3 SITE AND CONTEXT

This Development Framework brings together a comprehensive range of technical studies to inform future development proposals. These provide a robust foundation to the Development Framework and give confidence in the ability of this site to release development and provide key infrastructure.

The technical studies are available within a separate appendix document.

INTRODUCTION

Purpose

3.1. Section 3 provides a non-technical summary of the key findings of the technical studies. The purpose is to;

1. Provide a foundation for the strategic objectives (Section 4), spatial masterplan (Section 5) and delivery approach (Section 6) by;
   - Highlighting key issues, constraints, and opportunities
   - Establishing related key objectives for the spatial masterplan (and future development proposals) to address.
   - Informing any future site analysis work undertaken as future phases of development come forward.
2. Identify issues and considerations that may directly impact on development, for example directly shaping spatial extents and land use distribution.
3. Provide further confidence in the deliverability of the site, overall capacity, and phasing approach.

LOCATION AND REUSE OF BROWNFIELD LAND

The locational strengths and brownfield credentials of the site are key drivers for development. Brownfield land will be reused and employment and housing development will benefit from strategic and local accessibility, providing jobs and homes in a location which reduces distances people need to travel to work.

Location: wider context

3.2. Redevelopment of the site will reuse approximately 100ha of brownfield land with excellent access to the regional and national strategic highway network, not only reflecting Warrington's key location at the convergence of M62, M56 and M6 but maximising the strategic benefits of the Mersey Gateway crossing. The site's proximity to major urban conurbations of Warrington and Widnes makes it highly accessible locally to a large resident population and available workforce.

3.3. The site incorporates existing rail freight infrastructure, connected to the Widnes to Warrington rail line, which presents potential opportunities for linking into the FF Employment Area should a specialist requirement materialise. This may include facilities and infrastructure to enable freight to be conveyed by rail directly to and from the buildings serving the employment uses.

3.4. The site has a unique green and blue infrastructure context; the River Mersey, Manchester Ship Canal and St Helens Canal combine with significant open spaces and Green Belt countryside to create a distinctive environmental character.

Mersey Valley

3.5. Fiddlers Ferry has a prominent location within the wider Mersey Valley. The site and local area display some key characteristics of the wider Mersey Valley corridor, providing an exceptional setting for development;

- The Mersey Estuary, with expansive intertidal mudflats/sand flats and open views.
- The River Mersey, flowing from east to west, joined by associated tributaries (although the river is largely obscured from inland views, including from within the FF Development Area).
- Large-scale, open and predominantly flat farmland between urban areas.
- Densely populated urban and suburban areas.
- Large-scale, highly visible industrial development.
- Dense transportation network with motorways, roads, railways, and canals.
- River crossings and communications / energy infrastructure.

LOCAL CONTEXT

3.6. The local context can be summarised as a place that is subject to strong human influences: various industrial activities, including 'heavy' industries, residential development, agriculture, and substantial transport infrastructure. This is an industrial landscape, affected by the presence of the former power station itself, other large-scale industrial buildings, chemical works, and waste management/ landfill. Residential areas and transport infrastructure (road, rail, and canals) are also significant influences on local character and sense of place.

Socio-economic*

3.7. Key indicators for the local area indicate the opportunity for the redevelopment of the site to contribute towards a growing local economy.

3.8. Warrington and neighbouring Halton have strong employment growth in logistics related employment with over 21,000 additional jobs in logistics related sectors being created in Warrington over the period 2011 to 2021, demonstrating the locational and labour market credentials of the area and the opportunity to grow further.

3.9. Warrington is a net importer of labour with nearly 50% of jobs in the Borough accessed by those living elsewhere due to the size and growth in Warrington's economy. In-commuters are almost all from the wider Northwest, with Halton, St Helens and Wigan having strong in commuting links to the town.

3.10. There is a large latent employment supply available to meet future labour demand with 59,000 economically inactive residents in Cheshire and Warrington and the Liverpool City Region that form the predominant labour catchment to Warrington.

3.11. There are significant areas of employment deprivation in close proximity to the site with areas around Widnes Town Centre, central and northern Warrington amongst the most deprived in the Country under this measure.

*Summary of socio-economic context based on Fiddlers Ferry, Warrington - Economic and Regeneration Impact Statement by CBRE, March 2023

Environment

3.12. The local environment is characterised by agricultural land to the north and east, golf course further to the east, industrial land to the west, and the River Mersey / Mersey Estuary to the south. This is set in a mosaic of industry, housing and infrastructure including;

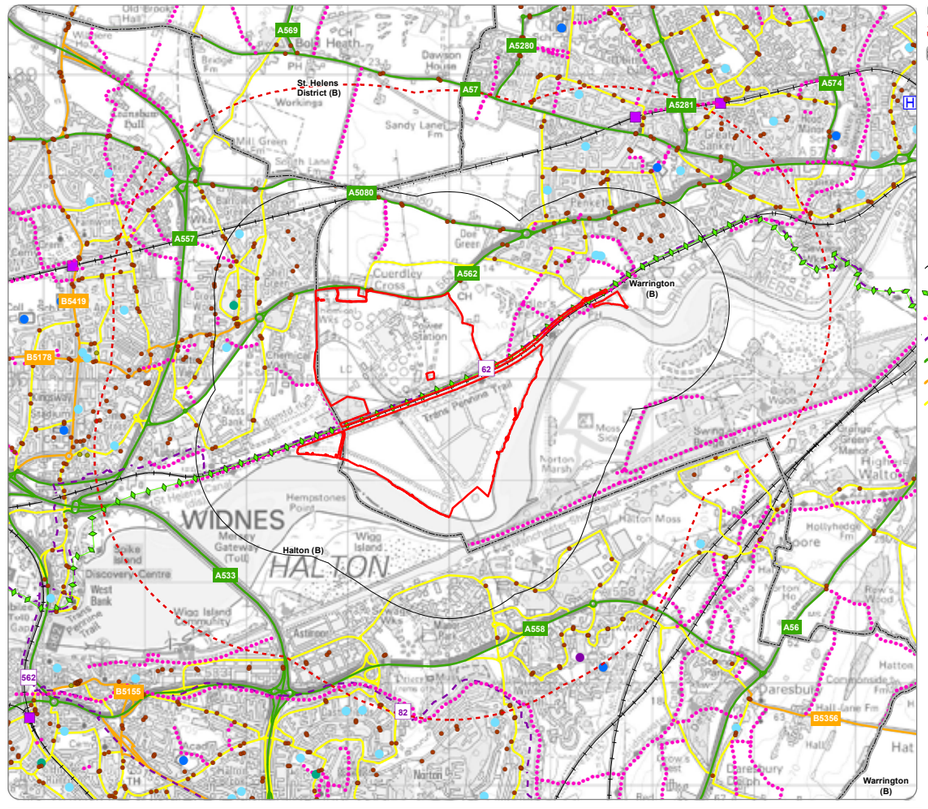
- Fiddlers Ferry power station structures and infrastructure - existing buildings and ash lagoons being a significant environmental feature of the area.
- Significant industrial development to the immediate west of the site.
- Residential development at Penketh and Widnes.
- Significant transport infrastructure including major roads, road bridges including Mersey Gateway, the Widnes-Warrington railway and St Helens canal (partially disused)
- River Mersey and Mersey Estuary – these are significant and important landscape features, though visibility is often limited by the flat topography of the area and the land form of the power station lagoons.

