

EBBSFLEET DEVELOPMENT CORPORATION

STRATEGY REVIEW

Priorities for nature and the wider environment from plans and strategies

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To note: The Environmental Improvement Plan 2023, Environmental goals, have been used to categorize the district's environmental targets in this review.



SECTION 1: THREATS AND PRESSURES ON THE NATURAL ENVIRONMENT

1.1 Water Stress (Sustainable Performance Framework, 2023)

Gravesham and Dartford are some of the driest areas in the Southeast, with typically half the average rainfall of Sydney in Australia. There is a need to ensure that future development minimises the net water demand to ensure that there is enough water to meet the needs of existing and new residents.

1.2 Flood Risk (Sustainable Performance Framework, 2023)

Ebbsfleet's proximity to the River Thames and the River Ebbsfleet also means that despite this low level of rain, there is a need to ensure that the site is resilient to flood risk.

1.3 Waste (Sustainable Performance Framework, 2023)

The construction industry is one of the world's largest consumers of raw materials and produces around a third of the world's waste.



SECTION 2: TARGETS AND PRIORITIES FOR NATURE RECOVERY (GOAL 1)

2.1 PROTECTING HABITATS

2.1.1 The Vision (The Vision)

Championed by the Government and Ebbsfleet Development Corporation, Ebbsfleet brings the traditional garden city principles up to date. It provides modern liveability with quality design, sustainable connections, nature, greenery, health, and wellbeing. Diverse communities are emerging almost organically, brimming with energy and ideas, and breathing life into the modern garden city. Local residents are also empowered, through the Ebbsfleet Garden City Trust, to protect and steer the long-term future of the area for generations to come.

Ebbsfleet will be a haven for the environment where green habitats, wet woodlands, chalk streams and urban greenery are nurtured for wildlife and old quarries are reinvented for nature and recreation. Alongside this, as an original NHS Healthy Town, a health and wellbeing hub is proposed, complemented by new cycleways and footpaths to Bluewater and beyond to support the health and wellbeing of all.

These new connections and facilities will also help to bring together Ebbsfleet's new residents with those from the existing neighbourhoods of Swanscombe, Northfleet, Greenhithe, Stone, Dartford and Gravesend.

2.1.2 Green and blue Infrastructure

Over 40% of the Ebbsfleet development area will be dedicated to green and blue space, affording residents and visitors space to enjoy nature and all it has to offer. Whilst innovation and high-quality design are at the heart of the growing community, so is biodiversity and sustainability, ensuring residents, visitors and the Corporation balance development ambitions with commitment to protect and conserve the future of Ebbsfleet for generations to come. (The Vision)

The landscapes of Ebbsfleet's quarries, lakes and rivers are rich in ecology, providing a diverse range of habitats that include the SSSI on the Swanscombe Peninsula, the Ebbsfleet Marshes and the calciferous stream of the River Ebbsfleet. (Sustainable Performance Framework, 2023)

Environmental Sustainability Framework (Ebbsfleet Decarbonation Plan, 2023):

Flood resilience:

- EDC projects to prioritise green and blue sustainable drainage to achieve resilience to 1% annual exceedance probability



Sustainable Performance Framework (2023):

Water performance measures:

- Ensure that EDC sites are resilient to tidal and surface water flooding.

2.2 RESTORING AND ENHANCING HABITATS

2.2.1 Green and Blue Infrastructure

Sustainable Performance Framework, 2023:

While biodiversity has flourished within these former industrial areas, there remains a significant opportunity to enhance biodiversity connections and deliver an ambitious level of biodiversity gain. Furthermore, pollution of both ground and light should be mitigated to further enhance biodiversity. This landscape also provides a broad range of opportunities to open up access to green space for residents, and use the space for exercise, recreation and community food production, while engaging with nature.

Objectives:

1. Introduce modelling, measuring, management and reporting of biodiversity.
2. Promote inclusion of a broader range of green infrastructure into all project types.
3. Promote a planting programme within public realm and private gardens, that contributes to climate resilience.
4. Provide options and opportunities to enable residents to connect with nature and make sustainable lifestyle choices that support biodiversity.

