A LANDSCAPE INFRASTRUCTURE OF RESISTANCE FOR CRAYFORD AND DARTFORD MARSHES UNIT 4



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Located on the edge of Southeast London, the Crayford and Dartford Marshes are an overlooked landscape spanning an area of over 5km2. The fate of these edgelands is unknown, there is a growing interest from developers who are investing in large areas of the green belt, flooding is becoming a serious issue for the industrial estates, yet the wildlife is flourishing. These landscapes are deemed by many as unattractive; however, the qualities of these spaces display key elements of our history, industrial heritage, ecology and society all in one overlooked space. The proposal introduces an infrastructure of accessibility, a strategy for conservation of industrial heritage and protection of wildlife which resists the future commodification of marshes with more dominant capitalist approaches to land. This infrastructure aims to cultivate a culture of engagement with the edgelands, in order to draw wider attention to the importance and value of this landscape. The surrounding edgelands provide an opportunity for a range of activities that often operate outside of established structures. Foraging, walking, and other forms of 'unofficial' land use can be seen as operating in the cracks of more formalised systems that shape the landscape. Such practices illustrate the complexity of the landscape, rather than seeing these differing elements as separate or conflicting, my major project focuses on viewing these spaces as part of a larger ecosystem of relationships that will inevitably shape and defend the landscape over time. The infrastructure allows us to engage in speculation about the ways in which the landscape can change due to climate crisis and how it can be managed now in order to help mitigate threat in the next 50 years.

Key Collaborators: Bexley Wildlife, Tom Keeley, Lucy Daw, Elise Blackmore, Elliot Wedge, Donna Zimmer, Thames 21, Soft Agency

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SUMMARY OF PROJECT

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INTRODUCTION

Growing up on the Edge:

Reflection on experiencing the complexity of edgelands growing up

Wild at Heart

Though usually either unloved or ignored, edgeland does fulfil vital functions – not least as a refuge for wildlife. Take, for instance, the 13.8 hectares of Molesey Heath, on the edge of southwest London, an area that takes in raised reservoirs, an industrial estate, an abandoned sewage works, an equestrian centre, a council housing estate, piecemeal private housing (some of it on plotlands), and a camping and caravan site. The heath is the recent result of gravel extraction followed by infilling of rubbish. A few horses belonging to local travellers prevent encroaching fennel, blackberries and hawthorn from overwhelming the purple, pink, white and yellow jungle of goat's-beard, musk thistle, wall rockets, vetches and mallows — 311 species of flowering plants and ferns in all.

Excerpt from 'Edgelands' by Marion Shoard, published in remaking the landscape by Jennifer Jenkins

"Marion Shoard coined the term 'edgelands', she wrote about these landscapes, one of them being the heath down the road from where I grew up. I spent a lot of time here as a child. It felt like an escape from reality a place where rules were less defined and boundaries were blurred."



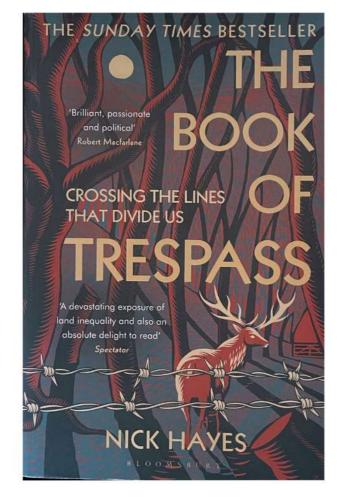
Mapping Initial Exploration and Interests:

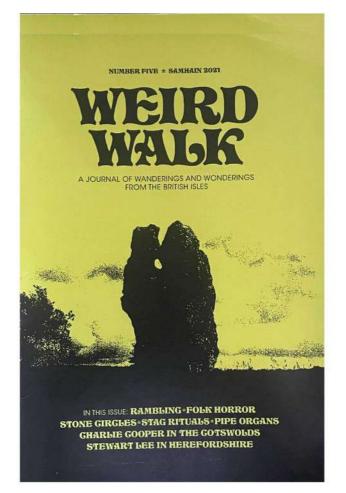
A relationship between Edgelands, Walking and Landscape

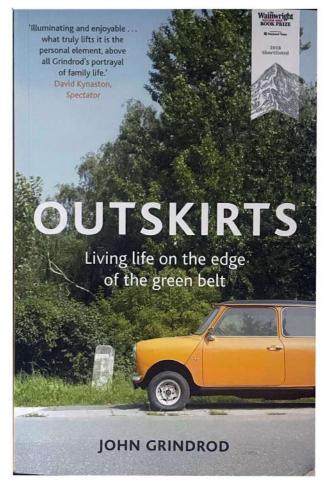


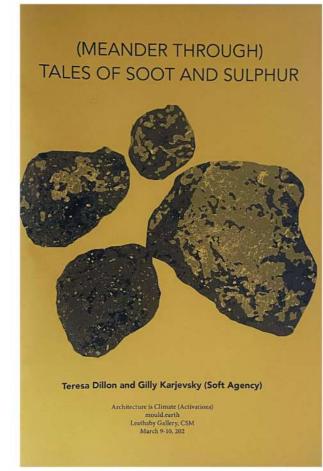
Key Readings and Texts:

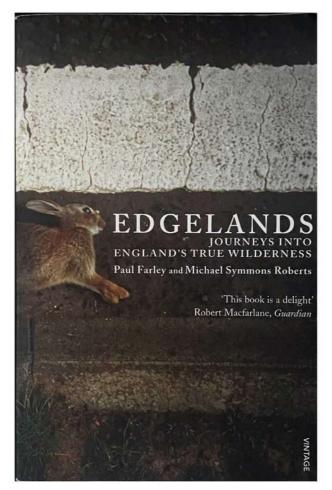
My interest in the edgelands lead me to a particular type of literature looking at space and movement in landscape and urban settings.

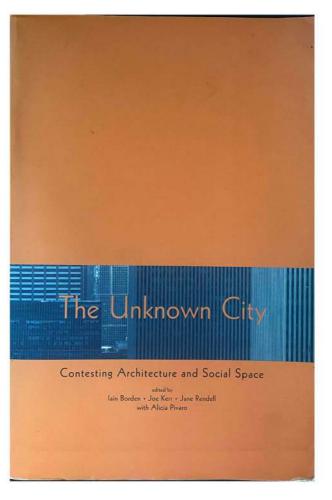












My interest in edgelands furthered, I began exploring these landscapes by walking them. This motivated me to begin completing sections of footpaths such as the England Coast Path and London Loop. Through this activity of walking I discovered Crayford and Dartford Marshes.

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)1 AWALK

walking the

NEW STRETCH OF **ENGLAND**

Press release

Commemorations to leave a lasting Coronation legacy for people and

England's longest national trail to be renamed the 'King Charles III England Coast Path'

From: Department for Environment, Food & Rural Affairs and The Rt Hon Thérèse

Hope Gap with views of Seven Sisters and Belle Out cliffs and Beachy Head © Natural England

New stretch of the England Coast Path opens

Connecting central London to the north Kent coast as new stretch of the England Coast Path is officially open

From: Natural England Published 12 January 2022



QEII bridge. Credit: Natural England

- The Grain to Woolwich stretch connects the sea and the Thames Estuary to The nearly 50-mile route forms a continuous walking trail on the south
- bank of the Thames to the coast at Grain in Kent. The route links with the existing Thames Path at Woolwich to create a • The route unks with the existing mames Path at Wootwich to create a Continuous 'source to sea' National Trail along the length of the River
- The new year brings a new trail for London and Kent residents and visitors to

enjoy, to connect with nature and for health and wellbeing opportunities.

An incredibly varied 47.12-mile (75.85km) trail from the north Kent coast, along the wild reaches of the Thames Estuary which supports a wealth of wildlife, and beside the dynamic working tidal Thames in London, has been opened by Natural England today.

/ the end of 2024 – connecting communities

ting public legacy for people and nature with st Path to celebrate the Coronation of His

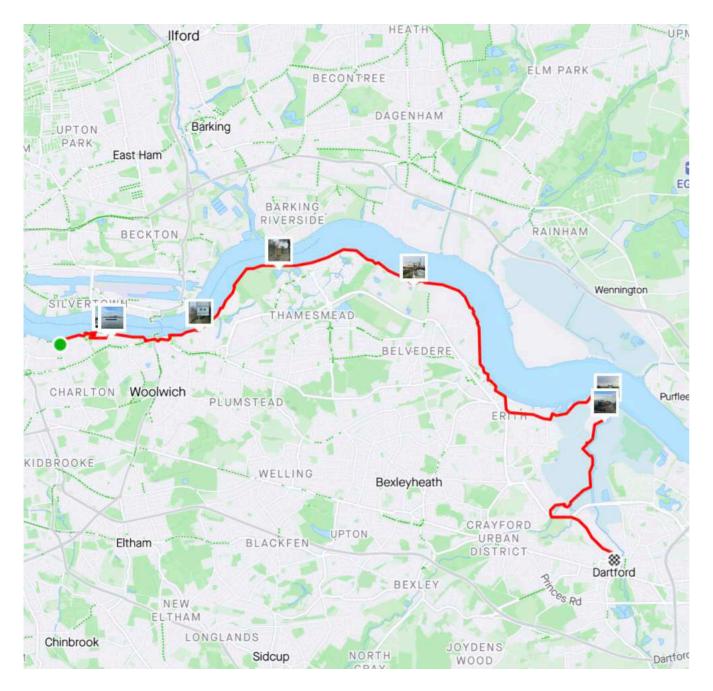
ressed a deep love and concern for places, frequently reflecting on his love of

> **COAST PATH**

> > london to kent



A Walk from Thames Barrier to Dartford: Exploring the extension of the new stretch of the England Coast Path (Source-to-Sea)







Map Produced in Response to Walk: Exploring themes and signage





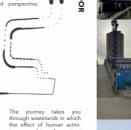
NO TRESSPASING



THE WOUNDED TREE

A SPATIAL WALK IN SEARCH OF THE







MARGINAL

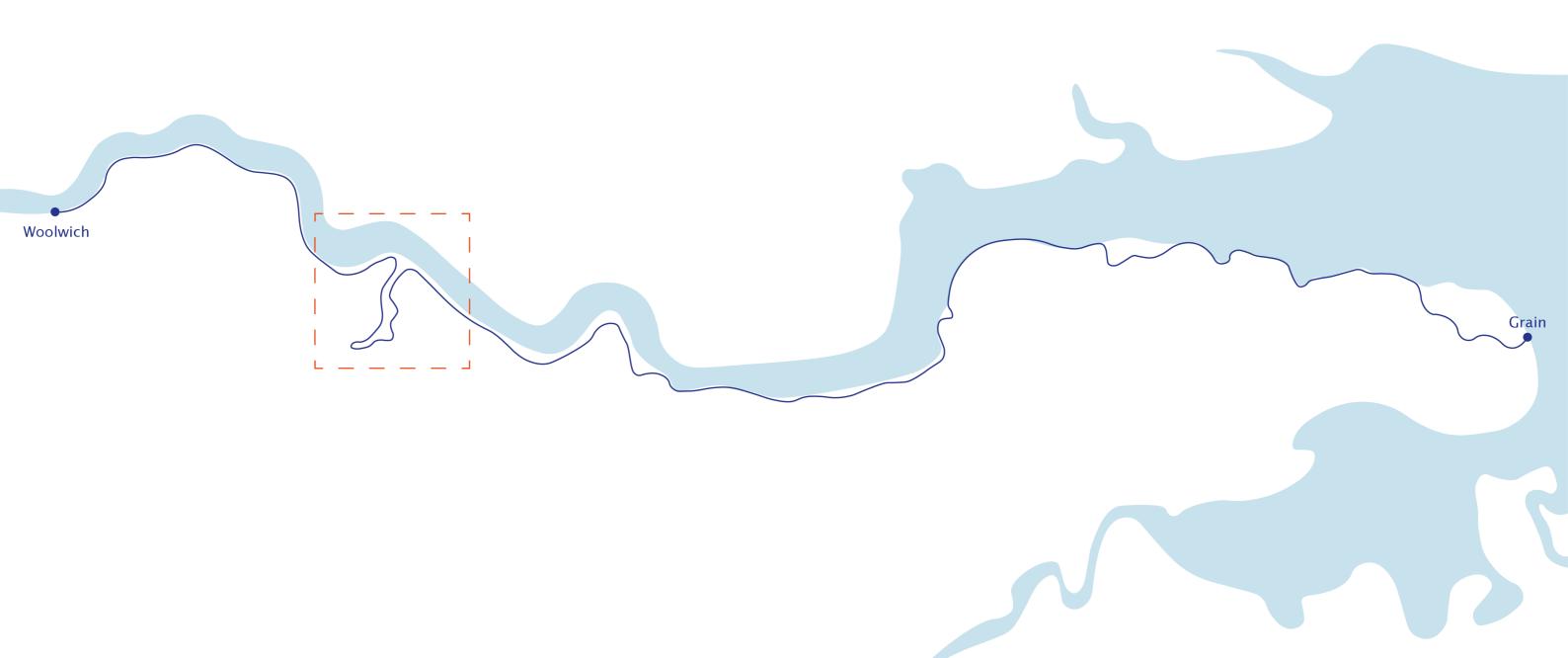


EDGELAND

MATTER

SPATIAL > PERAMBULATIONS

An Unexpected Detour: Edgeland Journey through Crayford and Dartford Marshes

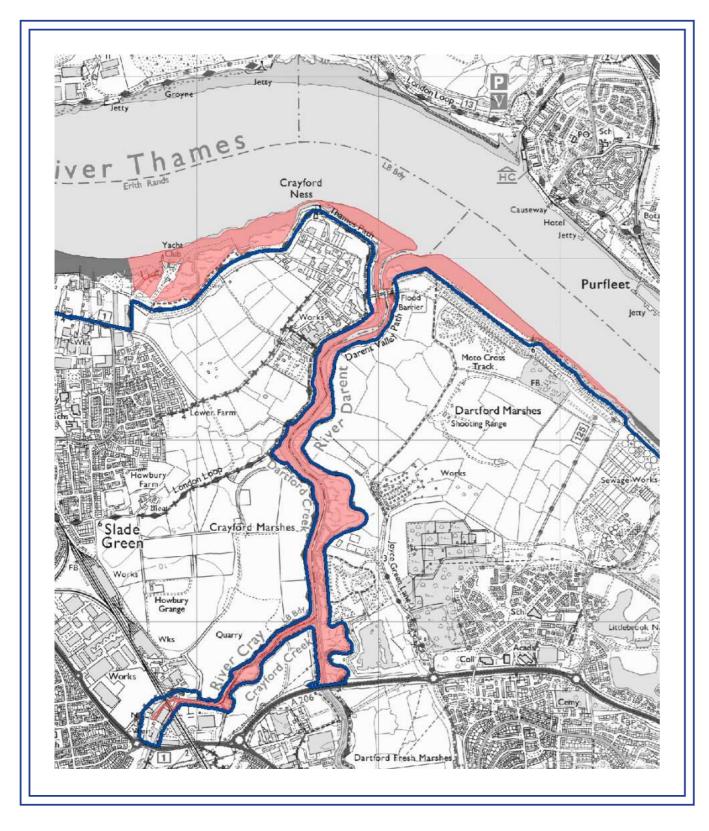


CRAYFORD + DARTFORD MARSHES

1hr 40 min Detour:

Moments of Disorientation and Discovery in the Landscape

This lengthy detour highlighted voids and complexities of this particular landscape



NAVIGATING THE MARSHES



Signage and Wayfinding on the Marshes
Moments of Disorientation and Discovery in the Landscape













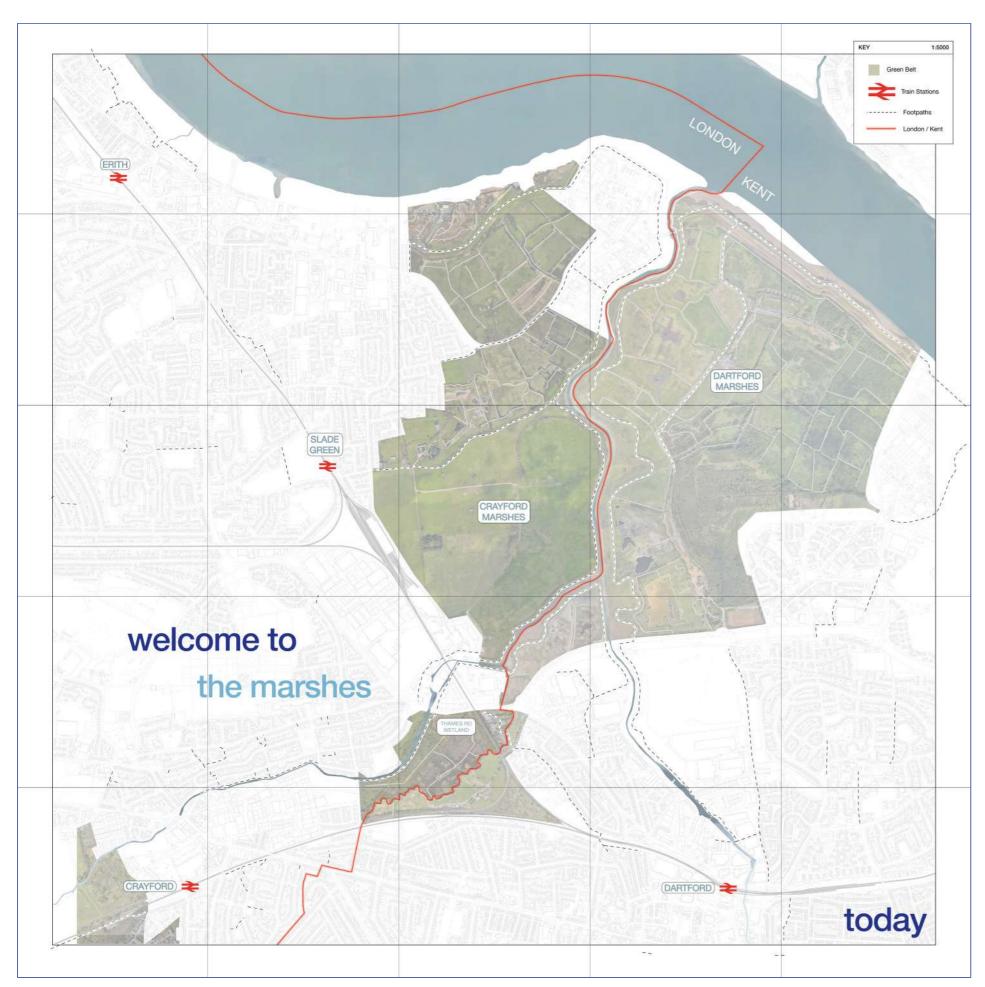


NAVIGATING THE MARSHES

02

EDGELANDS:
A FRACTURED
LANDSCAPE



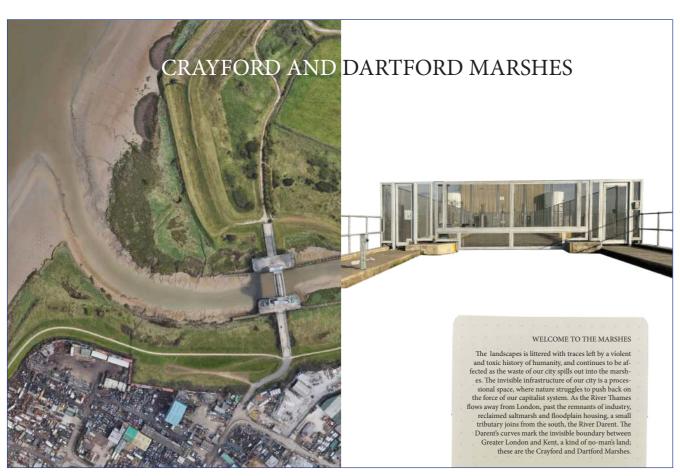


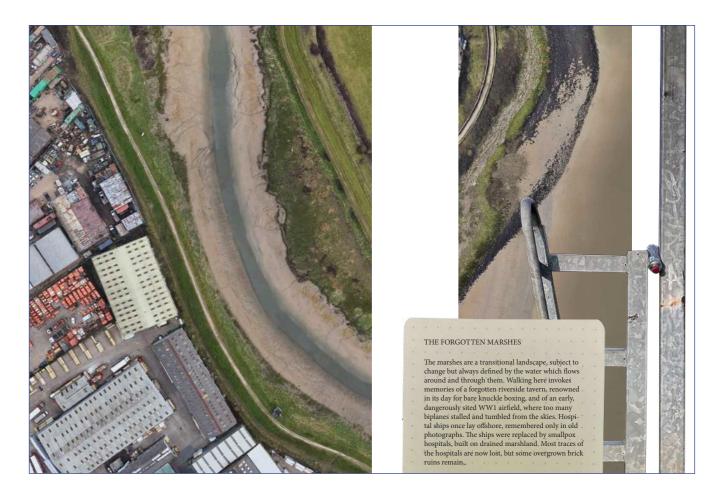
The fate of the marshes is unknown, there is a growing interest from developers who invest in large areas of the green belt, hoping this land is released by the local authority for housing development. These landscapes are deemed by many as unattractive; however, the qualities of these spaces display key elements of our history, industrial heritage, ecology and society all in one overlooked space.

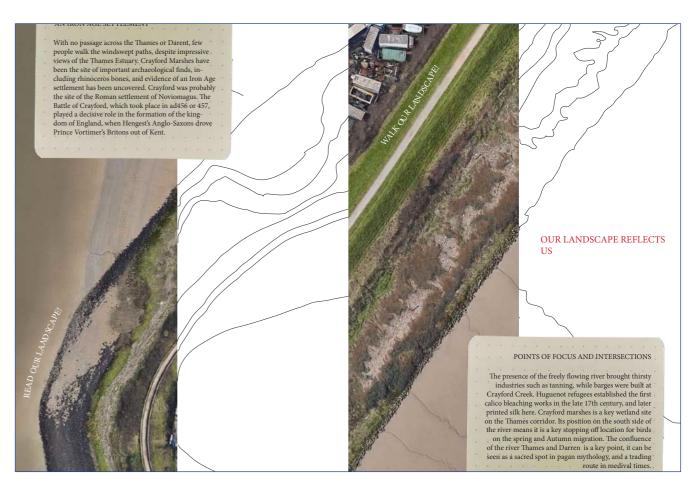
OBSERVING THE MARSHES

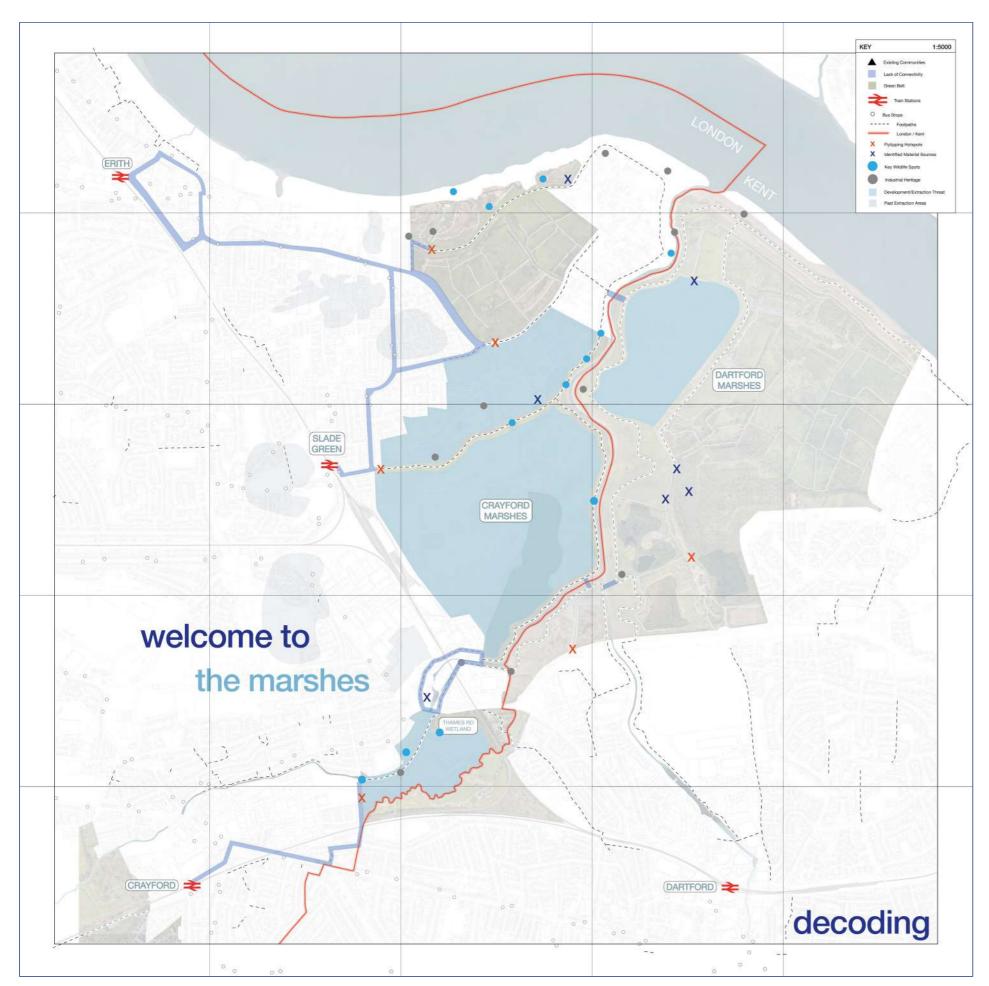
A Landscape of Intersections
A booklet produced in Unit 2











Having studied the marshes I have identified three key issues that affect the area.