3.13. The following pages provide an introductory overview of the site setting. A full summary of key site characteristics and influences, informed by the appended technical reports, is set out later in Section 3.

Aerial photograph illustrating the environmental setting of the site

Accessibility

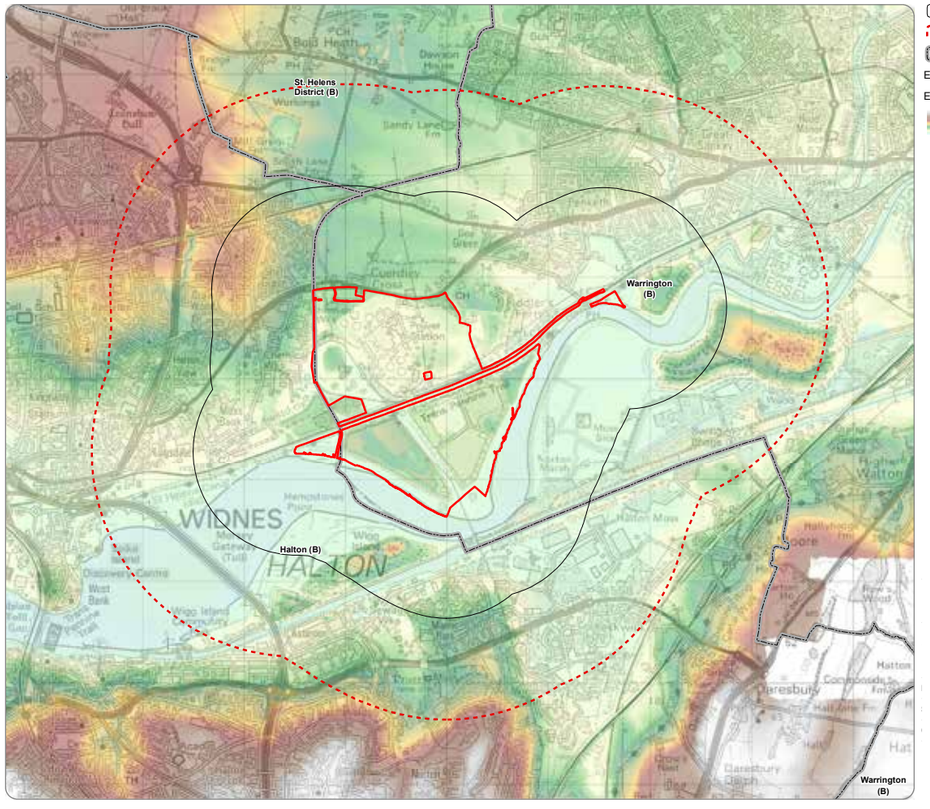
- Bus stops in both directions on the A562 Widnes Road including approx 370m to the west of the existing main site access junction, and 270m west of the site boundary.
- Serviced by Arriva route 110 (Murdishaw to Warrington) and Network Warrington route 32 (Widnes to Warrington) - running every half hour on weekdays and Saturdays. Route 32 also runs hourly on Sundays.
- Widnes train station is located c. 2.5km from the western boundary of the site.
- Warrington Bank Quay and Warrington Central train stations are located c. 6.5km east of the site, reachable by bus within 30 mins.
- National Cycle Network Route 62 runs east-west through the centre of the site alongside the St Helens Canal towpath (the route however, can not be accessed directly from the site itself). This connects Fleetwood to Selby and forms part of the Trans Pennine Trail (TPT) and between Widnes and Warrington the route is entirely traffic-free.
- Significant predominantly residential areas within 2km of site boundaries to the east (Penketh) and north west (Widnes). These areas include several schools, community facilities and food retail.

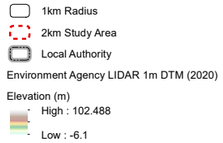


Accessibility

Landform

- Topography of the site and immediate surrounding is broadly flat to very gently undulating, being typical of the River Mersey environs.
- There are numerous man-made variations including ground profiling / embankments (e.g. ash lagoon areas).
- Adjoining existing industrial and waste processing facilities to the west.
- To the north and east the immediate surroundings form a buffer of agricultural land between the surrounding urban and suburban areas.
- Predominantly agricultural land with a medium to large scale field pattern, watercourses and general absence of cohesive hedgerows / hedgerow trees.
- Widnes Road characterised by sections of adjacent hedge and linear tree groups.