Performance Measures:



Outcome	Performance measure	Metric	Implement from	Performance measure applied to project typology				Operational principles	Context / Reference
				Public realm and Infrastructure	Residential	Commercial	Schools & Community buildings		
Biodiverse	Biodiversity Net Gain	% biodiversity net gain (BNG)	2025	Achieve the 10% biodiversity net gain on each plot, or through offsetting within the Ebbsfleet Urban Development Boundary.				Operators to manage and maintain biodiversity to protect habitats and species.	10% biodiversity net gain is mandatory through the Environmental Bill.
	Urban Greening Factor	Urban Greening Factor	2025	N/A	0.4	0.3	N/A	Operators required to follow management and maintenance plans as set out in Soft Landings user guides, to ensure the defined areas and typology of cover are protected and maintained.	This target can be used alongside the BNG target to ensure that green infrastructure is designed in. Urban greening reduces heat, absorbs pollution from the air and promotes biodiversity, and is already being implemented across London
	Tree canopy cover	% tree canopy cover of amenity and public realm outdoor spaces	2025	>20% of any masterplan to be covered in trees, using UK Forestry Commission tree canopy calculation methodology.				Operators required to manage and maintain trees within their site, and replace when necessary to preserve the tree canopy.	Measure has been derived from UK Forestry Commission and Woodland trust research and recommended ambition for a non-coastal town. Dartford has a current tree canopy of 16%, and Gravesham of 10.6% (2016). The measure is included to promote the provision of an 'urban forest' within Ebbsfleet to enhance biodiversity, and provide shading, flood resilience, carbon sequestration, and cooling, as well as improving health
Ecological corridor	Compliance with Ebbsfleet Green Infrastructure Framework	Report on number of connections	2025	Report on number of connections				Operators should manage and maintain landscape to ensure these connections are retained and habitats are protected	Ecological corridors are essential to restore and preserve biodiversity as they allow movement between important habitats which support a diverse wildlife population. Ebbsfleet's Implementation Framework has identified a garden grid which should be used to develop green infrastructure network plans for all masterplans.
			2025	N/A	> Aim for 20% ² of roof area as a green roof (balancing the need for blue roofs, amenity space and PV on roofs)		Operator to manage and maintain green roofs, in compliance with guidance set out in Soft Landings user guide.	This measure will need to be tested for each projects to determine optimum use and function of roof, and balancing the need for green roofs, blue roofs, PV, plant equipment and amenity space.	
Pollution	Ground pollution	% remediated contamination	2025	100% contaminated ground treated and remediated				Operators to manage and maintain assets in compliance with Soft Landings guidance, avoiding use of harmful chemicals / weedkillers, and using natural fertilisers.	Ground remediation is critical to supporting healthy habitats as well as human health.
	Light pollution	Provision of wildlife sensitive lighting and luminous efficacy	2025	Lighting strategy to consider the green infrastructure network, and need for dark corridors, and incorporate sensitive lighting systems where appropriate.				Operators to maintain external lighting in accordance with the lighting strategy and guidance in the Soft Landings user guide.	Light pollution disrupts the natural patterns of wildlife. Using wildlife sensitive lighting is more efficient and uses less energy.
Resilient	Drought resistant	% drought resistant species of trees, shrubs and ornamental planting specification	2025	100% of planting to be drought tolerant, using native and near native species as appropriate.				Operators to implement long term planting strategies as per guidance in Soft Landings user guides, and report on planting failures / replacements within first 3 years to EDC / delegated authority.	Specifying drought resilient plants minimises the amount of water required for irrigation and means the landscape is resilient to extreme weather events. Measures aligned with guidance in the Ebbsfleet Public Realm Strategy.
			2025	A community garden or allotments should be provided within 400m of all residents.				Operators of sites that include a community garden, allotment, orchard or other growing facility should manage and maintain the facility in alignment with the guidance set out in the Soft Landings User Guide, and promote the use of the facility.	This measure supports the ambitions set out in the Implementation Framework, and aligns with HQM ONE technical manual (2018). Food growing brings the community together and provides access to healthy affordable food.
Food	Food growing	% of total gross development area (GDA) allocated to communal growing space	2025	A community garden or allotments should be provided within 400m of all residents.					