1) Lack of Accessibility

There is poor signange and the marshes are difficult to reach, even when on the England Coast Path. Providing more accessibility will allow more people to make use of the space, in turn creating more value.

2) A Threat to Wildlife

Land is under threat from development and extraction. Some of these spaces are key breeding grounds for red listed species. `Developers are buying up the Green Belt in hope for it to be released and built on.

3) Material Displacement

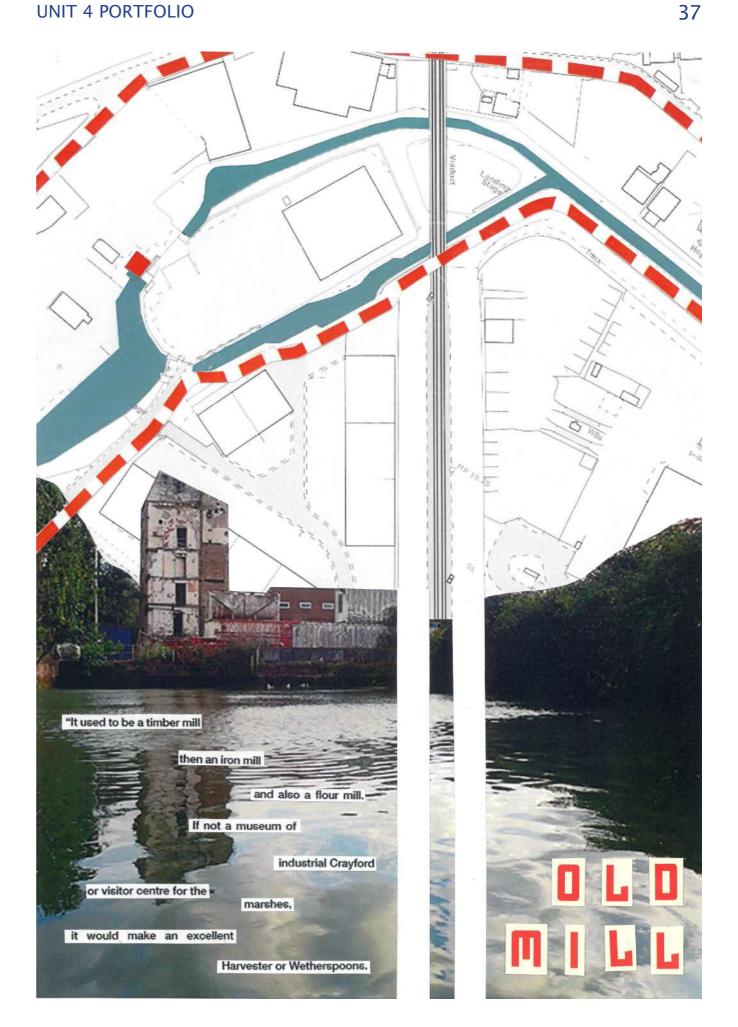
Due to many years of extraction and a flawed production and waste system the landscape has become a landscape of material displacement. Material has been taken and comes back in the form of waste and flytipping.

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THE OLD MILL

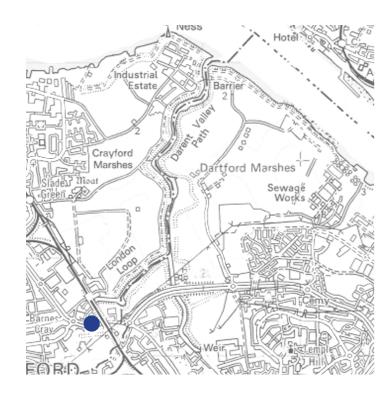


Lower (Iron) Mill was the site of a plating mill built in the 16th century.It was in existence by 1570. It was known as Crayford Iron Mill in 1800. In 1817, it was replaced by Crayford Flour Mills. Crayford Saw Mill partnered Crayford Iron Mill from 1765. The timber for the floor of Buckingham Palace was produced here. The mill has served as a base for material production and sits in the landscape as a landmark.

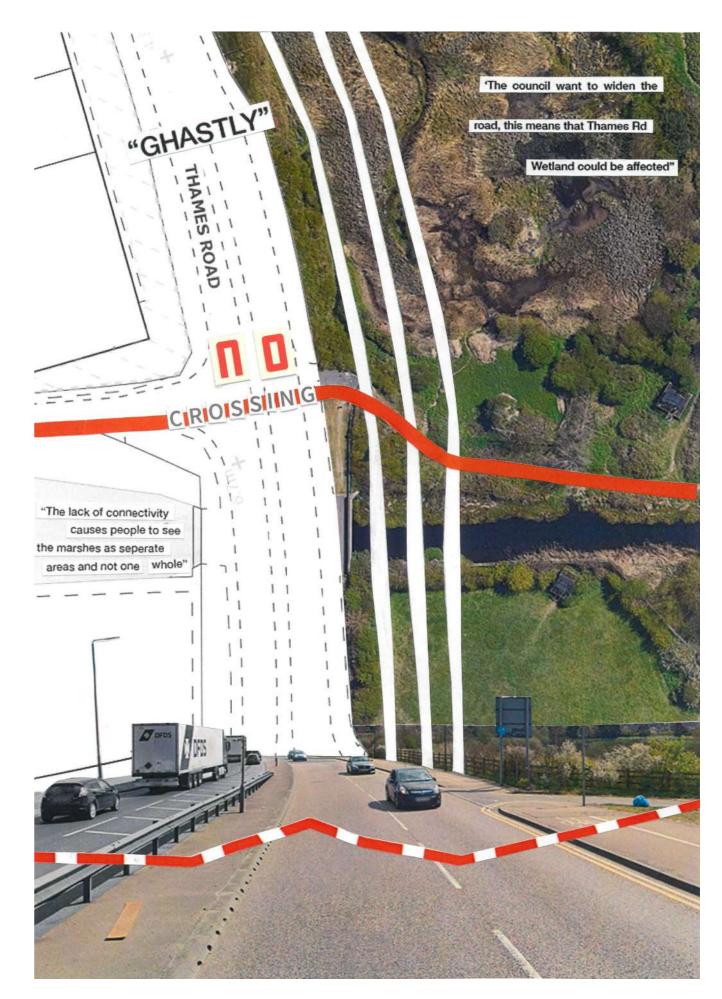


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THAMES ROAD



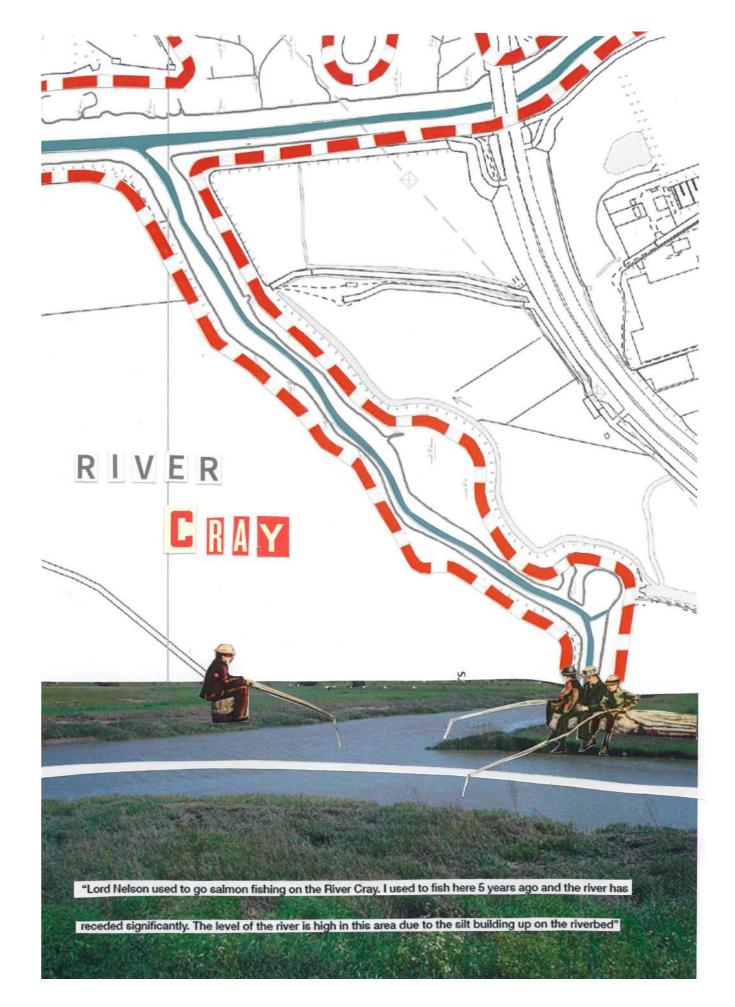
Thames Road cuts through the marshes, it seperates the Crayford Marshes and Thames Road Wetland. The council plan to widen this road, however this would impact the wildlife on the edge of Thames Road Wetland. The road already fractures access significantly making it difficult to view the marshes as one.



THE RIVER CRAY



The River Cray has a wealth of history, with references to the river dating back to Roman times. It is a chalk stream characterised by clear, chalk-filtered water with an abundance of diverse wildlife. The river has receded significantly over the years and needs to be de silted and regenerated in order to preserve the wildlife habitats that are so unique to chalk streams.

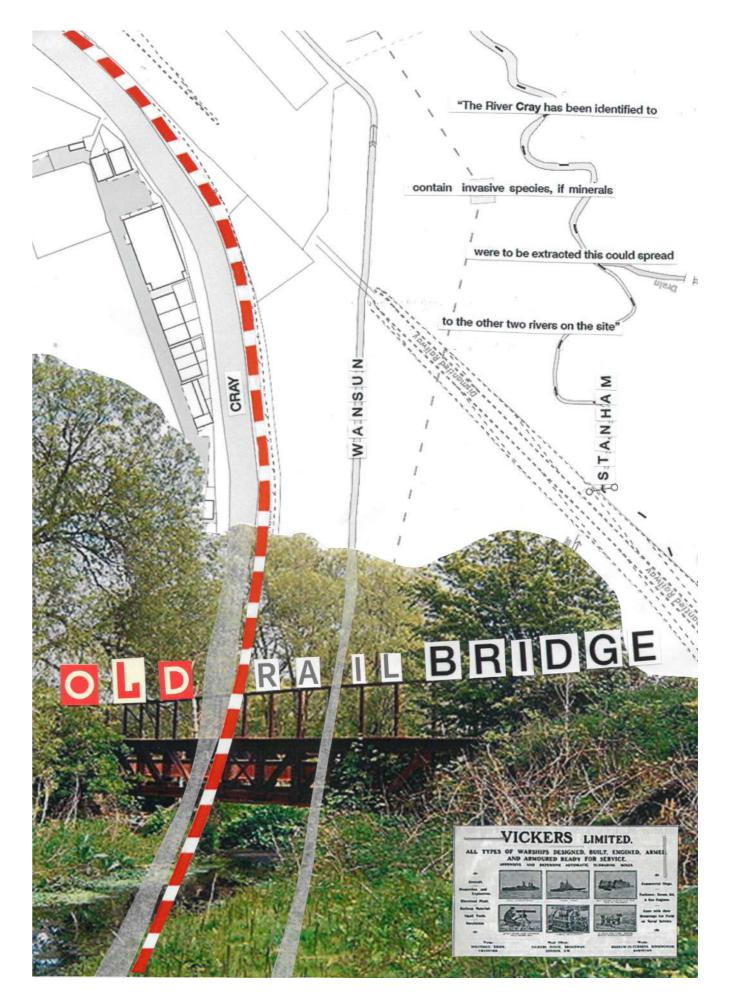


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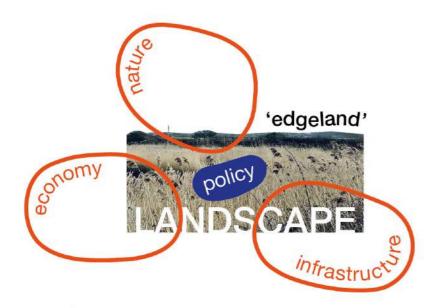
OLD RAIL BRIDGE



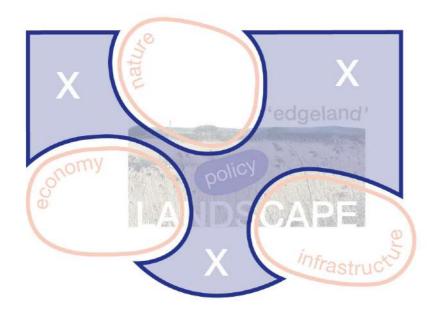
The former Vickers works railway bridge. This iron lattice bridge, in remarkably fine fettle for its age, spans the Wansunt River on Crayford Marshes close to Maiden Lane. It is not easily accessed from here. The Vickers railway seems to have existed from the earliest days of their association with Crayford, and was in use until the 1950s.



A Landscape of Intersections Observing cracks in the landscape



THE SITE IS LAYERED AND COMPLEX; A RESULT OF CENTURIES OF HUMAN INTERACTION WITH LAND



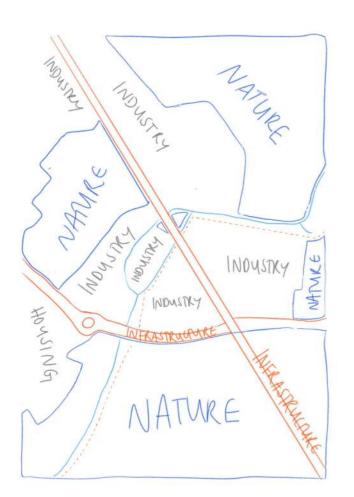
THE PROPOSAL SITS IN BETWEEN THESE LAYERS
IN THE UNSEEN CRACKS OF THE LANDSCAPE

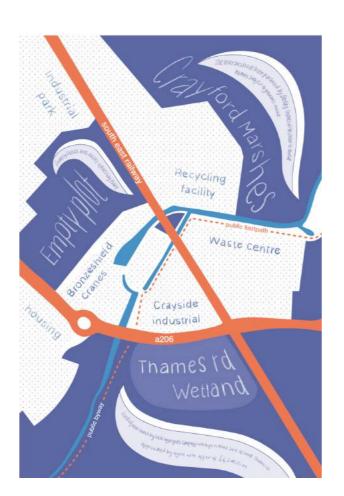


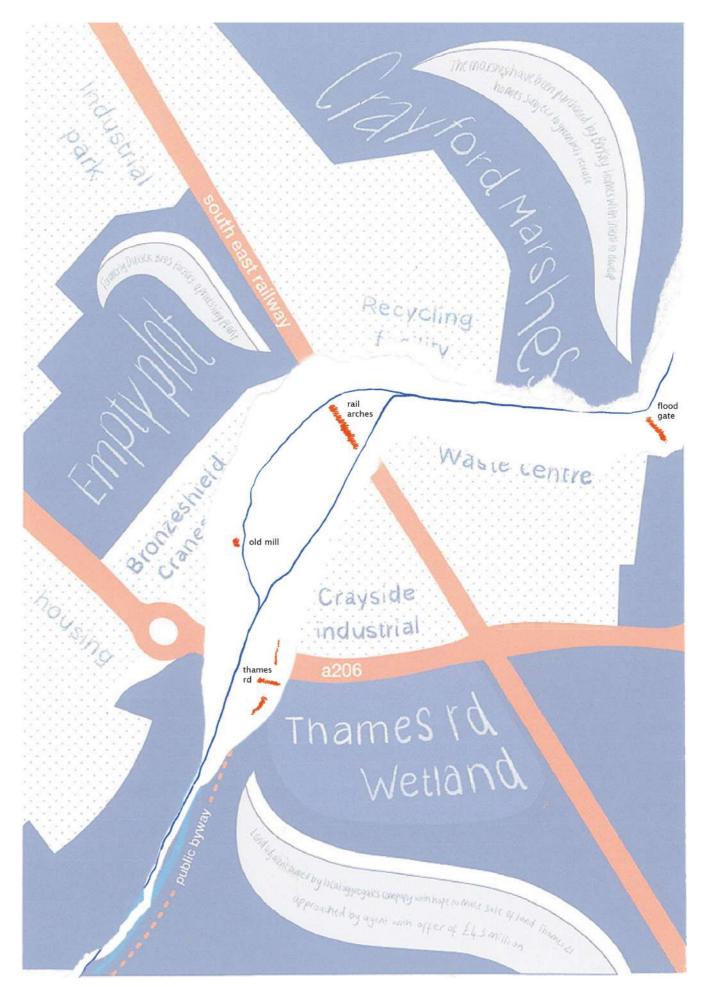
A Landscape of Intersections

Relationships between nature, industry and infrastructure

There are many areas on the marshes where multiple entities exist at once, spilling into eachother and slowly intertwinning overtime. The landscape is shaped by these relations leaving marks on the landscape and sometimes unique marginal spaces displaying diverse ecosystems.

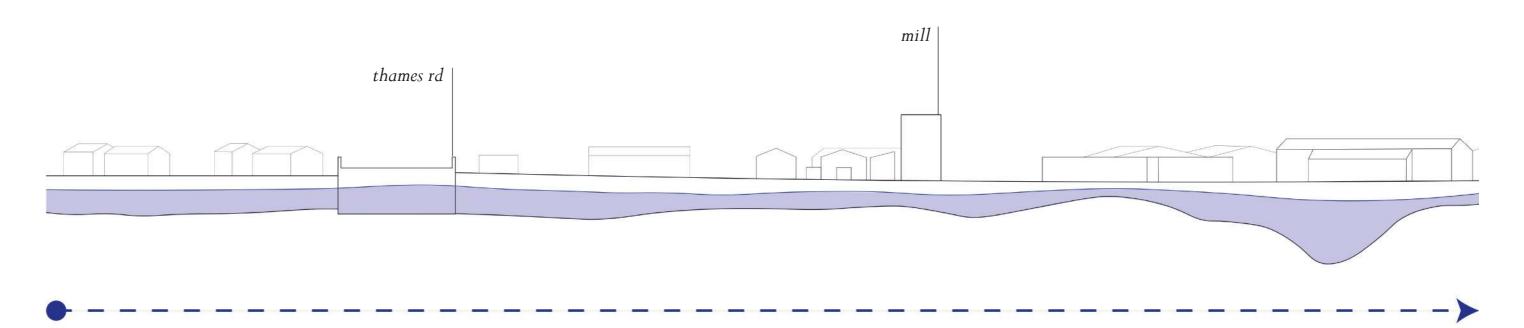




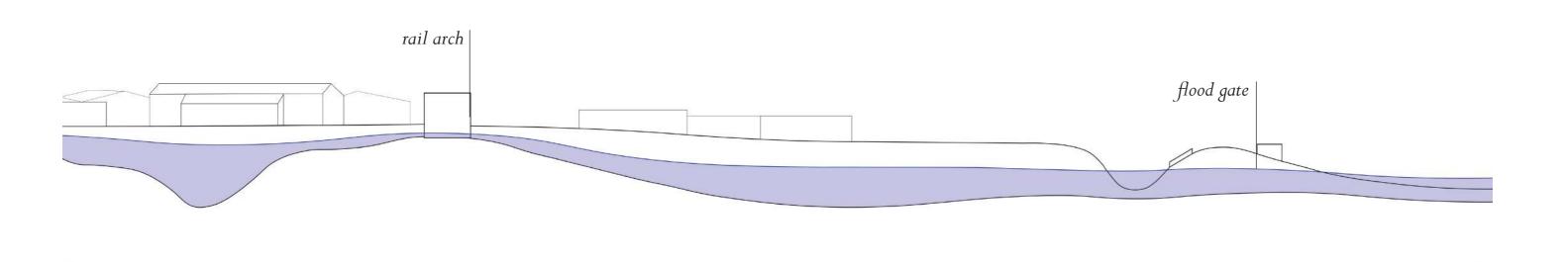


Walking in the Fracture

Navigating between Thames Rd Wetland and Crayford Marshes



As you leave Thames Rd Wetland you are met by a busy 'A' road and no crossing in sight, so you run across the road trying to find your way. You can see the mill towering over the industrial estate a beacon of the landscape. The river winds in various directions, the path is not clear.



Once you pass the mill you find yourself on a path between warhouses, the weeds are flourishing and reclaiming the space. A rail arch appears, and next to it a wild untouched island full of life and colour. It is inaccesible so you continue down the narrow path past old barges until you reach the flood gate.

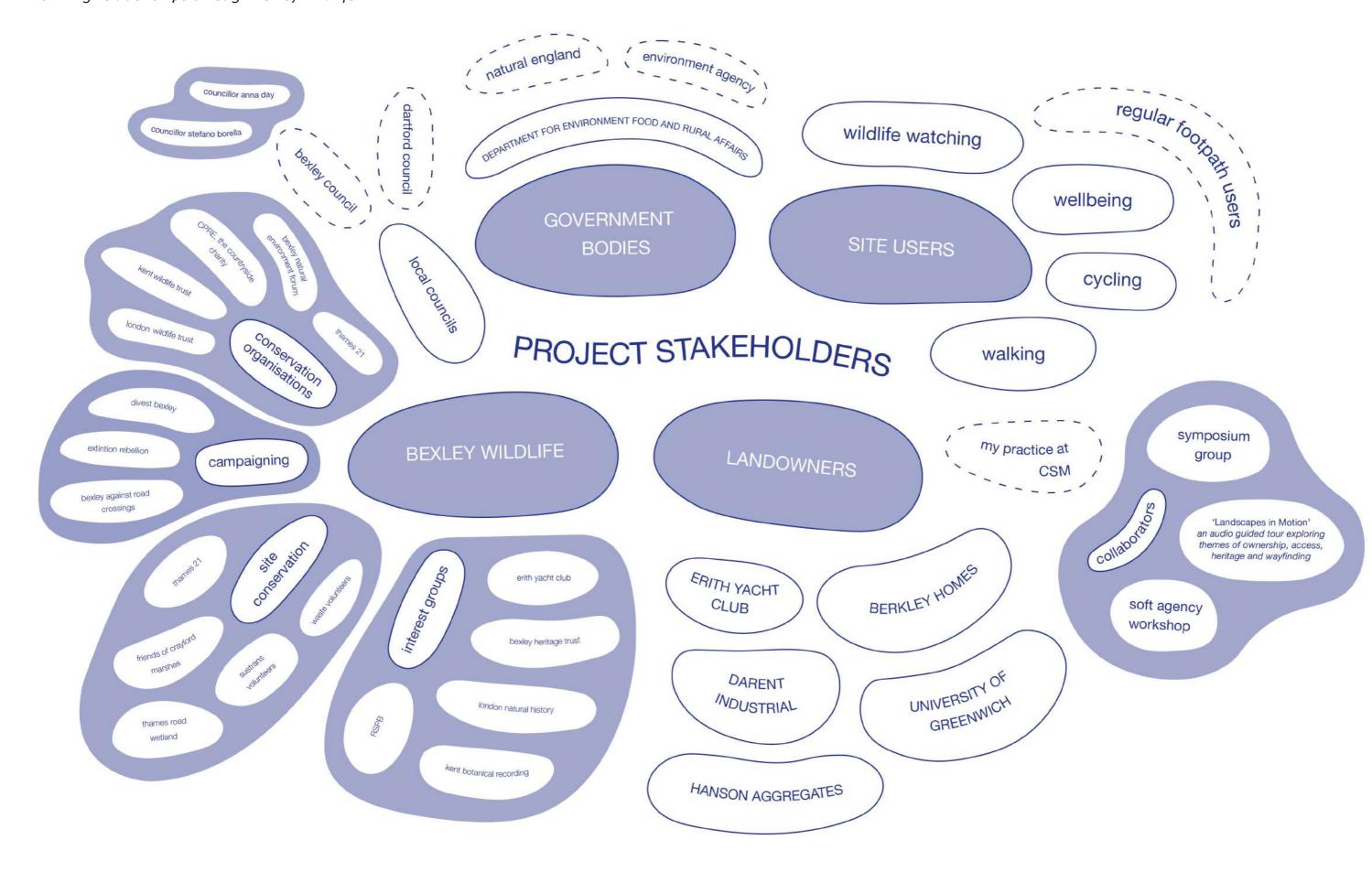
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03

COLLECTIVE WORKS

Project Stakeholders

Forming relationships through Bexley Wildlife



Initial Visit with Bexley Wildlife Thames Road Wetland meeting with various charities



Meeting Agenda:

The land within the boundary is currently on the market, Thames 21 have been approached by the agency with an offer to purchase for £100K per acre (£4.3 mill total). Mineral extraction is the major medium-long-term threat to the sale area. The conservation groups involved have identified serious site access challenges, despite the size of the site and long boundary. These challenges work in our favour in preparing an argument against mineral extraction activity. The meeting presented an opportunity to discuss the potential of this site as a potential wildlife trust site.

