

Replacement Pipeline Corridor Consultation

Securing aviation fuel supplies in South East England



Southampton to London
Pipeline Project

For more information please visit
www.slpproject.co.uk

ESSO PETROLEUM COMPANY, LIMITED
(REGISTERED IN ENGLAND: NUMBER 26538)

**ERMYN HOUSE,
ERMYN WAY,
LEATHERHEAD,
SURREY,
KT22 8UX**

References in this document to "Esso" or "our" or "we" are intended to refer to the applicant, Esso Petroleum Company, Limited and nothing in this document is intended to override corporate separateness.

How we will use the information that you provide

Esso Petroleum Company, Limited and our 3rd party project partners will store and process your data in full compliance with our legal obligations for the purposes of the application, development and operation of the proposed Southampton London Pipeline. Further details about how your data will be used can be found on the website (www.slpproject.co.uk), or by contacting us by email (info@slpproject.co.uk) or telephone (07925 068905).

If you would like a large text or alternative format of this document, please contact us by email info@slpproject.co.uk or telephone 07925 068905.

Requests for alternative formats will be considered on a case by case basis. We will, as far as possible and proportionate, respond to any requests that help you to take part in this consultation.



Contents

- 04** CHAPTER 01 - Welcome to our first consultation
- 06** CHAPTER 02 - Project development
- 08** CHAPTER 03 - Pipelines take tankers off our roads
- 09** CHAPTER 04 - Why we are replacing the existing pipeline now
- 10** CHAPTER 05 - Our early conversations
- 11** CHAPTER 06 - Working with landowners
- 12** CHAPTER 07 - How the pipeline corridor proposals were created
- 14** CHAPTER 08 - Pipeline corridor proposals not taken forward
- 18** CHAPTER 09 - The final consultation corridors
- 44** CHAPTER 10 - What you will see above ground
- 45** CHAPTER 11 - Building the pipeline
- 46** CHAPTER 12 - Environmental assessment
- 48** CHAPTER 13 - What comes next?
- 49** CHAPTER 14 - How you can respond to the consultation
- 50** CHAPTER 15 - Thank you
- 51** CHAPTER 16 - Response Questionnaire

CHAPTER 1

Welcome to our first consultation

Esso is replacing its underground aviation fuel pipeline and is seeking your views on the proposals. In December 2017, we began to talk publicly about our intention to replace 90km of our 105km aviation fuel pipeline that runs from our Fawley Refinery near Southampton to our West London Terminal storage facility in Hounslow (the project).

The refinery, and its supporting pipeline network, is vital in supporting secure supplies of fuel and other petroleum products for millions of British consumers. *This pipeline will help to maintain more than 1,000 jobs at the UK's largest refinery at Fawley, in Hampshire.*

It also provides fuel to some of the UK's busiest airports and contributes significantly *to the regional economy and national infrastructure.*

Pipelines are a safe way to transport fuel. *This pipeline will keep around 100 road tankers off the road every day¹.*

Once installed, the pipeline will be buried underground and would not be noticed by most people.

Your views matter to us

We are aware that there will be concerns about how we install the pipeline and the project team is working to reduce these. Work has already gone into understanding the potential technical and environmental issues facing the project. This has shaped the proposals set out in this brochure.

We want to provide everyone with the opportunity to contribute to and influence this important project.

This is why we are undertaking the first of two consultations to seek views on our early replacement pipeline proposals as set out in Chapter 9.

Pipeline corridors provide a general indication of a potential pipeline route (please see Chapter 2 for a definition of a corridor). Through this public consultation (and also through our engineering and environmental assessment work) we will assess the proposed pipeline corridors in order to select a preferred corridor. In the following pages, you will find details on the proposed pipeline corridors that we are asking for feedback on. Our plans for further consultation after the preferred corridor has been selected, are set out in Chapter 13.

This consultation brochure provides you with important background information and an explanation of why this new pipeline is needed.

We have arranged a programme of exhibitions near to the proposed pipeline corridors. Details are set out on page 49. These exhibitions will enable you to meet members of the project team to raise any questions you may have about the project.



You can have your say on the project at

www.slpproject.co.uk

This is the fastest and easiest way to take part in this consultation

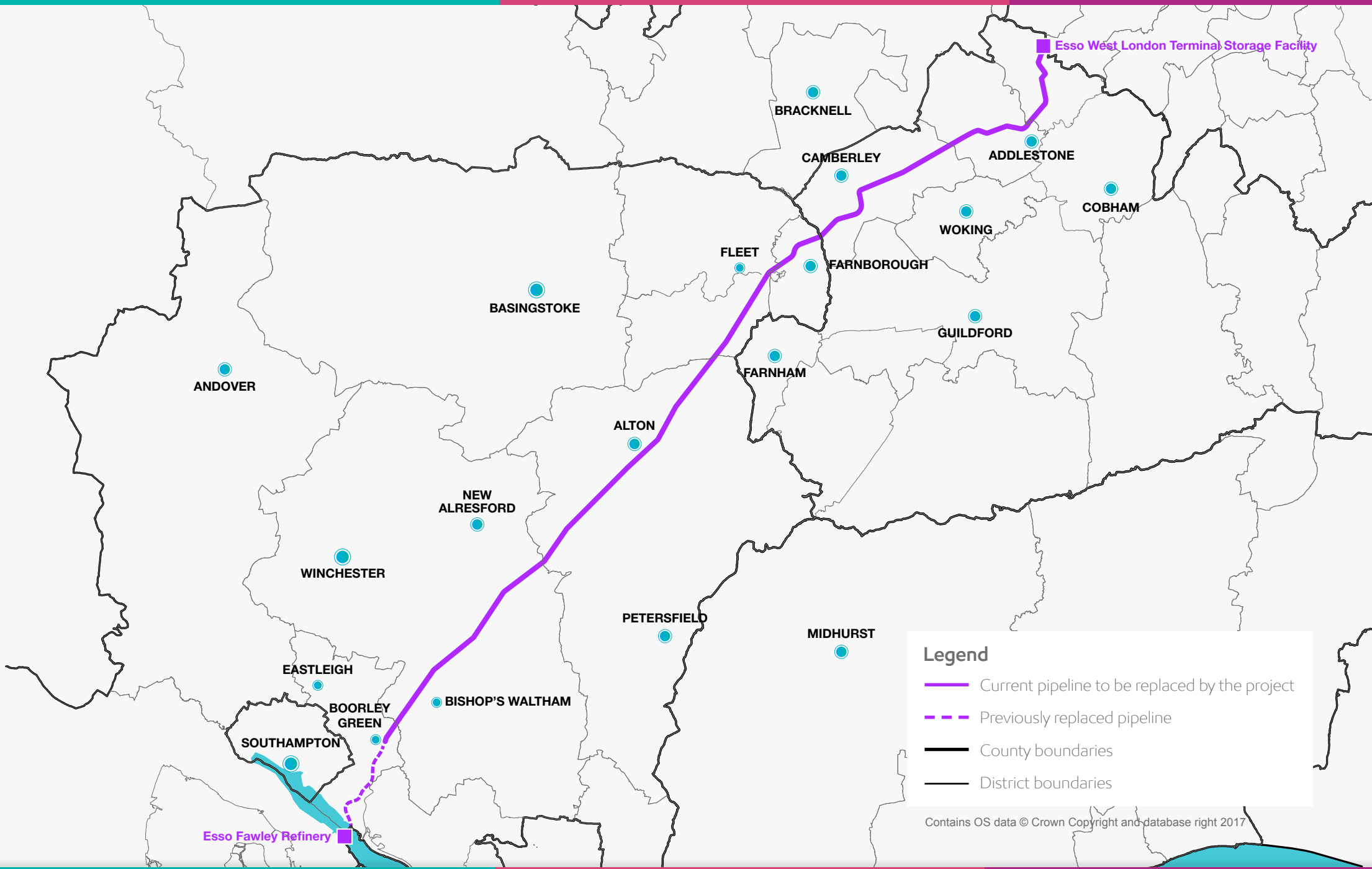
**This consultation starts on
19 March and closes at 23:45 on 30 April 2018.**

About Esso

Esso is a brand of ExxonMobil, which has operated in the UK for over 120 years. In the early days we imported high quality lamp oil to the UK market. Today our focus on quality fuels remains, but our operations are far more extensive. We own and operate the UK's largest refinery at Fawley, which provides fuel for more than 800,000 retail customers every day at Esso-branded service stations. Our underground distribution pipeline network transports fuel from Fawley to our fuel terminals at Avonmouth, Birmingham, Hythe, Purfleet, West London and also for use at the UK's busiest airports. We are one of the UK's largest petrochemical manufacturers with major plants at Fawley, Fife and Newport. We also hold an interest in nearly 40 producing oil and gas fields in the UK North Sea, and we hold a stake in the South Hook Liquefied Natural Gas plant at Milford Haven in Wales, which has the capacity to import 20 per cent of the UK's gas demand.