Ebbsfleet Environmental Sustainability Framework (Ebbsfleet Decarbonation Plan, 2023):

Action:

Continually improve the quantity and quality of tree planting and biodiverse habitats, supporting multiple outcomes, including: carbon sequestration, climate resilience, biodiversity, air quality and health benefits. Delivering this action is supported by:

Strategy and planning:

- Develop strategic plans for green infrastructure and biodiversity enhancement and identify opportunities to increase general ecosystem services.
- Develop a Green Infrastructure mapping tool to enable residents to become active in the management of their wildlife, habitats and green open spaces.
- Continue to support the delivery of tree-lined streets and high quality, drought tolerant planted verges across Ebbsfleet to support the biodiversity, including the 'Ebbsfleet Gateway' strategic planting programme for strategic highways.
- Undertake monitoring to measure the carbon sequestration rate of the primary habitats on-site and explore any further improvements available through different land management techniques.

Implementation Framework Summary (2017):

Delivery theme 4: Healthy Environments

Objectives:

- Build on Ebbsfleet's designation as a 'Healthy New Town' to promote healthier lifestyles and to facilitate the delivery of innovative, effective and efficient health services across Ebbsfleet.
- Exploit the best of Ebbsfleet's blue and green natural assets to open up landscape and public realm which will encourage active lifestyles and help to establish Ebbsfleet as a premier destination for recreation and leisure in Kent.
- Celebrate Ebbsfleet's cliffs, lakes, waterways, industrial heritage and archaeological assets to create a unique environment which enhances ecological and biodiversity value and creates a stimulating environment which supports positive mental health

Key Performance Indicators:

KP1 6: Net gain in accessible open space, public realm and recreation areas completed

KPI 7: Improvements to agreed local quality of life indicators (from 2016 base)

Key Move : Bringing in the green and the blue

Bringing the green into development to create a continuous network, enhancing value, amenity, health and environmental conditions.



Bringing in the Green and Blue

The Framework connects Ebbsfleet’s blue waterscapes and green landscapes to bring the garden into all areas of the city. This network of parks, open spaces and green streets and corridors will provide beautiful and functional recreational spaces, and habitats that support local ecology and water management in an integrated and sustainable way.

This plan illustrates the overall vision for the Garden grid network across Ebbsfleet and the surrounding area, providing an integrated and flexible framework that connects landscape, recreation, movement and ecology.

The Garden grid

This plan illustrates the overall vision for the Garden grid network across Ebbsfleet and the surrounding area, providing an integrated and flexible framework that connects landscape, recreation, movement and ecology.

- Natural landscape
- Open space
- Environmental sensitive area
- Public realm/square/promenade
- Local open space
- Development area
- Topographical feature
- Playing fields
- Education campus playing fields
- Neighbourhood play/Play hub
- Local play/Multi-use games area (MUGA)
- Allotments
- SSSI
- Green belt
- Feature (stair / ramp / bridge / pier / lift)
- Waterway/lake
- Strategic open space with water management function
- SuDs/water management infrastructure (subject to further investigation)
- Wetlands
- Marsh
- Cycling friendly street
- Key pedestrian and cycle way (on Site)
- Key pedestrian and cycle way (off Site)
- Overhead power line (exclusion zone 50m)
- Cliff



2.3 HABITAT CREATION

2.3.1 Green Infrastructure

Parks and Open Spaces (Parks)

A network of parks and open spaces planned, the 7 major parks of Ebbsfleet Garden City:

- Ebbsfleet Central Park
- Ebbsfleet River Park
- Swanscombe Peninsula Park
- Blue Lake Park
- Northfleet Riverside Park
- Whitecliffe Lakes
- Major Urban Park/ Craylands Gorge Park

More than 50 new parks and open spaces are planned for Ebbsfleet, with 7 city new parks and over 40% of the Ebbsfleet regeneration area dedicated to blue and green space, the equivalent of over 1000 football pitches, or 42 Bluewater Shopping Centres!

A range of park types and sizes are planned across Ebbsfleet. Each park will be designed to support the needs of local residents, and together will form a diverse network of landscapes, and a rich menu of facilities in which to exercise, play, relax, create, engage, celebrate and come together as a community.