Attendees:

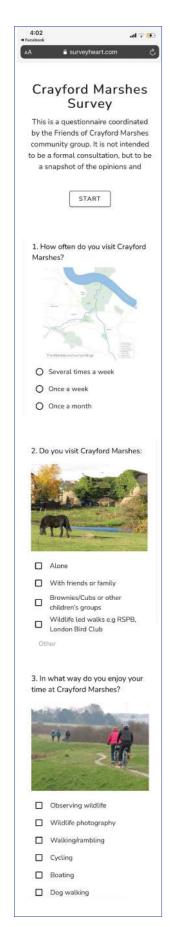
London Wildlife Trust, Bexley Wildlife, Thames 21, RSPB, Alan from Erith Yacht Club

- There would only be a very narrow entrance/exit point in the north-west corner. The strip of land here provides vehicle access to the Cray for the EA and others and is a designated By-way and part of London Loop. Any junction with Thames Road here would be awkward, with fast and heavy traffic and existing tailbacks from roundabout.
- 2 High sewer pipe embankment, with Thames Road Wetland to the north of it, precludes driving a road out of the sale site further east of the River Cray even if LB Bexley rolled over and allowed destruction of TRW.
- Trackway at the east end of Thames Road Wetland is owned by Bexley Council. Would still involve having to drive up and over the sewer bank. Exit onto Thames Road would have poor sight-lines due to design of adjacent railway bridge. A new single-span bridge would swop that problem for one of even faster traffic.
- Access along the track to Stanham Farm is compromised by narrow nature of the roadway, narrow rail overbridge and an exit at a busy roundabout. Height of rail embankment would make it very difficult to build a rail track up from ground level to join the existing Dartford-London line due to required gradient. Any rail solution would likely fall foul of the same capacity limitations that scuppered the Roxhill road-rail transfer depot scheme in 2018, exacerbated by a QE line extension to Ebbsfleet. Risk overbridge could be widened as part of such extension works.
- 6 Site access also blocked by rail lines to south-east and south, plus allotments and residential development beyond that. Stanham Farm land to south of sale site not itself for sale.
- 7 Very narrow (one vehicle width) rail overbridge on Maiden Lane by south-west corner of sale site.
- Remains of railway embankment that came out of Vickers armament works, with the line crossing the River Wansunt on a substantial bridge (still standing but hidden by trees) before continuing along the Cray, crossing Thames Road and serving an armoured ply works by the old mill pond. Also had a siding along the Wansunt to a trans-shipment loading platform, presumably for barges that went down to the Thames. In theory this could be used to provide a rail line into the site to take away aggregates. However, new development on Maiden Lane by the railway, has cut off the corner required to provide a suitable radius of curve, and only the piers of the bridge that carried this line over Maiden Lane are still standing. Any rail access here would have the same capacity problems as mentioned in 4/5) above.
- Maiden Lane quite narrow, and there may be weight restrictions on the Wansunt and Cray bridges that would preclude (laden) HGVs.
- Access via Maiden Lane and Crayford Way compromised by cramped and busy junction, used for 'rat-running' off the road to Dartford and often affected by tailbacks from Crayford town centre.
- Access from west stymied by residential development, allotments, park land and Rivers Cray and Wansunt. Could presumably turn the track past the allotments to the Cray into a road but would mean passing right next to newly built properties and face same Crayford Way traffic issues as in 10). Two bridges then needed.
- 1) Meeting point, where the three rivers that cut through the site were discussed. There is an understanding that the site is currently owned by mineral extraction company.
- 2 Entrance to site where the level of the river Cray was highlighted in relation to the bridge. The river has not been de silted therefor has a much higher level.
- (3) A large pile of waste identified which had been disposed of into the river Cray and onto the banks, this is a very common sight unfortunately.
- 4 A sighting of the Old Railway Bridge which connects to a bank running across thesitw. The tracks were previously used by the Vickers Factory
- (5) Conversation about the river Cray and how it has been banked up, this affects the water leve and the surrounding areas.
- 6 Observing Thames Rd wetland with conversation about the works to be carried with pillons being dismantled and the wires being burried underground. This would affect the future of site development.
- Observing volunteer reed cutters at work. They clear the reed to maintain the site and it's wildlife
- (8) Looking out across the site and discussingthe ownership of Stanham Farm and how this would affect the development of this site.

UNIT 4 PORTFOLIO 56 **UNIT 4 PORTFOLIO** 57

Conducting a Survey about the Marshes

Working with Donna Zimmer to create a survey



4. How do you currently travel to Crayford Marshes? ☐ Walk □ Cycling ☐ Bus □ Train 5. Do you find this site accessible? can access the site and comfortably move around the marshes O I have some trouble with access and finding my way round 6. What facilities would you like to see at Crayford Marshes? ☐ Information/Education centre ☐ Toilets ☐ Hide for birdwatching ■ Bins for dog waste 7. What signage do you think

☐ Mobile location app

8. What events have you/would you like to participate in around Crayford Marshes? ☐ Bird ringing ☐ Group art projects ■ Voluntary projects 9. How important are the Crayford Marshes as they are today, for your (please pick one) O Somewhat important O Neither important nor unimportant O Not at all important 10. In developing ideas for the future of Crayford Marshes, how important is it to involve local youth young people to be involved? (please pick one) O Somewhat important 11. Which, if any other local regularly? Please add a comment in the "other" box to indicate what facilities and features are important to you when visiting these outdoor

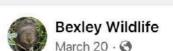
11. Which, if any other local outdoor spaces do you visit regularly? Please add a comment in facilities and features are important to you when visiting these outdoor 12. How much do you know about the past and future threats to Crayford Marshes? (If there are please provide details in the "other" O Somewhat aware 13. How much do you know about the value of Crayford Marshes as a breeding ground for numero existing and some declining species? (please pick one) O Somewhat aware 14. In the alternative vision for Crayford Marshes would you like to see dedicated areas that would focus on the conservation of such

O Yes

O No

Conducting a Survey about the Marshes Sharing survey online

"We shared the survey online through Bexley Wildlife facebook page. They have most reach on social media and engage with varous different groups in the area. We gathered 262 responses after running the survey for around 3 months."



Friends Of Crayford Marshes are working with RSPB England, London Wildlife Trust, CPRE The Countryside Charity, Wildfowl & Wetlands Trust and Thames 21 in designing a 'Vision for Crayford Marshes' to help protect our Green Belt which

Be part of this vision by answering the short survey:

is a hidden oasis for people & wildlife.

https://surveyheart.com/form/63f36b3221ac170736b93a56

https://www.newsshopper.co.uk/.../23388723.fight-protect.../



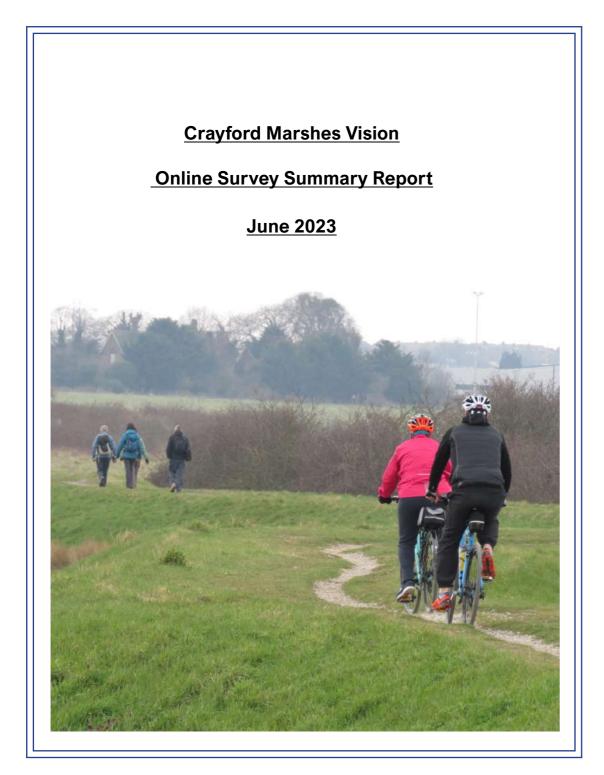
NEWSSHOPPER.CO.UK

Fight to protect 'hidden Bexley oasis' home to seals and birds from being built on



4 shares

Conducting a Survey about the Marshes Reporting on the survey resonses



"We shared the survey online through Bexley Wildlife facebook page. They have most reach on social media and engage with varous different groups in the area. We gathered 262 responses after running the survey for around 3 months."

Conducting a Survey about the Marshes *Suggestions made for the marshes*



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Walk with CPRE (The Campaign to Protect Rural England) Raising awarenes and starting a campaign

CPRE London was recently contacted by a local group in Bexley concerned that the Outer Crayford Marshes site has been bought by developers Berkeley Homes.

Added to this, the Bexley section of Inner Crayford Marshes, designated one of the best wildlife sites in London, is <u>up for sale</u> as a 'prospective development site'.

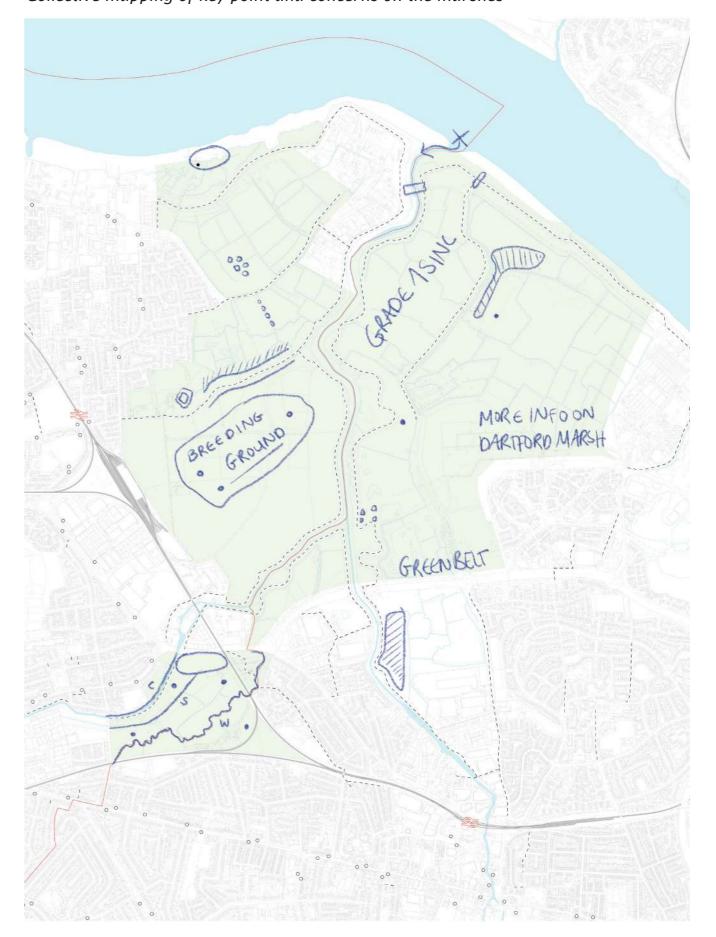
The <u>Friends of Crayford Marshes</u> is campaigning to save this much loved site located in Green Belt on the Thames at the outer edge of South East London. The site is protected Green Belt and a nature reserve with rare birds and seals, and has considerable historic interest, but is now under threat from being built over.

Donna Zimmer of the friends groups said: "The local community values this site immensely. It's really the last of the truly wild, natural spaces left in Bexley, with its large open green space and big skies. We use this unique green space for a range of activities, including organised wildlife walks, photography, cycling, sailing and general exercise. The London Loop and Thames Path walks go through it as does National Cycle Route 1."



After a successful campaign in 2019, Crayford Marshes was <u>saved</u> from development, when a planning application for a large rail freight interchange was refused. The Secretary of State agreed with the Planning Inspector stating it would cause substantial harm to the Green Belt.

Mapping the marshes exercise after walk Collective mapping of key point and concerns on the marshes



Organising a campaign walk

Gaining media interest and prepping for interview



Friends Of Crayford Marshes



Crayford Marshes RSPB- Bexley Local Group Wildlife Walk Friday 28th April

10.30am until 1.30pm

Join Nicky Wilson and Donna Zimmer for a wildlife walk at Crayford Marshes and towards the River Thames & Erith Yacht Club.

Good chance of observing spring migrant birds including Wheatear and Whinchat. Look up to see Buzzard, Kestrel and Marsh Harrier. Listen out for the Skylark. Kingfisher may be observed near the Moat and waders and wildfowl can be seen along the Darent Creek and by the River Thames. Hopefully a Common or Grey Seal will be relaxing on the mud. Then onwards to Erith Yacht Club for refreshments and to discuss the #crayfordmarshesvision before returning back.

Free walk open to all. Ground is uneven on footpaths so wear sensible walking shoes. Drinks can be purchased at Erith Yacht Club at end of walk. Please reserve your place as this walk is popular. Details here:

https://www.eventbrite.co.uk/.../crayford-marshes-walk...

In the unlikely event of cancellation please check Facebook on the day of walk.



EVENTBRITE.CO.UK

Crayford Marshes Walk

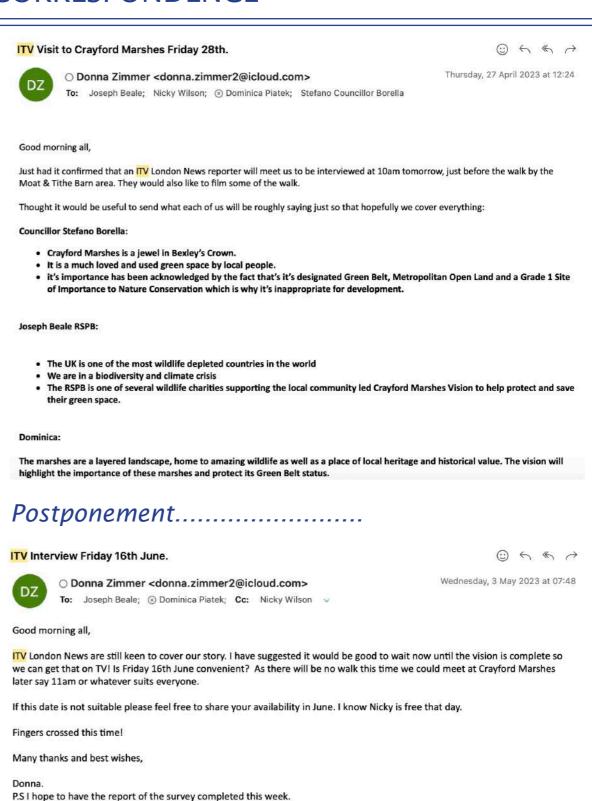
Join Nicky Wilson and Donna Zimmer for a wildlife walk at Crayford Marshes and towards...

UNIT 4 PORTFOLIO 63

Organising an interview with ITV

Gaining media interest and prepping for interview

CORRESPONDENCE



Workshop with Soft Agency 'Soot and Sulfur'
Exploring the material of seacoal through collection and manipulation



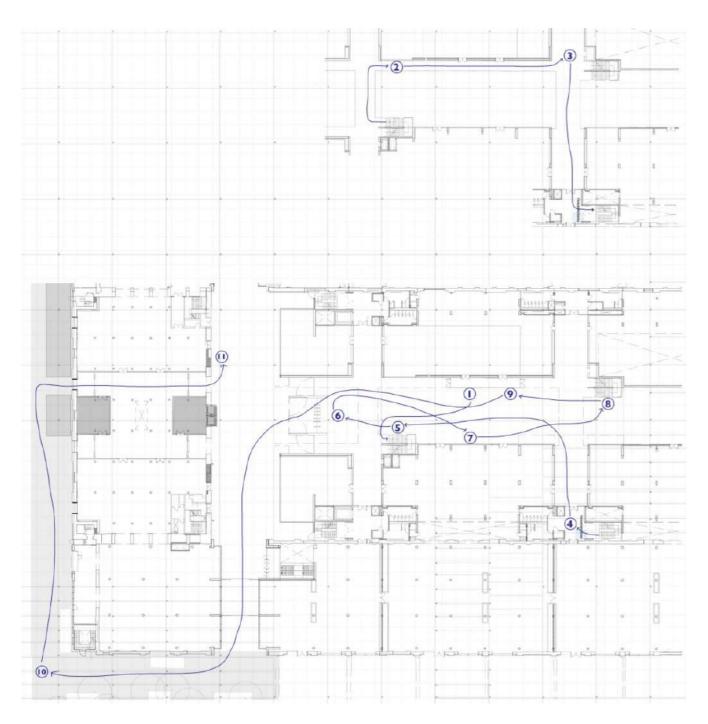


Workshop with Soft Agency 'Soot and Sulfur' Exploring the material of seacoal through collection and manipulation

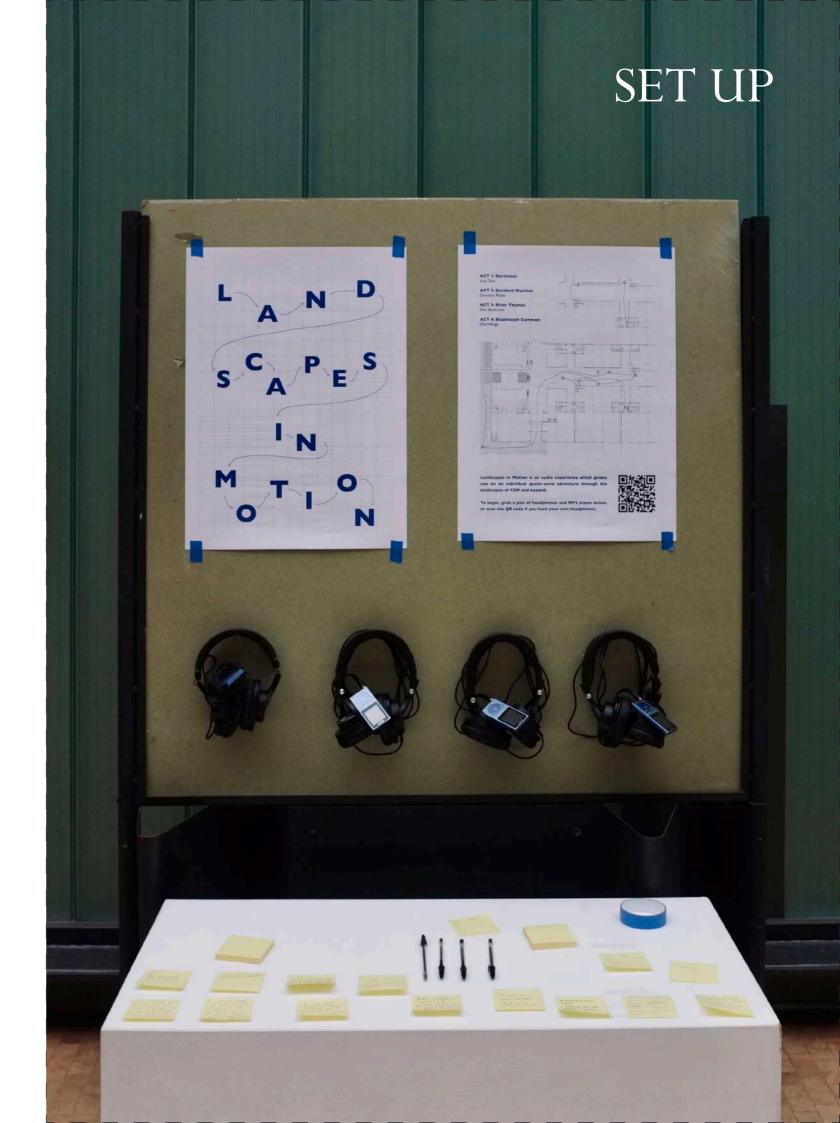




"EXPLORING OUR VARIOUS LANDSCAPES THROUGH A JOURNEY ENGAGING WITH OVERLOOKED SPACES IN OUR BUILDING"



Collaboration with Lucy Daw, Elliot Wedge and Elise Blackmore



Audio Script for Walk 2 out of 4

A journey to Crayford and Dartford Marshes

As you look out into the vast expanse you can observe both the intricacy and breadth of this moving landscape. The way we interact with space forms it and reforms it constantly. The street runs through forming the spine of this space.

Now turn around and Begin to walk right and follow the arrow on the ground. As you approach the terrace you can look out, but you are not allowed to access the terrace. Try to listen to the wind, the birds.....

Now turn left push open the door and start walking down the stairs..... Whats the weather like? Is the sunlight shining through the frosted glass panes onto the stairwell.

Keep walking down, wait stop have you spotted the brick wall to your right? Keep walking down the stairs and you will reach the arches in the wall. You can touch the arches, make sure no one sees. It's grade 2 listed.

You can keep walking down until you reach the ground floor. This brick wall is part of the old eastern transit shed. The Goods Yard complex, designed by Lewis Cubitt, was completed in 1852. The complex comprised the Granary Building, the Train Assembly Shed, and the Eastern and Western Transit Sheds. The buildings were aligned to the axis of the Copenhagen tunnel through which the trains arrived from the north.

The Granary building was mainly used to store Lincolnshire wheat for London's bakers, while the sheds were used to transfer freight from or to the rail carts. As you reach the ground floor walk through the double door and look to your left.

Here you can see Crayford and Dartford marshes, these marshes are located on the border of London and Kent and can be considered a perfect example of an edge land. A landscape of industry and nature, dirt and beauty all in one. The old mill sits on a Bronzefield crane industrial site, looking out onto the marshes like a spectator. It observes the intricate changes and shifts in the landscape overtime. Enclosed by the branches of the river cray, the mill balances on an island as the current flows and the water levels rise. The banks become overfilled and finally breach letting the water flood the land? The mill endures the current and stands still, an eyewitness looking out onto the flooded fields. The landscape takes on a new form, as the cranes unfold for us to take shelter.

Now turn around and walk towards the double doors follow the arrows on the ground. Walk through the door and out onto the street. As the light floods the space An exquisite miscellany reveals itself in a landscape which unfolds slowly presenting a sensory experience. There is a unanimous feeling of anticipation and serenity, as your eyes continuously meet curious objects as your feet touch the ground.

The landscape is filled with unique characteristics can you notice them?

Noticing is an important political act in itself, and a possible prelude to action. The landscape changes and shifts as our climate changes, is there a value in recording these lifecycles, the 'disappearances' in the landscape while also observing the newcomers?

Walk toward the stairs follow the arrows. When you reach the stairs mind your step and watch your head. Step inside and spend some time under the stairs. An unused and forgotten space for marginal activity. Sit and watch the landscape unfold infront of your eyes.

