland) 2005
- The Criteria And Procedures For The Acceptance Of Waste
- The Waste Incineration (Scotland) Regulations 2003
- (Scotland) Regulations 2004
- The Waste (Scotland) Regulations 2005
- The Waste Management Regulations 1996
- The Environmental Protection (Prescribed Processed and Substances) Regulations 1991
- Waste and Emissions Trading Act 2003
- Waste Framework Directive 2008/98/EC
- Waste Management Licensing
 Amendment

Other PPS

Business Waste Framework for Scotland 2007

- Choosing our Future Scotland's Sustainable Development Strategy
- Civic Amenity Sites (SEPA Policy No.9)
- Climate Change Declaration and Annual Report
- Consultation Paper on Potential Legislative Measures to Implement Zero Waste
- Consolidated Scottish Planning Policy (draft)
- European Transport Policy for 2010
- Going for Green Growth: A Green Jobs
 Strategy for Scotland
- Groundwater Protection Policy for Scotland (SEPA Policy No.19)
- Household Waste Prevention Action Plan (Scotland) February 2007
- Learning for our Future: Action Plan for the UN Decade of Education for Sustainable Development
- National Waste Strategy (Scotland) 1999
- National Waste Plan Review 2009
- PAN 56 Planning for Noise
- PAN 63 Waste Management Planning
- Perth and Kinross Antisocial Behaviour Strategy
- Perth and Kinross Community Plan 2006-2020
- Perth and Kinross Corporate Plan
- Perth & Kinross Council Air Quality Report
 Draft
- Perth and Kinross Economic Development Strategy 2006-2010
- Perth and Kinross Environment Strategy
- Scottish Soil Framework: A Consultation
 Document
- Scotland's National Transport Strategy
- Scotland's Transport Future the Transport White Paper
- Strategic Transport Projects Review
- SPP 10 Planning for Waste Management
- TACTRAN Regional Transport Strategy
- Tayside Area Waste Plan 2003
- Tayside Procurement Strategy
- Thematic Strategy on Air Pollution September 2005
- Thematic Strategy for the sustainable use of natural resources
- Thematic Strategy for Soil Protection



1.5 Map of Area Covered by the Plan



Figure 1.0 Map of area covered by the Perth and Kinross Waste Management Plan.



Section 2: Establishing the Baseline & Scope of the Report

2.1 Environmental Baseline

The Macaulay Research Consultancy Services produced a State of the Environment Report (SoE) for Perth & Kinross Council in October 2007

(http://www.pkc.gov.uk/Planning+and+the+environment/Planning/State+of+the+Environment+Report.htm).

This document, and its ongoing update, provides an accurate account of the current state of the environment for the Perth and Kinross area. The majority of the information below is extracted from the SoE report with updates as required. The full list of sources can be found in the SoE report.

Summary (SoE p9)

Overall the state of the environment in Perth and Kinross is good. Landscape, biodiversity and the aquatic environment are generally in good and improving condition. The main areas of concern are emissions to the atmosphere, greenhouse gases in relation to climate change and particulates and nitrogen dioxide in relation to air quality in specific areas of Perth itself.

Biodiversity, flora and fauna. (SoE pp55-61)

The diverse wildlife and habitats of Perth and Kinross are highly valued local and international resources. Tourism based on the area's unique wildlife contributes greatly to the local economy.

Strategic level challenges to biodiversity include pollution, acid rain, waste production, climate change, land claim and development and the EU Common Agricultural Policy. Climate change also may have a profound effect on many of our habitats, with mountain habitats highlighted as being particularly at risk and could virtually disappear if temperatures increase significantly.

In response to the need to protect and improve the biodiversity of the area, increases in the designation of protected area and the development and implementation of the Tayside Local Biodiversity Action Plan (LBAP) has been undertaken. National legislation has also been developed, including the Nature Conservation (Scotland) Act 2004, which made additional provisions related to existing wildlife law and the Sites of Special Scientific Interest (SSSI) system, and placed on all public bodies a duty to further the conservation of biodiversity.

Population and human health

Perth and Kinross is a large area of approximately 5,286 km² and has a population of 142,140 (2007 estimate). It is ranked 5th in Scotland in terms of area and 14th in Scotland in terms of population. Overall, the area has experienced one of the highest population growths in Scotland, placing increasing demands on services and infrastructure. It is a diverse area comprising many discrete communities, each with its own distinct challenges and opportunities. Approximately one-third of people live in Perth which faces many of the issues of other cities. At the other extreme, remote communities pose many challenges in terms of access to, and delivery of, essential services. The collection of waste is an important service provided by the Council and requires systems in place to meet the needs of residents. (Perth & Kinross Council Single Outcome Agreement, June 2008 http://www.pkc.gov.uk/Council+and+government/Community+planning+-+working+in+partnership/).

There is a wide variety of properties in Perth and Kinross, from large detached properties with substantial land to multi-occupancy properties, mainly found in the town centres of Perth, Blairgowrie, Kinross, Piltochry and Crieff. This range of properties creates issues as to the types of waste collected and what services can be offered.