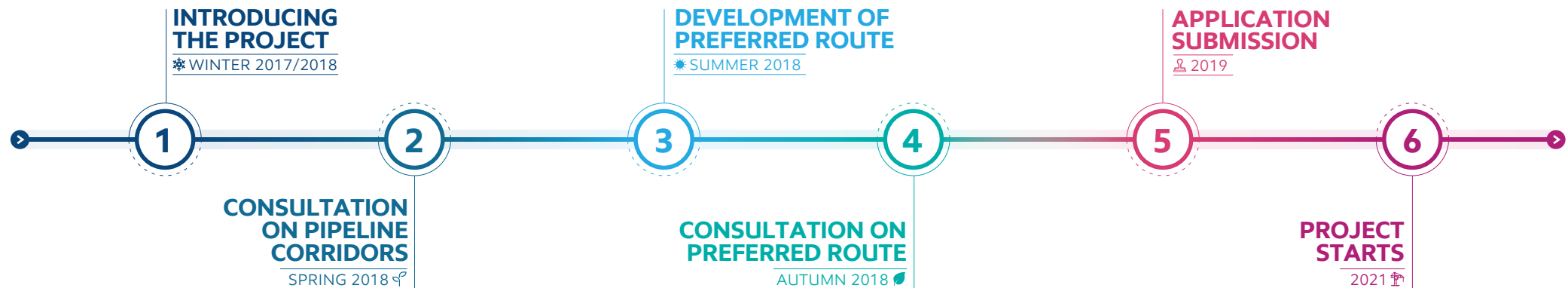
¹ Based on Esso's 2015 data for its existing pipeline





CHAPTER 2

Project development



Due to the length and purpose of the replacement pipeline, under the Planning Act 2008 this project is a Nationally Significant Infrastructure Project.

The existing pipeline was built in the late 1960s. Since then, Hampshire and Surrey have changed dramatically. The South Downs National Park and many other protected sites have been established alongside the existing pipeline. Communities, new homes and businesses have been created and roads such as the M25 have been opened.

This means, that in some areas we can't simply install the replacement pipeline alongside the existing one. In fact, the planning process requires that we properly consider alternative routes before we produce a firm proposal.

1 We recognise the importance of individuals, communities, representatives and organisations contributing to the development of our proposals. This is why we have committed to undertaking two consultations,

with the aim of developing a route that balances interests and concerns. Both consultations will take place before we seek permission to replace the pipeline.

2 This initial consultation will help us select the preferred corridor for the replacement pipeline. A number of corridor options are presented in this brochure. Corridors are typically around 200 metres wide. In some areas, the corridor might be wider or narrower. This is because our team has already considered some of the local challenges, such as avoiding homes and finding the best place for road or water crossings, as well as environmental considerations.

3 We will consider the views of everyone who responds to this consultation to help us select a single corridor. Once chosen, this corridor will be known as the preferred corridor. We will then develop a preferred route.

4 The second consultation, expected to be in the autumn of 2018, is proposed to be about the route for the replacement pipeline within the selected preferred corridor. A route is typically in the region of 20-30 metres wide for the installation period. In some areas, it might be much narrower, such as along streets (streetworks) or in protected landscapes or nature conservation areas. The pipeline will not be installed under any existing homes. This second consultation will help us fine-tune our route design and complete the Environmental Statement, which details potential impacts and how we intend to reduce them.

5 We will then submit our formal application for permission to install the replacement pipeline. The permission is called a Development Consent Order (often referred to as a 'DCO').

6 Project starts.

PIPELINE CORRIDOR



A corridor is an area where one or more routes could be designed. It could vary in size, but is typically around 200m wide.

Once the pipeline is installed and operational, typically a six-meter-wide strip (known as an easement) is protected to make sure it isn't damaged by above-ground activity, such as building works.

Seeking permission to install the replacement pipeline

As a Nationally Significant Infrastructure Project, the project needs a Development Consent Order before we can start installing the pipeline.

ROUTE

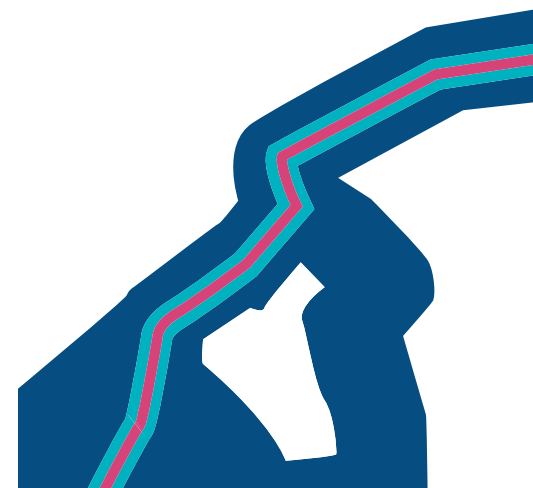


A route is a single path of the replacement pipeline. It could vary in size, but is around 20-30m wide.

A Development Consent Order is a type of planning consent that streamlines the decision-making process and is designed to make the process quicker and fairer for communities and project promoters (such as Esso). It will contain a series of conditions to control how we install and operate the pipeline.

The application process and examination stage provides further opportunity for interested persons, such as landowners, organisations and members of the public to provide their views on the proposals.

EASEMENT



Once installation is complete the easement is a single protected path that is typically 6m wide.

The Planning Inspectorate oversees the Development Consent Order application process. The final decision is taken by the Secretary of State for Business, Energy and Industrial Strategy.



There are useful guides on the process and how to take part, online at:

<https://infrastructure.planninginspectorate.gov.uk>

CHAPTER 3

Pipelines take tankers off our roads

Pipelines have been used to transport fuel safely for decades in the UK.

Largely hidden from view, the UK is criss-crossed by a network of underground fuel pipelines transporting diesel, petrol and aviation fuel. This is a safe, secure and low impact method of moving fuel over long distances. Once installed, pipelines are rarely noticed.

According to the UK Petroleum Association, more than 30 million tonnes of fuels are safely transported through UK pipelines every year. This takes around one million tanker journeys off our roads, reducing traffic congestion ².

For Esso, safety is paramount

We safely operate more than 700km (435 miles) of pipelines in the UK. All our pipelines are constantly monitored. Our pipeline control centre, staffed 24 hours a day and seven days a week, uses sophisticated tools to monitor all aspects of our pipeline. If a change is detected, an automatic system sets off an alarm. If necessary, we can immediately shut down our pipeline.

We also inspect the pipelines frequently. A pipeline is checked using internal pipeline inspection gauges, known as 'PIGs'. The ground above each pipeline is regularly inspected on foot and from the air.

95% of ready-to-use products from Fawley Refinery are transported by underground pipeline.



² http://www.ukpia.com/industry_information/distribution.aspx

CHAPTER 4

Why we are replacing the existing pipeline now

The existing aviation fuel pipeline is one of several pipelines that Esso owns and operates across the UK. Few people are aware of these pipelines because there is little to see above ground.

The existing pipeline was built between 1969 and 1972. It runs from our Fawley Refinery near Southampton to our West London Terminal storage facility in Hounslow.

This pipeline was constructed differently to the other pipelines in our UK network. The existing pipeline was originally used to transport a type of oil used by large industrial sites and oil-fired power stations.



This type of oil had to be kept above 50°C to enable it to flow through the pipeline. During the 1980s when natural gas became more widely available in the UK, the need for this type of heating fuel dwindled.

With the growth of air travel, the pipeline was then used to transport aviation fuel.

The existing pipeline is working adequately, but the need for inspections and maintenance is increasing. It is just like your car: you reach a point where it makes more sense to replace it.

In 2002, we replaced 10km (6 miles) of pipeline between Hamble and Boorley Green in Hampshire.

We have now decided to replace the 90km (56 miles) between Boorley Green and our West London Terminal storage facility in Hounslow.

The Planning Act 2008 changed the way we seek permission for important infrastructure – it introduced the Development Consent Order process. We are starting the project now to allow sufficient time to gain approval and install the replacement, while maintaining the safe and secure movement of fuel along the existing pipeline.

When the new pipeline is operational, typically the normal approach is to take the old one permanently out of action (decommissioning) by removing all fuel and filling the pipeline with grout.



The pipeline will be buried. Once installed it will be a quiet neighbour.