2.3.2 Blue Infrastructure

Ebbsfleet Environmental Sustainability Framework, 2023:

Strategic priority: Water

Ebbsfleet Environmental Outcomes:

- Greening the city : To create a healthy, biodiverse and attractive landscape, including 400 ha of newly accessible green and blue spaces that supports active lifestyles by 2035
- Biodiversity : To achieve net positive species impact by 2035

The planned rivers and lakes will also provide opportunities to improve the amenity and ecological value of these areas too, whilst enhancing the quality of the water. For example, Blue Lake is situated in a former quarry, and has the opportunity to be a focal point of the community, bringing people together for leisure and sports. Ebbsfleet provides the opportunity to consider water as an integrated system across neighbourhoods, buildings streets and landscapes, to provide access and collect, store, reuse and treat our water to drive down water-use significantly. (Parks)

2.4 SPECIES SPECIFIC



SECTION 3: WIDER ENVIRONMENTAL BENEFITS

3.1 GOAL 2: AIR QUALITY

Sustainable Performance Framework, 2023:

Context and vision: Health and wellbeing performance measures

One of the key principles of the Garden City movement is to design places that promote good health and wellbeing and allow residents to lead active lifestyles. Ebbsfleet is one of ten NHS 'Healthy New Towns', which seeks to promote health and wellbeing at every stage of the design and operation. Health will be designed in from the masterplan level down to the materials used in homes, to make it easier for residents to be active.

EDC projects will promote low carbon and active forms of transport and create comfortable internal and external environments that promote good health and wellbeing.

Objectives:

1. Create walkable neighbourhoods that allow residents to be in a 5 minute walk of day to day amenities.
2. Design in active travel and low carbon infrastructure to promote a high uptake of sustainable transport.
3. Minimise air and noise pollution to create a place that is comfortable day and night.
4. Develop healthy homes that embrace the Healthy Homes Act principles to provide homes that are safe, secure, accessible, light, quiet and comfortable and resilient to climate change.

Implementation Framework Summary, 2017:

Delivery theme 6: Resilient and Sustainable Systems

Objectives: Develop a 'Garden Grid' to enhance the sustainability and resilience of Ebbsfleet by improving air quality and management of the urban water cycle.

3.2 GOAL 3: CLEAN AND PLENTIFUL WATER

Sustainable Performance Framework, 2023:

Gravesham and Dartford are some of the driest areas in the Southeast, with typically half the average rainfall of Sydney in Australia. There is a need to



ensure that future development minimises the net water demand to ensure that there is enough water to meet the needs of existing and new residents

Water performance measures:

Objectives : Minimise potable water use to reduce pressure on water demand.

Ebbsfleet Environmental Sustainability Framework (Ebbsfleet Decarbonation Plan, 2023):

Strategic priority: Water

Ebbsfleet Environmental Outcomes:

- Water use: Minimise net water supply from outside the Ebbsfleet Garden City area
- Water quality: Provide access to a broad range of affordable leisure and sports activities within Ebbsfleet's water courses
- Flood resilience: EDC projects to prioritise green and blue sustainable drainage to achieve resilience to 1% annual exceedance probability

Implementation Framework Summary, 2017:

Delivery theme 6: Integrated utilities and services

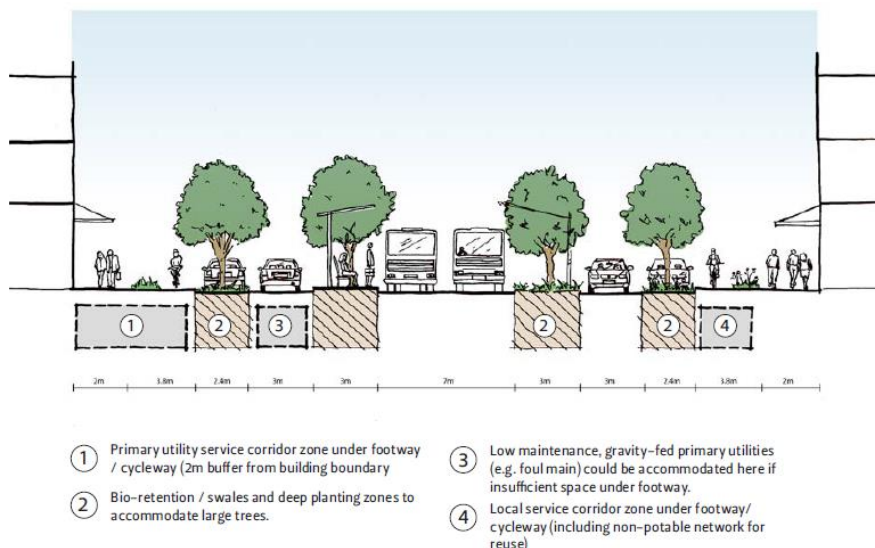
Primary Utilities Corridors:

