

## **Environment Department**

Falkland Islands Government

# Falkland Islands Pollution Prevention and Waste Management Strategy

2025 to 2030

## 1. Introduction

This strategy provides a comprehensive framework for addressing all aspects of pollution prevention and waste management in the Falkland Islands. It sets out a coordinated set of actions focused on prevention, minimisation, control and long-term management. It recognises that effective pollution and waste management is essential to protecting the Islands' natural environment and ensuring a healthy and sustainable future.

The growing pressure of pollution and waste on the environment and human health is a global challenge, and one that is increasingly relevant to the Falkland Islands. As development progresses and consumption patterns evolve, the volume and complexity of waste and pollutants is increasing. This trend is driven in part by the continued reliance on fossil fuels, the use of polluting technologies, and single-use products.

If not effectively managed, pollution and waste can pose significant risks to ecosystems, public health and the overall quality of life. However, with sensible planning, practical guidance, targeted policy, and a shift towards cleaner technologies and waste prevention at the source, these impacts can be mitigated or avoided altogether.

The current key sources of pollution in the Falkland Islands relate primarily to:

- a) The handling and burning of fossil fuels for energy and transport;
- b) The handling and disposal of household wastes and waste from existing industries, including, the fishing industry, agriculture, tourism, and businesses across a range of other sectors; and
- c) Sewage related waste from existing infrastructure including domestic, private and public sources

While the Falkland Islands have relatively few large-scale pollution sources, this presents an opportunity over the coming years to significantly reduce – and potentially largely eliminate – existing pollution sources through the use of cleaner technology and improved planning and regulation.

There is a clear need to adopt best practices and capitalise on the opportunities at hand. This includes developing regulatory framework supported by basic standards and, where appropriate, legal requirements for pollution prevention and waste management. These measures are essential to minimise the environmental impacts of both current and future

developments. By doing so, the Falkland Islands will be better positioned to control pollution, manage waste responsibly and realise the public health benefits associated with cleaner technologies and sustainable practices.

The objectives that follow respond directly to the challenges identified above and provide the foundation for effective action over the next five years.

## 2. Objectives

This strategy seeks to achieve the following key objectives:

- 1. Develop and implement **clear environmental standards** for pollution control, emissions, and waste management across all sectors.
- 2. Establish a comprehensive **regulatory framework** to govern pollution and waste activities, including enforcement and liability provisions.
- 3. Create systems for environmental **monitoring and information management** to improve transparency, accountability, and evidence-based decision-making.
- 4. Promote **public education and behavioural change** to reduce pollution and encourage responsible waste practices.

The following cross-cutting objectives support the overall effectiveness of this Strategy. They provide a foundation for coordinated delivery across Government, essential infrastructure improvements and targeted responses to emerging risks such as hazardous materials and pollution from new and evolving sources:

- Support infrastructure improvements that align with pollution prevention and waste minimisation goals, including the new Waste Management Facility and sewage treatment systems, (e.g. biodiscs).
- Address emerging risks and hazardous materials, including plastics, PFAS-containing products, and industrial waste.
- Ensure coordination across Government departments and with other related strategies, such as the Energy Strategy, planning, and marine management.

## 3. Strategy oversight and progress tracking

The Environment Department will report on the progress of the Strategy. Summary reporting will occur annually to the Environment Strategy Programme Board and will be incorporated into the Environmental Strategy progress reports, as appropriate.

In year five (2030), the Strategy will undergo a refresh to ensure it remains relevant and effective, with the view to extending it based on progress made, emerging priorities and available resources.

## 4. Background and development of the Strategy

The need for a pollution prevention framework was first formally recognised by Executive Council in 2020 (ExCo 64/20). This direction was reinforced in the Islands Plan 2022-2026 which commits to "developing and implementing infrastructure plans for key utilities, including renewable energy, power supply, water, and sewage," as well as "continuing to improve pollution control, waste management, and viable recycling practices."

Further emphasis on the importance of integrated pollution and waste management is found in the **Environment Strategy 2021-2040**, which highlights the need to:

"increase recycling, decrease consumption...[and ensure] better handling and disposal of hazardous waste, non-hazardous waste and wastewater."