CHAPTER 5

Our early conversations

Esso is committed to listening to organisations, communities, landowners and members of the public as the project progresses.

When we announced the project in December 2017, we wrote to 101 organisations. We have since extended invitations to meet with the Planning Inspectorate and every relevant local authority, parish council, and national environmental body.

From the conversations we've had so far, the early feedback suggests the following:

Generally, the principle of replacing the pipeline is preferable to the impact of 100 road tankers transporting aviation fuel daily.

In general, it was felt that at this early stage a replacement pipeline route that follows the existing pipeline as closely as possible, is preferable.

A key area for future discussions will be to explain how we will be managing potential installation impacts.

This consultation is an opportunity for everyone to comment on our proposed corridor options. We will continue to meet and discuss emerging plans with organisations, landowners and local representatives as the project develops. We aim to launch our second consultation in autumn 2018.



Our website is the best way to keep up to date on the project. You can sign up to our newsletter at

www.slpproject.co.uk



Southampton to London
Pipeline Project

CHAPTER 6

Working with landowners

Esso values its long-term relationships with people who have our existing pipelines on their land.

We have a land agent team, led by the specialist company Fisher German LLP. The Fisher German team has enjoyed a long working relationship with us and has provided land agency services in connection with our UK pipeline network for more than 30 years.

The team distributes half-yearly newsletters to landowners about our pipelines, as well as important safety information. Team members also attend local shows and events to promote safety awareness.

When the project was launched we wrote to all landowners hosting our existing pipeline between Boorley Green and the West London Terminal storage facility to make sure they knew about the project. We also

followed up the letter with a phone call to check that each landowner had received the letter so we could answer any questions they had about the project.

As the project develops, the Fisher German team will contact some landowners to arrange access to private land for surveys. Ultimately, if the Development Consent Order is granted, we will seek agreements with the relevant landowners for the installation and operation of the replacement pipeline. We will need to install the pipeline on private land, but it will not pass under any existing homes.

Identifying potential landowners for the Development Consent Order application

As part of the application process, there is a legal requirement to identify who owns or has an interest in the land. To make sure the information is as accurate as possible, the Fisher German team will, from the beginning of this consultation, write to landowners within the proposed corridors set out in Chapter 9.



CHAPTER 7

How the pipeline corridor proposals were created

Here we explain how we created the pipeline corridors and why we chose the ones listed below.

To develop the pipeline corridor proposals presented in this consultation, we worked with a team of engineering and environmental experts to define a method to assess potential corridors.

We first set out what we wanted to achieve – our objectives for the project:

- to replace the pipeline from Boorley Green to the West London Terminal storage facility via Alton, Hampshire, to connect to our existing pipeline infrastructure;
- to meet all the relevant planning requirements;
- to maintain fuel supply during replacement; and
- to develop and install a safe, buildable, operational and economically viable pipeline.

We then set out the principles that guide how we will assess the relative merits of each potential corridor.

We are applying the following guiding principles to the consideration of pipeline corridor and route options, favouring those which:

- if possible, benefit from existing equipment (infrastructure) and relationships with landowners;
- are likely to have better environmental outcomes versus the other options considered, especially relating to internationally and nationally important features along the final route;
- will provide social and economic outcomes of greater benefit compared to the other corridors;
- if possible, pass through less complex or built-up areas;
- achieve compliance with National Policy Statements; and
- can be installed in a timely and realistic manner at reasonable cost.

The environmental and socio-economic considerations mentioned here include the potential for temporary disruption to local communities, the location of community areas and buildings (including schools and hospitals), consideration of valued natural features such as Special Protection Areas, Special Areas of Conservation, Ramsar-designated wetlands (wetlands of international importance), Sites of Special Scientific Interest, Groundwater Source Protection Zones and Scheduled Monuments.



How we have developed pipeline corridors

Stage One: Understanding the area

We created a digital map with all the publicly available data for features, including landscape, geology, environmentally and historically sensitive areas, local features and proposed developments (such as new housing and community facilities).

Expert pipeline route development

Our engineering and environmental experts worked together to identify possible pipeline corridors. They used the project's objectives and guiding principles to develop possible corridors together with the local information presented on the map.

As all potential corridors must connect to our Alton Pumping Station, our route development has been split into two sections. These are:

South – Boorley Green to Alton

North – Alton to West London Terminal storage facility

This south/north split made the presentation and assessment of potential corridors simpler.

Stage two: Longlist of pipeline corridors

Once the team had produced a longlist of corridors (for the south and north sections) these were assessed in a multi-disciplinary workshop. Assessments considered the objectives and guiding principles. The pipeline corridors that had the potential to perform well were taken to the next stage of assessment and became the shortlisted pipeline corridors.

Stage three: Shortlist of pipeline corridors

The shortlisted pipeline corridors were reviewed again and updated where there were opportunities to take account of environmental, planning and engineering features. This included early stakeholder feedback.

Selecting pipeline corridors for this consultation

A total of 17 corridors were developed in the longlist stage, six were then shortlisted and we are asking for your views

on all six corridor proposals: three in the south and three in the north.

We decided to take all corridors from the shortlist stage to this consultation because all have the potential to perform well in our assessments, based on our current information.

Chapter 8 sets out the corridors that were not taken forward.

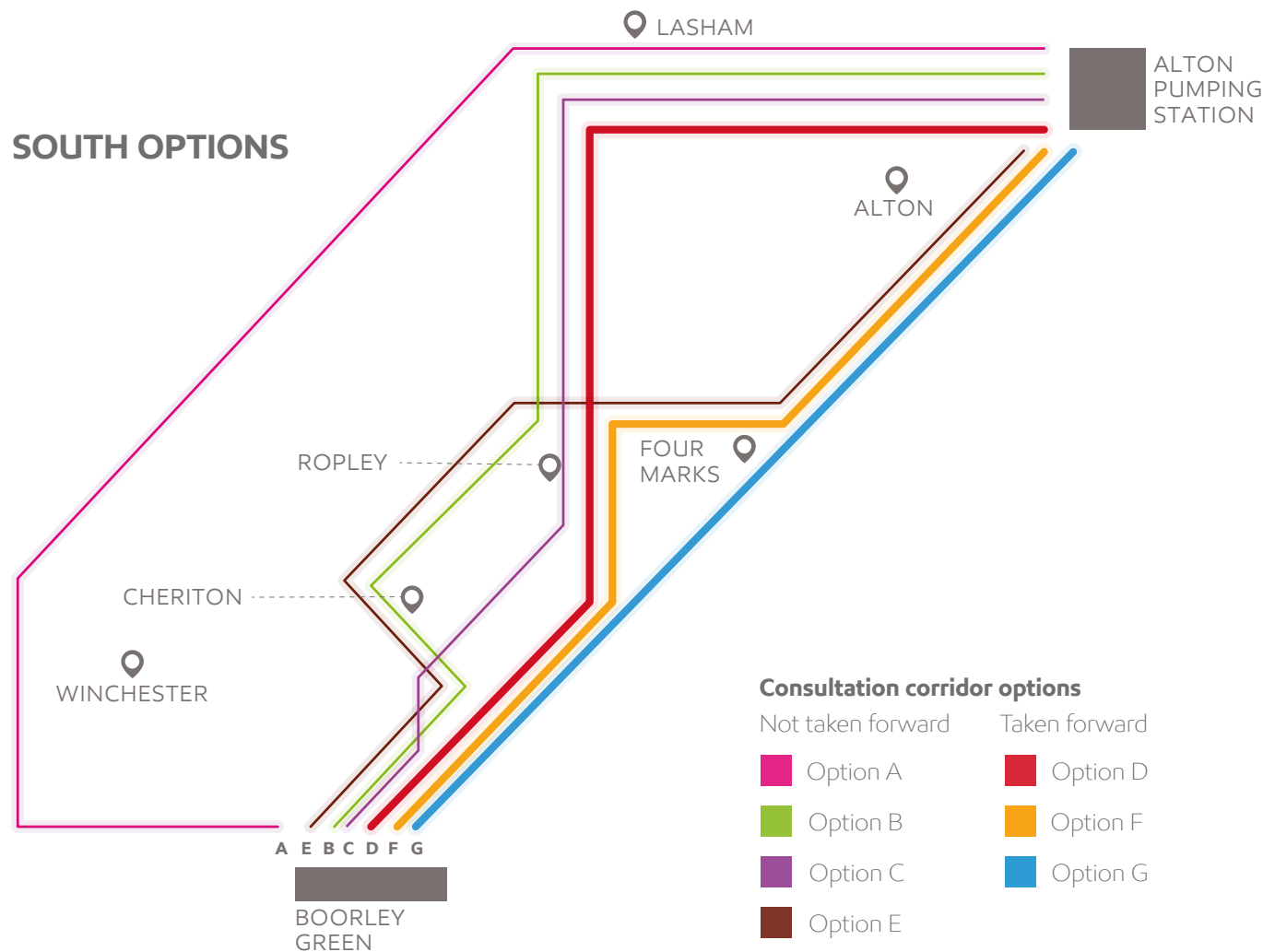
Chapter 9 sets out the corridors we are seeking your views on during this consultation.