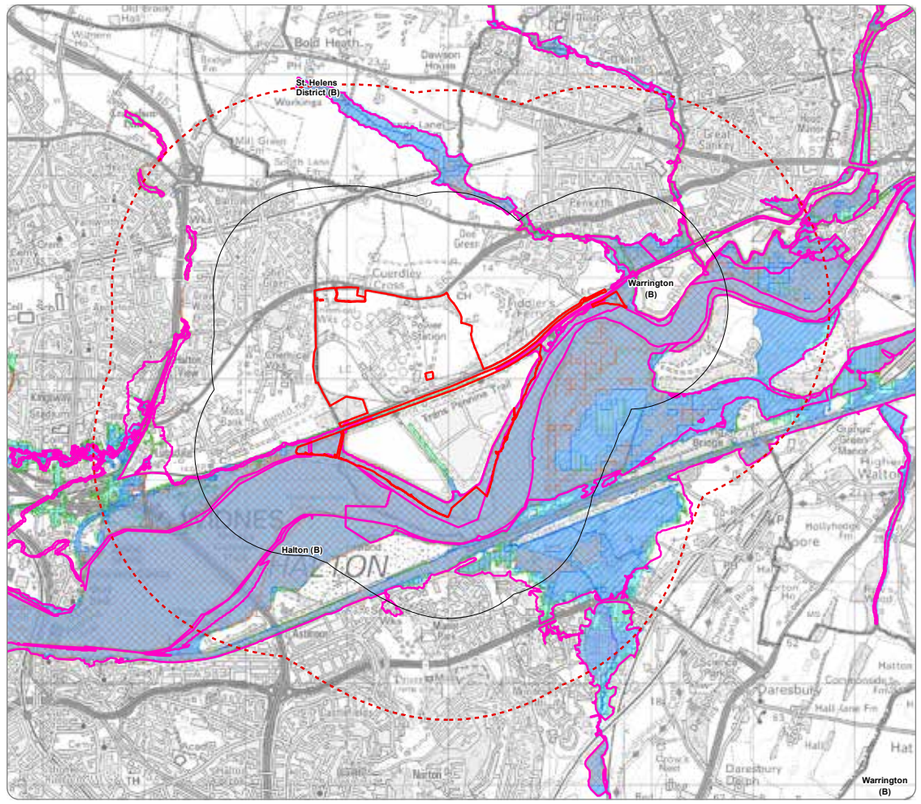




Landform

Flood and drainage

- Most of site is within 'Very low' risk Flood Zone 1 (less than a 0.1% chance of fluvial flooding each year).
- Some smaller areas within the high-risk Flood Zone 3 adjacent to the River Mersey.
- There are several watercourses and waterbodies in and around the site including;
  - Redundant fishing pond in the north west corner of the site.
  - A watercourse running north-south through the eastern side of the site.
  - The St Helens Canal (not in Peel's ownership but dissects the site centrally).
  - Settling lagoons associated with the FFPS.
  - The River Mersey.
- Most of the site is identified as being at very low risk of flooding from surface water, with small, localised areas considered medium to high risk. The localised areas of medium to high risk are generally representative of isolated low topographic points within the site and not considered to be representative of off-site major overland flow paths.
- The site's existing surface water network runs under the St Helens Canal before discharging into the River Mersey.



Flood risk (rivers and sea)

THE SITE IN DETAIL

Land north of the rail line

3.14. This area is dominated by the 'power island' of the former power station, with extensive infrastructure including eight cooling towers, turbine hall, boiler house, Flue Gas Desulphurisation (FGD) plant, conveyors above and below ground, pipework, and operational and administrative buildings.

3.15. The 275kV National Grid Substation, pylons and overhead cables are to be retained and is under the control of National Grid who benefit from access routes, wayleaves, easements and a lay down area to the west to ensure transmission to the electricity network continues uninterrupted.

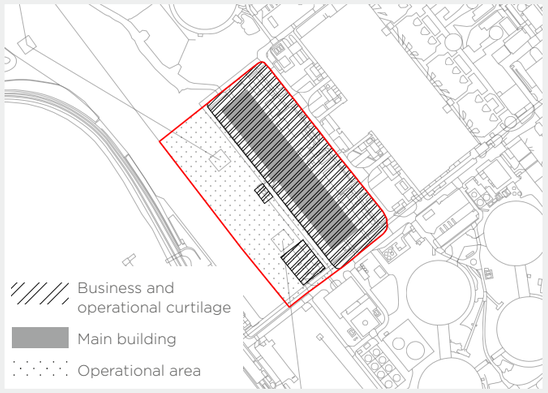
3.16. Land north of the rail line also includes the extensive coal storage area, with its dedicated rail loop leading from sidings and other rail infrastructure (various buildings, crossings, infrastructure). The coal storage area comprises concrete hardstanding, buildings, and conveyor systems, including substantial subterranean voids and structures.

3.17. The rail sidings that run parallel with the main line have been modernised, including loading/ unloading facilities associated with the FGD plant, a 132 KV SPEN substation, and a modern ash processing plant (APP).

3.18. The Vyrnwy Aqueduct corridor separates the coal storage area from the Power Island area. The aqueduct is defined by a wide linear green space and has easement rights for access and maintenance. It is currently farmed at its northern end, with scrub vegetation further south. This green corridor is crossed by overhead power lines connecting to the 275KV operational National Grid substation.

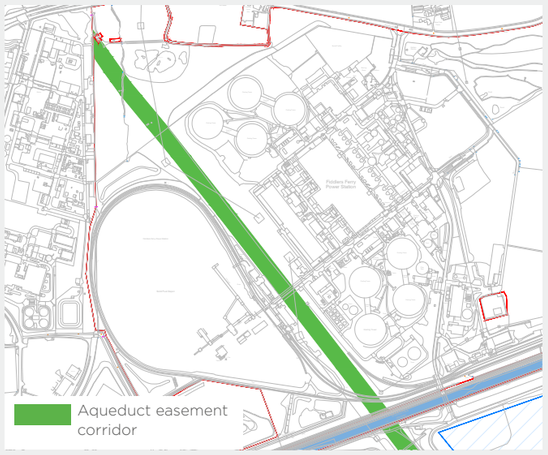
Land north of the rail line

Substation site area: c.5.2ha
Main building footprint: c.13,700sqm
Main building height: c.36.8m



Existing 275kV National Grid substation to be retained within the future development

Easement area (north of rail line): c.5.7ha



Existing Vyrnwy Aqueduct easement corridor to be retained within the future development

Key plan: boundaries

Boundary characteristics / edge conditions (land north of rail line)

- North: Frontage to, and vehicular access from, the A562 Widnes Road. The frontage can be described in 4 zones (from east to west);
  - Tree lined edge of the nature reserve.
  - Linear tree group running to the west of the current site access junction.
  - Small complex of buildings sitting outside of the site, currently in use as a restaurant and car park.
  - A series of open fields, extending from the restaurant to the western site boundary.
- West: Largely defined by the boundary with existing industrial estate at Gorsey Lane, although towards the south the site borders a former landfill and including, at the southern end Johnson's Lane Public Right of Way. This boundary includes some sections of substantial tree cover.
- South: The Widnes-Warrington rail line and St Helens Canal including the Trans Pennine Trail.
- East : Marsh Lane traces much of the boundary, beyond which is the Fiddlers Ferry Golf Club (True Fit Golf Centre). The boundary includes linear tree groups along Marsh Lane, Penketh Fire Station and a small number of residential properties.

Note: These images help to describe the general characteristics of the Fiddlers Ferry Allocation Site boundaries. An assessment of key viewpoints in set out within the supporting Landscape and Visual Appraisal (refer to technical appendices)

North


View towards northern boundary from Widnes Road/ Tannery Lane junction


View from Widnes Road


View from Widnes Road


View from Widnes Road

West


View towards western boundary from south west


Existing western boundary

South


Warrington-Widnes rail line


Existing drainage infrastructure


View from Trans Pennine Trail

East


View from Marsh Lane


View from Marsh Lane

Land south of the rail line

3.19. This area is dominated by a network of substantial earthworks, including the former power station lagoons used for disposal of ash and storage of river water. The lagoons are elevated above the natural level of the adjacent intertidal mudflats and contained by significant (c20m) high engineered bunds.

3.20. The lagoons will continue to be managed in accordance with the requirements of the existing planning permission, Environmental Permits and obligations of the Reservoir Act 1975. A final restoration scheme for the lagoons will seek to achieve a final landform that delivers nature conservation and amenity benefits, whilst also enabling the surrender of the Environmental Permits and the de-registering of the lagoons as reservoirs under the Reservoir Act 1975, but still enabling large open areas of water to be included within a restoration scheme.

3.21. The large lagoon to the west of the aqueduct corridor (Lagoon D) is currently being used for ash extraction and is characterised by an extensive, black ash mound devoid of vegetation.

3.22. The Vyrnwy Aqueduct roughly 'divides' the southern site and forms a shallow linear valley down to the Mersey.

3.23. The lagoons have vegetated embankments leading down to the Mersey foreshore, with views along the river towards the Mersey Gateway Bridge and south and west towards the wooded river edge surrounding Runcorn and the Manchester Ship Canal on the other side of the River Mersey.