In response to these commitments policy work was initiated, and consultation was carried out with FIG departments, the Chamber of Commerce, and other key stakeholders to identify critical issues and opportunities. An external consultant supported the drafting of a Pollution Prevention and Waste Management Policy on a pro-bono basis, working in collaboration with FIG.

A public consultation on a draft Pollution Prevention and Waste Management Policy was held between December 2023 and February 2024 (ExCo 155/23).

In 2025, Executive Council considered the Policy and recommended that it be presented as a Strategy focusing on a series of actions to tackle pollution and waste.

This Strategy is built on the same core objectives as the original draft Policy. While many of these actions have been designed with existing capacity in mind, further development may identify areas where additional resources or support are needed. The Strategy remains adaptable and is intended to evolve over time as circumstances change and opportunities arise.

# 5. The Pollution Prevention and Waste Management Strategy

= Actions already in progress or development

Objective 1: Develop and implement clear environmental standards for pollution control, emissions, and waste management across all sectors.

Action no.	What	Indicator of success		
1.1 General	1.1 General			
1.1.1	Develop standards and monitoring systems, with clear record keeping and reporting requirements to reduce and manage pollution from both mobile and stationary sources, including emissions to air and discharges to land or water	Standards written and monitoring systems in place		
1.1.2	Draft basic pollution standards to mitigate negative environmental impacts of current and future developments including domestic properties and small businesses	Pollution standards drafted		
1.1.3	Prioritise the use and maintenance of biodisc systems and investigate the sustainable, environmentally responsible options for sludge management and disposal	Maintenance schedules produced Options for sustainable sludge management assessed		
1.1.4	Identify environmentally sensitive areas (e.g. public water catchments) where development may impact pollution and waste pathways, and require additional protections	Environmentally sensitive areas identified		
1.1.5	Construction of a more energy efficient power station away from populated areas	More energy efficient power station built away from population		
1.1.6	Implementation of the Energy Strategy and Implementation Plan (ExCo 04/25)	Targets from the Energy Strategy realised		

1.2 Oil/Che	mical spill prevention and response	
1.2.1	Prepare waste management plans for the disposal and storage of waste oils and spill minimisation and treatment measures	Management plans produced
1.2.2	Develop contingency plans for terrestrial fuel/chemical spills	Contingency plans developed
1.3 Plastics	and waste management	1
1.3.1	Develop standards and targets to reduce the use of single-use plastics and materials containing PFAS for packaging and product use.	Standards and targets developed
1.3.2	Import Duties in Respect of Vaping Substances and Single-Use Vapes	Reduction in the disposal of single use vapes
1.4 Waste I	Vanagement	
1.4.1	Create standards for waste disposal, containment (e.g. to prevent wind-blown rubbish from skips) safe handling and segregation at all waste facilities in Stanley (Eliza Cove, Mary Hill, Waste Management Facility, Megabid), including specific guidance for industrial and commercial waste	Standards and guidance developed for Stanley
1.4.2	Create Waste Management standards for Camp	Standards developed for Camp
1.4.3	Develop guidelines for managing offshore waste from visiting vessels such as cruise ships and fishing boats	Guidelines developed for manging offshore waste
1.4.4	Development and commissioning of the new Waste Management Facility and Incinerator	WMF and Incinerator successfully operational
1.5 Hazardo	ous waste management	
1.5.1	Create an inventory of hazardous chemical waste and develop handling and disposal guidelines to improve the management of stored hazardous materials	Inventory created, handling and disposal guidelines developed
1.5.2	Develop protocols and procedures for the storage and exportation of wastes that cannot be processed in the Islands (e.g. hazardous equipment, WEEE, Old car batteries, spent chemicals, paints and aerosols)	Protocols and procedures developed

Objective 2: Establish a comprehensive **regulatory framework** to govern pollution and waste activities, including enforcement and liability provisions.