Figure 2.0 Comparison of projected population changes for Perth & Kinross Council and Scotland. (General Register of Scotland GROS)





Population Growth - Overview

Local communities are changing rapidly and becoming increasingly diverse. In recent years, the pace of demographic change has accelerated. Between 2001 and 2006 the General Registrar Office for Scotland (GROS) mid year estimates suggest that the population of Perth and Kinross grew by 3.88%.

The latest GROS projections (for 2006 to 2025) indicate that Perth and Kinross has the highest projected growth rate in Scotland at 17.35% (24,324 persons) although the GROS recognise that this may be an underestimate and their higher end projection is 21% (29,987 persons). These projections reflect the rate of growth that Perth and Kinross has been experiencing over recent years. This growth is driven by net inmigration which reached 1,873 per annum in 2005/6. The new projections anticipate net migration to continue at or around 1,850 per annum before declining to around 1,250 beyond 2012.

The growing population will present challenges for all community plan partners - council, health, police, fire and rescue, enterprise, college and voluntary services – both in terms of infrastructure and simply in increased demand for services including waste disposal and recycling.

Soil (SoE pp 41-53)

Currently, there is little detailed available information on the state of soils in Perth and Kinross. With the introduction of the EU Soils Thematic Strategy and development of a Scottish Soils Strategy more information should become available in the future.

However it is recognised that soil in the area contributes significantly to the economy through its role providing

- the basis of agricultural and forestry industries
- underpinning nationally and internationally rare habitats
- protecting water from the effects of many pollutants
- storing carbon
- contributing to biodiversity

The distribution of soils in Perth and Kinross closely follows the areas topography. In the northern upland areas, soils are mostly high organic matter, poorly draining peats or peaty soil (SoE). The southern lowlands however are mostly nutrient and organic matter rich brown soils.

Historically, waste disposal, along with industrial processes and former garages has caused the majority of land contamination within Perth and Kinross, however in comparison with many other areas in Scotland, Perth and Kinross has remained relatively unaffected.

Water (Strategic Environmental Assessment (SEA) for Perth and Kinross Air Quality Management Plan pp 37-38)

Surface Water

The Tay is one of the three Premier Fishing Rivers in Scotland, with salmon and brown trout the most common fish. At 193km long with a catchment area of more than 5000km², the Tay River is one of the longest rivers in Scotland and is the largest volume river in Great Britain, with a typical flow of 100 cubic metres per second (cumecs) (www.sac.ac.uk/learning/geography/physical/rivers/rivertay (23/02/07)).

At Perth the Tay becomes tidal, influenced by water from the Firth of Tay. The Tay has been designated a SAC due to the species it supports, like salmon, lamprey and otters. The large ecological variety of the Tay supports a number of species while the bi-annual runs of Atlantic salmon are an important tourist attraction. It also plays an important role in other recreational activities like bird watching and canoeing. SEPA's water quality map for the Perth area indicates that the water quality is either excellent or good with the River Tay classed as excellent.

Groundwater

Perth's groundwater vulnerability is classed as 'High' or 'Very High' which means precautions need to be taken during and post construction to ensure groundwater is protected.

Scottish Water has recently announced plans to upgrade the infrastructure of Perth and Kinross' water infrastructure. The works will include replacement of pipes and upgrading or replacement of treatment plants. The aim of the work is to improve the water quality of the supply whilst providing extra protection to the environment.

In compliance with the Urban Waste Water Treatment Directive, Scottish Water will be upgrading the Waste Water Treatment Plant at Aberfeldy which will help improve the water quality of the Tay River while also increasing the capacity to cope with the projected growth of the town to 2014.

Perth City's treatment plant received numerous upgrades in 2005 which allows it to treat the waste water to European standards. This investment will continue through 2007-2010.

Air (SoE pp 19 -- 21)

Along with several other factors, air quality also impacts on the human health category as good air quality is critical in the health and wellbeing of residents and visitors to the area and is therefore an important topic to consider.

The Scottish Government has set targets for testing air quality against indicators on the basis of scientific and medical evidence on the health effects of specific pollutants, in Perth and Kinross these pollutants have been identified as nitrogen dioxide and particulate matter.

Currently, all tests undertaken in Perth indicate the local air quality is very good. Apart from two traffic hotspots in Perth city centre, the whole of Perth and Kinross meets the Scottish Governments targets.

The two areas that surpassed the legislative limits are Atholl Street and the High Street. Limited data availability means it is not possible to comment on trends at Atholl Street at present. Results for the High Street in Perth are relatively stable, although continued higher results for particulate matter may indicate a negative trend.

Airborne particles can cause serious health problems and particulate air pollution episodes are believed to be responsible for causing excess deaths among those with pre-existing lung and heart disease.

Scientists have correlated exposure to airborne particles with increased hospitalisations for asthma attacks, worsening of lung disease, chronic bronchitis, and heart damage (US Environmental Protection Agency (2007) *Particulate Matter* www.epa.gov/ARD-R5/naaqs/pm.htm)

In addition to these human health effects, particulate matter is the main cause of haze which decreases visibility. Particulates eventually settle on land or water and may lead to the acidification of lakes, the depletion of nutrients in soil, and the damage of sensitive forests and crops. (US Environmental Protection Agency (2007) Particulate Matter www.epa.gov/ARD-R5/naags/pm.htm).