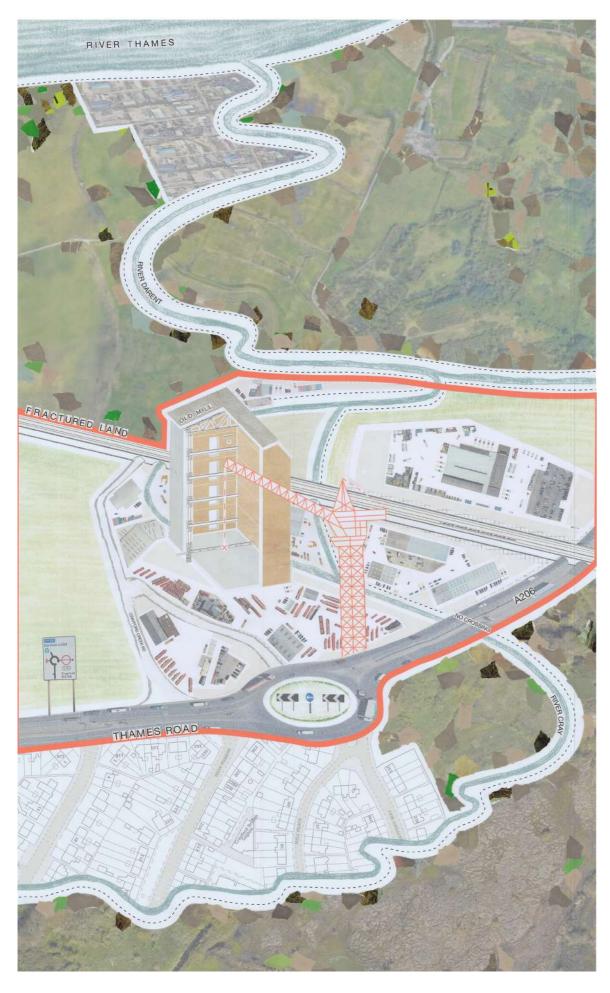
The landscapes is littered with traces left by a violent and toxic history of humanity, and it continues to be affected as the waste of our city spills out towards the marshes. The invisible infrastructure of our city can be seen as a processional space, where nature enters into a confrontation with the force of our capitalist system. As the River Thames flows away from central London, past the relics of industry, reclaimed saltmarsh and floodplain housing, the River Darent joins the Thames from the south. The Darent's curves mark the invisible boundary between London and Kent; these are the Crayford and Dartford Marshes.

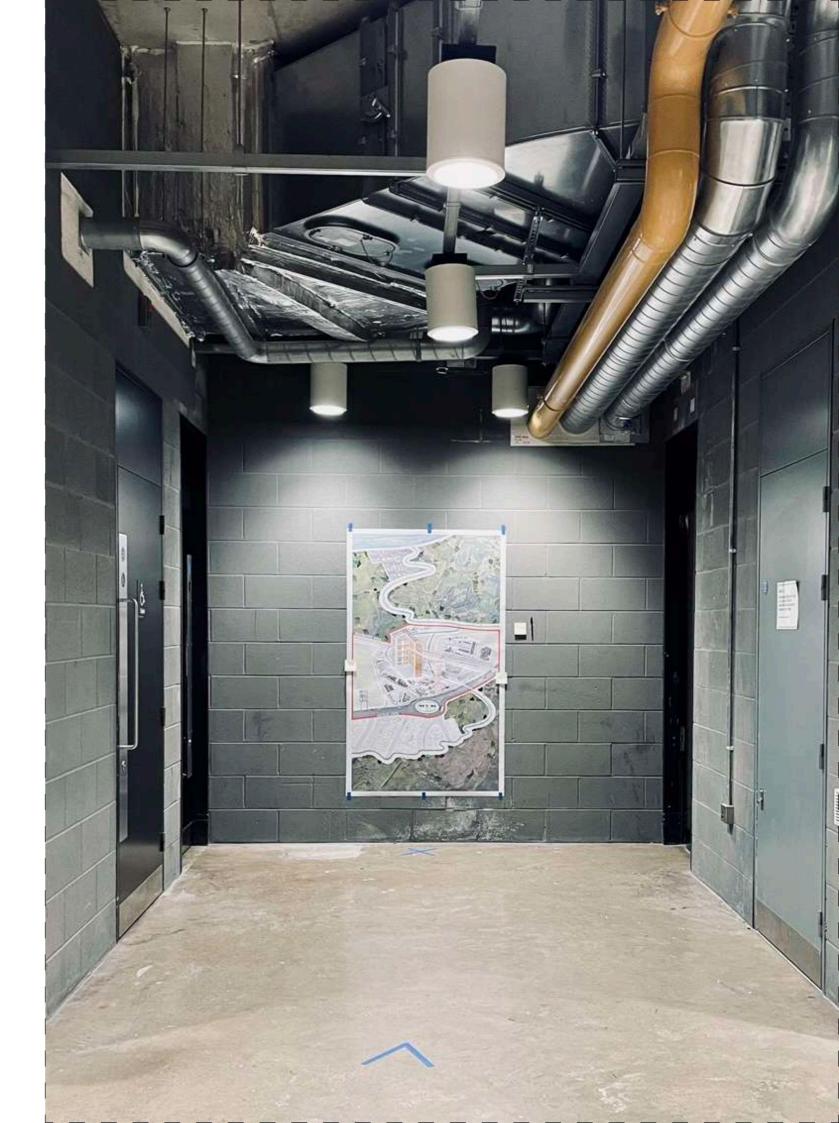
As you finish observing the marshes take the exit to your righting watch your step. Walk toward the next arrow to begin your experience of the next landscape in motion.

70



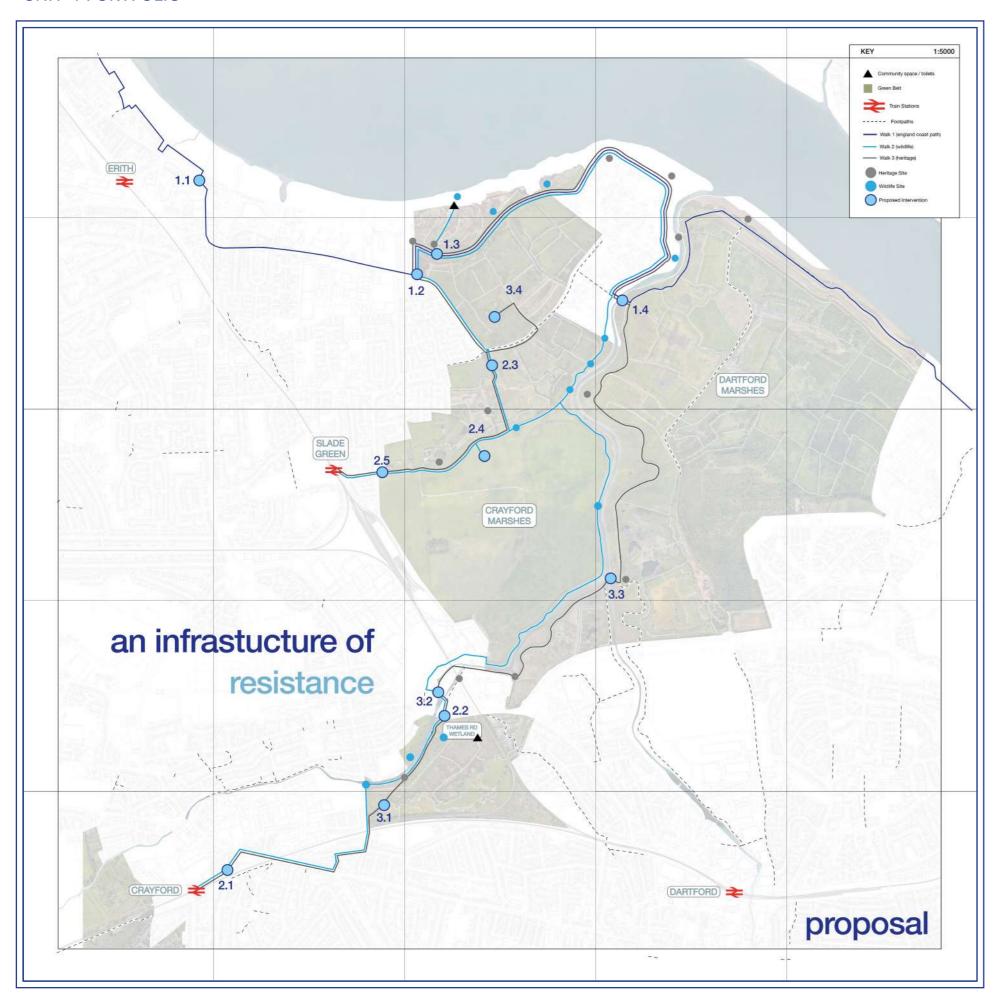
72





04

INFRASTRUCTURE OF RESISTANCE



1 England Coast Path

- 1.1 Signage/Route from Erith
- 1.2 Manor Rd Bus Stop
- **1.3** Entrance and Recycling Point
- 1.4 River Darent Crossing

2 Wildlife Loop

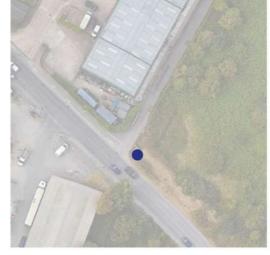
- 2.1 Signage/Route from Crayford
- 2.2 Thames Rd Crossing
- 2.3 Ancient Tree Path
- **2.4** Breeding Ground Hide
- **2.5** Signage/Route from Slade Green

3 Heritage Loop

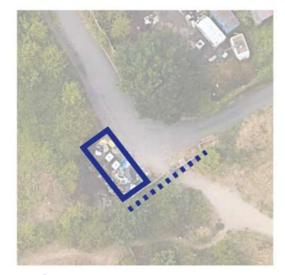
- 3.1 Old Railway Path
- 3.2 Crayford Old Mill
- 3.3 Cray-Darent River Crossing
- **3.4** WW2 Anti-Aircraft Battery



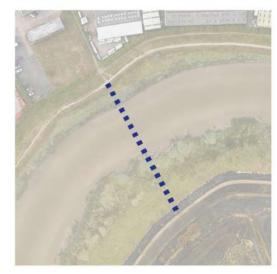
1.1 Signage at Erith



1.2 Manor Rd Bus Stop



1.3 Entrance/Waste Point



1.4 Darent River Crossing



2.1 Signage at Crayford



2.2 Thames Rd Crossing



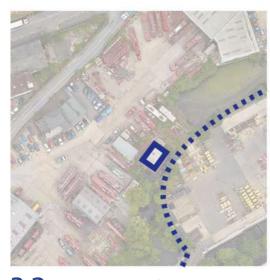
2.3 Ancient Tree Path



2.4 Breeding Ground Hide



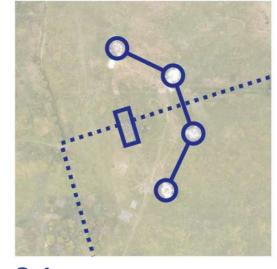
3.1 Old Railway Path



3.2 Crayford Old Mill



3.3 Cray-Darent Crossing

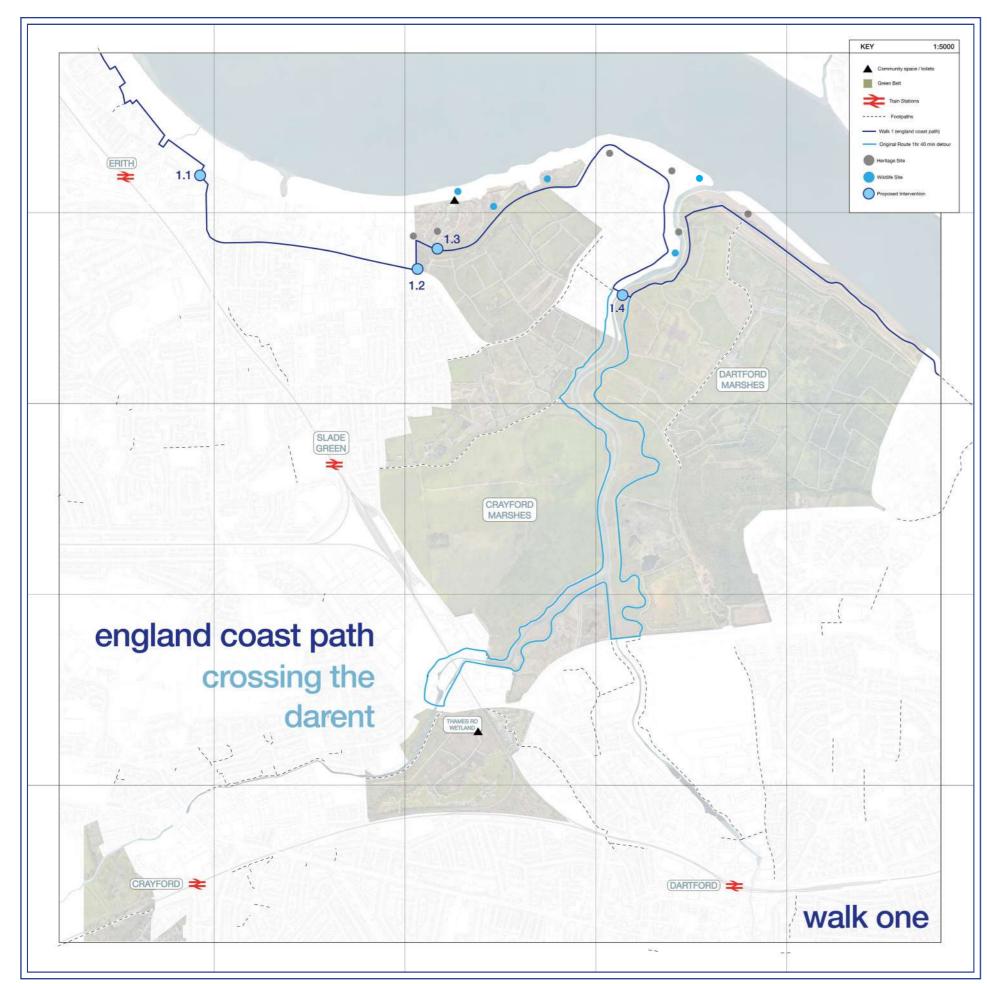


3.4 WW2 Aircraft Battery

UNIT 4 PORTFOLIO 80 UNIT 4 PORTFOLIO 81

04

WALK ONE





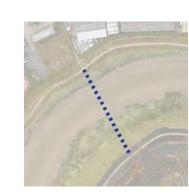
Signage/Route from Erith



Manor Road Bus Stop 1.2



Entrance and Waste Point 1.3



River Darent 1.4

UNIT 4 PORTFOLIO 84 UNIT 4 PORTFOLIO 85

Proposed Sign 2



Proposed Sign 1









The diversion at Erith creates a break in the england coast path. It is difficult to navigate the centre in attempt to reach the Crayford marshes and to get back onto the footpath.

Proposed Sign 3











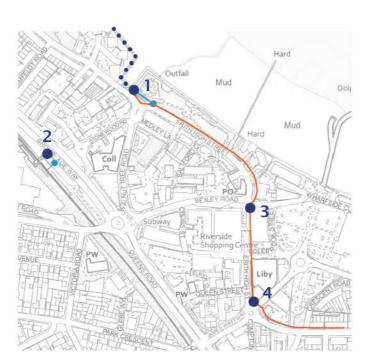
APPROACHING FROM ERITH

Locating Signage and Route from Erith via England Coast Path

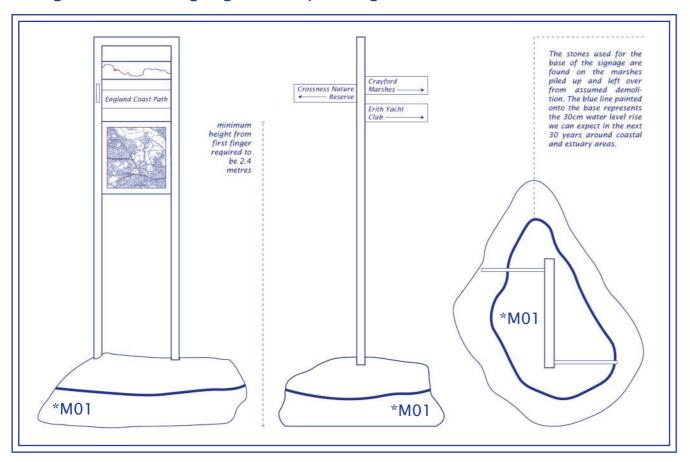
proposed signs
 bus stops
 footpath
 route to closest bus stop
 route by foot

These signs are a first point of call when navigating the England Coast Path approaching from Erith. The current diversion is misleading. The signs will give exposure to multiple user groups due to their placement.

- 1) As the footpath ends the diversion is unclear, this sign will inform routes via bus and foot.
- 2) Sign at station for train users.
- 3) Sign at shopping centre entrance, exposure and central area in Erith.
- 4) Round-a-bout at Manor Road, exposure to car users and important junction for users of footpath.



Design outline of signage for wayfinding towards marshes via bus or foot



*MATERIAL REFRENCE TO LOG BOOK

PROPOSAL [walk 1 intervention 1]



Map Overview of Route from Intervention 1 to 2



















APPROACHING CRAYFORD MARSHES FROM ERITH CENTRE

Arriving via bus or by foot to Crayford Marshes + bus route extension

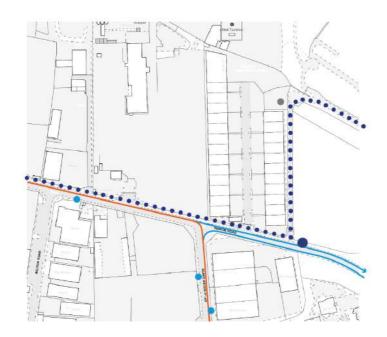
proposed bus stop
 bus stops
 footpath
 proposed bus extension
 bus routes
 heritage

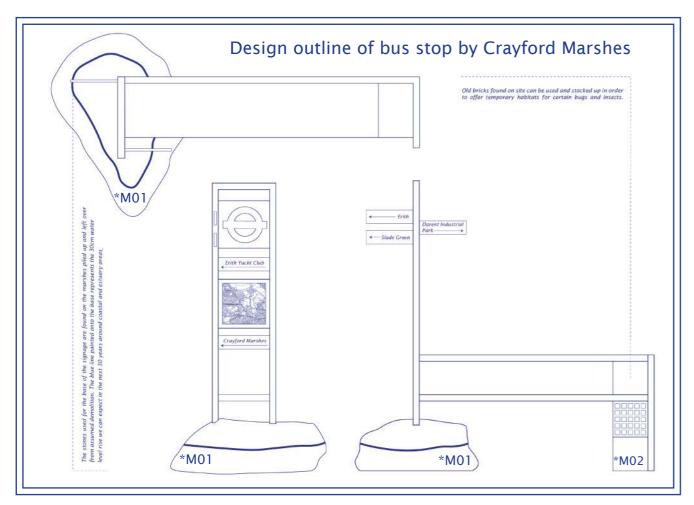
The Bus Stop is an extension to the existing bus route the proposal extends it to the corner between the route that turns onto the marshes. The route extension runs all the way down to Darent Industrial Estate.

The road (Manor Road) leading down to Darent Industrial Estate is currently a big hotspot for flytipping.

Extending the route creates more public activity which in turn should create more public surveillance of the space.

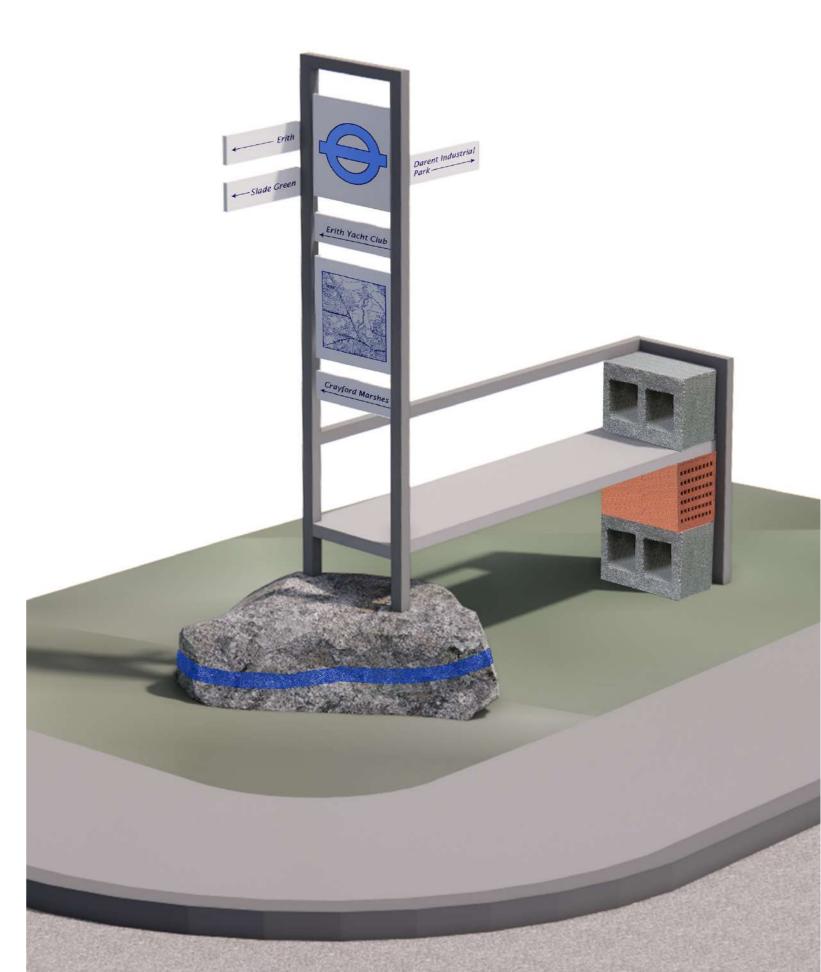
This may deter people from dumping regularly and will motivate the authorities to keep the road safe and without obstructions on the road.



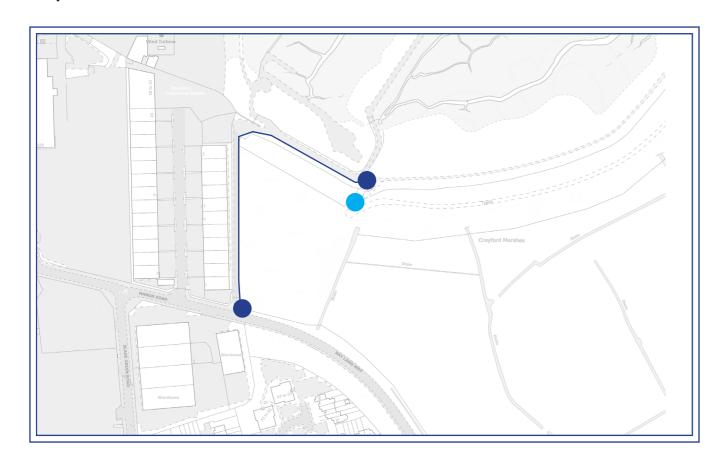


*MATERIAL REFRENCE TO LOG BOOK

PROPOSAL [walk 1 intervention 2]

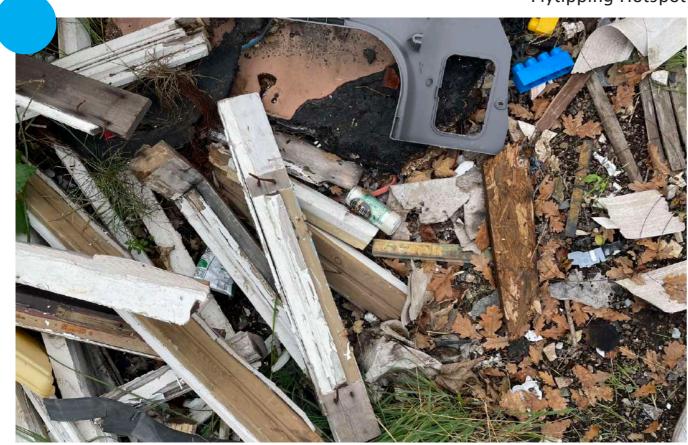


Map Overview of Route from Intervention 2 to 3





Flytipping Hotspot



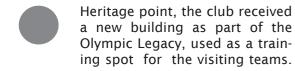


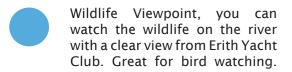




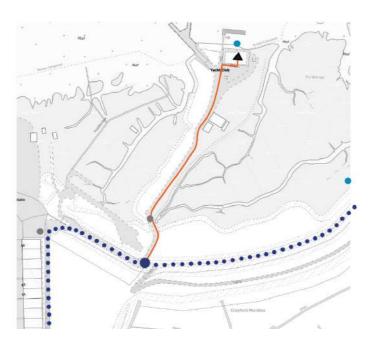
Entrance to Crayford Marshes, recycling point + access to Yacht Club

proposed entrance
 wildlife site
 footpath
 proposed access to yacht club for toilets
 heritage

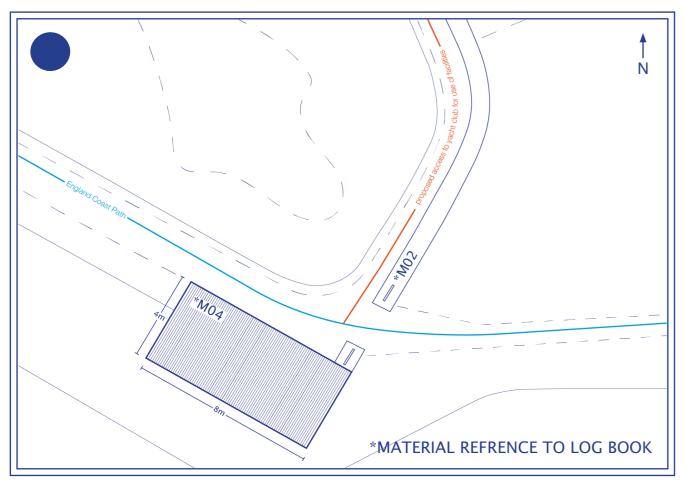




We used Erith Yacht Club as a stop on our collective walk where we discussed our hopes for the vision with reps from various charities such as CPRE London and RSPB. Alan Seal is involved in supporting the vision and wanted to open this space up for use of facilities.