At this early stage in the assessment process, the project team has identified that, on balance, one pipeline corridor on each side of the Alton Pumping Station is currently the best fit with the guiding principles.

This is the option that broadly follows the existing pipeline, although there are some places where this is no longer possible. This is currently our favoured pipeline corridor.

CHAPTER 8

Pipeline corridor proposals not taken forward



In the south (Boorley Green to Alton), our favoured pipeline corridor is Option G.

In the north (Alton to the West London Terminal storage facility) our favoured pipeline corridor is Option J.

However, we continue to gather information on all of the potential corridors, including via this consultation, and we will keep an open mind in assessing which corridor is ultimately chosen as the preferred pipeline corridor.

South – Boorley Green in Hampshire to Alton Pumping Station

Seven corridors were identified for the southern section. Four were not taken forward, and these are discussed in this section.

These proposals connect to the previously replaced section of pipeline in the Boorley Green area in Hampshire, and end approximately 42 km (26 miles) northeast at our Alton Pumping Station.

The seven proposed corridor options were titled: A, B, C, D, E, F and G. Options A, B, C and E were not taken forward and are discussed in this chapter. Options D, F and G were taken forward and are set out in Chapter 9.

Option A

This corridor was developed to avoid the South Downs National Park. It skirts the west of the National Park and Winchester. After Winchester, it heads northeast towards East Stratton, where it then goes east towards the Alton Pumping Station. This is the longest corridor in the southern section.

The corridor was created as an option to completely avoid the South Downs National Park by passing to the west of Winchester. This made it the longest of the southern corridors. The corridor also had to pass through environmentally sensitive areas between Otterbourne and Colden Common, including the River Itchen Site of Special Scientific Interest and Special Area of Conservation, and an important Groundwater Source Protection Area Zone 1. This meant that the corridor was unlikely to have better environmental outcomes than others. The significant cultural heritage features around the northeast of Winchester, as well as emerging housing allocations, were also considered significant challenges for this route.

Option B

This corridor follows the existing pipeline alignment as far as possible until it diverges at Preshaw Wood to approach the west of Cheriton. It heads northeast across the A31 and goes towards Heath Green and Bentworth. It then tracks east across the A339 before reaching the Alton Pumping Station.

Similar to Option C, this corridor was developed as a way to reduce the length of new pipeline in the South Downs National Park (but not to avoid it completely). Our assessment indicated that it was unlikely to have better environmental outcomes than other corridors, as it crossed the River Itchen Site of Special Scientific Interest and partially encroached on the historic battlefield at Cheriton.

Option C

This corridor follows the existing pipeline alignment as far as possible until it diverges northwest towards Lower Upham. It crosses the A31 north of Cheriton. Near Bentworth it goes east across the A339 before reaching Alton Pumping Station.

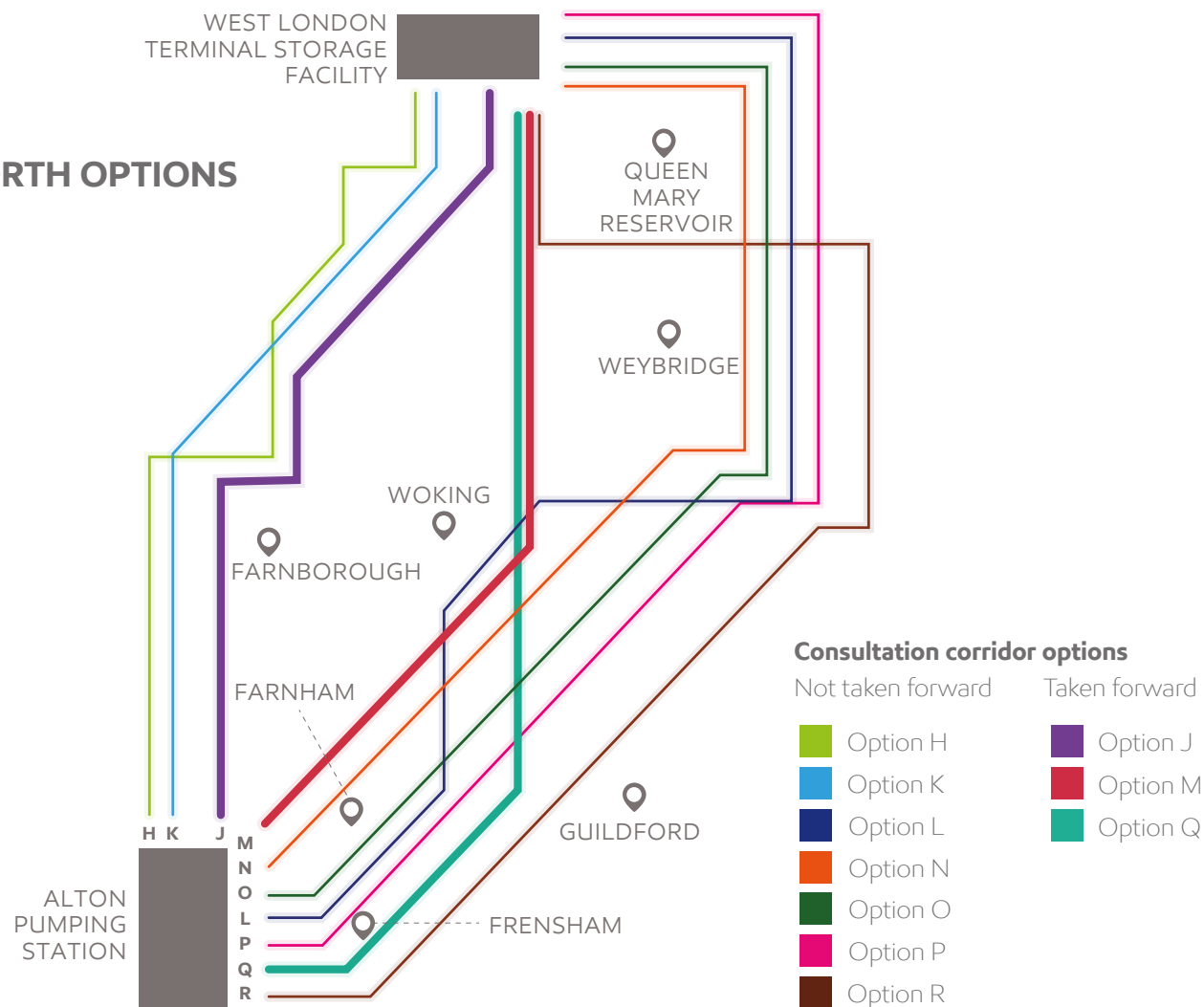
This corridor was developed as a way to reduce the length of new pipeline in the South Downs National Park. It was not taken forward because our assessment indicated that it was unlikely to have better environmental outcomes than other corridors as it crossed the River Itchen Site of Special Scientific Interest and partially encroached on the historic battlefield at Cheriton.

Option E

This corridor largely follows the Option B corridor until its northern section where it diverges as it approaches Alton, passing between Chawton Park Wood and Bushy Leaze Wood, reaching the Alton Pumping Station from the southeast.

Similar to Option C, this corridor was developed as a way to reduce the length of new pipeline in the South Downs National Park. Our assessment indicated that it was unlikely to have better environmental outcomes than other corridors, as it crossed the River Itchen Site of Special Scientific Interest and partially encroached on the historic battlefield at Cheriton.

NORTH OPTIONS



North – Alton to West London Terminal storage facility

Ten pipeline corridors were identified for the northern section. Seven were not taken forward. These are discussed in this section.

All these proposals link the Alton Pumping Station to the West London Terminal storage facility, a distance of approximately 44 km (27.5 miles).

The ten proposed corridor options were titled: H, J, K, L, M, N, O, P, Q, and R. Options H, K, L, N, O, P, and R were not taken forward and are discussed in this chapter. Options J, M and Q were taken forward and are set out in Chapter 9.

Option H

This corridor begins at the Alton Pumping Station and heads to the northwest of Farnborough. It then goes in between sections of Chobham Common before heading over the M25 and north to the West London Terminal storage facility.