Effective from 5 May 2007, the Council has declared the whole of Perth and Kinross an Air Quality Management Area (AQMA) because air quality targets in central Perth have been exceeded in areas where there is relevant public exposure.

Perth & Kinross Council is currently developing an Air Quality Action Plan for the alleviation of elevated air pollution in the areas of exceedence. The Action Plan considers and assesses the sustainability of all options available to the Council. Periodic assessments of the outcomes of the Action Plan will be carried out and the Council will also continue to monitor and assess air quality for all of the pollutants for which the Government has set targets.

Climatic factors (SoE pp13 – 17)

The temperatures for the years 2003 to 2005 were the highest for Scotland since records began in 1914. It is predicted that by the end of the century, the temperature in Scotland will rise on average by up to 3.5°C during the summer and up to 2.5 °C in the winter months. (Bennet, C; Hossell, J; Perry, M; Procter, C and Hughes, G. (2006)*A handbook of climate trends across Scotland*. SNIFFER project CC03, SNIFFER)

The UK Meteorological Office regularly updates an all Scotland Series of monthly figures for mean temperature, rainfall and sunshine. The former two series originate in 1914, the latter in 1929. Trends in all monthly temperatures have indicated warming, but only the month of August has shown a significant trend. Changes in rainfall and sunshine have been less clear (Source Sparks, T H; Collinson, N; Crick, H; Croxton, P; Edwards, M; Huber, K; Jenkins, D; Johns, D; Last, F; Maberly, S; Marquiss, M; Pickup, J; Roy, D; Sims, D; Shaw, D; Turner, A; Watson, A; Woiwod, I and Woodbridge, K. (2006). Natural Heritage Trendsof Scotland: phenological indicators of climate change. *Scotlish Natural Heritage Commissioned Report No 167* (ROAME No F01NB01).

The gases that contribute most to the greenhouse effect are carbon dioxide, methane, nitrous oxide and fluorine compounds. In Perth and Kinross, carbon dioxide, from transport, industry and domestic sources, is the main greenhouse gas emitted.

Table 2.0 Perth and Kinross Estimated Carbon Emissions (kilo tonnes CO₂) 2004

	Carbon Dioxide Em	issions (kt CO ₂)
	Perth and Kinross	Scotland
Industry and Commercial	516	23,296
Domestic	435	14,389
Road Transport	751	12,388
Total not including Land Use, Land Use Change and Forestry	1,702	50,073
Land Use, Land Use Change and Forestry	-325	-4,865
Total including Land Use, Land Use Change and Forestry	1,378	45,209
Population Thousands (2004) ²	136	5,057
Domestic per capita Carbon Dioxide (tonnes)	3,2	2,8

There is no information available on a local authority level on annual carbon emissions trends however in 2006 the Scottish Executive published the following figures (Scottish Executive (2006) Changing our Ways: Scotland's Climate Change Programme. A Summary www.scotland.gov.uk/Resources/Doc/100926/0024397.pdf).

- Emissions of GHG fell by 10% between 1990 and 2003
- Carbon dioxide emissions over the same period fell by 8% (more than any other UK country)
- Scotland's soils and trees removed 20% more carbon dioxide from t he atmosphere in 2003 than in 1990.
- Including the carbon sink, Scotland's 2003 greenhouse gas emissions were 14% lower than in 1990.

The Climate Change Programme prompted the Scottish Government (Executive at the time) to set targets to cut greenhouse gas emissions by 20% below 1990 levels by 2010 and 80% by 2050. A Scottish Share and Target was also set of an annual reduction in 2010 of 2.7 million tonnes of carbon. These targets are to be achieved by (SoE 2006)

- encouraging efficient use of energy in association with increases in 'greener' renewable sources of electricity and heat.
- promotion of new and cleaner vehicle technology and fuel and encouraging the public to consider alternatives to driving cars
- increase carbon sequestration by increasing forest cover and using more wood as fuel.
- waste recycling initiatives
- participation in the development of a UK-wide policy framework on preparing for climate change (Scottish Executive (2006) Changing our Ways: Scotland's Climate Change Programme. A Summary www.scotland.gov.uk/Resources/Doc/100926/0024397.pdf).

Perth & Kinross Council signed up to Scotland's Climate Change Declaration in January 2007, committing to recognise the challenge climate change poses; acknowledging the work already being done to address this and to produce a plan to improve and report on its performance on climate change.

Waste management contributes 2.5% of Scottish GHG emissions and highlights the direct relationship between how waste is managed and the Governments commitment to reducing greenhouse gas emissions [Climate Change (Scotland) Bill: Waste Provisions – Spice Briefing January 2009].

Transport (SoE pp 90 – 96)

Transport has become an increasingly important element of day to day life within Perth and Kinross. The type of transport used by Perth and Kinross residents and visitors influences the built and natural environment, human health and climate change.

Traffic exhaust emissions are the primary source of air pollutants in Perth and Kinross and transport is the principle source of carbon dioxide. Transport also directly endangers human health and fauna due to road accidents.