3.24. The southern, western, and eastern boundaries of this area are formed by the River Mersey and Cuerdley Marsh salt marsh fringe, around the lagoons. The northern boundary is formed by the St Helens Canal and The Trans Pennine Trail.

(Refer to page 30 for further information about the ash lagoons)

Land south of the rail line (aerial photograph taken prior to 2022)

Key plan

Lagoon D

Note: These images help to describe the general characteristics of the Fiddlers Ferry Allocation Site. An assessment of key viewpoints in set out within the supporting Landscape and Visual Appraisal (refer to technical appendices)

View out from the lagoon area towards the river foreshore and bridges

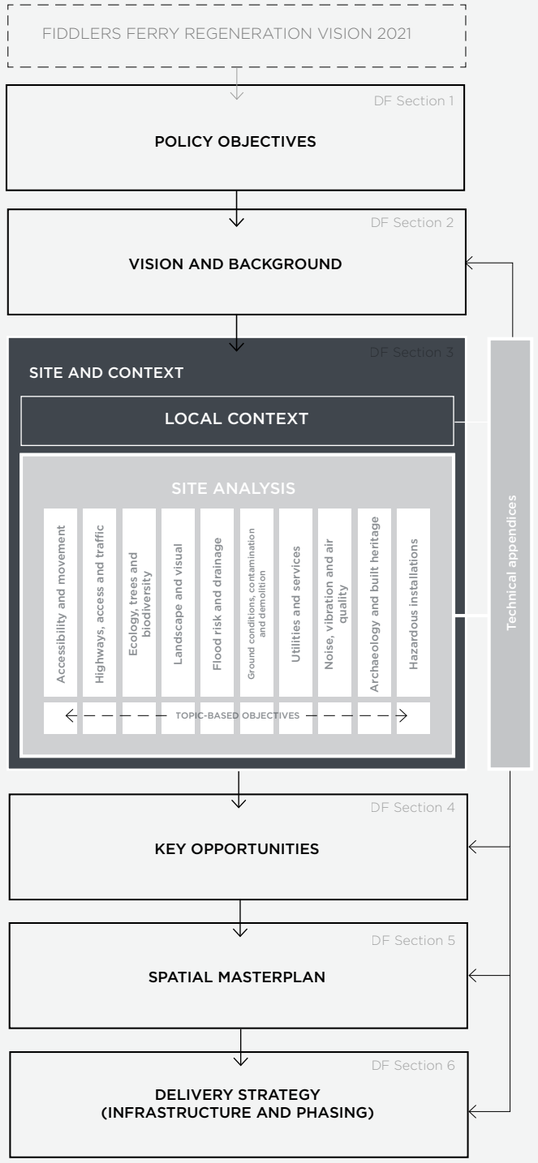
View towards the lagoon area from the south bank of the river

SITE INFLUENCES: CONSTRAINTS OPPORTUNITIES AND OBJECTIVES

3.25. The Development Framework is supported by a comprehensive range of technical studies which should be read in conjunction.

3.26. A non-technical summary of related constraints and opportunities is provided over the following pages to aid interpretation and highlight key influences over the design and delivery of development - both as illustrated in this Development Framework (Sections 5 and 6) and going forward to more detailed stages of planning and design.

3.27. To help this interpretation, the analysis includes a number of topic-based objectives. In combination with wider policy objectives (Section 1) and the vision and background (Section 2), these topic-based objectives inform overarching key opportunities (Section 4) to be maximised in all future development proposals.



3.28. Analysis of site and context draws from the following technical appendices;

- Access & Transport Technical Briefing Note
- Biodiversity Net Gain Strategy
- Preliminary Ecological Appraisal
- Landscape and Visual Appraisal
- Drainage Strategy
- Ground Conditions Technical Briefing Note
- Air Quality Technical Briefing Note
- Noise and Vibration Technical Briefing Note

3.29. The analysis also draws from other desktop information sources such as utilities mapping and site history.

3.30. The summary analysis has been structured under the following headings as an aid to interpretation;

- **Primary influences** - site information that;
  - Introduces both site-specific and strategic considerations; and/or
  - Is likely to strongly influence the spatial structure of development, and/or delivery process.
- **Additional influences** - site information that;
  - Introduces mainly site-specific considerations; and/or
  - Will influence design, planning and delivery of development but may be flexible over time.
- **Further influences** – Other site considerations.

PRIMARY INFLUENCES

3.31. The following summarises issues, opportunities and related key objectives to which the spatial masterplan responds. It is expected that future planning applications for future development phases will use these key objectives as a foundation.

A

Accessibility and Movement

Constraints / issues

1. The large scale of the site could potentially lead to challenging walking distances within the FF Development Site.
2. Some site boundaries of the FF Development Site are currently impermeable, which may limit future connectivity in these locations.
3. The existing physical condition of the highway environment in some locations on Widnes Road could potentially discourage pedestrian and cyclist movement to and from the site.

Opportunities

1. The FF Allocation Site is accessible by foot and cycle to/ from a large existing catchment via Widnes Road.
2. There is strong potential to encourage active travel to and from places of work and residential areas (existing and proposed).
3. The existing PRoW network in the local area presents opportunities for potential additional connections, including the Trans-Pennine Trail via Station Road.
4. The extent of land ownership beyond the FF Allocation Site offers an opportunity for additional routes to the east to Station Road, connecting to existing crossing points of the railway and canal, and existing pedestrian and cycle infrastructure serving Penketh.
5. The accessible foot and cycle catchment can be increased with a direct connection to the highway network serving the industrial network immediately west of the site. The feasibility of a link via Johnsons Lane is being explored as a potential opportunity and a foot and cycle route is reserved through employment phase 1 should it be deliverable in the future.
6. The A562 Widnes Road provides a basis for good public transport connectivity. Existing bus services along Widnes Road can introduce options for phased implementation and potential future expansion of bus routes and services as development areas are implemented over time.
7. Proactive implementation of the travel plan at the site will encourage utilisation of the pedestrian / cycle / public transport network and discourage single occupancy vehicle use.
8. The needs of equestrian users can be considered through the future network.

Accessibility and movement objectives

a. Design the site access and street network to help to separate traffic flows associated with employment and residential uses.

b. Maximise Widnes Road and Marsh Lane as key multi-modal access points including integrated pedestrian/cycle facilities and traffic free pedestrian/cycle routes.

c. Deliver safe and attractive pedestrian/cycle routes from Widnes Road and to the east and west of the site, including connections to existing PRoW network.

d. Adhere to national design guidance for cycle infrastructure, especially LTN 1/20, unless agreed with the Local Highway Authority, and provision of appropriate, secure cycle parking and storage areas across the development.

e. Identify required bus connections with Warrington Borough Council (WBC) and Halton Borough Council (HBC) / relevant operator(s) into and through the site, for implementation on a phased basis. Provide the infrastructure required to support bus penetration into the site in the future.

f. The internal on-site street network should be phased in a way that combines movement (surface-level infrastructure) with utilities and drainage (underground infrastructure) where needed, with reference to local guidance in respect of public transport, active travel and emergency access.

g. Contribute to enhanced pedestrian/cycle infrastructure along the A562 Widnes Road.