This corridor was created to avoid going through Chobham Common Site of Special Scientific Interest, an internationally protected area. A significant length of the pipe would be installed in Staplehill Road and Longcross Road (B386), in between areas of Chobham Common. This would make it much more complex and time-consuming to install and result in greater disruption and impact for communities.

Option K

This corridor begins at Alton Pumping Station and heads to the northwest of Farnborough. It then goes northeast across the Blackwater River between Frimley Business Park and Frimley Bridge (A325). It then follows Chobham Road where it joins Option J at the junction with the B3015.

This corridor was not taken forward for further assessment because a significant section, between Farnborough and Lightwater, would need to be laid in roads. This would make it significantly more complex and time-consuming to install and result in greater disruption and impact for communities.

Option L

This corridor heads east near Woking and northeast until Walton-on-Thames, then goes north towards the West London Terminal storage facility.

This corridor is similar to Option O, other than the section between Worplesdon and Byfleet which passes further north-west to avoid the floodplain and mineral extraction areas to the east and southeast of Old Woking and Pyrford. This takes Option L into Woking, increasing the impacts on roads and communities from those identified for Option O.

Option N

This corridor crosses the A31 just south of Bentley. It follows the A31, avoiding the urban area just west of Farnham, before joining the A287 next to Farnham Castle. The corridor heads in an easterly direction before crossing the A325 and A31, and then skirting around the south of the Shepherd and Flock roundabout. Finally, the corridor goes east and crosses the River Wey where it then tracks north to the West London Terminal storage facility.

This corridor is similar to Option O apart from the southern section that passed through Bentley, Dippenhall and Farnham in order to avoid the South Downs National Park around Blacknest. As such, it shared similar issues for installation, disruption and community impact and so was not taken forward for further assessment.

Option O

This corridor heads east, crossing the A325 and Alice Holt Forest. It crosses the A287 and keeps east of Farnham where it heads east to cross the A31. The corridor then goes towards Sutton Green, before heading northeast to the M25 and north up to the West London Terminal storage facility.

This corridor was not taken forward because this section would mainly be installed in roads through Whiteley Village, Walton-on-Thames, Upper Halliford and Staines. This would make it much more complex and time-consuming to install and result in greater disruption and impact on communities.

Option P

This corridor heads in an easterly direction. It goes near to Woking and in a northeast direction until Walton-on-Thames, where it heads north by diverting west of Feltham towards the West London Terminal storage facility.

This corridor was very similar to Option O, other than the final 5km section approaching the West London Terminal storage facility. This section passed round the southwest of Feltham to try to reduce the length of the pipeline installed in roads. On assessment, this showed no reduction in road installation could be achieved and was not taken forward.

Option R

This corridor heads east, near to Woking and northeast until Walton-on-Thames where it heads west, crossing the River Thames to the east of D'Oyly Carte Island. It then goes northwest, crosses the M3 and joins the West London Terminal storage facility.

This corridor was similar to Option O, other than the final 12km section, which passed to the west of the Queen Mary Reservoir. This reduced the length of pipeline installed in roads but led the corridor into the floodplain along the River Thames between Chertsey Meads and Walton-on-Thames. The considerable complexity of installing the pipeline in the floodplain was a particular issue for this route and there also remained substantial lengths of pipeline requiring installation in roads and for these key reasons this corridor was not taken forward for further assessment.