Action no.	What	Indicator of success
2.1	Formally designate a competent authority with defined legal powers and responsibilities	Competent authority established in law
2.2	Develop detailed policy to enable the development of Pollution Prevention and Waste Management legislation	Policy developed
2.3	Implementation of the Stanley Common (Spoil Tip) Regulations 2024	Regulations implemented
2.4	Licence issued to FIMCO to deposit waste at sea, under the Maritime Ordinance 2017	Licence issued
2.5	Establishment of bilateral agreements for shipping waste with the UK and South Georgia	Bilateral agreements established

Objective 3: Create systems for environmental **monitoring and information management** to improve transparency, accountability, and evidence-based decision-making.

Action no.	What	Indicator of success
3.1	Establish and implement a monitoring programme for waste and pollution to gather and collate evidence on pollution sources with results made publicly available	Monitoring programme established
3.2	Create and maintain comprehensive registers for air and water pollution emissions to systematically record sources and support pollution management efforts	Registers created
3.3	Collect and track waste related statistics across key facilities (Eliza Cove, Mary Hill, Megabid, WMF) in Stanley to support effective waste management	Initial waste statistics collected

# Objective 4: Promote public education and behavioural change to reduce pollution and encourage responsible waste practices.

Action	What	Indicator of success
no.		
4.1	Promote behavioural change to enable adaptation to improved waste management practices and use of more environmentally friendly products, e.g. information awareness, public engagements, community outreach	Behaviour change promotion
4.2	Explore the potential to integrate environmental education into school curriculum and youth programmes	Increase environmental elements to school curriculum
4.3	Enhancing internal government capacity through FIG internal training	Increase attendance on FIG internal training

# 6. Special developments

The Falkland Islands may see new economic activities, for example oil exploration in the future. These developments could present unique environmental challenges that require proactive consideration within pollution prevention and waste management planning. Preparing to integrate these sectors into monitoring and regulatory frameworks will help ensure environmental protection alongside potential economic growth.

## Annex 1: Pollution and waste issues in the Falkland Islands

Environmental pollution and ineffective waste management present risks to human health, biodiversity and long-term sustainability.

The Falkland Islands benefits from a limited assortment of large pollution and waste sources and the environment remains relatively unpolluted. But limited and primitive waste disposal processes still endanger health and the environment, and over-reliance on older energy sources and limited pollution controls, especially in and around the concentrated population in Stanley mean that there are still important paths for improvement. Although pollution control measures are reasonably well developed for the marine environment through the Maritime Ordinance 2017 (Part 7 – Prevention of Pollution), the regulatory framework for pollution control and waste management in the terrestrial environment are minimal. The current key sources of pollution in the Falkland Islands are related to the following:

- (a) the handling and burning of fossil fuels for energy and transportation;
- (b) the handling and disposal of household wastes and waste from existing industries, including, the fishing industry, agriculture, tourism, and businesses across a range of other sectors; and
- (c) sewage related waste from existing infrastructure including domestic, private and public sources.

In light of the key sources of pollution, the main types of environmental pollution experienced in the Falkland Islands are air, land and water pollution. A detailed outline of these different types of pollution and the sources within the Falkland Islands context are described below.

### 1. Air Pollution

Emissions from the power plant, combined with the burning of kerosene for heating, the burning of gas for cooking and use of diesel for motorised transport are all sources of air pollution in the Falkland Islands. The major source of air pollution comes from the Stanley power station as it is powered by diesel, which produces particulate matter (PM) amongst other pollutants. The location of the power station on the edge of one of the Falkland Islands' most densely populated areas

raises concerns about the impact of these emissions on human health. Aside from diesel, gas and kerosene are two popular fuels for heating and cooking in Stanley which are also pollution sources. Gas and kerosene produce high levels of fine particulate matter ( $PM_{2.5}$ ) and nitrogen dioxide ( $NO_2$ ). Indoor air quality is impacted by both indoor and outdoor sources as microscopic particles can enter through doors and windows, as well as gaps in partitioning. This has implications for human health as many people spend the majority of time indoors.

Although some methane measurements have been recorded at Sappers Hill for atmospheric research purposes,<sup>1</sup> no data exists on air quality in relation to pollution sources in the Falkland Islands due to lack of monitoring, scientific literature has long known the human health risks associated with the inhalation of diesel, kerosene and gas fumes. The World Health Organisation has even indicated that air pollution is one of the biggest environmental threats to human health, together with climate change. To this end, reducing air pollution will not only assist with mitigating global climate change but with also protecting human health<sup>2</sup>.