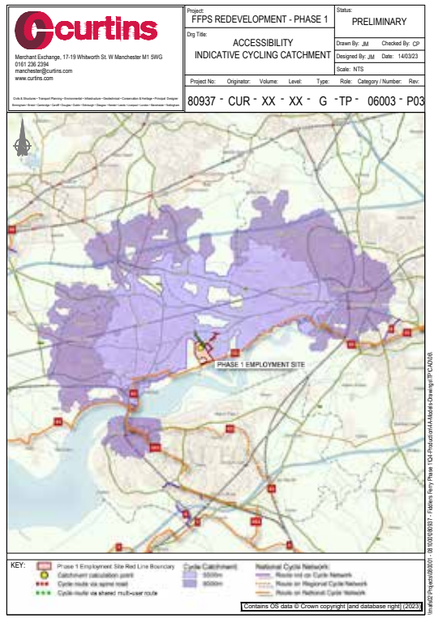
h. Plan development with legible character areas, positive building frontages and clear nodal points or destinations that help to create human scale urban structure and spaces that are safe and pleasant to move through.

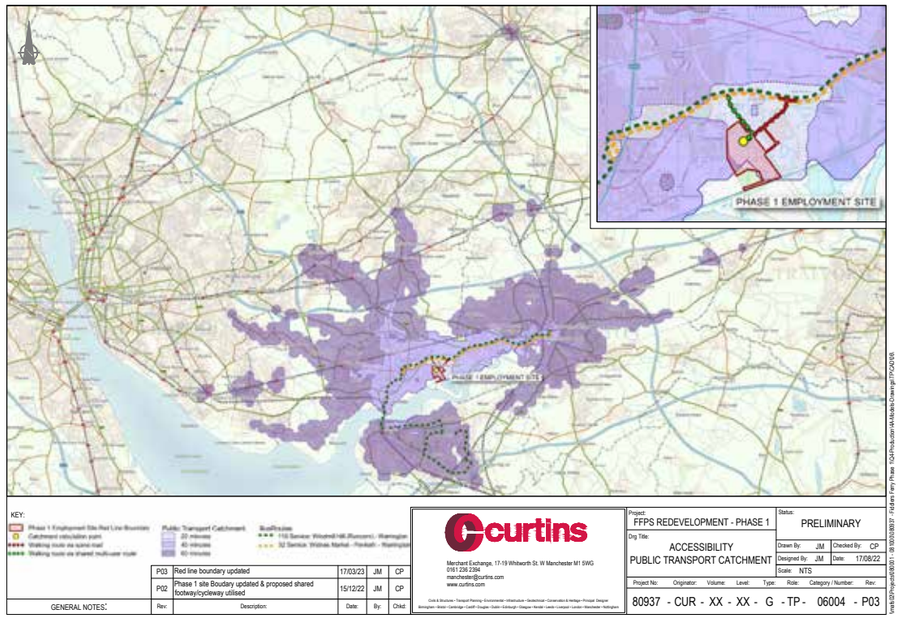
i. Plan development with centrally located, accessible community facilities which create a hub location that is easy to get to by foot / cycle.

j. Develop initiatives that can positively influence modal choice (encouraging people to choose active travel and/or public transport) - to be defined and implemented through the internal design of the site and enhanced by future transport infrastructure on a phased basis.

k. Creation of a new section of footway/cycleway along the route of the redundant overland pipeline to the east that would provide access to Station Road and the Trans-Pennine Trail.

l. There is the aspiration for an additional link via the existing bridge providing access to the Lagoons to be opened up for future public access. This will be subject to its condition and ash extraction operations with the final details of public access confirmed within the lagoon restoration plan.





Extracts from Phase 1 planning application Transport Assessment illustrating wider accessibility opportunities presented by the Fiddlers Ferry site.

Right: Indicative cycling catchment

Far right: Public Transport catchment

(Source: Curtins)

Note: At the time of writing, the feasibility of connecting to Johnson's Lane is being explored with key stakeholders, including WBC and HBC. The outcomes of this feasibility process may lead to changes to the constraints, opportunities and objectives described above.

B

B) Highways, site access and traffic

Constraints / issues

1. The large scale of the FF Development Site and quantum of employment development proposed may impact on the highway network at a strategic level.
2. Currently, the site is served by a single junction on Widnes Road.
3. Construction of new / improved access junctions on Widnes Road (and onward connections through the site) could potentially be constrained by the demolition and remediation process, and ash extraction operations.
4. The development could potentially give rise to increased volumes (but temporary) construction traffic, which will need to be coordinated over all phases of development.
5. The design of new highway infrastructure will need to be integrated to accommodate safe, legible and attractive pedestrian/ cyclist infrastructure.

Opportunities

1. Existing capacity in the local highway network can accommodate additional traffic movements and connect the site with the strategic road network.
2. Widnes Road provides a high-capacity (A-road) access route with traffic able to circulate to the east (Warrington) and west (Widnes and Runcorn).
3. Early phase development can be facilitated by using the existing access junction on Widnes Road and existing on-site highway infrastructure, that adequately served the former power station.
4. The mixed-use concept for the FF Development Site presents opportunities for a mix of appropriately designed street types that can help to spread and manage traffic volumes, accommodate buses, and increase attractiveness of walking and cycling whilst limiting potential conflict between employment and residential uses.
5. There is an existing rail connection associated with the former power station.

Existing site access junction, Widnes Road

Highways and site access objectives

a. Traffic impacts and infrastructure requirements will be informed by the Warrington Multi-Modal Transport Model (WMMTM) and Transport Assessment process to ensure overall impacts are mitigated but phased for delivery with development.

b. Design and construction of new access junctions on Widnes Road will be informed by robust modelling of traffic generation and flows.

c. Provision of new access junctions on Widnes Road will be phased in a way that helps to manage traffic flows (including construction traffic and emergency vehicles).

d. New access junctions on Widnes Road will be designed to allow for the separation (or safe integration of) employment and residential traffic entering / leaving the site with facilities for pedestrians and cyclists.

e. Employment Phase 1 will include improvements to the existing site access junction on Widnes Road and the spine road into the FF Development Site. A new shared footway/cycleway will be provided to the North West that continues west along Widnes Road.

f. Employment and residential traffic within the site will be managed through appropriate design to deter HGVs from passing through residential areas.

g. The site movement network will integrate robust emergency access provision appropriate to each phase.

h. Car and cycle parking provision will meet prevailing WBC parking standards, unless agreed with the Local Highway Authority, on a phase-by-phase basis.

i. Investigate the potential for existing site rail infrastructure to be utilised or expanded to serve industrial / commercial uses at the site (subject to discussions with Network Rail and other relevant stakeholders).