The Framework establishes a coordinated, area-wide approach to utility provision via a network of shared utility corridors, ensuring utilities are provided from the outset and making maintenance easier and less inconvenient for residents. The cross-section to the right illustrates a typical arrangement of utilities and services under the street so that disruption is minimised and potential for sustainable water management maximised.

Key Moves:

Integrated utility corridors- A network of utility corridors is integrated into the Framework, extending to all corners of Ebbsfleet and running primarily beneath the dedicated Fastrack route. Cabling will be laid in conduits for easy access. As such, any work or upgrade of the network will cause minimum disruption to the movement network.

Active Water Management - Ebbsfleet will continue to be designed using the principles of Water Sensitive Urban Design - the process of integrating water cycle management with the built environment through planning and urban design. Rather than being channelled into the constrained sewer network, rain water falling on Ebbsfleet will be slowed using appropriate approaches and devices too.



3.3 GOAL 4: MANAGING EXPOSURE TO CHEMICALS AND PESTICIDES

3.4 GOAL 5: MAXIMISE OUR RESOURCES, MINIMISE OUR WASTE

Ebbsfleet Environmental Sustainability Framework (Ebbsfleet Decarbonation Plan, 2023):

Strategic priority: Waste

Ebbsfleet Environmental Outcomes:

- Waste reduction : Minimise construction and operational waste and maximise domestic recycling
- Waste reduction : Promote circular economy through EDC procurement, partnerships, and investment
- Healthy materials : Promote sustainable building materials within EDC projects (where appropriate)

3.5 GOAL 6: USING RESOURCES FROM NATURE SUSTAINABLY

3.6 GOAL 7: MITIGATING AND ADAPTING TO CLIMATE CHANGE

Ebbsfleet Environmental Sustainability Framework (Ebbsfleet Decarbonation Plan, 2023):

Strategic priority: Carbon

Ebbsfleet Environmental Outcomes:

- Energy use: Ebbsfleet will aim to be net zero carbon upon completion



- Energy generation & distribution: EDC projects aim to be exemplar in energy generation and usage

Implementation Framework Summary, 2017:

Delivery theme 6: Resilient and Sustainable Systems

Objectives:

- Identify innovative approaches and new and emerging technology to reduce carbon and to improve the efficiency of urban systems.
- Ensure homes and infrastructure are future-proofed to be responsive to everybody's individual and collective needs now and into the future.
- Develop a 'Garden Grid' to enhance the sustainability and resilience of Ebbsfleet by improving air quality and management of the urban water cycle.

Key performance indicators:

KPI 9: Number of homes completed which meet enhanced standards for environmental performance, space and accessibility above the statutory minimum.

KPI 10: Net improvements to air quality and sustainable urban drainage (from a 2016 base).

Delivery theme 4: Making the most of our water

Each neighbourhood, street, park and buildings should consider how water can be managed intelligently to minimise flooding, facilitate irrigation, and promote habitats resilient to flooding and climate change.