Design outline of entrance to marshes/yacht club and recycling point

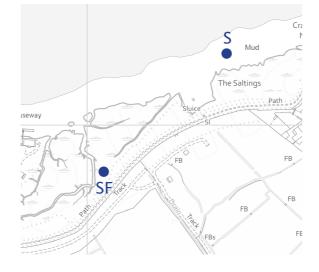


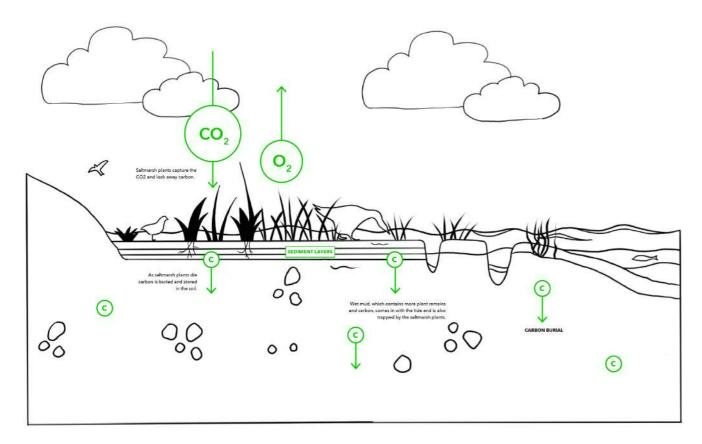
"The owner of Erith Yacht Club Alan Seal has expressed interest in opening the space up for the existing communities that use the marshes. This would provide a space of rest, a cafe and toilets for the users of the footpaths on the marshes." ERITH YACHT CLUB

Wildlife Sites of Interest: Saltmarsh and Neolithic Submerged Forest

SALTMARSH

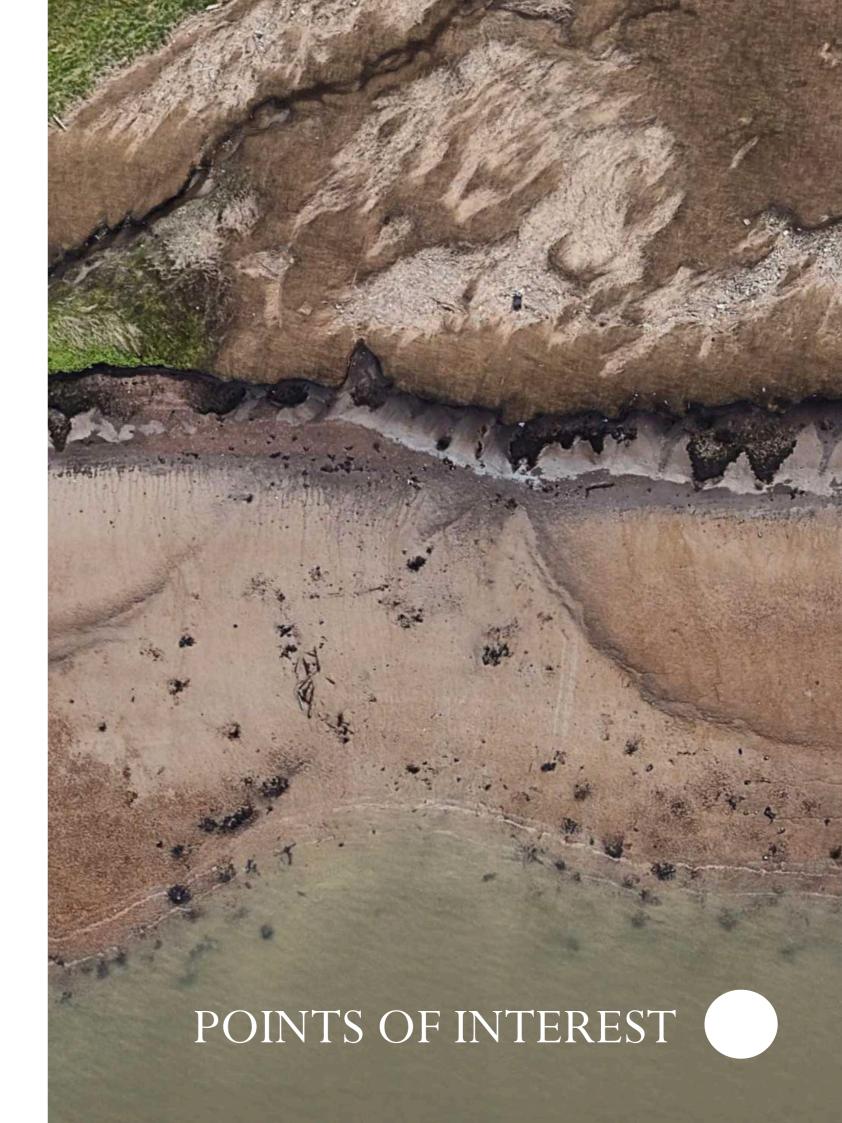
Blue carbon (that stored in marine and coastal habitats) is one of the most important carbon stores in the UK. Saltmarshes, in particular, are very efficient at locking away this type of carbon, while also bringing a range of additional benefits for people and wildlife. This key wildlife site is often overlooked.





Best place on the Thames Estuary within Greater London for viewing the Neolithic submerged forest. At low tides whole tree trunks are revealed amongst the root balls and occasional nuts and seeds can also be found. Peat beds are also found on the banks above mean high tide level. At least 5 different ages of peat and trees have been dated ranging from around 3,000 years until over 5,000 years ago.

SUBMERGED FOREST



Wildlife/Heritage Sites of Interest: River Confluence and Flood Barrier

CONFLUENCE

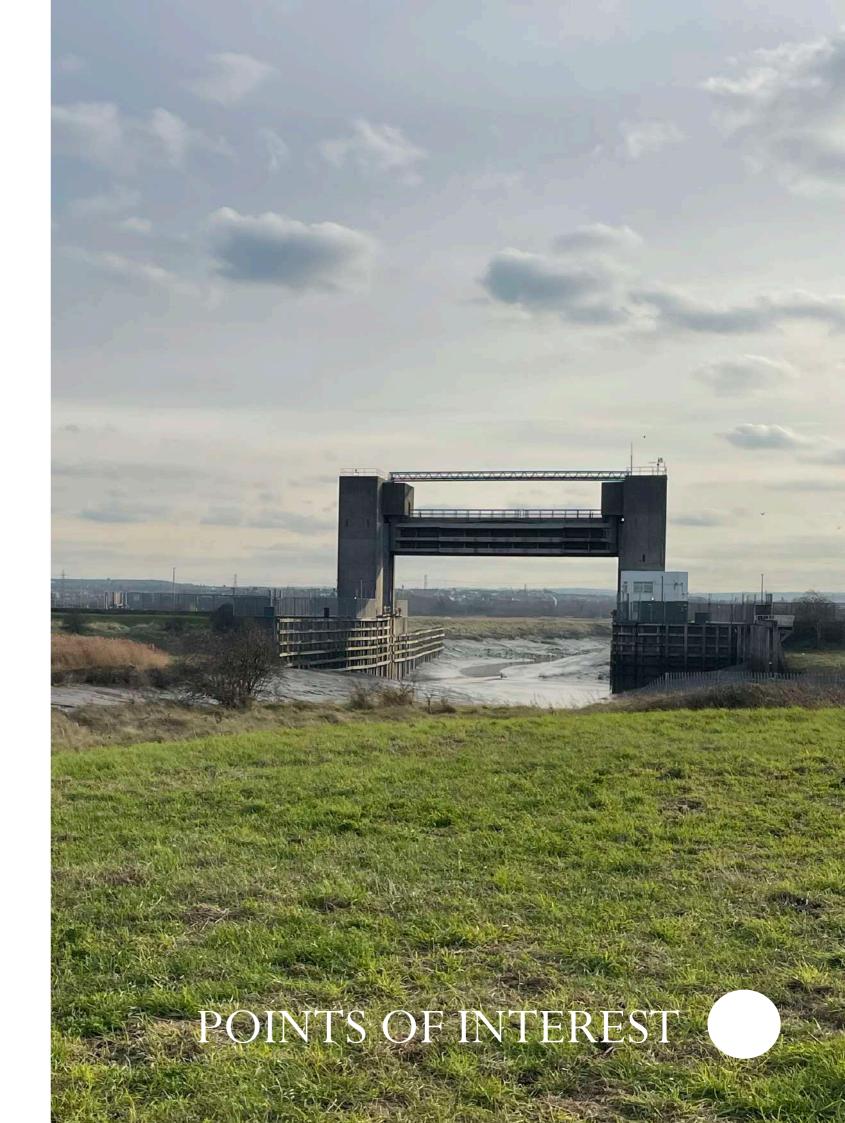
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FLOOD BARRIER -





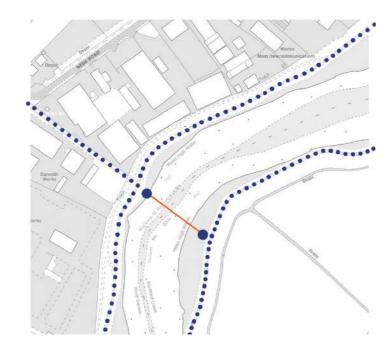
Tidal River Crossing across the Darent avoiding 1hr 30min detour on path

proposed crossing start and finish
 existing footpath
 proposed crossing route across Darent

The tidal river crossing offers a crossing over the river Darent just as the footpath between the Darent Indusrial Park joins up with the footpath on Crayford marshes. This will save someone taking the 1h30min detour.

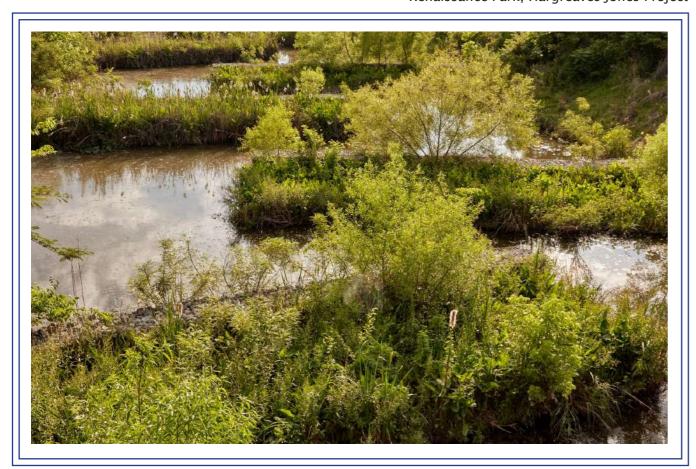
The crossing will be available at low tide which means that the person planning their journey will have to check in advance and plan around the tides.

This promotes a sensibility to engaging with this landscape on a deeper level, allowing the user to engage with the natural cycles of the estuary and the river. Your journey becomes directly affected by the tides.

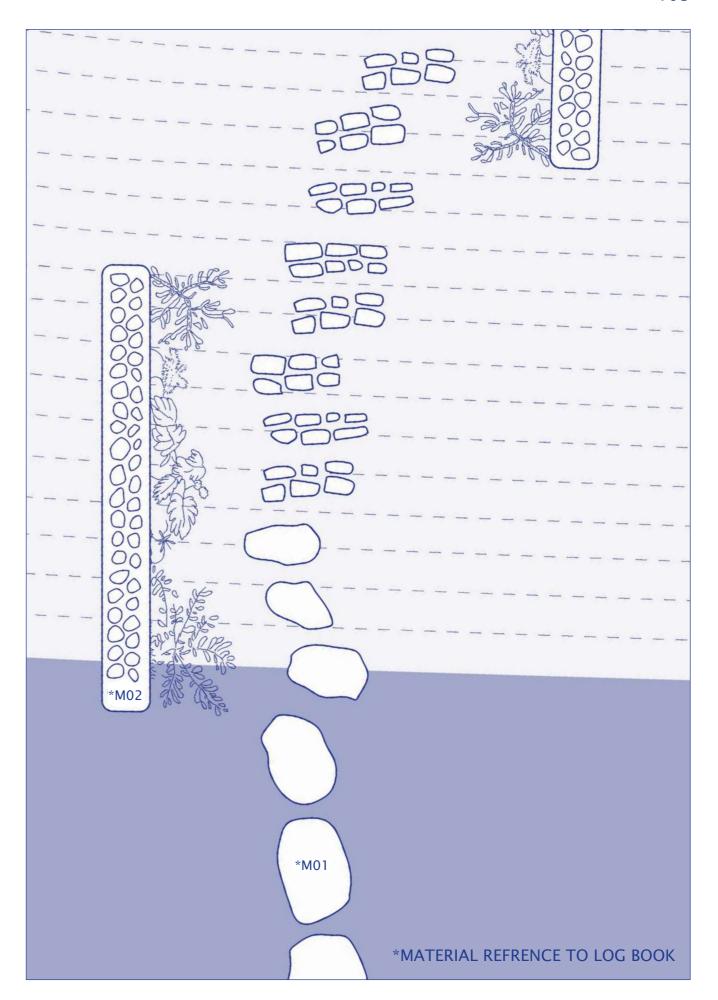


Renaissance Park, Hargreaves Jones Project

104



Rubble gabions for natural water purification, flood control and a habitat

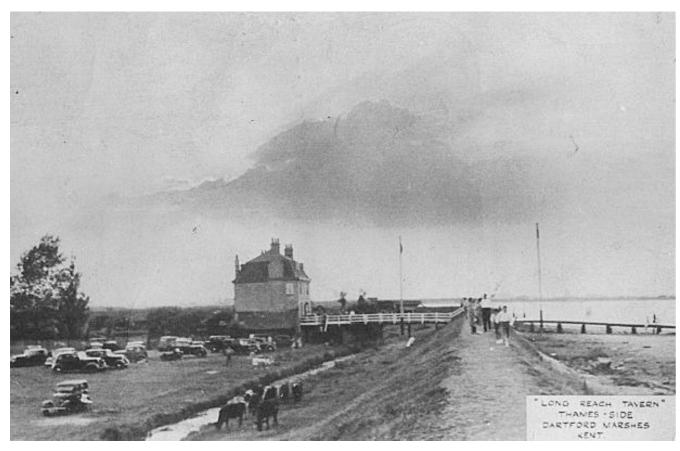


Heritage Sites of Interest: Old Tavern and WW2 Airfield

OLD TAVERN

The Long Reach Tavern is one of the many ghosts of the Dartford Marshes, a fading memory of past lives. Records date the pub back to at least 1841, The Tavern had its own jetty, serving local bargees. The pub was also renowned for bare knuckle boxing, with boats heading down from London. A ferry service ran across the Thames to Purfleet.





Joyce Green airfield was one of the earliest Royal Flying Corps (RFC) airfields, based on Dartford Marshes during WW1. This was an ill-fated aerodrome with high fatality rates. These fields were once part of Joyce Green airfield. The airfield's buildings and hangers were located close to the Long Reach Tavern. The nearby fields were used as runways, their drainage ditches covered over with boards.

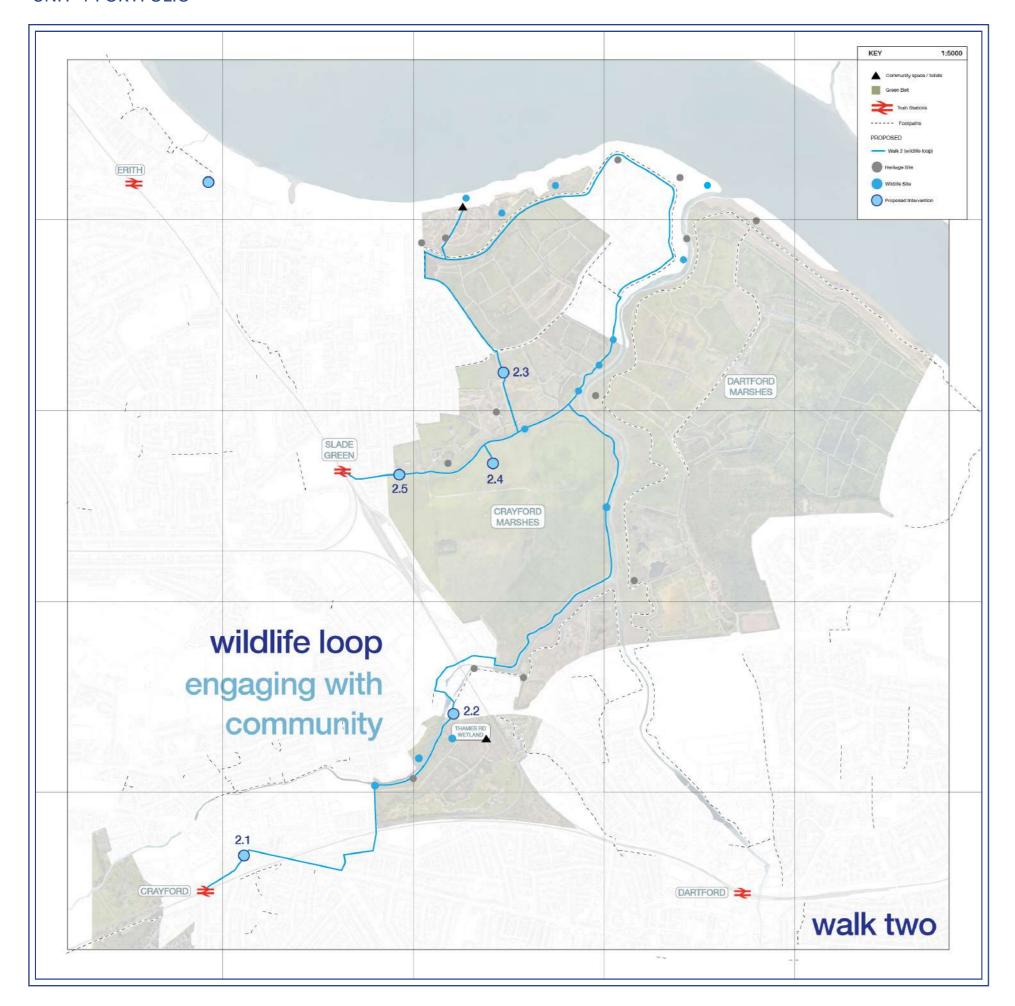




UNIT 4 PORTFOLIO 108 UNIT 4 PORTFOLIO 109

04

WALK TWO





Signage/Route 2.1



Thames Rd Crossing 2.2



Ancient 2.3



Breeding 2.4



Signage 2.5

Proposed Sign 1



Proposed Sign 2

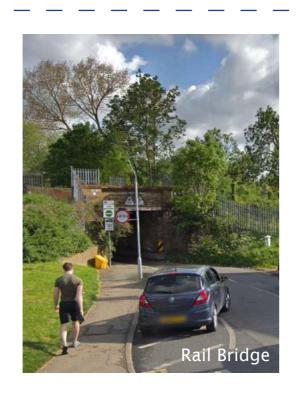








Maiden In









APPROACHING FROM CRAYFORD

Locating Signage and Route from Crayford Station

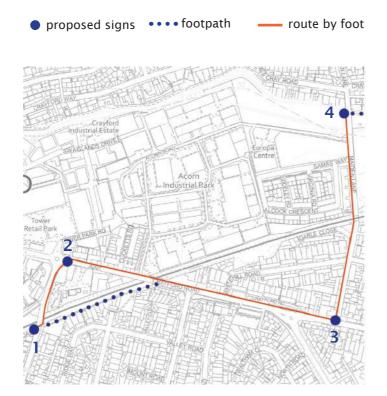
These signs are a first point of call when navigating from Crayford Station. It is a little complicated to find your way to the footpath when heading from the town centre. The signs will help guide towards Thames Road Wetland.

As you arrive at the station it is hard to find your bearings, there arent many signs and no maps. Despite this being a key point of arrival for Thames Road Wetland.

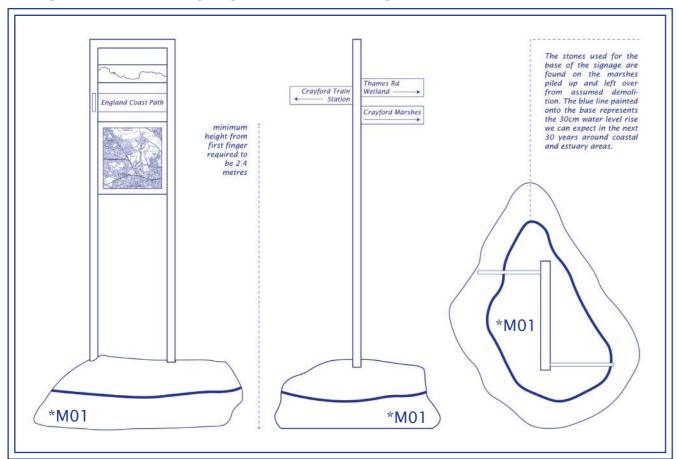
You take a right and walk down the main road for a while, crossing the tracks.

You turn left and head towards the tracks again crossing under the little tunnel.

This leads you towards Thames Road Wetland on your right, and if you follow the path you will reach the marshes.