Increases in population and in the desire or need to travel are exerting greater pressure on existing transport networks. Insufficient public transport, increases in car ownership, and the desire for independence and convenience by residents and visitors in Perth and Kinross mean that the majority of this pressure is directed at road networks and manifested as an increase in traffic volume.

As would be expected, the greatest volumes of traffic are observed within Perth and on the roads south of Perth leading to Edinburgh and Stirling. According to the regional transport strategy, traffic on the road networks in Tayside and central Scotland has been increasing by an average of approximately 1.6% per annum over the last 10 years. Local trend data was not available at the time of the writing of this Scoping Report.

Key government objectives, implemented via the Tactran Regional Transport Strategy and Local Plans, are to reduce dependence on cars and travel. The government aims to accomplish these by encouraging people to walk, cycle or use public transport more and to reduce the need for travel through better land use planning.

As the population in Perth and Kinross increases there will be greater pressure on the waste management vehicle fleet to provide the necessary service to all householders in terms of waste collections whilst trying to minimise the number of vehicles and journeys required to do so. The recent and continuing roll out of the new kerbside recycling service has included the optimisation of collection routes and this work will continue.

Waste

The volume of waste produced and its subsequent treatment is a growing social, economic and environmental issue. The type of waste we produce, all forms of waste management, and the transport of waste have impacts on the environment. Good waste management is essential to protect human health, long-term well being of the community and the environment that sustains it.

The amount of waste arising in Perth and Kinross is increasing due to increases in population, households, levels of packaging and changes in consumerism and standard of living. The population in Perth and Kinross is predicted to increase up to, and beyond 2025. Please see the *Population and Human Health* section above for more information.

Recent trends for increases in the total amount of municipal waste arising and the total amount of municipal waste arising per household have been witnessed over the last decade.

(Municipal waste is any waste collected by LA's or contractors on their behalf. Non-municipal waste covers a broad range of waste types generated by individual producers including sole traders and small businesses to large scale industry).

Municipal and non-municipal waste is monitored by SEPA. This is achieved through the Waste Data Digest for municipal waste and the Tayside Strategic Waste Management Review (SWMR) which records both municipal and non-municipal waste. The SWMR is a comprehensive study of waste management and infrastructure in Tayside which was undertaken in 2006 by SEPA.

The Tayside SWMR reports the following information

- Key facts about waste management infrastructure and waste data
- Background information, for example, population and number of households
- Numbers and types of operational waste management facilities and their capacity for handling waste
- Types and quantities of waste handled

(http://www.sepa.org.uk/waste/waste_data/waste_data_reports/waste_management_reviews.aspx)

Currently in Perth and Kinross the following services are offered to householders and businesses.

Household Kerbside Collections:

Perth & Kinross Council operates a 3 bin household kerbside collection system. The 3 bin kerbside collection system is being amended as a new recycling service is being phased in across the Council. This involves more materials being accepted in recycling bins, and the introduction of a fortnightly residual waste collection (alternate weekly with recycling collection). The new kerbside collection system has been rolled out to approximately 25,000 households and is projected to be rolled out in full to approximately 62,000 households during 2010.

• Recycling Centres & Points:

The Council operates 8 manned Recycling Centres throughout Perth & Kinross. All Recycling Centres are to be (or have been) re-developed and expanded to accept a wider range of materials for recycling. It is proposed that an additional Recycling Centre for the north of Perth will also be developed.

There are now 95 Recycling Points available throughout the Perth and Kinross area. The points offer facilities for collection of cans, colour segregated glass, paper, cardboard and many also have textile banks. The Council aims to establish a total of 110 Recycling Points by 2010/11.

• Commercial Waste Collections:

The Council currently provides waste services to approximately 730 businesses in Perth & Kinross. In addition to general waste uplifts, the Council offers commercial businesses in Perth & Kinross recycling collections for cardboard, paper, green waste, colour segregated and mixed glass, and polythene wrapping. The Council's commercial waste team provides free advice to businesses on reducing, reusing and recycling their waste.

• Waste Awareness & Prevention Campaigns:

The Council co-ordinates a number of waste awareness and waste prevention campaigns and activities in the area e.g. home composting, real nappies. These are being undertaken in partnership with the Scottish Waste Awareness Group (SWAG), Waste and Resources Action Programme (WRAP) and community groups.

• Waste Processing Contracts:

The Council is currently undertaking a procurement programme to secure future waste processing, treatment and disposal services for the waste streams below.

- Dry mixed recyclates
- Mixed garden and food waste
- Mixed (residual) Recycling Centre waste
- Garden waste
- Separately collected inert waste

Table 2.1 2007/2008 figures for municipal waste collection in Perth and Kinross

Local	MSW ¹	MSW	MSW	MSW Other	MSW	% MSW		
Authority		Landfilled	Incinerate	treatment	Recycled/Composted	Recycled/		
	Arisings	(Tonnes) ²	d	(tonnes)	(tonnes) ⁴	Composted		
	(tonnes)		(tonnes) ³					
Perth	105,910	62,295	577	0	38,045	35.9		
and								
Kinross								

1 MSW = Municipal Solid Waste

2 Includes materials disposed of instead of being recycled and residues from incineration that are landfilled

3 MSW Incinerated, excludes the residue from incineration that is either landfilled or recycled

4 MSW Recycled/Composted, includes residue from the incinerator that is recycled.

2.2 Scoping of Environmental Topics

• Spatial Scope

The spatial scope for the SEA is defined as the Perth and Kinross area only with the exception of waste potentially being transported out with Perth and Kinross.