Note: At the time of writing, the feasibility of connecting to Johnson's Lane is being explored with key stakeholders, including WBC and HBC. The outcomes of this feasibility process may lead to changes to the constraints, opportunities and objectives described above.

C

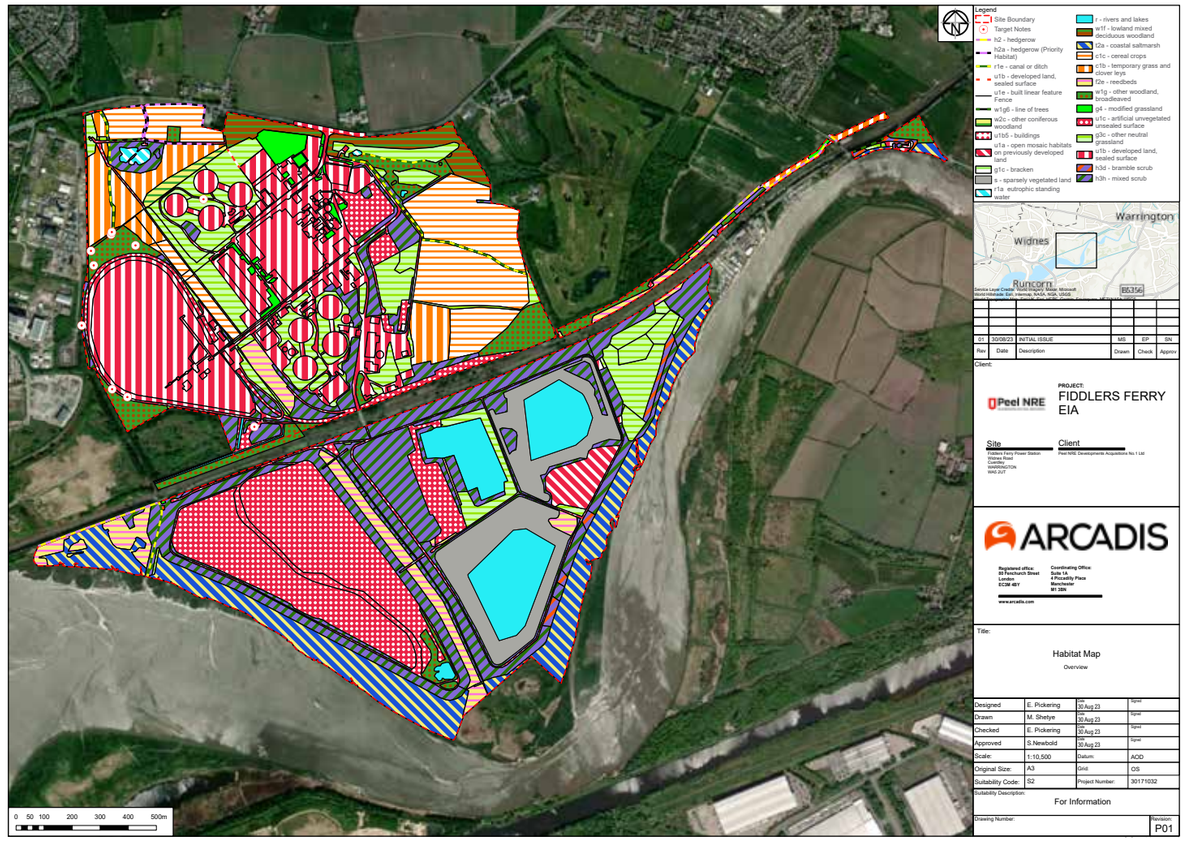
Ecology and biodiversity

Constraints / issues

1. The FF Allocation Site currently includes a series of connected Local Wildlife Sites to the south of the rail line.
2. Habitats and protected species within the existing Fiddlers Ferry nature reserve (non designated) may be affected by development proposals for wider public use.
3. Development may have a potential impact on protected species present in parts of the development framework area due to either direct impacts on associated habitats and/or connectivity.
4. Existing tree groups, grassland and wetland areas within the FF Development Site will be lost, in order to deliver the amount of development allocated in the Local Plan.

Opportunities

5. Enhance and create green infrastructure/wildlife corridors through the regeneration of brownfield land.
6. Existing green infrastructure assets adjacent to and within the FF Allocation Site provide a foundation for new green infrastructure.
7. The existing Fiddlers Ferry nature reserve is an opportunity to enhance existing ecological assets whilst giving people access to nature.
8. Development will be planned to achieve 10% Biodiversity Net Gain through a combination of solutions within the FF Development Site, within the wider FF Allocation Site, and potentially off-site compensation areas.
9. The existing lagoon area, south of the rail line, to become a nature and recreation area in the future phased with ash extraction and restoration, creating additional Biodiversity Net Gain (BNG) opportunities and contributing to Green Belt compensation. The area is made up of a series of complex habitats including open mosaic, coastal saltmarsh and reedbed habitats amongst others.



Habitat Map Overview

(Source: Preliminary Ecological Appraisal (Arcadis, 2023) - see technical appendices)

Ecology and biodiversity objectives

a. New development areas will be designed to be integrated with a multifunctional Green Infrastructure network. The Green Infrastructure network will be implemented on a phased basis, coordinated with ongoing demolition and site preparation activities over time.

b. The Green Infrastructure network will create habitats that contribute to (a minimum) 10% Biodiversity Net Gain on a phased basis, in a way that maximises opportunities to deliver net gain within the FF Development Site.

c. Mechanisms for the long-term management of green spaces, wildlife habitats and – where appropriate – protected species will be agreed through planning applications for individual development phases. In line with the Environment Act, habitat enhancements delivered under BNG requirements will be maintained for at least 30 years after the development is complete.

d. The existing Fiddlers Ferry nature reserve will be retained, and appropriate management measures will be implemented within a boundary area to be agreed with WBC and appropriate stakeholders. This will include agreement to a suitable management approach to any identified protected species.

e. Where tree loss is required to create development area, replacement tree planting will be implemented in accordance with Local Plan policy and in locations guided by the landscape framework set out in this Development Framework.

D

Landscape and visual

Constraints / issues

1. Existing former power station structures and infrastructure including retained structures and buildings including overhead pylons, 275kV National Grid Sub Station, Ash Processing Plant and rail sidings are prominent in views locally, including from the Trans-Pennine Trail which runs through the FF Allocation Site.
2. Some local residential properties are potentially sensitive receptors to new development near to Widnes Road and Marsh Lane. In addition there are sensitive recreational receptors (e.g. PRoW users).
3. The previous use of the site has given rise to localised changes in ground levels, with steep slopes / excavations in some locations.
4. The FF Development Site is adjacent to land in the Green Belt between Warrington and Widnes.