Design outline of signage for wayfinding towards Thames Rd Wetland



*MATERIAL REFRENCE TO LOG BOOK

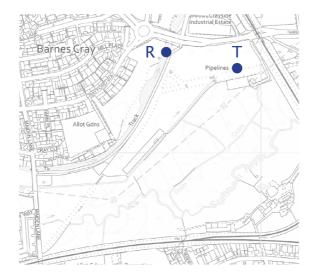
PROPOSAL [walk 2 intervention 1]



Wildlife points of interest: Thames Road Wetland

TR WETLAND

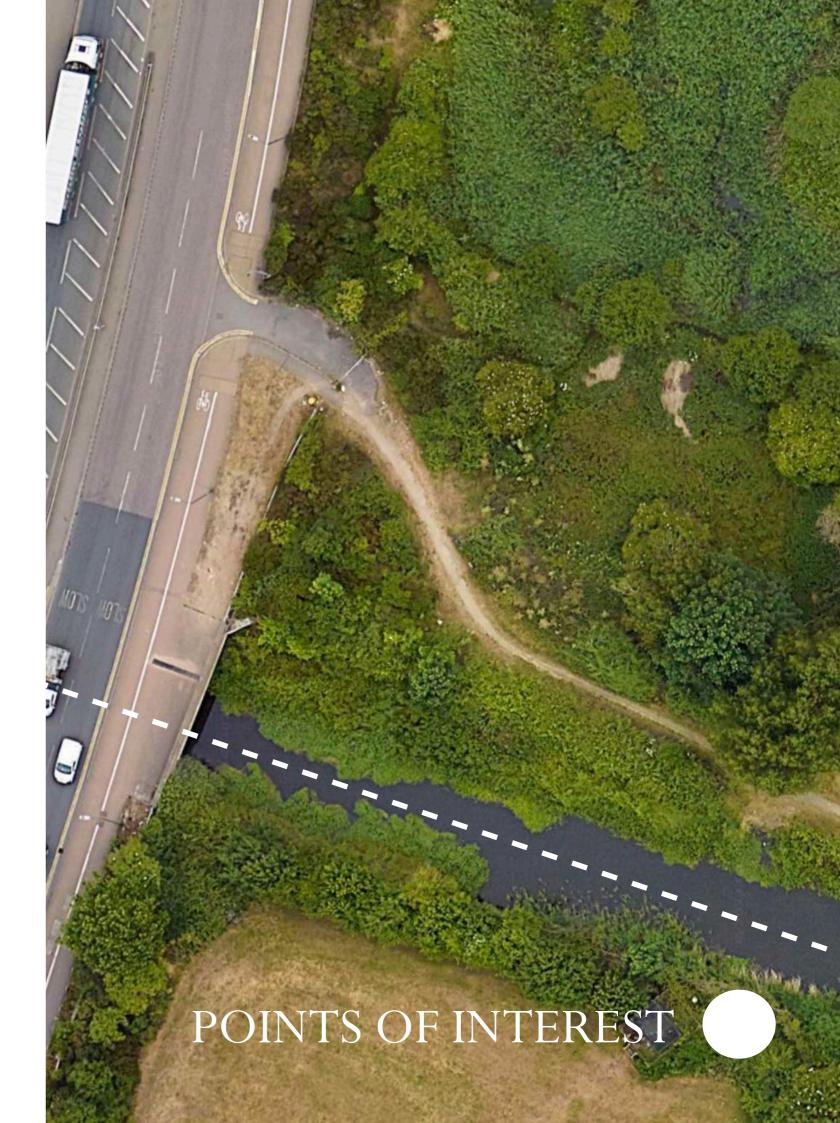
Part of the Cray Catchment, the Thames Road Wetland was created in 2007 by the London Borough of Bexley. This compact site of 2.4 ha presents a number of management challenges. Neverthe-less it packs a large and impressive punch in terms of the species to be found. Noted for a list of plants that are uncommon in London and Kent.





A tributary of the River Darent which in turn is a tributary of the Thames. It rises in Priory Gardens in Orpington, where rainwater permeates the chalk bedrock and forms a pond at the boundary between the chalk and impermeable clay. The River Cray and its surroundings have a wealth of history. A large Iron Age settlement was located at Crayford, as was the Noviomagus, a sizeable Roman fortification. The Domesday Book of 1086AD contains references to the Crays, Crayford and Bexley.





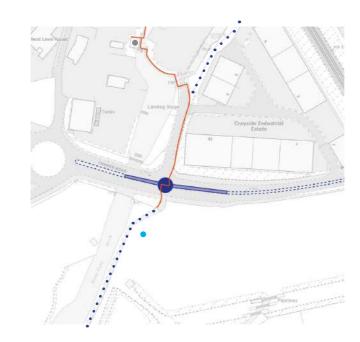
Thames Road Crossing (Connecting Thames Road Wetland)

proposed thames rd crossing
 wildlife site
 existing footpath
 proposed route
 heritage site

There is a huge issue with access as you reach Thames Road. This A road essentially slashes the marshes in two and there is no pedestrian crossing, and it is very unsafe to run across the road. This completley disconnects the marshes with Thames Road Wetland, fracturing the green corridor.

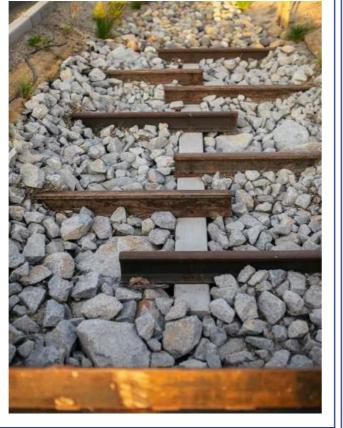
The Thames Road crossing proposes an integrated water and road runoff management system. This road is under threat of being prone to flooding in the next 20 years.

Integrating these features early on will shift the focus and present resilient solutions, as well as providing better pedestrian access between Thames Road Wetland and the rest of the marshes.



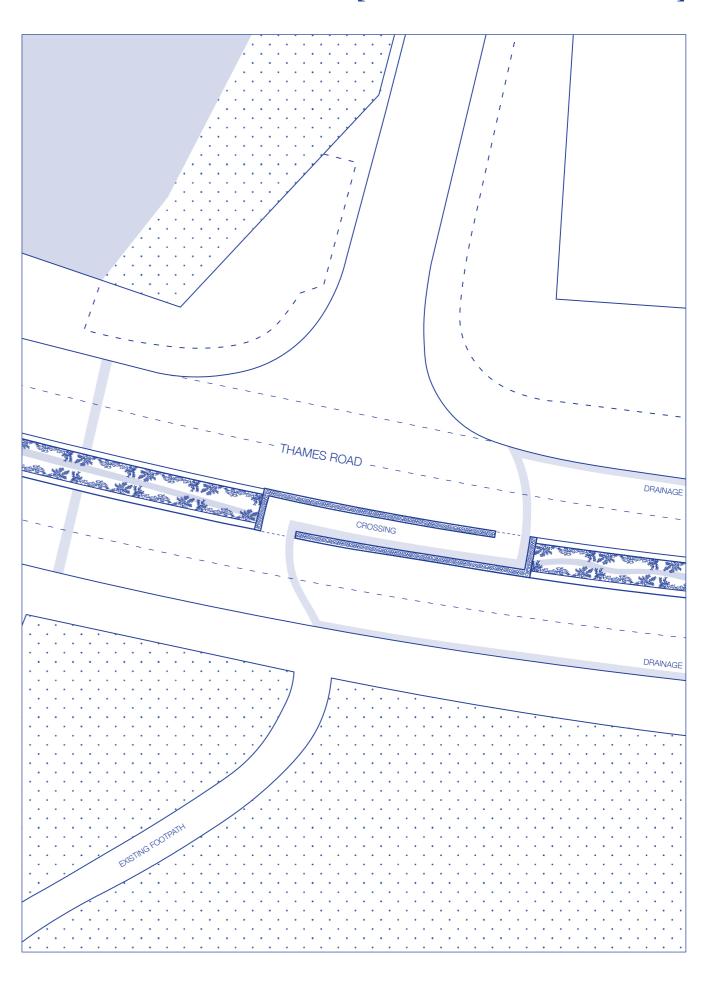
Rainwater management and ground infiltration with aim to reduce flooding





21st Street Paso Robles, Cannon Engineers

PROPOSAL [walk 2 intervention 2]



Wildlife points of interest: Walking along the Darent

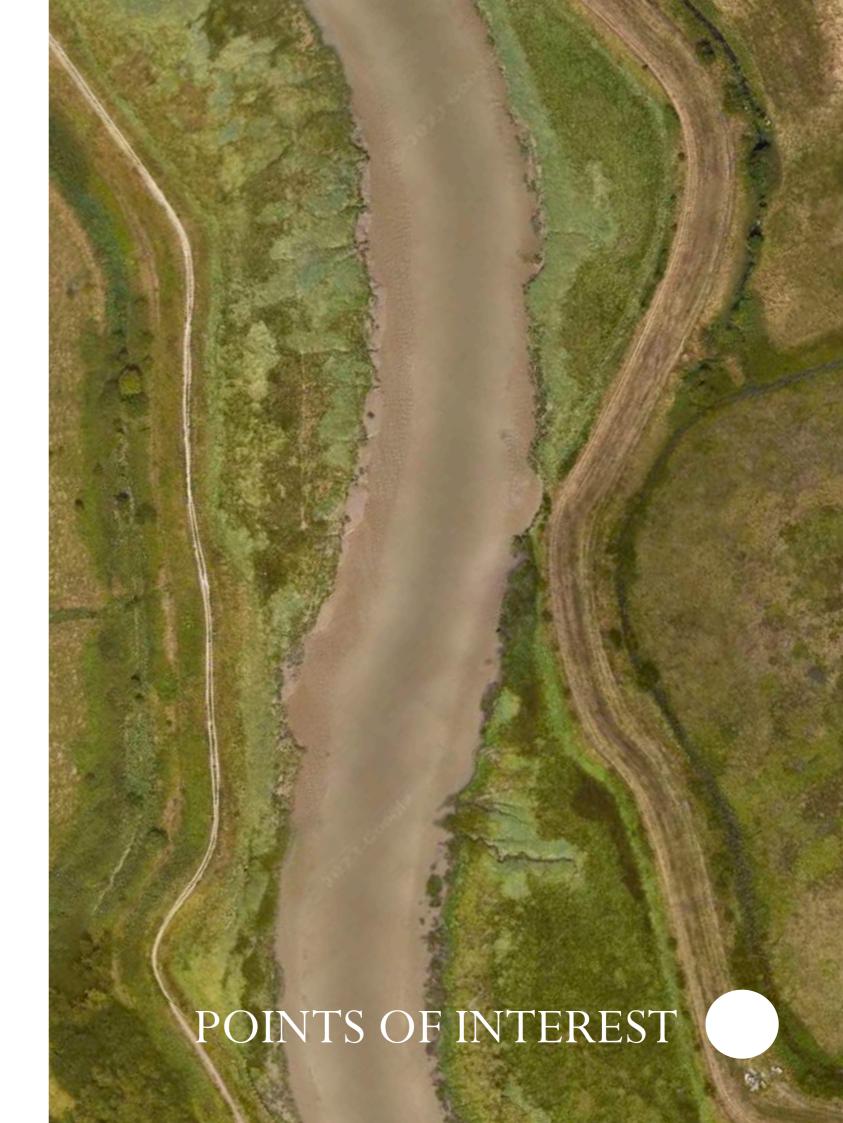
RIVER DARENT

The River Darent is a chalk stream and the defining feature in the Darent Valley landscape. It has played a fundamental role in attracting the original settlement by humans thousands of years ago. The river created fertile land for farming, provided transport into London and generated power to work the many mills along its length.





Until the late 1800s the Darent was considered one of the finest trout chalk rivers in the country. It was well-known for its bountiful supply of fish and popular amongst fly fishermen through the centuries. However the fortunes of the river have changed over time. Rare wildlife such as otter and water vole are now present on the river and aquatic plants such as water crowfoot are well established.



Ancient Tree Path (Connecting Slade Green)

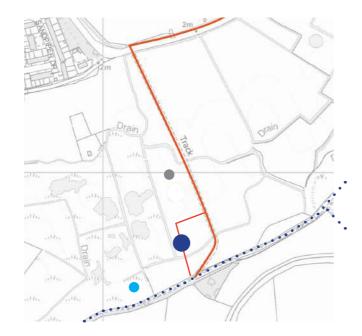
Ancient Trees
 wildlife site
 existing footpath
 proposed footpath
 heritage site

The Ancient Tree Path opens up a track that exists in order to connect the anti-aircraft battery with Crayford Marshes and Slade Green.

The footpath would be builtup from a metal grille path allowing the folliage to grow freely through the grille structure, also forming habitats for insects and other animals.

The footpath is slightly raised to accomodate for the nature of the landscape and rising risks offlooding, meaning the footpath will still be accessible when water levels are higher.

The footpath takes you through the field and by the ancient trees. These trees are rich in history and tend to attract a lot of bird attention.



Metal Grille Path for water level rise, supporting plant growth and habitats



Grand Teton National Park, HDLA

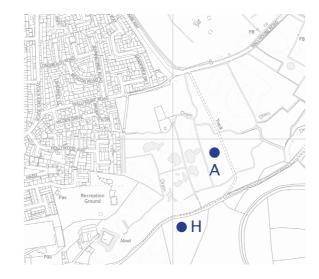
PROPOSAL [walk 2 intervention 3]



Wildlife points of interest: On the Crayford Marshes

HEDGEROW

This hedgerow is located on moat lane which connects Slade Green to the marshes. As the most widespread semi-natural habitat in the UK, Hedgerows support a large diversity of flora and fauna. They make a great shelter and their flowers, berries and nuts are a vital food source for invertebrates, birds and mammals.





The site was originally grazing land with ancient trees (mainly willow). Some of these trees remain in this landscape. Ancient trees are extremely important historically. They can tell us how the land might have been used in the past. They are important as they decompose plant material, releasing the minerals and nutrients, which can then be used by plants and trees.



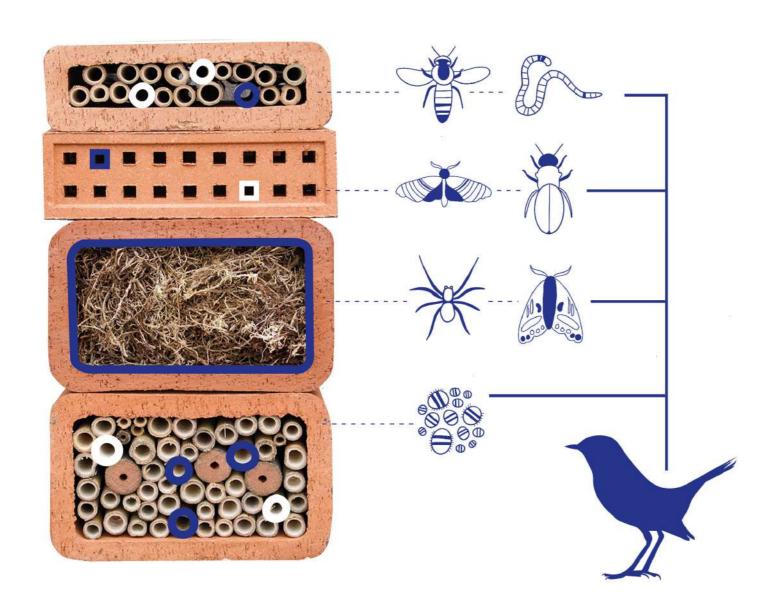


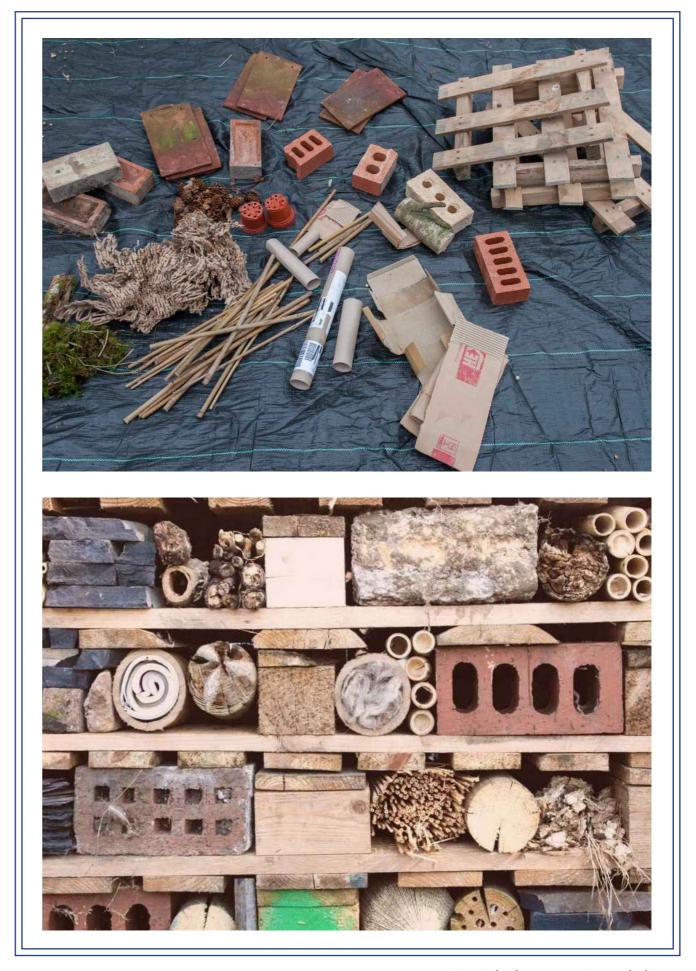


Breeding Ground Bird Hide (a defense against development) Constructing habitats for endagered species

The world's insects are hurtling down the path to extinction, threatening a "catastrophic collapse of nature's ecosystems", according to the first global scientific review. More than 40% of insect species are declining and a third are endangered, the analysis found. One of the biggest impacts of insect loss is on the many birds, reptiles, amphibians and fish that eat insects. If their food source is taken away, all these animals starve to death.

Guardian article, 2019 by Damian Carrington





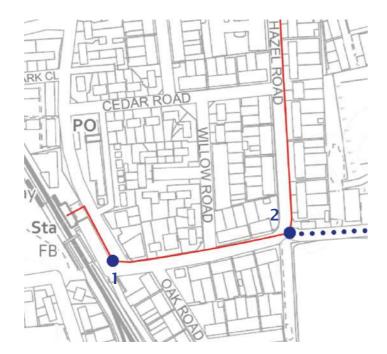
Locating Signage and Route to Slade Green Station

proposed signsfootpathroute by foot

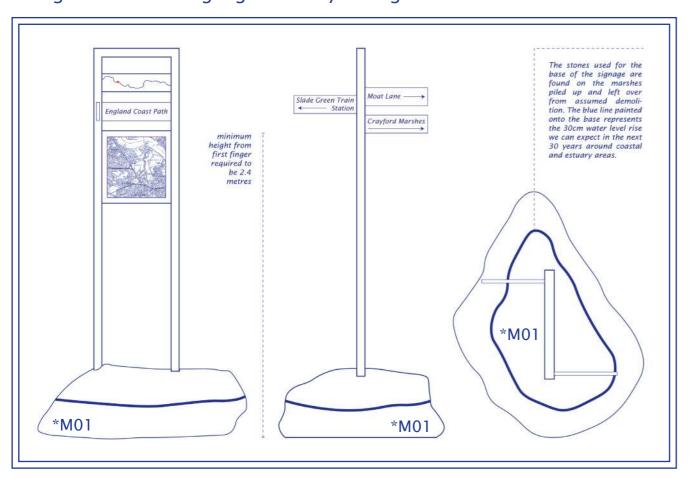
These signs are an important addition to this area of Slade Green. You can easily reach the station or loop back up and head back towards Erith.

There is no signage here at present and the area would benefit from a map in order to help visitors visualise the extent of the marshes as they arrive.

The marshes are vast and you can end up at different ends so such maps are vital in ensuring a good wayfinding strategy.



Design outline of signage for wayfinding towards Slade Green Station



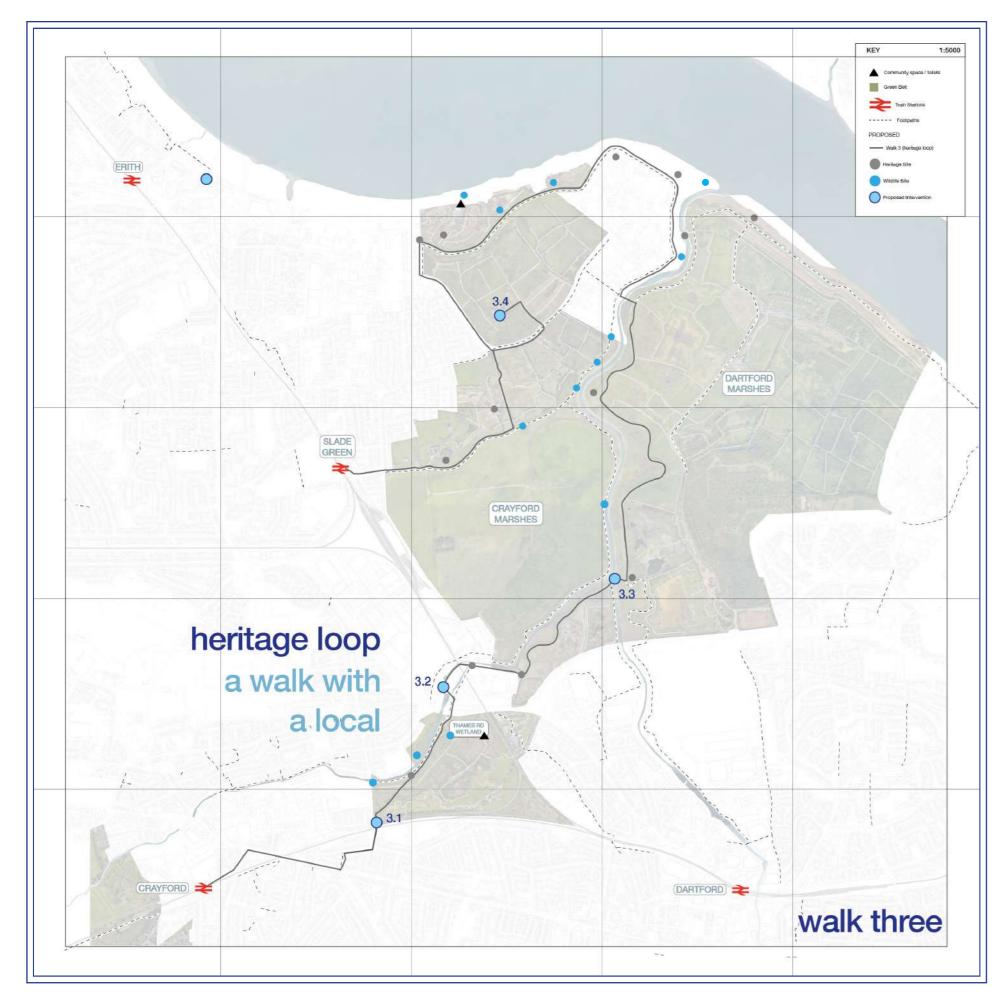
*MATERIAL REFRENCE TO LOG BOOK

PROPOSAL [walk 2 intervention 5]



04

WALK THREE





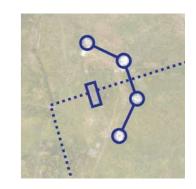
Old Railway Path 3.1



Crayford Old Mill 3.2



Cray Darent 3.3



WW2 Aircraft 3.4

(Vickers Factory) Old Rail Pathway

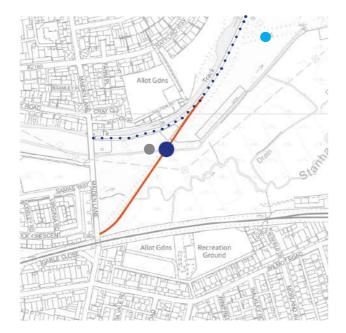
• existing railway bridge • wildlife site •••• existing footpath — proposed railway footpath • heritage site

The Old Railway Path offers an alternative route through Thames Road Wetland using an existing railway bank as a footpath.

This railway used to serve the Vickers Factory during the war but then was dismantled.

The beautiful metal work and bridge still remains and is a part of the industrial heritage of this space.

The proposal looks at restoring these elements and providing a footpath that engages with the wetland more than the existing footpath which runs on the edge of river Cray.