CHAPTER 9

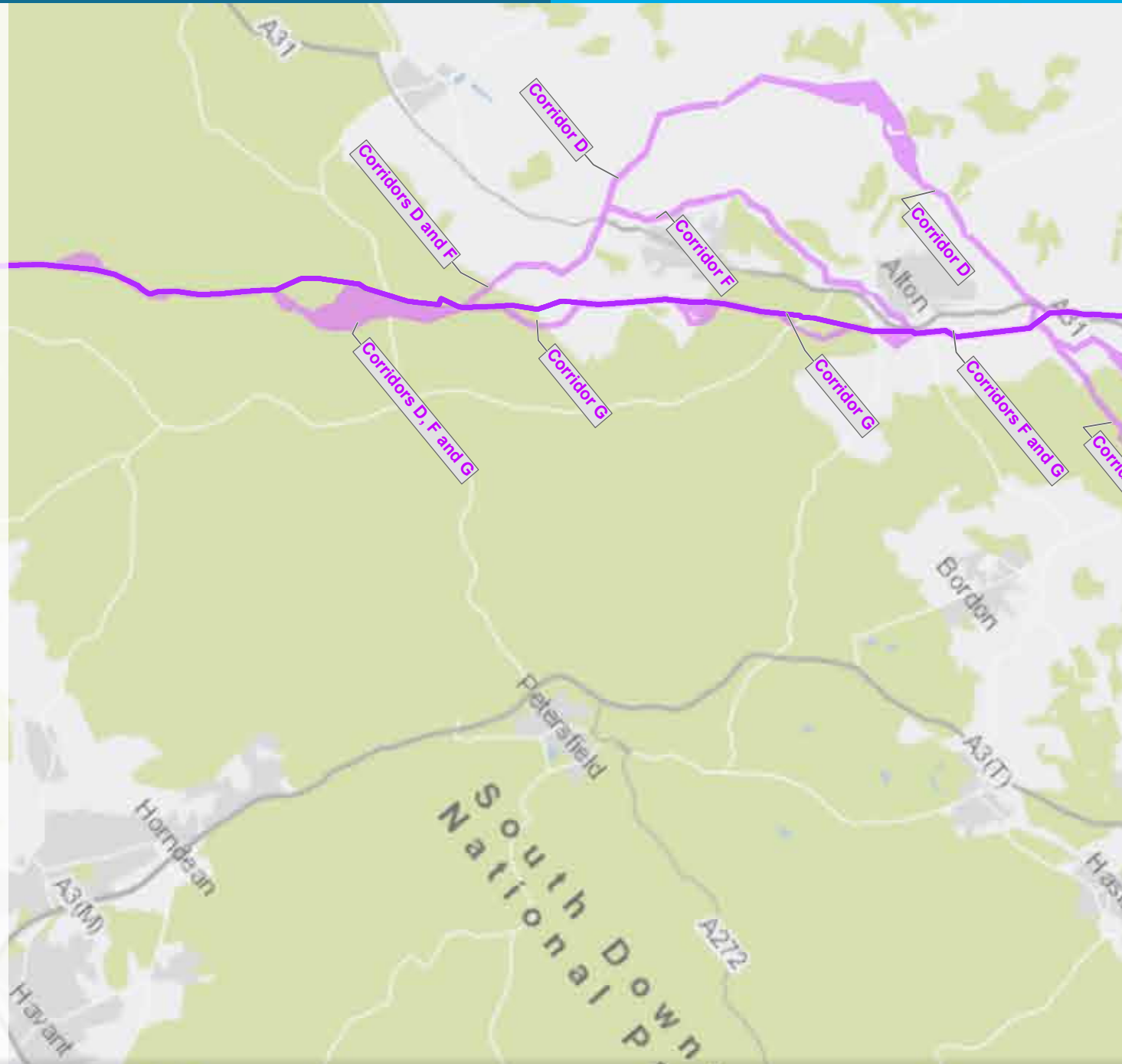
The final consultation corridors

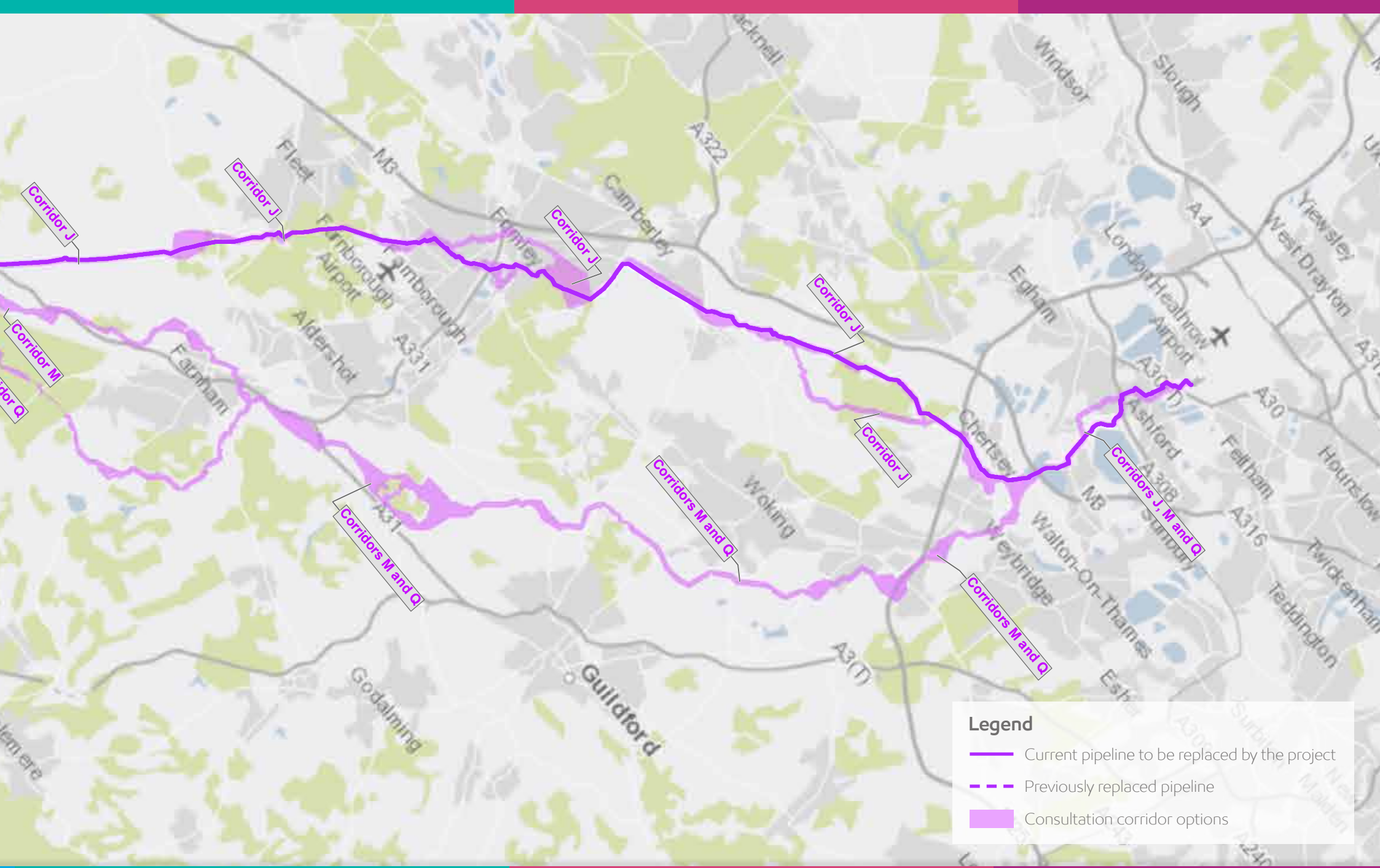
These are the proposed pipeline corridor options that we are asking for your views on.

In this chapter, we present the six pipeline corridor options that have been identified from our assessments, three in the south (Options D, F and G) and three in the north (Options J, M and Q).

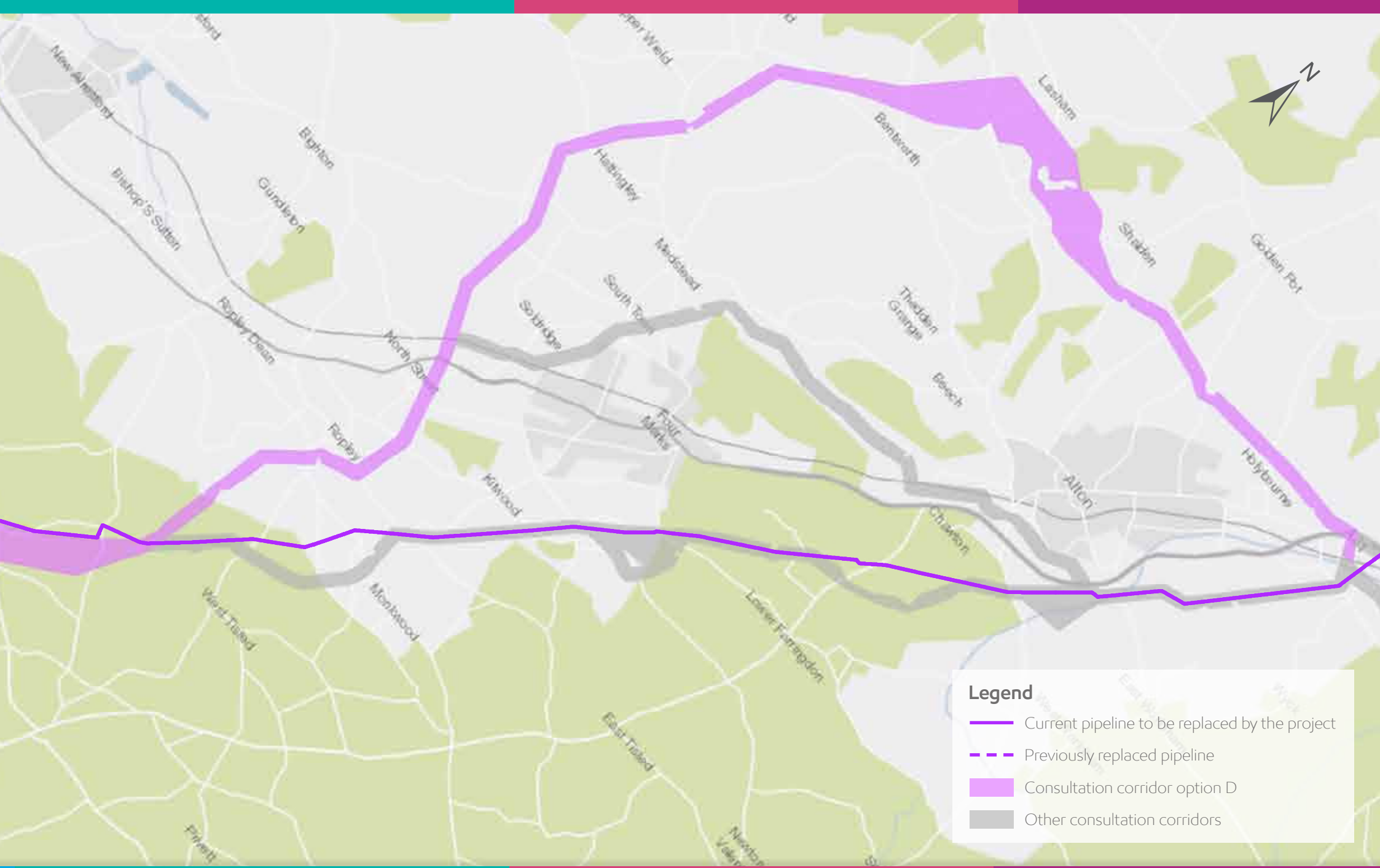
The pipeline corridor options presented in this section all perform well, but in different ways, and have different merits. We are seeking your views to help us select a single corridor, one in the south and one in the north, to progress to the next stage when we will consult to help determine the final route of the pipeline within the corridor.

We have identified a favoured corridor in the south and in the north that we believe perform best when measured against our guiding principles. Our initial view is informed by early feedback from relevant local authorities and environmental bodies. However, we remain open to other options and will consider the outcome of this consultation before selecting a preferred corridor.





A map showing the proposed Option D route, highlighted in purple, traversing the Cotswolds area. The route starts near the airport, passes through or near several villages including Horton Heath, Fair Oak, Fisher's Pond, Lower Upham, Upham, Durley, Wimburnhill, Bishop's Cleeve, Downton, and ends near Wotton Bassett. The map also shows other nearby locations like Cheltenham, New Cheltenham, Hinton Ampner, and Blunsdon. The route is labeled 'OPTION D' in a blue box at the top left.



Option D

Reasons for Inclusion

This corridor shares the same corridor as Option G until West Tisted. At this point this corridor travels northeast, skirting to the south of Lasham. This is to avoid Chawton Park Wood and Bushy Leaze Wood. It then approaches the Alton Pumping Station from the west. In common with Option F, it is one of the shortest corridors within the South Downs National Park.

Route Description

This corridor follows the existing pipeline, heading northeast from Boorley Green, passing between Bishop's Waltham and Upham, where it enters the South Downs National Park, to as far as West Tisted. After West Tisted, it heads north, passing to the east of Ropley, skirting Heath Green, then heading northeast and passing south of Lasham. It then heads east, crosses the A31, passes Alton and reaches the Alton Pumping Station from the west.

Engineering and land

This corridor is 43km (26.8 miles) long. It passes under five major features, including the A31, A339 and A272, the Alton to Waterloo railway line, rivers and a substantial number of minor roads.

After Option G, our favoured option, this corridor has some opportunity to take advantage of existing infrastructure and offers greatest potential to build upon the existing relationships we have with the current landowners.