3.7 GOAL 8: REDUCE RISK OF HARM FROM ENVIRONMENTAL HAZARDS

3.8 GOAL 9: ENHANCE BIOSECURITY



3.9 GOAL 10: ENHANCE BEAUTY, HERITAGE AND ENGAGEMENT WITH THE NATURAL ENVIRONMENT

3.9.1 Health and wellbeing

Ebbsfleet Environmental Sustainability Framework (Ebbsfleet Decarbonation Plan, 2023):

Strategic priority: Health and Wellbeing

Ebbsfleet Environmental Outcomes:

- Environment: Create a healthy environment where people are empowered to enjoy a high quality of life and improved life expectancy, supported through sustainable buildings and civic infrastructure
- Sustainable travel: Net zero travel-based carbon emissions per person per day
- Healthy buildings: Deliver comfortable and accessible buildings

Sustainable Performance Framework, 2023:

Context and vision: Health and wellbeing performance measures

One of the key principles of the Garden City movement is to design places that promote good health and wellbeing and allow residents to lead active lifestyles. Ebbsfleet is one of ten NHS 'Healthy New Towns', which seeks to promote health and wellbeing at every stage of the design and operation. Health will be designed in from the masterplan level down to the materials used in homes, to make it easier for residents to be active.

EDC projects will promote low carbon and active forms of transport and create comfortable internal and external environments that promote good health and wellbeing.

Objectives:

1. Create walkable neighbourhoods that allow residents to be in a 5 minute walk of day to day amenities.
2. Design in active travel and low carbon infrastructure to promote a high uptake of sustainable transport.
3. Minimise air and noise pollution to create a place that is comfortable day and night.
4. Develop healthy homes that embrace the Healthy Homes Act principles to provide homes that are safe, secure, accessible, light, quiet and comfortable and resilient to climate change.



Implementation Framework Summary, 2017:

Delivery theme 5: Civic Community

Objective:

Optimise the quality of life for local people through the provision of accessible social infrastructure; cultural, community, education, recreational, and local shopping facilities, within healthy, well connected neighbourhoods which are open and accessible to everyone.

3.9.2 Connectivity

Implementation Framework Summary, 2017:

Delivery theme 4:

A Garden grid: A green infrastructure network connects the city's parks and open spaces with the Thames riverside and the wider Kent countryside, using green corridors to provide safe and attractive walking and cycling networks.

Seeding 7 city parks: Five major parks, and two linear parks will provide landmark open spaces exemplifying the beauty of Ebbsfleet's diverse landscapes, and supporting the city's recreational programmes, outdoor events calendar and larger sports facilities.

Local parks on your doorstep: A design framework for local parks will promote opportunities for the local community to socialise, play, grow food, and support the localised management of stormwater and local ecosystems.

Active landscapes: The design of Ebbsfleet's streets, public spaces, parks, open spaces and waterscapes should consider opportunities to promote physical activity, play and socialising, to foster healthy and communal lifestyles.

Productive landscapes: Productive landscapes: Kent's iconic identity as the 'Garden of England' should be reflected in the planning of the city's green network. Opportunities will be considered across the Garden Grid to support community ambitions to grow food locally.

3.9.3 Accessibility

Implementation Framework Summary, 2017:

Delivery theme 3: Connecting People and Places

Objectives:

- Create and improve safe, integrated and accessible transport systems, with walking, cycling and public transport systems designed to be the most attractive form of local transport.

- Promote legible networks across Ebbsfleet, from the River Thames to the green belt and from Dartford to Gravesend in order to help people to connect with each other and between the new and existing communities.

Building on Ebbsfleet’s connections

Key move:

Walking & Cycling Priority will be given to the early delivery, integrated design and sustainable maintenance of Ebbsfleet’s walking and cycling networks to ensure they provide door to door connectivity, reducing the need to travel by car, and improving residents health and well-being.



(Walking and Cycling Routes)

SECTION 4: PROJECTS TO NOTE

4.1 Working in Partnership (Environment and Sustainability)

Ebbsfleet Development Corporation will continue to work in partnership with developers and stakeholders through a variety of initiatives to ensure that sustainability requirements are embedded into all projects and opportunities. Ebbsfleet Development Corporation has three levels of control:

Own: where the Corporation owns the land and have direct control.