• Temporal Scope

The timeframe of this SEA is the period to 2025/26.

• Technical Scope

The range of environmental topics that will be addressed in the SEA can be found in Table 2.2.

In accordance with Schedule 2 of the Environmental Assessment (Scotland) Act 2005, Perth & Kinross Council has considered whether the Perth and Kinross Waste Management Plan is likely to have significant environmental effects (positive and negative) on the environmental topics. A summary of the conclusions is presented in the table below.

Environmental Topics	Scoped In	Scoped Out	Justification for Decision	
Biodiversity, Flora and Fauna	~		It's unlikely to affect areas of high landscape or biodiversity value as there are Development Plan policies to ensure protection of such areas however it may have indirect impacts.	
Population		~	Any changes to waste management will not in itself effect on the size of the population; however population has been identified as a potential problem as a growing population <i>will</i> impact on waste management activities and as such we have taken the view that population and human health should be integrated for the purpose of the environment objectives scoring.	
			Increases in local population will see ever greater demands on the area's waste management system. Increases in housing and road traffic will also increase.	
Human Health	~		It is most likely that any significant impacts would be positive e.g. less biodegradable waste going to landfill should result in greenhouse gas emissions lowering and, reviewing transport management so that the use of vehicles is optimised to significantly cut down on vehicle emissions.	
			There are also the potential for impacts from residual waste treatment technologies such as Mechanical Biological Technology, Energy from Waste, Autoclave or Anaerobic Digestion.	
			Potential impact on human health may derive from procurement of future waste treatment and disposal infrastructure and associated vehicle emissions.	
			Has the potential for land contamination and leachate impacts on soils.	
Soil	\checkmark		Future landfill capacity requirements (new or existing).	
			Landfill management and restoration will improve contaminated land.	
Water	✓		Waste management activities may impact upon water resources e.g. leachate, grey water from waste management infrastructure.	
Air	~		Air quality may be affected by waste management activities in Perth and Kinross for example refuse collections.	
Climatic Factors	~		Greenhouse gas emissions from landfill and other waste management activities need to be addressed.	
Material Assets (Waste)	\checkmark		Encourage efficient use of resources and move further up the waste hierarchy.	
Cultural Heritage		~	This is not a site specific plan and therefore local cultural heritage impacts are considered as outside the control of this plan. However it has been noted that there is a potential impact on the built environment from air borne pollutants and this will be considered in the future should sites for further waste management infrastructure be identified.	

Table 2.2 Environmental Topic Scoping

Landscape	~	This is not a site specific plan and therefore local landscape impacts are considered as outside the control of this plan. However it has been noted that there is a potential impact on the landscape and this will be considered in the future should sites for further waste management infrastructure be identified.
-----------	---	---

2.3 Environmental Problems

The following environmental problems were identified as likely to have an impact on the Perth and Kinross Waste Management Plan. These environmental problems were identified by evaluating the baseline data.

Potential Problem	Supporting Data (where available)	Implications for the PPS
Rising population and subsequently rising waste arisings	SOA SEPA Waste Data Digest	The volume of waste produced in Perth and Kinross and its subsequent treatment is central to reducing the local and global environmental impact of consumption and production. As the area's population increases, waste arisings follow the same trend. Since 2003/04 the total municipal waste arisings has increased from 95,977 tonnes to 105,910 tonnes in 2007/08 (Waste Data Digest http://www.sepa.org.uk/waste/waste_data_1/waste_data_digest.aspx)
		The WMP should provide flexibility to deal with population growth and changes Currently, there is high emissions from road traffic and levels of air pollution in some parts of Perth. This plan needs to recognise this current state and work
Air quality, Perth city centre	Air Quality Management Plan Draft	within the Perth & Kinross Council Air Quality Report Draft and final report when it is in place.
Contro		Need to recognise potential trans-boundary effects should the WMP see waste being moved out of Perth and Kinross.
Changing composition of waste	National and PKC waste analysis results. Tayside Strategic Waste Management	It is imperative that when collecting and processing waste that not only is the quantity understood but the composition is also identified. As consumption patterns change this has an impact on the composition of waste that households and businesses produce. In order to keep abreast of these changing patterns the Council undertakes regular waste analysis of general waste and recycling streams.
	Review (SEPA)	These changes impact the plan as it therefore needs to be able to provide flexibility to deal with changes in waste composition
Contaminated land and soil	Scottish Soil Framework PPC Waste	Contaminated land is land which appears to the enforcing authority to be in such a condition that there is a significant risk of harm to human health or the wider environment. The main objective of the Contaminated Land Regime is to provide an improved system for the identification and remediation of land where contamination is causing, or is likely to cause, such risks, assessed in the context of the current use and circumstances of the land. In this way the regime plays an important role in cleaning up historically contaminated soils, but it is not designed to prevent new contamination. There are a range of other measures
	Licensing	specifically aimed at achieving this, most significantly Pollution Prevention and Control (PPC) and Waste Management Licensing, which are regulated by SEPA. (http://www.scotland.gov.uk/Publications/2009/05/20145602/10)