Environment Summary

This corridor provides one of the shortest routes through the South Downs National Park. The park has special qualities in relation to wildlife, tranquillity, land use, community use, recreation and heritage.

Community

This corridor passes close to the community of Ropley, with the possibility of causing some short-term disruption to residents.

Options D, F and G all include National Trust owned land near Hinton Ampner, but diverge from the existing route to avoid Blackhouse Copse, an ancient woodland within the National Trust estate. As with all corridors it crosses farmland.

Cultural Heritage

This corridor lies adjacent to Cuckoo's Corner Roman site, a Scheduled Monument at Neatham. It avoids cultural heritage issues associated with the historic English Civil War battlefield at Cheriton. Where the corridor does not follow the existing pipeline, there may be greater risk of disturbing buried archaeological remains.

Ecology and Biodiversity

This corridor avoids the River Itchen Special Area of Conservation and Site of Special Scientific Interest.

As with Option G, this corridor avoids sites with a statutory designation for ecology or biodiversity, and the careful design of a route within this corridor and/or the use of appropriate installation techniques would help to avoid ancient woodland and reduce possible impacts on priority habitats.

Landscape

Approximately 16km (10 miles) of the corridor lie within the South Downs National Park. This corridor has fewer landscape concerns than Option G as it passes through less of the South Downs National Park.

Landfills / Soil and Geology

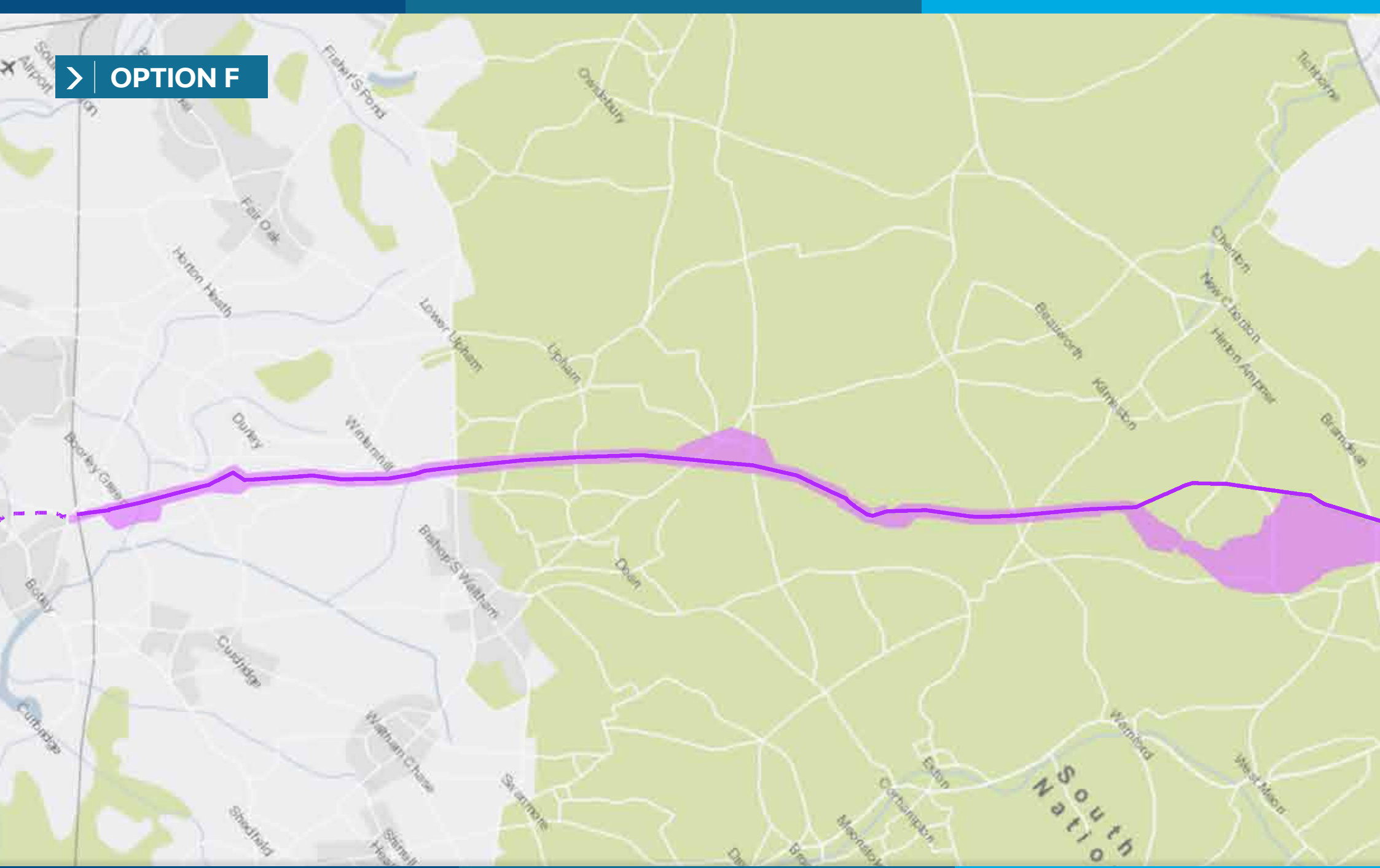
In common with the other southern corridors, there are no recorded historical or authorised landfills within the corridor.

Water

Source Protection Zones are defined for groundwater sources such as wells, boreholes and springs used for public drinking water supply.

This corridor would pass through or very close to a Groundwater Source Protection Zone 1 south of Lasham, and crosses five areas of Source Protection Zone 2 (north of Bishop's Waltham, south and north of Ropley, to the west of Medstead and south of Lasham). It is expected that careful design of a route within this corridor together with implementation of good operational practice may be able to avoid or reduce any impact on these features.

> OPTION F





Option F

Reasons for Inclusion

This corridor avoids development areas to the north of Alton. This corridor follows the same corridor as Option G until West Tisted. At this point the corridor travels northeast, skirting the northern edge of Four Marks. It approaches the Alton Pumping Station from the southwest. In common with Option D, it is one of the shortest corridor within the South Downs National Park.

Route Description

This corridor follows the existing pipeline route, entering the South Downs National Park at Bishop's Waltham. It diverges from the existing route southwest of Blackhouse Copse, then heads north to pass around Four Marks and Chawton Park Woods. This allows the corridor to avoid re-entering the South Downs National Park. It then passes between Chawton Park Wood and Bushy Leaze Wood, approaching the Alton Pumping Station from the southwest.

Engineering and land

This corridor is 40km (25 miles) long. It passes under seven major features, including the A31, A339 and A272, the Alton to Waterloo railway line, rivers and a substantial number of minor roads. This route has some opportunity to take advantage of existing infrastructure. After Option G (our favoured option) this corridor has greatest potential to take advantage of existing infrastructure and offers greatest potential to build upon existing relationships we have with current landowners.

Environment Summary

This corridor reduces the distance the pipeline takes through the South Downs National Park by avoiding re-entering the National Park. The National Park has special qualities in relation to wildlife, tranquillity, land use, community use, recreation and heritage

Community

This corridor passes close to the communities of Ropley, Four Marks and Alton, with the possibility of causing short-term disruption to residents. Potential disruption of access to Alton Hospital should be avoided by the use of a trenchless technique to cross the A339.

This corridor includes National Trust owned land near Hinton Ampner, but diverges from the existing route to avoid Blackhouse Copse, an ancient woodland within the National Trust estate. As with all corridors, it crosses farmland.

Cultural Heritage

This corridor does not include any designated heritage features of high importance. Where the corridor does not follow the existing pipeline, there may be a greater risk of disturbing buried archaeological remains.

Ecology and Biodiversity

It avoids major ecology constraints, and the careful design of a route within this corridor and/or the use of appropriate installation techniques would help avoid ancient woodland and reduce possible impacts on priority habitats.

Landscape

Approximately 16km (10 miles) of the corridor lie within the South Downs National Park. This corridor has fewer landscape concerns than Option G as it passes through less of the South Downs National Park.