Opportunities

1. The former power station has contributed to a developed landscape character. In this context the former power station area has the capacity to accommodate urban change and the proposed configuration of employment land uses and landscape framework / green space will mitigate the impact of retained structures such as the overhead pylons, 275kV National Grid Sub Station, Ash Processing Plant and rail sidings.
2. The immediate surroundings are characterised by largely level topography, which limits longer distance views.
3. Earth bunds associated with former power station lagoons provide a buffer between the FF Development Site and River Mersey.
4. A combination of existing and new green infrastructure can make a positive contribution to the definition and permanence of Green Belt boundaries.
5. The former lagoon area to the south of rail/canal corridor provides longer term opportunities for restoration and habitat enhancement that will increase Biodiversity Net Gain (BNG) and contribute to Green Belt compensation.

Landscape and visual objectives

a. Development towards the edges of the FF Development Site will be designed to respond to identified landscape and/or visual sensitivities.

b. Built form character, height and density will be designed in coordination with a Green Infrastructure network which can shape a distinctive urban structure and integrate mitigation planting. These measures can reduced landscape and visual impacts.

c. Development should help establish and define a clear Green Belt boundary and contribute to Green Belt compensation measures.

Landscape and visual constraints and opportunities summary

(Source: Landscape and Visual Appraisal (OPEN, 2023) - see technical appendices)

Example of longer distance view from Moore Nature Reserve

(Source: Landscape and Visual Appraisal (OPEN, 2023) - see technical appendices)

Example of short distance view from Marsh Lane

(Source: Landscape and Visual Appraisal (OPEN, 2023) - see technical appendices)

E

Flood risk and drainage

Constraints / issues

1. Statutory and/or regulatory requirements may change over the lifespan of the development, requiring development to be planned with a flexible phased approach.
2. The FF Allocation Site includes locations that are currently at risk from minor surface water flooding.
3. Ground condition constraints associated with the industrial brownfield land limits SuDS options that can be used in this area.
4. The generally flat topography of the wider area, combined with localised ground level changes within the site associated with the former industrial uses challenge the feasibility of gravity-fed drainage systems and may require pumping solutions.
5. The existing rail line and canal running through the FF Allocation Site present potential infrastructure severance and may restrict options and/or flexibility in drainage design.
6. The Vyrnwy Aqueduct corridor needs careful consideration to guard against infrastructure severance from east to west.
7. Existing water courses run through the site, and these have a drainage function for the wider area.

Opportunities

1. The FF Development Site is not affected by fluvial flood risk.
2. The FF Development Site includes existing large scale drainage infrastructure assets including channels to the south of the FF Development Site which will be replaced by new landscaped swales.
3. Development areas to the east (existing agricultural fields) offer opportunities to maximise SuDS.

Flood risk and drainage objectives

a. New drainage infrastructure will be designed across the whole FF Development Site. This will integrate exemplar SuDS features as appropriate and deliverable e.g. subject to localised ground conditions.
b. Drainage design will provide separate systems / infrastructure for employment and residential development to aid implementation, phasing, and long-term management.

Extracts from Drainage Strategy showing existing fluvial and coastal flooding risk (left) and existing extent of flooding from surface water

(Source: Drainage Strategy (Arcadis, 2023) - see technical appendices)

F

Ground conditions, land quality, contamination, and demolition

Constraints / issues

1. The extensive complex of existing buildings, infrastructure and earthworks associated with the former power station will require a programme of demolition and clearance.
2. Storage, processing, and removal of materials following demolition of the former power station may take up large areas of the site for a temporary period of time.
3. There are isolated areas of land contamination that will need appropriate solutions as part of any future development.

Opportunities

1. Materials created by demolition will largely be re-used on site, including as part of site remediation, ground reprofiling, infilling basements etc.
2. Land in the eastern part of the FF Development Site is agricultural and free of known ground constraints.

Ground conditions objectives

a. Each phase of development will be subject to a bespoke remediation strategy, tailored to the specific site conditions and constraints.
b. The phasing strategy will ensure that the demolition and processing of existing buildings and materials in the FF Development Site is coordinated with the construction and occupation of new buildings.
c. Reuse of materials arising from demolition will help reduce the volume of construction vehicles entering and leaving the site.

Extracts from Ground Conditions Technical Briefing Note showing site investigation areas studied

(Source: Ground Conditions Technical Note (Arcadis, 2023) - see technical appendices)

ADDITIONAL INFLUENCES

3.32. The following summarises the key objectives arising from the supporting technical studies.

3.33. It is expected that future planning applications for future development phases will use these key objectives as a foundation.

G

Existing utilities and services

Objectives

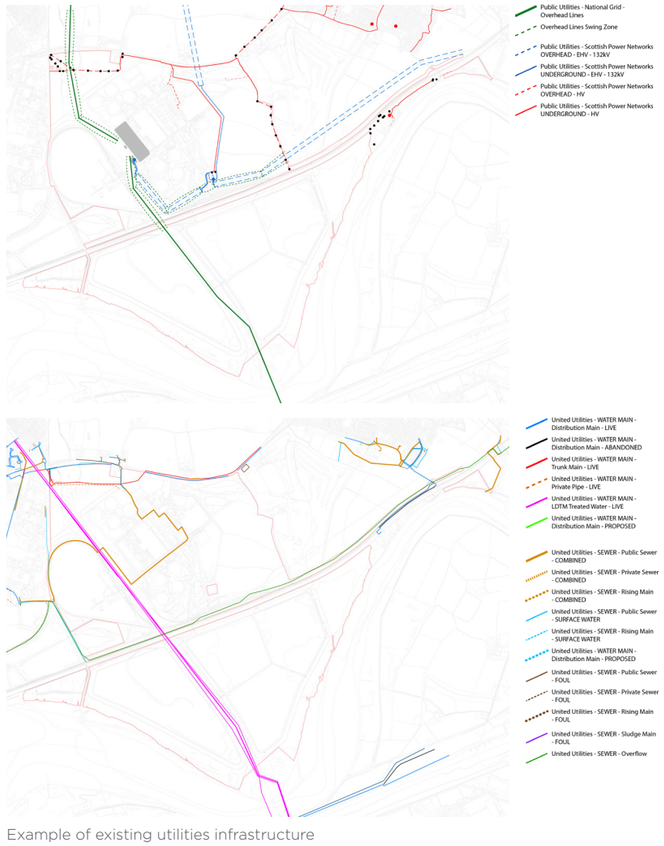
a. Integrate existing operational infrastructure (National Grid Sub Station, pylons and United Utilities aqueduct) that run through the site, including proposed new replacements, diversions or alternative provision agreed with the relevant asset owners / operators.

b. Re-purpose existing utilities infrastructure where feasible and practical.

c. Ensure that the location and design of new buildings observe safety distances and/or operational requirements associated with O/H power lines and existing COMAH zones.

d. Ensure that new services needed to serve the whole development can be delivered sequentially on a phased basis.

e. Locate new infrastructure in service corridors where feasible, integrated within highway and landscape design. Location of service corridors should facilitate construction and long-term management whilst minimising future disruption or environmental impacts of maintenance works.