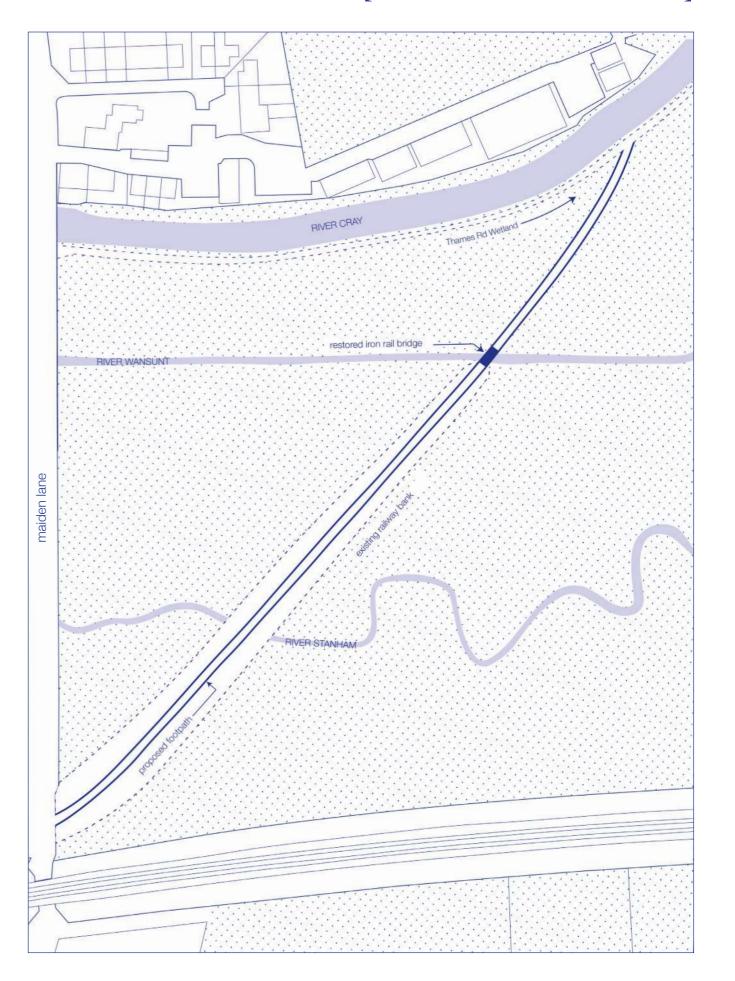


Metal Grille Path for water level rise, supporting plant growth and habitats



Grand Teton National Park, HDLA

PROPOSAL [walk 3 intervention 1]





MILL

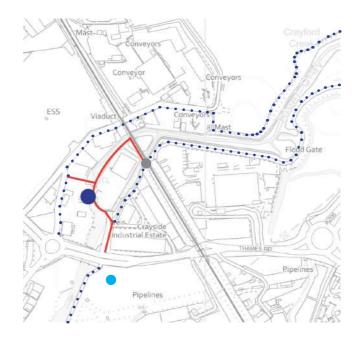
• old crayford mill • wildlife site •••• existing footpath — proposed heritage route • heritage site

The Old Mill has huge potential to serve as a meeting point with facilities such as toilets, as well as a centre for industrial heritage.

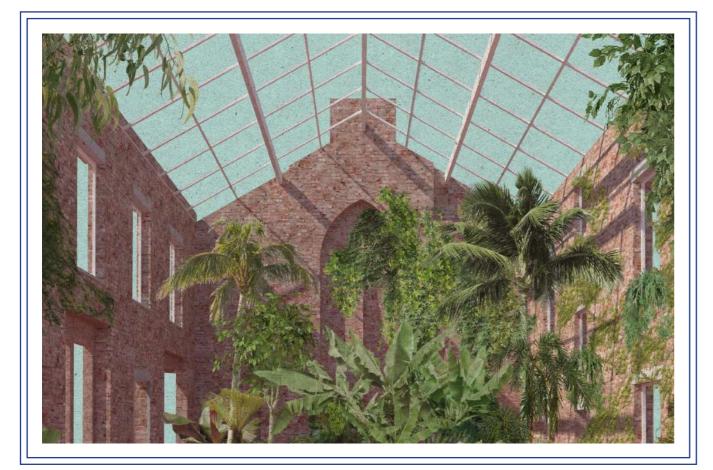
It is also placed well to carry out research on the river in monitoring the water levels and quality.

The proposal looks at an access strategy through the mill in order to connect Thames Road Wetland and the rest of the marshes via a footpath that runs tthrough the industrial areas.

This will also provide a better green corridor for species to travel along with the feature of a hedge like footpath support. Access to the Mill will be at the first level with the ground floor open for nature to take over as the water levels rise and flood the space overtime.

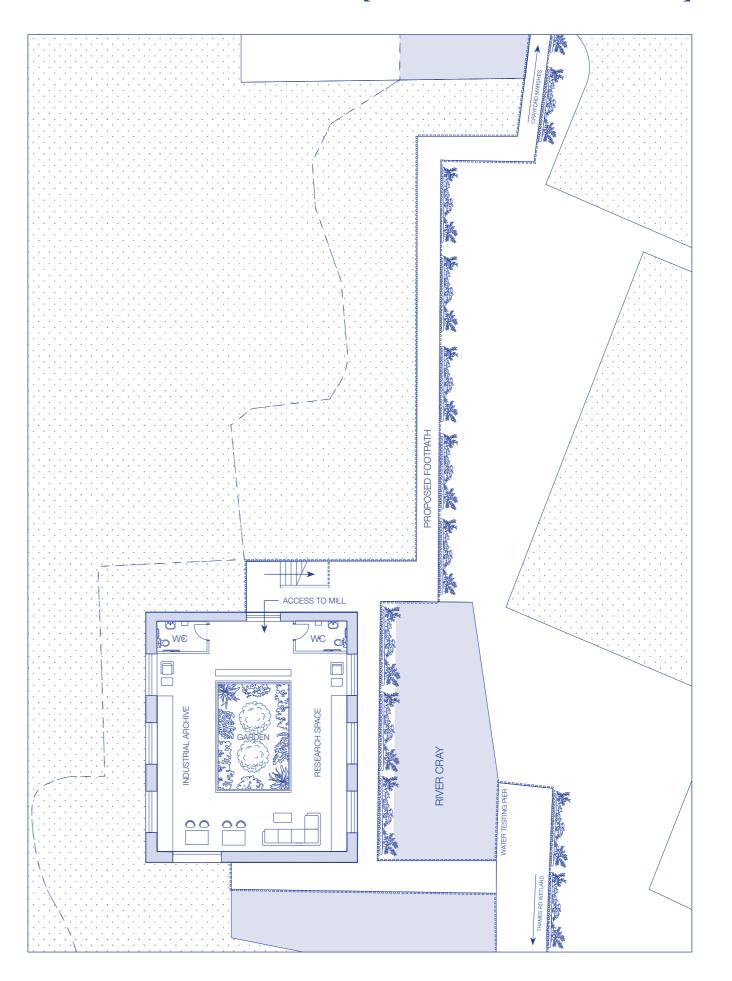


Winter garden allowing planting to take over space and shape it overtime

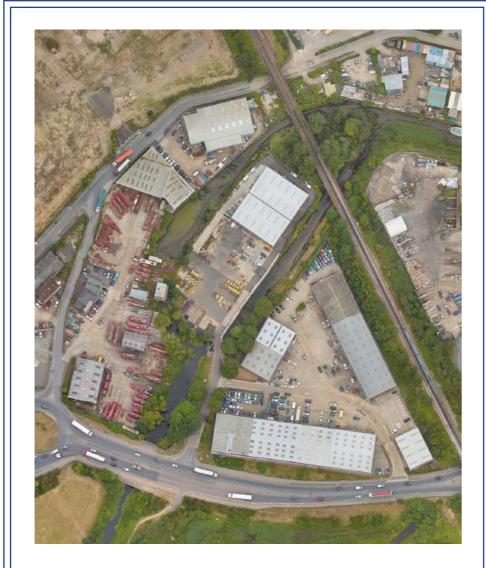


Granby Winter Garden, Assemble Architects

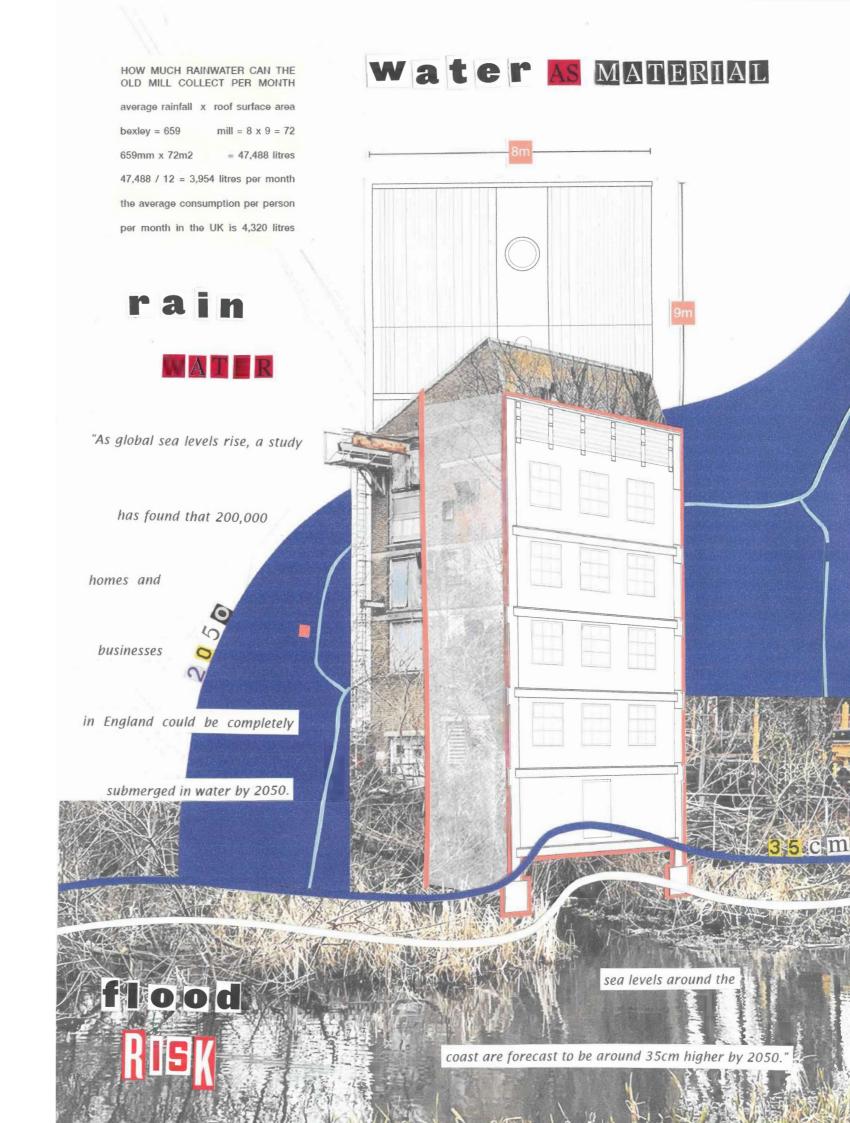
PROPOSAL [walk 3 intervention 2]



The Mill and Water Testing



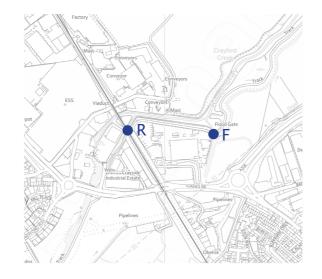
The River Cray flows by the Old Mill, it has a wealth of history, with references to the river dating back to Roman times. It is a chalk stream characterised by clear, chalk-filtered water with an abundance of diverse wildlife. Chalkstreams are a very special type of river, almost unique to England: 85% of the 200 chalkstreams in the world are in England. The mill functioning as a water testing probe would help monitor the river overtime helping to regenerate it and improve the quality of this habitat. It would allow a constant base for scientists to monitor water changes and it doubles as a visitor centre of industrial heritage.



Wildlife points of interest: On the Crayford Marshes

RAILWAY ARCH

The North Kent Line runs on the tracks above these arches just down the line you can find Slade Green Rail depot. This is a major railway depot situated south of Slade Green railway station. Construction started in 1898 and alongside this development several hundred new homes were built by the South Eastern Railway company.





This floodgate is found on the footpath leading onto the marshes, however it essentially leads to a loop back to Dartford. The flood gate manages the overflow from the river Cray that flows down towards the old mill and Thames Road Wetland. It is an interesting structure with steps leading down into the river. This floodgate is managed by the Environment Agency.

FLOOD GATE -



Cray/Darent River Crossing

proposed river crossing
 wildlife site
 existing footpath
 proposed route
 heritage site

The Cray/Darent River Crossing offers a more permanent and accessible crossing in order to connect Crayford and Dartford Marshes.

The crossing is placed strategically as the river Cray splits off towards Crayford and the river Darent towards Dartford town centre.

This will provide much better connectivity allowing users to navigate both sides of the marshes without having to loop around for hours.

Creating a unified front between both Dartford and Crayford Marshes will help to battle against any future threats to the marshes.

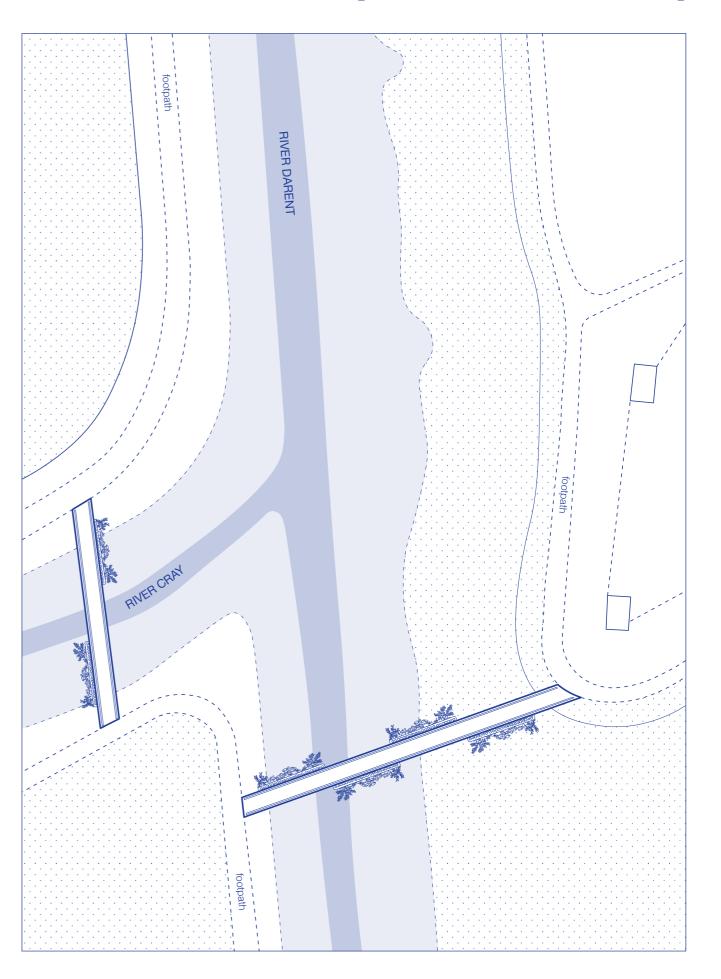


Accesible bridge with gabion walls as base for water filtration and control



Bridge over the Lea, CTS Bridges

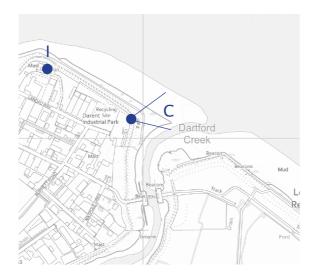
PROPOSAL [walk 3 intervention 3]



Wildlife points of interest: On the Crayford Marshes

THE CROSSING

From this point you can view Dartford Crossing. It is a major road crossing of the River Thames in England, carrying the A282 road between Kent and Essex. It consists of two bored tunnels and Queen Elizabeth II Bridge. The only fixed road crossing of the Thames east of Greater London, it is the busiest estuarial crossing in the United Kingdom.





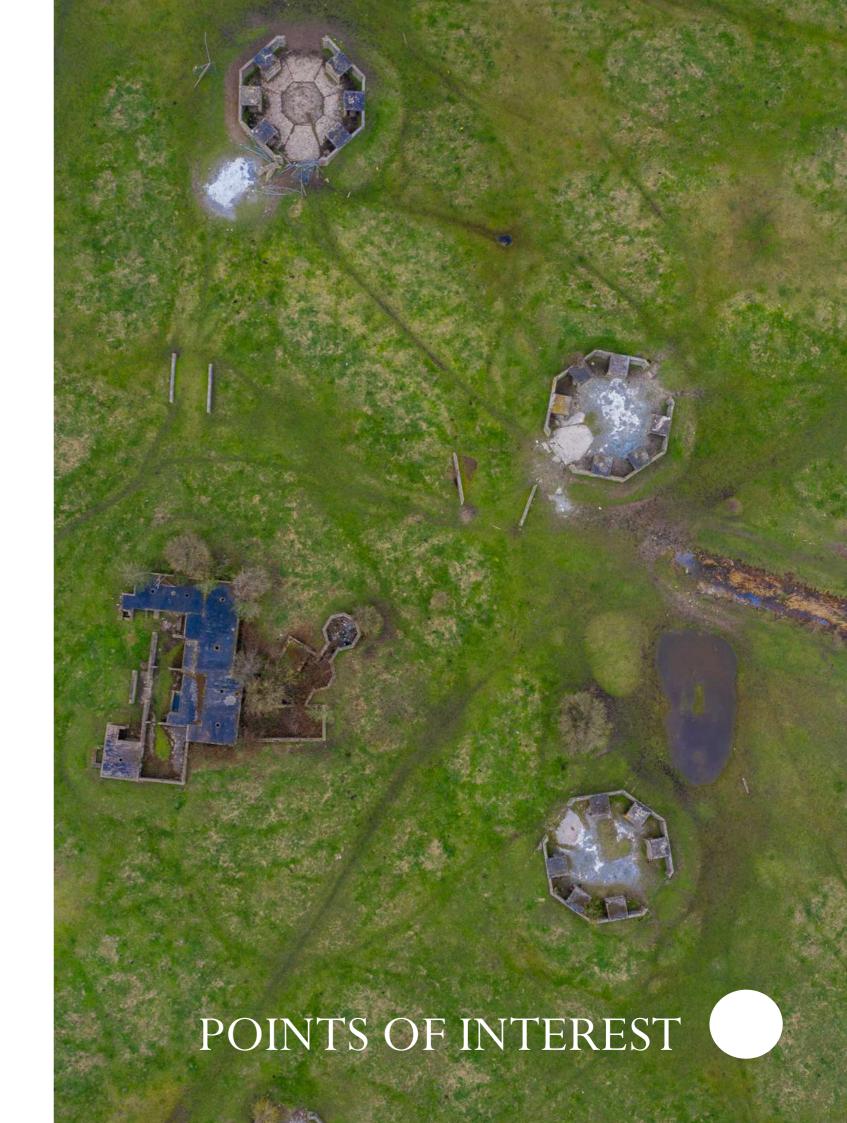
The Darent Industrial Estate is located on Crayford Marshes, adjacent to the River Thames, and is several hundred metres from the nearest residential premises. The main businesses on the site are involved in scrap metal recovery, heavy plant and vehicle repair and storage, and the manufacture and storage of various other items and materials. The estate is so isolated because munitions factories were once here, which is also how it came to be located on this brownfield site.

INDUSTRIAL PARK-



PROPOSAL [walk 3 intervention 4]

The Slade Green HAA site (also known as ZS1) was the most easterly anti-aircraft site built inside the London Inner Artillery Zone. Dating back to the late 1930's, it was possibly built as a prototype to be used as a last resort should any aircraft have passed by the other defences along the river Thames. It is currently Grade II listed however access to the site is bad especially when the ground is muddy.



SLADE GREEN WW2 BATTERY

WW2 Anti-Aircraft Battery Access

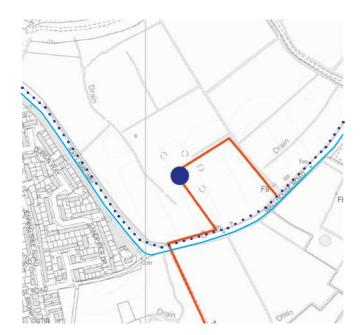
Anti Aircraft Battery
 footpath — proposed bus extension — proposed access path
 heritage site

This footpath will provide access to the Grade II listed Anti-Aircraft Battery. Despite its conservation status the Battery is in a really bad condition and and extremely hard to access especially when the ground is wet.

The footpath will provide access for all to such a key point of industrial heritage in this landscape.

The Battery itself is still in great condition and should be taken care of for visitors to engage with. There are many who visit the site due to their interest in the sites importance in both of the wars.

Making it accessible will attract more visitors and spread awareness on the value of these marshes not only iin terms of wildlife but also historically.

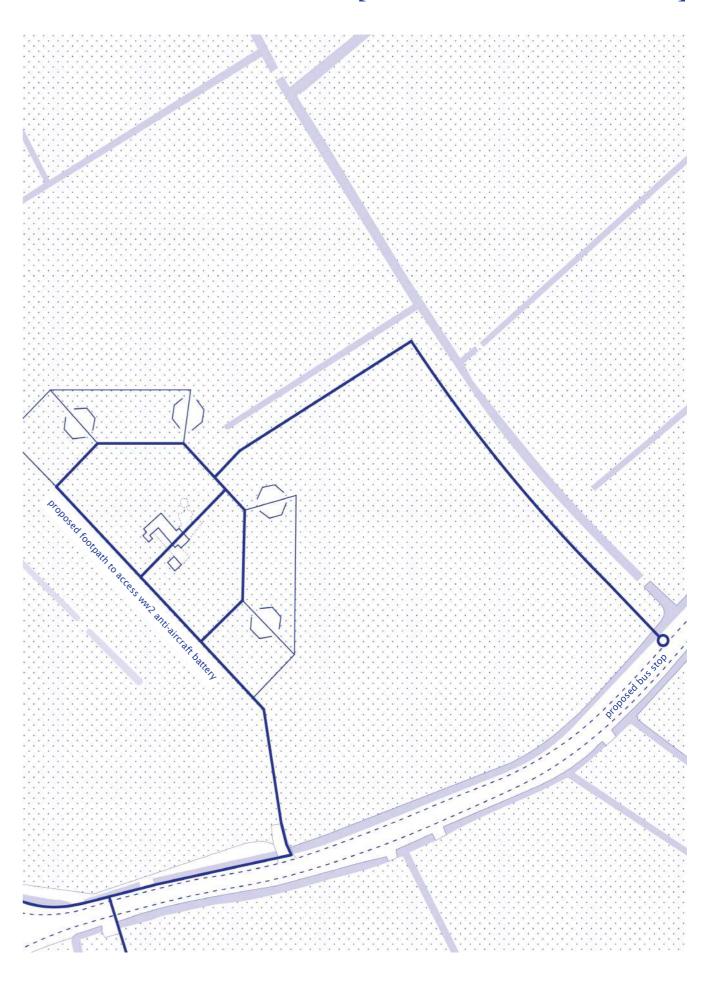


Pathway through the Anti-Aircraft Battery to display the intricacy of the space



Bunker 599, Atelier de Lyon

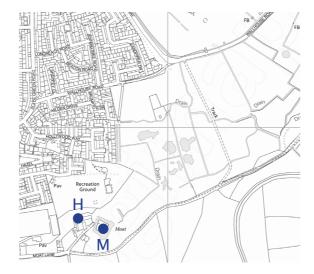
PROPOSAL [walk 3 intervention 4]



Wildlife points of interest: On the Crayford Marshes

MOATED MANOR

his was formerly the manor of Howbury, recorded simply as Hov in Domesday Book. One of the most historic yet little-known sites in the London Borough of Bexley, Howbury Moat dates from before the Norman Conquest. There have been various manor houses within the moat, but the last one fell into dereliction in the 20th century.