The proposed new power station for the Falkland Islands will mitigate some of the ill-effects of air pollution in Stanley through the use of more energy efficient equipment, the installation of air quality monitors, and its location away from populated areas in Stanley. However, the station will still remain as a major pollution source. The Falkland Islands Energy Strategy is intended to complement this Pollution Prevention and Waste Management Strategy by identifying a path away from the use of diesel fuel as a primary electricity generation source, including expansion of solar and wind technology and the use of energy storage to reduce diesel combustion. These are critical pollution control priorities, to be implemented in tandem with the broader approach outlined in this strategy. National infrastructure planning and investments are intended to implement this shift towards non-polluting power.

There are currently no air pollution limits in the Falkland Islands. Consequently, the development of robust air pollution limits with effective monitoring will mitigate and ultimately reduce the negative effects of pollution on the population and environment. It will also ensure that any new

<sup>&</sup>lt;sup>1</sup> Falkland Islands Atmospheric Observatory, Royal Holloway Greenhouse Gas Research Group.

<sup>&</sup>lt;sup>2</sup> WHO, New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution; 2021, <a href="https://www.who.int/news/item/22-09-2021-new-who-global-air-quality-guidelines-aim-to-save-millions-of-lives-from-air-pollution">https://www.who.int/news/item/22-09-2021-new-who-global-air-quality-guidelines-aim-to-save-millions-of-lives-from-air-pollution</a>; accessed on 12 September 2023.

infrastructural developments will not pose as a pollution threat as emission limitations will be implemented, with developments that follow the core environment principles outlined in paragraph 6 below prioritised, shifting the reliance away from fossil fuel derived energy, towards non-polluting alternatives such as wind energy or electric vehicles (EVs).

In light of the current status, the following have therefore been identified as some of the main issues that are associated with air pollution in the Falkland Islands:

- (i) There is currently a lack of monitoring for air pollution levels leading to the absence of data/information to influence decision making processes;
- (ii) There is also an absence of standards for reducing air pollution emissions;
- (iii) There is a lack of overarching legislation for dealing with air pollution management matters; and
- (iv) There is currently under-investment in clean and renewable sources of energy.

### 2. Land Pollution

The Falkland Islands has an informal agreement for tin and can recycling with BFSAI, and crushes used glass receptacles to be used for structural developments, although these are the only circular economy processes that exist to date. All other waste streams (excluding waste from the MoD) are disposed of in Eliza Cove landfill, incinerated in the Falkland Islands Meat Company's (FIMCO) incinerator, or buried on private land.

Open burning at Eliza Cove landfill occurs unregulated and is uncontrolled, with fires resulting from the combustion of flammable materials, along with the dumping of hazardous wastes including toxic chemicals derived from old batteries and industrial processes at this landfill.

Waste oils and imported road works materials such as bitumen require no specific bunding or other spill controls, and spills occur as a result. Not only do these toxins adversely affect the immediate environment, they can directly impact human health, specifically of workers that are in close proximity to pollution sources.

A new waste management facility (WMF) will be built in the coming years to facilitate waste stream segregation and controlled incineration with a stack height designed to direct emissions away from dwellings and people. However, without regular monitoring, the incinerator could risk contributing

to harmful emissions. Additionally, a cost-benefit assessment is needed to evaluate the advantages of shipping certain waste types over long distances for disposal. The calorific value of certain wastes, such as plastics and cardboard, may justify their use as supplementary fuel in the incinerator, potentially reducing reliance on diesel while ensuring efficient waste management within regulated emission limits.

As many hazardous waste items cannot be incinerated, the shipment of these wastes, including waste electrical and electronic equipment (WEEE), old car batteries, aerosols and paints, to the UK should be explored prior to the completion of the new WMF, in order to avoid non-burnable items from becoming pollution sources.