Example of existing utilities infrastructure (top: electrical, above: water and drainage)

(Source: Arcadis)

H

Noise, vibration and air quality

Objectives

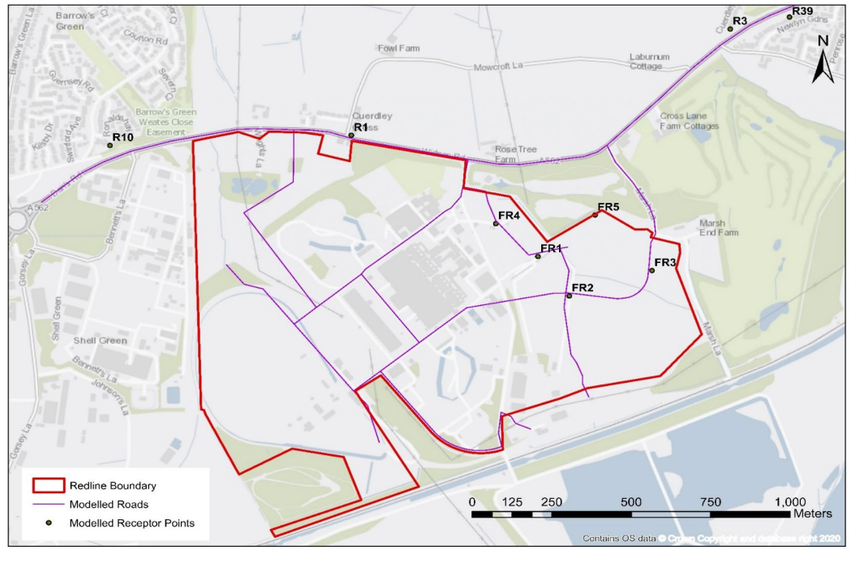
a. Ensure that any potential noise, vibration and/or air quality issues or constraints arising from new development will not have a detrimental impact on the health or amenity of existing residents in Cuerdley, Penketh or east Widnes.

b. Ensure that any noise, vibration and/or air quality issues or constraints arising from retained structures and buildings including overhead pylons, 275kV National Grid Sub Station, Ash Processing Plant and rail sidings, and existing employment areas to the west, are assessed and appropriately mitigated where applicable to ensure that this does not have a detrimental impact.

c. Plan, design and manage development to ensure that proposed residential development areas are safeguarded from potential noise and/or air quality issues arising from the proposed employment development areas.

d. Plan, design and manage development to ensure that any proposed mixed use, amenity and/or primary school areas are safeguarded from potential noise, vibration and/or air quality issues arising from the proposed employment development areas.

e. Specific mitigation and management requirements to be agreed on a phased basis and controlled through planning applications.



Extract from air quality briefing note showing modelled receptor locations

(Source: Development Framework Technical Note: Air Quality Modelling (Arcadis, 2023) - see technical appendices)

FURTHER INFLUENCES

3.34. The following summarises key objectives relating to further influences.

I

Archaeology and built heritage

3.35. All existing structures across the site will need to be demolished as part of the site preparation and regeneration process. The history and built heritage of the former power station site have therefore been recorded.

Objectives

a. Retain some existing landscape elements where feasible and where these could help maintain relationships between the site and immediate surroundings (e.g. including consideration for visual impact and Green Belt functions), and/or enhance the new development structure.

b. Consider opportunities to acknowledge both the recent industrial history of the site and former (pre-power station) agricultural origins through interpretative landscape features, place names and materials as part of detailed landscape design proposals for future phased development.

Old photograph of Fiddlers Ferry Power Station operating shortly after construction (image date unknown) showing original landscape context

(Source: Peel)

J

Hazardous installations

3.36. The site is affected by three off-site hazardous installations, listed below, with related HSE consultation zones extending into the site:

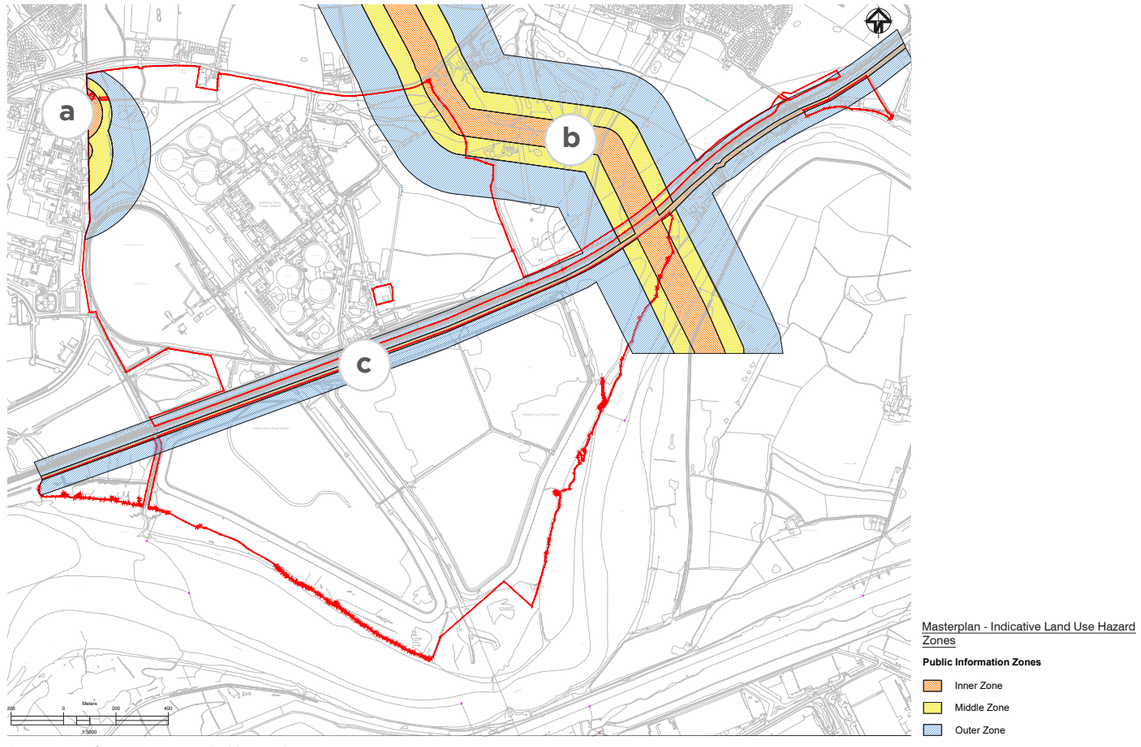
a. Emerald Kalama Chemical Facility
b. Grangemouth/Stanlow North West Ethylene Pipeline
c. Cadent Gas public utility - Local High Pressure (LHP) Mains

3.37. There are no on-site hazardous installations.

Objectives

a. Ensure that the extents of development areas and/or location of proposed new buildings observe relevant restrictions or parameters relating to existing hazards, informed by HSE guidance.

b. Ensure that development proposals and delivery programme are communicated with relevant asset owners.



Summary of existing recorded hazard zones

Source: Arcadis