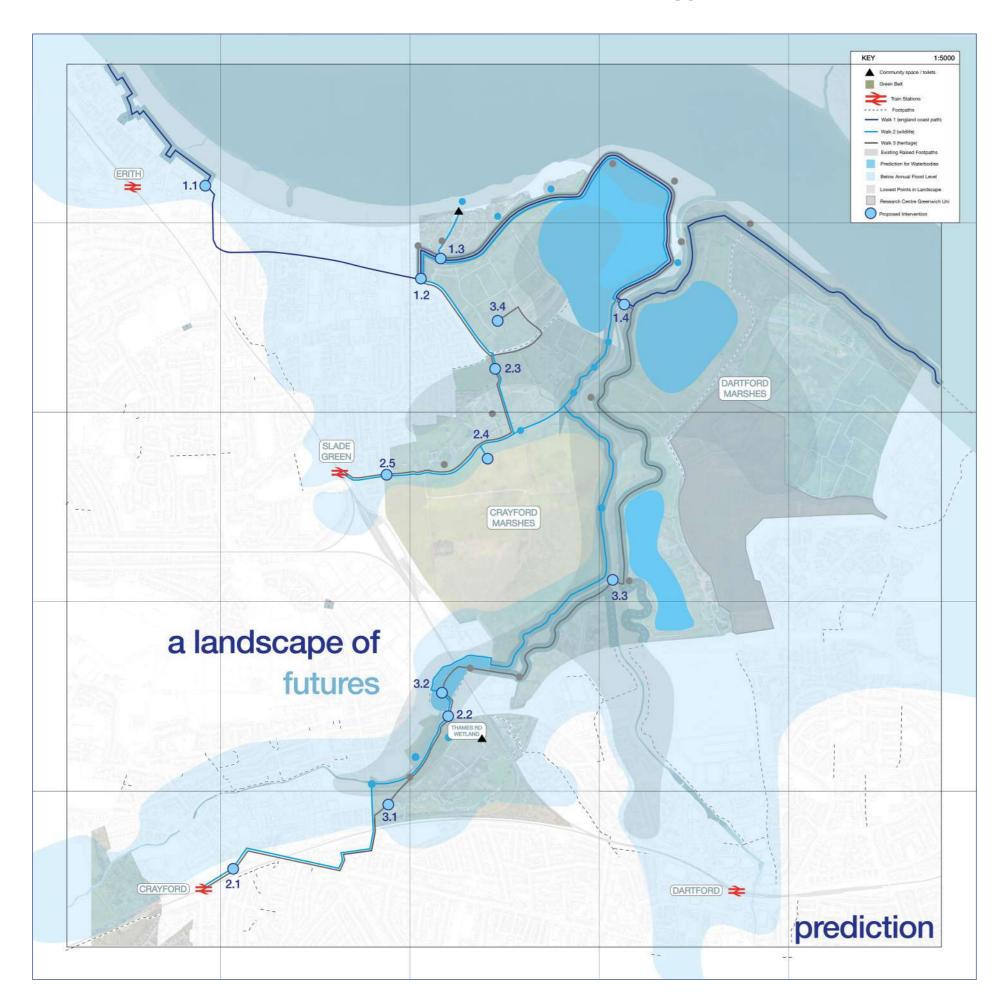
A Jacobean tithe barn survives next to the moat but in deteriorating condition. The structures is on private land and are not generally accessible to the public but can be seen from the footpath leading from Slade Green. The barn has a beautiful design and could serve as a visitor centre if restored.





05

LANDSCAPE OF FUTURES



Managing Rising Water Levels

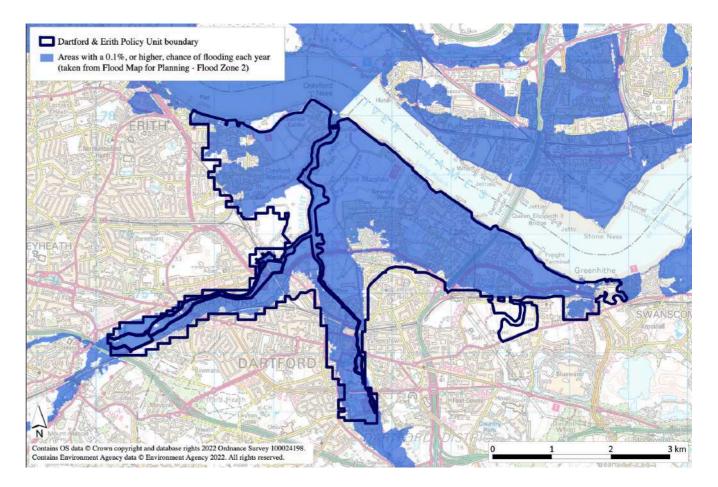
2 Resisting Development and Extraction

3 Maintaining Access and Wildlife

Dartford and Erith Policy Unit *Thames Estuary 2100*

LOCAL COUNCILS

"There is currently no riverside strategy for this area. Dartford Borough Council is developing a riverside strategy for the fluvial and tidal reaches of the River Darent. By 2030, councils should work with communities in the other parts of this policy unit to plan how their riverside will look in the future."

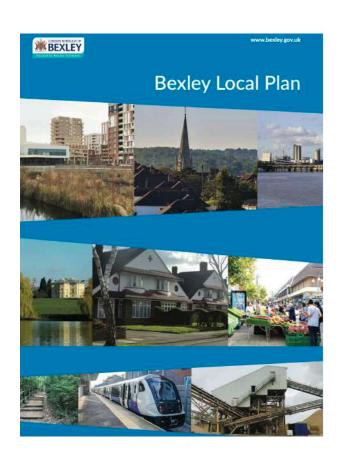


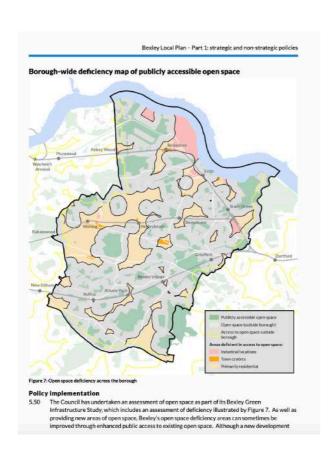
Map centred on the Dartford and Erith policy unit boundary. This policy unit extends from Erith Pier to Greenhithe, to the south of the River Thames, and includes parts of Dartford and Crayford. The map extends around 1 kilometre (km) in all directions to show the surrounding areas. The flood risk layer shows that in most of this policy unit there is a 0.1% or higher chance of flooding each year without the existing flood defences. In some areas the risk is reduced by defences.

Bexley Local Plan 2023

Deprived access to nature, but no real solution

"National and regional policy seek to contain development to previously developed land and protect open spaces. This policy approach addresses open space deficiencies and ensures that Bexley remains a 'green' borough, well served by a network of high-quality, safe and accessible open spaces, offering a range of opportunities and providing attractive relief to the built form."





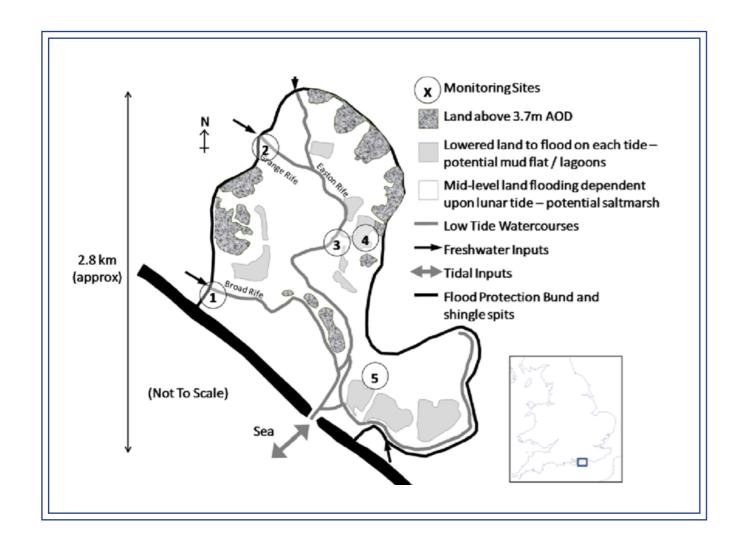
HOUSING VS GREEN SPACE

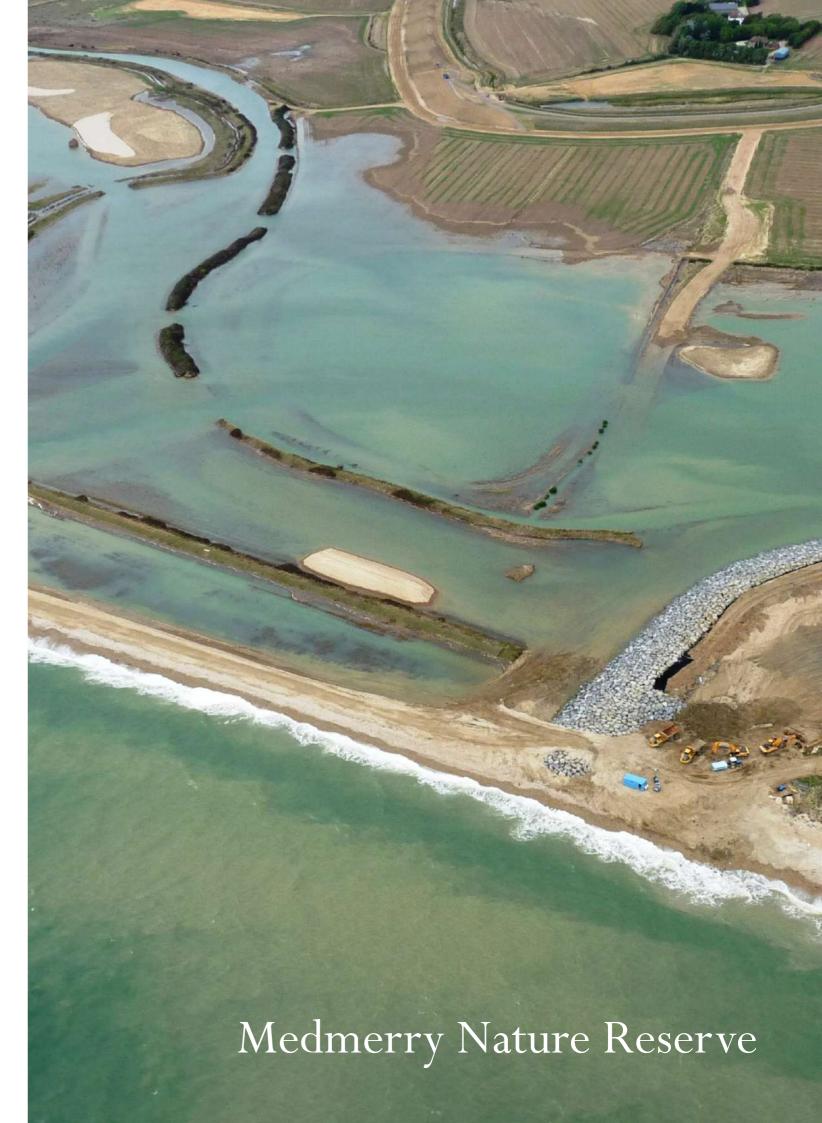


Marshes as Flood Defense

Case study of Medmerry Nature Resesrve

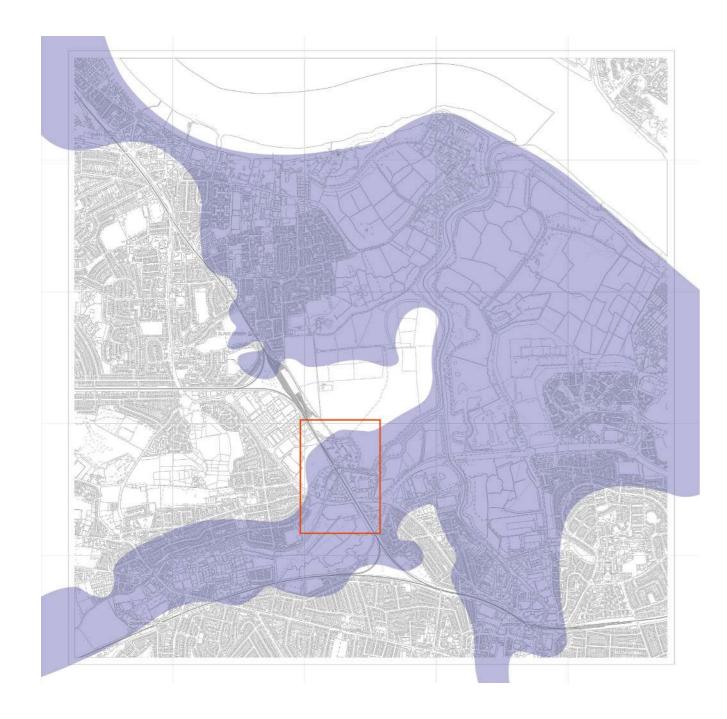
This coastal management technique involves creating new 'inter-tidal zones' between the sea and land where the sea is allowed to flood the land. At Medmerry in Sussex, the earth embankment, originally built in the 1960s to prevent the sea flooding the land, it was breached so that natural mudflats can slowly be created by the advancing tide.





Designing for a future landscape

Observing water levels and speculating the future landscape



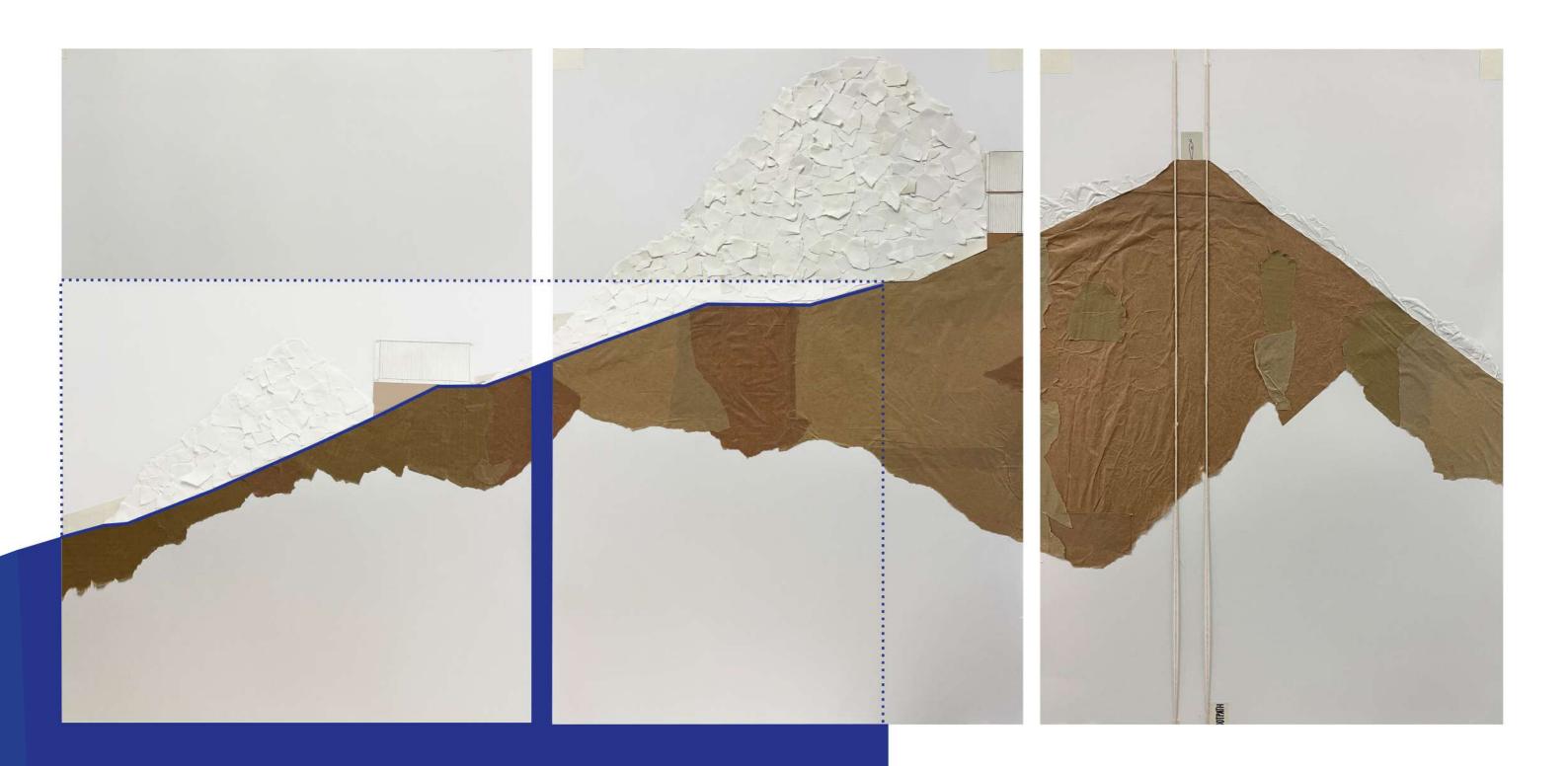
"As global sea levels continue to swell, a new study has found that 200,000 homes and businesses in England could be completely submerged in water by 2050. In fact, sea levels around the English coast are forecast to be around 35cm higher by 2050."



Embracing the water, controlled water flow

Using the marshes as a natural flood defense with controlled water bodies

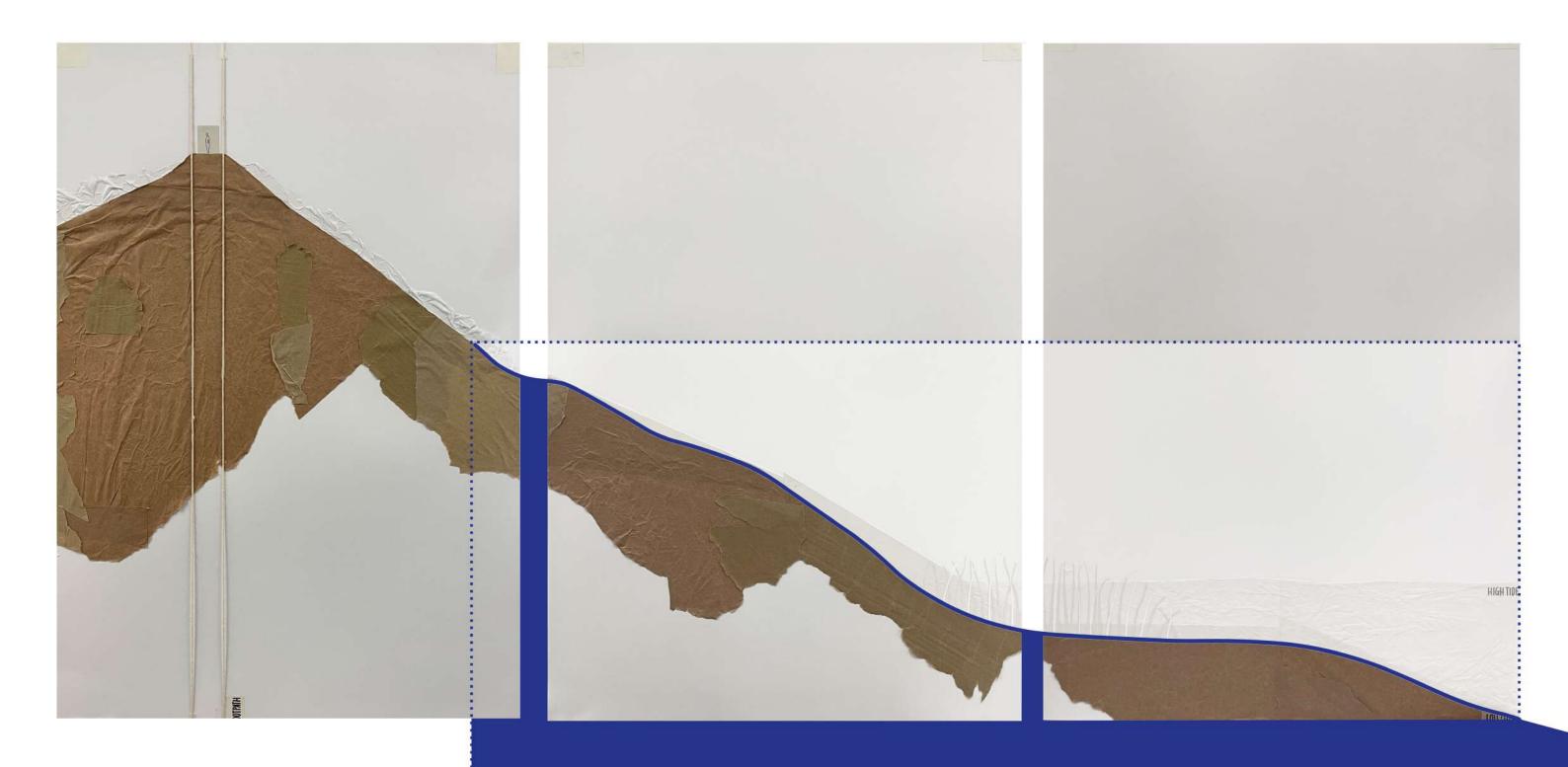
Darent Industrial Park will need to be relocated in the next 10-20 years, business owners already complain of bad flooding during the wet months of the year. Since the site is in a huge dip in the landscape it is hard to drain water once it enters. The councl needs to offer a relocation management scheme as part of the flood scheme on site. My proposal looks at Darent Industrial park as a potential reservoir for distribution of water to the local area.



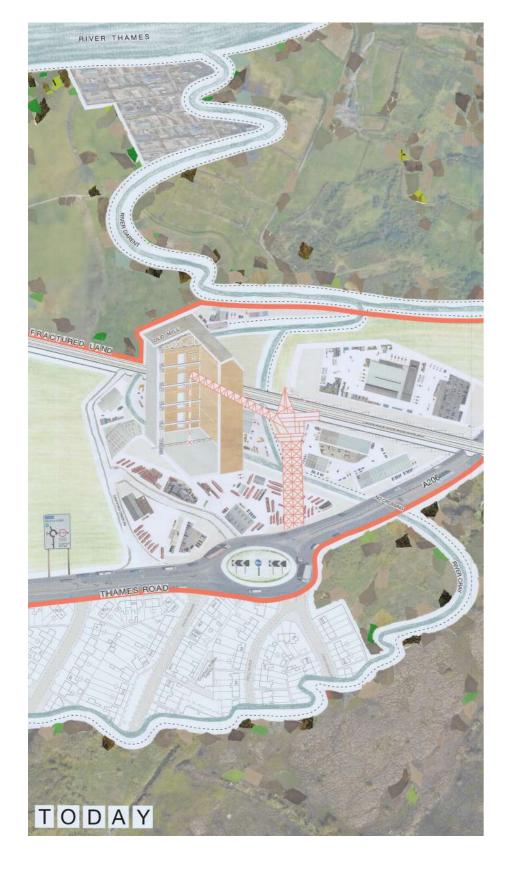
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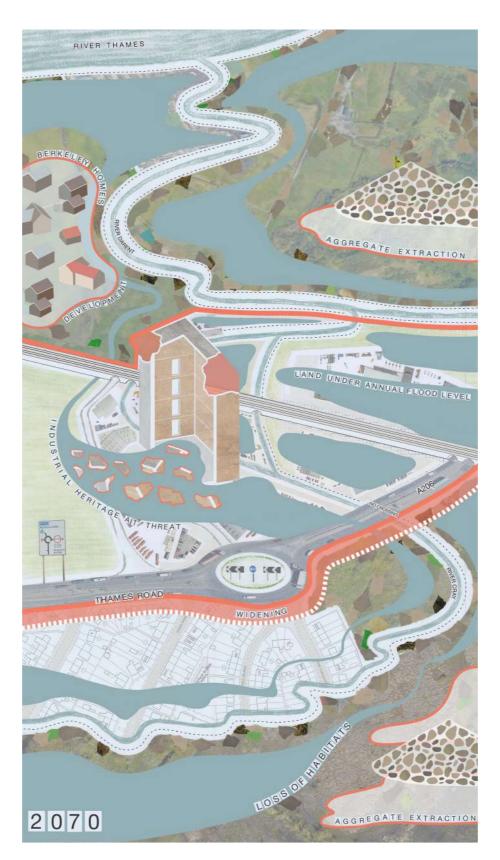
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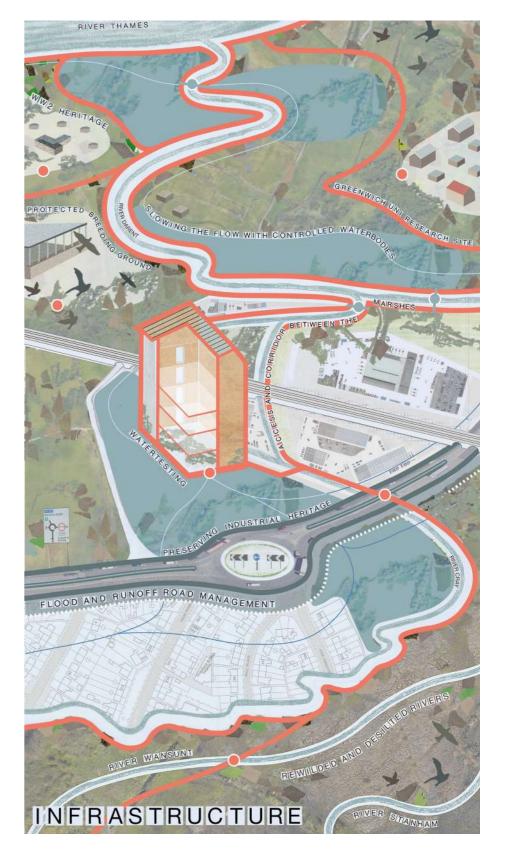
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Speculating the Future of the MarshesHow does the infrastructure fit in to the future? What will happen without it?







THE MARSHESTODAY

FUTURE OF THE MARSHES

PROPOSED INFRASTRUCTURE