Table 2.3 : Environmental Problems Relevant to Perth and Kinross Waste Management Plan



2.4 State of the environment without PPS

Without the Perth and Kinross Waste Management Plan being implemented, there would be detrimental effects on the environment. These would mainly result from -

- excessive volumes of waste being produced and disposed of to landfill, due to increasing population and waste habits.
- waste being sent to landfill which will increase the need to find new landfill provision, this would either be an existing, extended or new landfill out with or within the PKC boundary.

Without a review of the treatment options available for recyclable and residual waste, any potential carbon savings would no longer be made.



Section 3: Alternatives and Assessment Methodology

3.1 SEA Objectives

The SEA Directive does not specifically require the identification of objectives but they are accepted as being a good way of considering the environmental implications of the WMP and in comparing the effects of different alternatives. In this sense the SEA objectives serve a different purpose to the WMP objectives.

The table below sets out the SEA objectives which have been identified as relevant to the WMP.

Ref.	SEA Objective	SEA Topics Category	Potential SEA Indicators
1	To protect and where possible, enhance biodiversity, flora and fauna from the impact of waste management activities	Biodiversity, Flora and Fauna	 Tayside Local Biodiversity Action Plan (LBAP) priority species and habitats. Condition of biological and mixed SSSIs
2	To protect the living conditions, amenities and health of residents from detrimental effects of waste management activities e.g. noise, traffic, dust, littering, odour and particulates.	Human Health	Population figures from - Census data General Registrar Office for Scotland (GROS) - Housing figures from Housing &
3	To protect community safety and wellbeing from waste related anti-social behaviour – littering and fly-tipping	ncattri	Community Care. - Cleanliness Grades in Perth and Kinross. (LEAMS) - SEPA flytipping statistics
4	To ensure soil protection is taken into account with regard to waste management activities and as far as is practicable, prevent contamination of land	Soil	 Condition of Geological SSSI Area of contaminated land (PKC Pollution and Environmental Health Section)
5	To protect water courses and reduce adverse effects of waste management activities	Wator	 Surface Water Quality –SEPA Groundwater Quality -SEPA
6	To improve the quality of water and wastewater discharges resulting from waste management activities	Water	
7	To minimise adverse impacts of waste management activities on the air quality and public health	Air	 Carbon Emissions for the PKC area Mean Annual level of air pollutants Number of poor air days
8	To reduce GHG emissions from waste production and disposal.	Climatic Factors	
9	To maximise waste prevention, reuse, recycling and recovery rates by viewing waste as a resource.	Material Assets	 Waste arisings (PKC/SEPA) Location and number of related waste management infrastructure (PKC)
10	To collect and/or treat waste at the nearest and appropriate stations	(Resource efficiency)	 Energy consumption (PKC) Fuel usage/costs (PKC) Electricity costs (PKC)

Table 3.0 SEA Objectives and Potential SEA Indicators Table

	ompation	iy between	WINI JLA	Objectives						
1										
2	\checkmark									
3	\checkmark	\checkmark								
4	~	~	~							
5	~	~	\checkmark	\checkmark						
6	~	~	\checkmark	\checkmark	~					
7	~	~	\checkmark	\checkmark	~	~				
8	~	~	\checkmark	\checkmark	~	~	~			
9	\checkmark	~	\checkmark	\checkmark	~	~	\checkmark	~		
10	?	?	\checkmark	?	?	?	?	?	?	
Ref	1	2	3	4	5	6	7	8	9	10

Table 3.1 Compatibility between WMP SEA Objectives

✓ Compatible

X Conflict exists between objectives / actions? Objectives may conflict, more information needed

The above table shows the compatibility between each of the SEA objectives, highlighting any areas where potential conflict between objectives may occur.

As can be seen from Table 3.1, the only identified conflict is with reference to Objective 10, 'To collect and/or treat waste at the nearest and appropriate stations'.



3.2 Consideration of Alternatives

As part of the plan making process, reasonable alternatives to the strategic action(s) proposed in the plan must be considered and assessed.

Options/Alternatives for Perth & Kinross Council Waste Management Plan

Option 1: Status quo (continue landfilling of residual waste up to 2025/26)

Perth & Kinross Council to complete implementation of waste initiatives/projects currently programmed up to end of 20010/11. This will include roll-out of new kerbside recycling scheme, redevelopment of Recycling Centres and expansion of Recycling Points. Perth & Kinross Council to continue monitoring and maintenance of recycling facilities and household and commercial recycling schemes up to and beyond 2025/26.

Residual waste collected by the Council to continue to be sent landfill. This will require the Council to secure long term arrangements for access to licensed landfill sites up to and beyond 2025/26.

Option 2: In addition to status quo, seek alternative options for residual waste treatment

Perth & Kinross Council to complete implementation of waste initiatives/projects currently programmed up to end of 20010/11, and continue monitoring and maintenance of recycling facilities and household and commercial recycling schemes up to and beyond 2025/26.