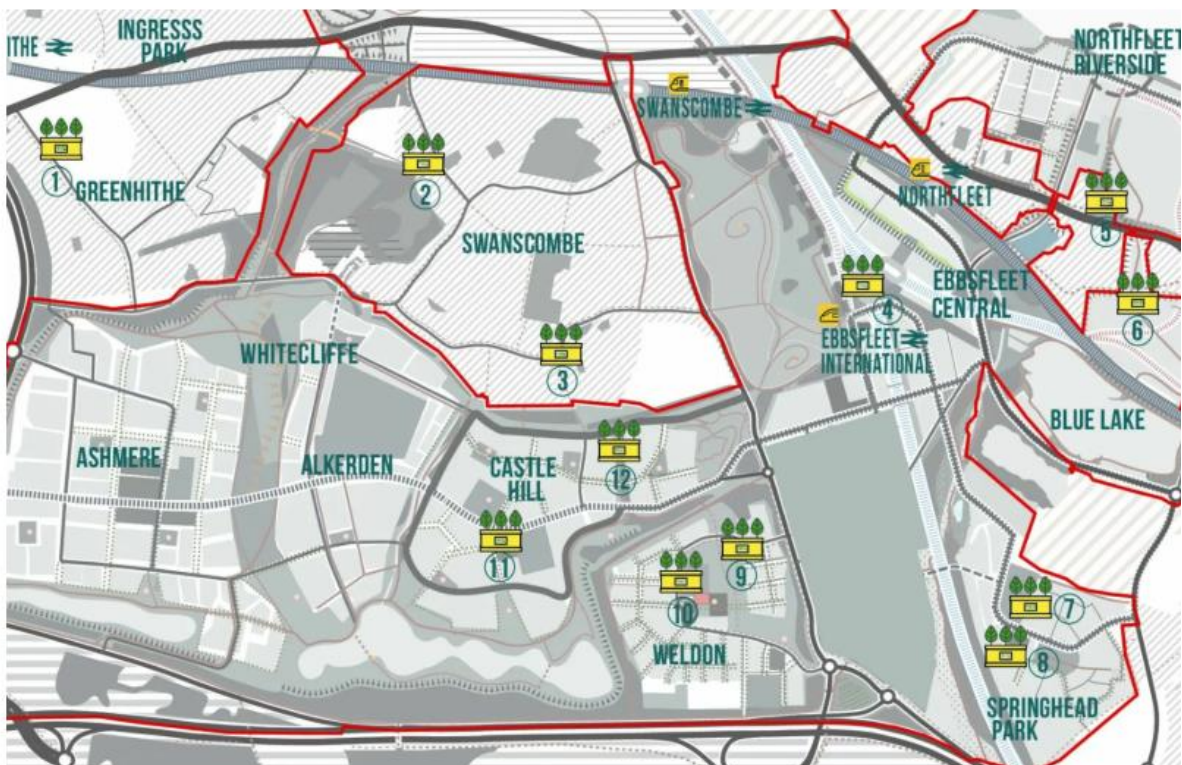
Share: the impacts and opportunities that will need to be delivered in partnership.

Influence: that the Corporation has direct control over wider opportunities where we may be able to influence outcomes through partnerships and more integrated development

4.2 Edible Ebbsfleet (Edible Ebbsfleet)

Edible Ebbsfleet is a community activation initiative which works with, and supports local residents to develop a series of small scale food growing initiatives along local streets, parks and gardens both to transform the image of the area and to promote education on the health benefits of eating fresh fruit and vegetables.

There are 11 Edible Ebbsfleet planters across Ebbsfleet, all set up to encourage residents and local community members to get involved and work together to grow, share and enjoy locally grown produce.





SECTION 5: DOCUMENTS REVIEWED AND REFERENCED

Document reference	Link
Implementation Framework Summary, 2017	Ebbsfleet-Summary-Framework-4.pdf
The vision	The Vision - Ebbsfleet Garden City
Environment and Sustainability	Environment & Sustainability - Ebbsfleet Garden City
Ebbsfleet Environmental Sustainability Framework, 2023	Ebbsfleet-Decarbonisation-Plan-compressed.pdf (ebbsfleetgardencity.org.uk)
Sustainable Performance Framework, 2023	EDC-Sustainable-Performance-Framework-compressedS.pdf (ebbsfleetgardencity.org.uk)
Parks	Parks - Ebbsfleet Garden City
Edible Ebbsfleet	Edible Ebbsfleet - Ebbsfleet Garden City
Walking and Cycling Routes	Walking and cycling routes - Ebbsfleet Garden City