Considering the current status, the following have therefore been identified as some of main issues that are associated with land pollution in the Falkland Islands: -

- (i) Currently, there are no regulations or targets to reduce the amount of plastic used in packaging, although an initiative to stop the use of plastic bags in stores has proved hugely successful;
- (ii) There are also a lack of remediation and liability regulations to clean up existing sites;
- (iii) There are no requirements for segregation of waste streams outside of tins, cans and glass. Hazardous and non-hazardous wastes end up in landfill; and
- (iv) There is limited and uncoordinated contingency plans for terrestrial fuel/chemical spills including minimal bunding for hazardous waste/oils at storage sites.

### 3. Water Pollution

In the Falkland Islands water pollution is mainly caused by sewage, fertilisers and wastewaters that end up in the environment. This can cause harmful algal blooms due to excess nutrients that are released which can deplete waterbodies of oxygen and block out light for other organisms.

Industrial waste from terrestrial sources such as oil spills, nitrates and phosphates are also present.

As previously acknowledged, pollution regulations of the maritime environment in the Falkland Islands is more developed than in the terrestrial environment. However, this is not the case for inland water bodies or those above the low-water line of the Falkland Islands tidal zone.

Although new housing developments have biodiscs installed, the majority of sewage from Stanley is left untreated and is released into the Stanley Harbour. As a result, citizens are advised to avoid swimming in this harbour due to high levels of harmful bacteria including coliforms, *Escherichia* coli and enterococci.

In light of the current status, the following have therefore been identified as some of main issues that are associated with water pollution in the Falkland Islands: -

- (i) Industrial waste from terrestrial sources is not being mitigated at the point of source to avoid leaching into water bodies;
- (ii) Bio-discs present an obvious solution to the raw sewage problem, however there is no prioritisation given to their installation and no regulations preventing the use of septic tanks. Furthermore, although biodiscs are currently the best solution for sewage treatment on the Islands, they require regular emptying of the accumulated sludge which is currently not regulated;
- (iii) The current disposal methods for sludge present additional environmental challenges. Options for incinerating the sludge are limited due to the potential classification of incinerated ash as hazardous waste, while direct disposal into the harbour raises concerns over water pollution, with long-term impacts not yet fully assessed. Further work is required to investigate and evaluate the feasibility and environmental impacts of available sludge disposal options to identify a sustainable and compliant solution for the Falkland Islands;
- (iv) Water bodies that are inland or above the Falkland Islands territorial low tide mark are not protected by any pollution regulations;
- (v) There is a lack of an overarching legal framework for regulating water pollution in the Falkland Islands; and
- (vi) There is also a lack of a solution led approach to tackling sewage problems.

## Annex 2: Definitions

In this strategy, the following terms and phrases shall have the following meaning, unless the context requires otherwise: -

"Competent Authority" means the government body or organisation that is legally designated and empowered to oversee, regulate, and enforce laws and policies;

#### "Environmental Protection" means the:

- (a) protection of the natural environment from the effects of human activity;
- (b) protection of people from the effects of human activity on the natural environment;
- (c) maintenance, restoration or enhancement of the natural environment; and
- (d) monitoring, assessing, considering or reporting on anything that applies to the points above;

"Hazardous Waste" means waste (or the material or substances it contains) that belongs to any category set out in Annex I (unless it does not possess any of the characteristics set out in Annex III) of the Basel Convention on the Transboundary Movement of Hazardous Waste. It is typically defined by its hazardous properties, which may include being toxic, corrosive, reactive, flammable, or radioactive. Examples of hazardous waste include: asbestos, chemicals such as motor oil, batteries, solvents and pesticides;

"Pollution" means the introduction of substances (such as particulate matter, chemicals, solid or liquid waste, and excess nutrients) or energy (such as radiation, heat, noise and light) into the environment, resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems, and impair or interfere with amenities and other legitimate uses of the environment;

"Strategy" means this Pollution Prevention and Waste Management Strategy;

"Sustainable Development" means development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. It involves trying to achieve environmental benefit alongside economic growth and social progress in both a local and global context;

"Waste" means any substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provision of national law. Waste can come from

various sources, including commercial, households, industries, agriculture and construction and can take different forms such as solid, sludge, liquid or gaseous; and

"Waste Management" means the range or spectrum of activities associated with Waste, namely: its generation, segregation, storage, handling and transportation from the point of source to its place of disposal.