Residual waste collected by the Council to be sent for alternative (to landfill) residual waste treatment. This will require the Council to assess the range of available residual waste treatment technologies capable of enabling Perth & Kinross Council to deal with their post-collected waste obligations up to and beyond 2025.

Perth & Kinross Council will undertake a technical and financial options appraisal of residual waste treatment facilities for Perth and Kinross Council, as part of the new WMP. The technical evaluation will look at a range of residual waste treatment technologies and consider whether they are suitable in terms of the composition of the waste stream in Perth & Kinross. Possible residual waste treatment technologies will be short listed and the options will be assessed in the Environmental Report.

It is not possible for this report to provide further detail of these options until a technical and financial appraisal has been finalised. However, examples of options that may be considered for environmental assessment include:

- Energy from Waste
- Anaerobic Digestion
- Autoclave
- Pyrolysis
- Mechanical Biological Treatment

(Please note this is not an exhaustive list. The final list will be determined by the technical options appraisal)

3.3 Methodology for Assessment

One of the key functions of the Scoping Report is to set out the methodology that will be used to evaluate the proposed alternatives and environmental topics. The methodology used sets out clear and objective methods for decision making in the plan. In making decisions, Perth & Kinross Council will use all expertise available (both internally and externally) in order to make the best judgements possible.

A combination of quantitative and qualitative methods will be used to identify the preferred option(s) for Perth & Kinross Council.

As outlined in section 3.2, a technical and financial options appraisal of residual waste treatment facilities suitable for Perth & Kinross Council will be undertaken. The study will identify the range of available residual waste treatment technology options capable of enabling Perth & Kinross Council to deal with their post-collected waste obligations up to and beyond 2025/26. The Environmental Impacts of each identified alternative/option will then be assessed using the SEA objectives and criteria found in Table 3.2. An assessment matrix (Figure 3.1) will be used to record the findings of the Environmental Assessment.

An assessment criteria developed in conjunction between technical experts and Perth & Kinross Council will then be used to enable residual waste treatment technologies to be short listed to a maximum of 6. The assessment process will be detailed in the Environment Report. The short-listed residual waste treatment options will undergo an appraisal using WRATE (Waste Resources Assessment Toolkit for the Environment). WRATE was developed by the Environment Agency to help local authorities model the potential effects of current and future waste management activities on the environment through life cycle analysis (LCA). WRATE considers the impact of municipal waste from the point of collection through to final disposals or until the waste has been treated in such a way it is no longer considered waste. For further information on WRATE please see the Environment Agency website at http://www.environment-agency.gov.uk/research/commercial/102922.aspx

Following WRATE modelling and assessment using SEA objectives and criteria, the short listed waste treatment options will be graded and the best option(s) for residual waste treatment for Perth & Kinross Council identified. The assessment process will be detailed in the Environment Report.

Figure 3.0 provides an overview of the assessment methodology that will be used.

Figure 3.0 Methodology for assessment flow chart





3.4 Assessment Criteria

The criteria which will be used in carrying out the environmental assessment are set out in the table below.

l able 3.2	2 Assessment Criteria	
SEA Topic	Objective	Proposed Criteria:
Biodiversity, flora & fauna	To protect and where possible, enhance biodiversity, flora and fauna from the impact of waste management activities	 Is the option likely to cause unavoidable impacts on biodiversity? Is the option likely to offer opportunities for habitat creation or species development? Does the option impact upon local Habitat Action Plans?
Human health	To protect the living conditions, amenities and health of residents from detrimental effects of waste management activities e.g. noise, traffic, dust, littering, odour and particulates. To protect community safety and wellbeing from waste related anti-social behaviour – littering and fly-tipping	 Will the option impact on odour, noise, traffic, dust, littering, odour and particulates? Will the option adversely impact on vehicle mileage travelled, traffic levels, congestion and risk of accidents? Will the option, when added to other potential health factors cumulatively impact on human health?
Soil	To ensure soil protection is taken into account with regard to waste management activities and as far as is practicable, prevent contamination of land	 Will the option lead to land contamination? Will the option lead to remediation of contaminated land? Will the option aid enhancement of soils? Will the option irreversibly damage soils?
Water	To protect water courses from, and reduce adverse effects of, waste management activities To improve the quality of water and wastewater discharges resulting from waste management activities	 11. Will the option impact on levels of contamination of surface water and/or groundwater? 12. Does the option take account of flood risk and mitigation measures?
Air	To minimise adverse impacts of waste management activities on the air quality and public health	 13. Will the option impact on levels of emissions of pollutants to air from WM activities? 14. Will WM activities exacerbate particular air quality problems in the local area?
Climatic factors	To reduce GHG emissions from waste production and disposal.	15. Will the option have an impact of fossil fuel consumption?16. Will the option have an impact on the emissions of GHG?

- 24 -

Material assets and resource efficiency	To maximise waste prevention, reuse, recycling and recovery rates by viewing waste as a resource. To collect and/or treat waste at the nearest and appropriate stations	 Will the option reduce GHG emissions from use of primary raw materials through reuse or recycling? Will the option result in a change in the quantity of non-renewable resources used through reuse, recycling or recovery? Will the option encourage reduction, reuse and recycling of materials in the area? Does the option encourage energy recovery from residual waste? Will the option encourage the efficient use of existing waste management facilities? Does the option require access to additional waste management infrastructure?
		waste management infrastructure?

The environmental impacts of the options will be assessed using the table in Figure 3.1.

3.5 Assessment of Cumulative Effects

The assessment of cumulative effects is an essential element of the SEA process. Cumulative effects need to be considered because the combined impact of many different plans and policies can have significant environmental effects. Such effects are more appropriately assessed at the strategic level because of the geographical scales at which cumulative effects can occur. However even at the strategic level it will not always be possible to fully measure cumulative effects due to the interdependent and transboundary nature of some impacts. The undertaking of a cumulative impact assessment will also help in the assessment of the plan alternatives.

In particular an assessment will be undertaken to determine whether the potential effects from the Waste Management Plan together with the impacts from other plans are likely to be significant. This will involve looking at the outcome of other Environmental Reports for Waste Management Plans as well as other Environmental Reports produced by Perth & Kinross Council.

3.6 Mitigation of Impacts

Schedule 3 of the Act requires that measures are identified to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the Plan. Mitigation measures are a crucial part of SEA in that they offer an opportunity to not only address potential adverse effects of a plan, but also to make a plan even more positive than it may already be. The mitigation of impacts will be considered in the Environmental Report following the mitigation hierarchy of: avoid – reduce – remedy or compensate for negative effects – enhance where appropriate for positive effects.

The Environmental Report will include a table of all the mitigation measures identifying the measures required, when they will be required and who will be required to implement them. The Environmental Report will identify any changes made to the Waste Management Plan as a result of the environmental assessment.



Figure 3.1 Assessment Matrix for the Waste Management Plan.

SEA Objective Perth and Kinross Waste Management Plan	Option 1	Comment	Option 2	Comment	Option 3	Comment	Option 4	Comment
To protect and where possible, enhance biodiversity, flora and fauna from the impact of waste management activities	✓ LT	0	0	0	√ P	\checkmark	✓	?
To protect the living conditions, amenities and health of residents from detrimental effects of waste management activities e.g. noise, traffic, dust, littering, odour and particulates.								
Mitigation/Enhancement								

Key

- Significant very positive environmental effects
 Significant positive environmental effects
 No environmental effects, positive or negative
- Significant negative environmental effects Х
- **X X** Very significant negative environmental effects
- Effects unknown ?

- LT Long-term duration of environmental effects
- MT Medium-term duration of environmental effects
- ST Short-term duration of environmental effects
- Permanent environmental effects Ρ
- Т Temporary environmental effects



Section 4: Proposed Consultation

4.1 Indicative timetable for Consultation periods

Should any significant changes to the timetable below occur the SEA Gateway would be notified.

Date	Event Details & Location	In Attendance
29/06/2009 – 29/07/09 5 weeks	Scoping Report Consultation – online and via SEA Gateway.	Scottish Natural Heritage, Scottish Environment Protection Agency, Scottish Government, Historic Scotland
12/11/09 – 20/01/2010 50 days	Full SEA Consultation. Online, available at named PKC offices.	Open to everyone
Week commencing 30/11/2009	Several consultation sessions to be held with WM industry, other LAs, SG, SEPA, WRAP etc	To be confirmed
Week commencing 07/12/09	5 x public open consultation meetings	Open to public.

4.2 Next steps

The next steps for the Perth and Kinross Waste Management Plan SEA are:

- Issue the scoping report for consultation and once comments have been received from the Consultation Authorities the scoping report will be amended/updated as required. A Consultation Response Table (Appendix 1) will be prepared which will demonstrate how comments have been considered and taken into account which will be included with the Environmental Report.
- The environmental assessment will then be carried out between July and September it is anticipated that the Environment Report will be completed by November.
 - Preliminary Assessment A workshop will be held with specialist PKC staff to complete the
 preliminary assessment. This workshop will involve experts in waste management, air, water,
 ecology and contaminated land.
- In addition to the assessment findings, the Environmental Report will also contain proposed mitigation measures and a monitoring scheme. Proposed indicators have been included in this report and this will be incorporated into the monitoring scheme.
- Preparation of the Environmental Report and the draft WMP will be carried out between July and September and submitted to Committee in November 2009.
- It is then intended that the draft Environmental Report will be published at the same time as the draft WMP to which it refers and that a combined public consultation will be then undertaken for both documents.
- The plan will be finalised in the light of consultees' comments and once the WMP has been adopted a SEA Post-Adoption Statement will be prepared.



Appendix 1: Consultation Response Table

A summary record of the scoping outcomes, including comments from SNH, SEPA and Historic Scotland, as well as other stakeholders and members of the public will be documented in Table X. The actions that arise, along with specific changes that are made will be documented and included with the Environmental Report.

Consultation Response Table							
Consultee/Respondent	Comments/Key Points Raised	Perth & Kinross Council's Response (details of how comment incorporated/ reason for excluding comment / further explanation)					