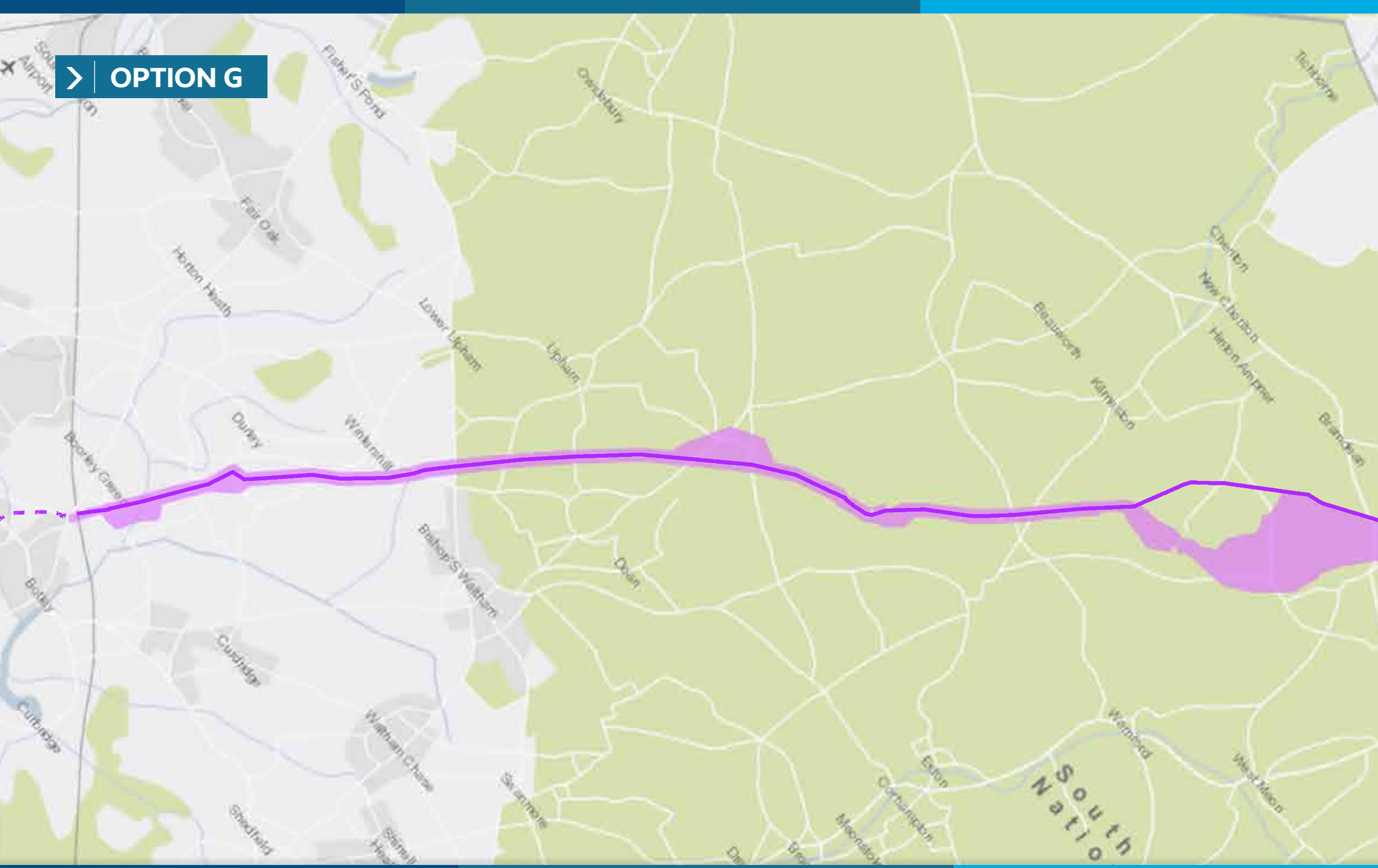
Landfills / Soil and Geology

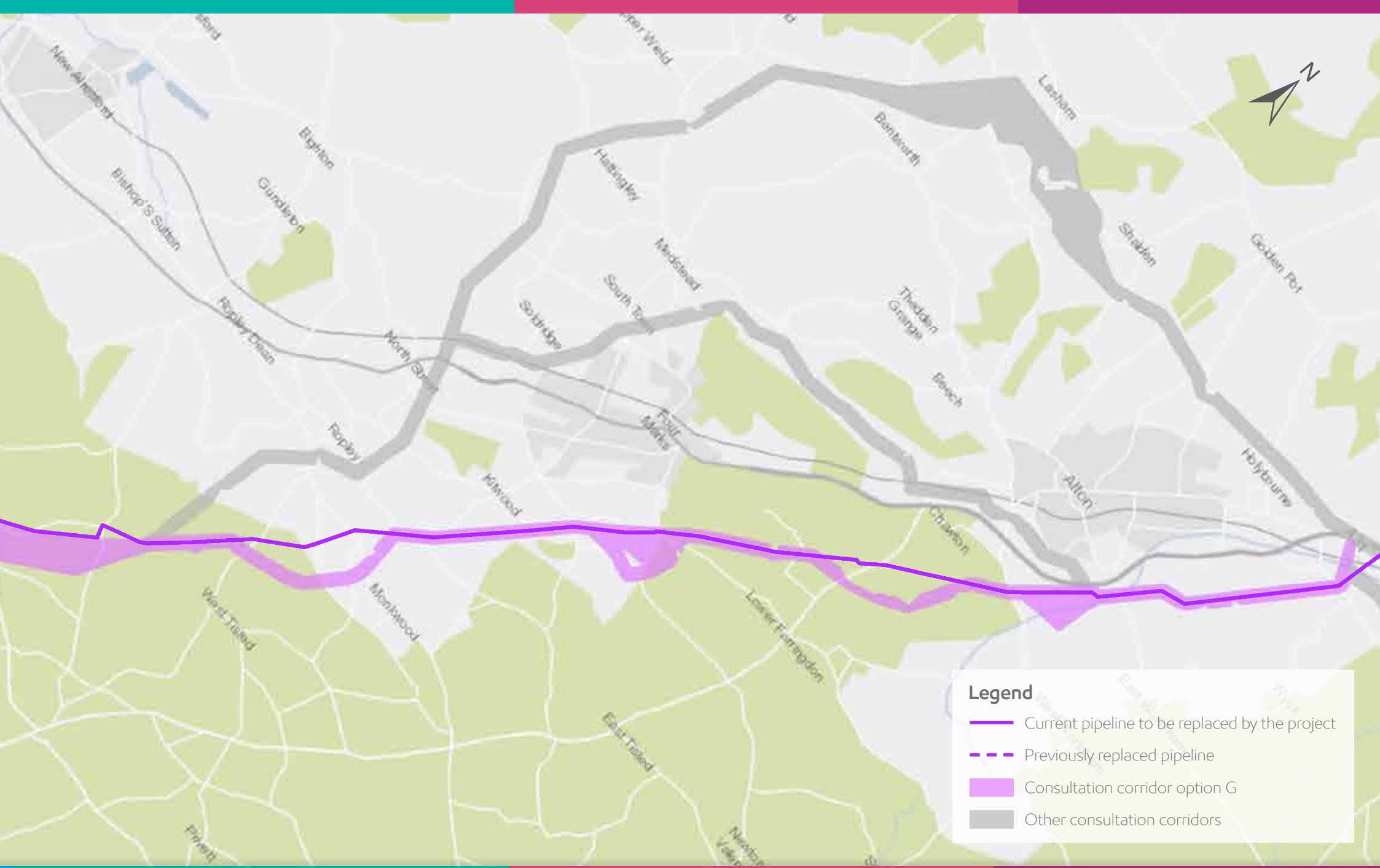
In common with the other southern corridors, there are no recorded historical or authorised landfills within the corridor.

Water

The corridor has a similar level of water concerns to Option G and fewer than Option D. It crosses four areas of Source Protection Zone 2 (north of Bishop's Waltham, south and north of Ropley and south of Alton), and encroaches on a short stretch of Source Protection Zone 1 south of Alton, although further design of a route within this corridor could minimise proximity to this feature.

> OPTION G





Option G

Reasons for Inclusion

This corridor was developed to follow the existing aviation fuel pipeline where possible to make best use of existing infrastructure and landowner and stakeholder relationships. The corridor avoids ancient woodland and sensitive features above the existing pipeline.

Route Description

From Boorley Green, the corridor heads northeast, passing between Bishop's Waltham and Upham, where it enters the South Downs National Park. It then passes the village of Bramdean passing under the A272 and the A32. The final approach to Alton passes between Lower Farringdon and Chawton, southeast of the A31, passing Alton before crossing the River Wey to approach the Alton Pumping Station from the southwest.

Engineering and land

This corridor is the shortest, at 38.5km (24 miles) long. It passes under five major features, including the A32 and A272, the Alton to Waterloo railway line, rivers, and 27 minor roads.

This corridor has greatest potential to take advantage of existing infrastructure and offers greatest potential to build upon the existing relationships we have with current landowners.

Environment Summary

The main environmental concerns relate to landscape, the water environment and the community. Approximately 24km (15 miles) of the corridor lie within the South Downs National Park. The park has special qualities in relation to wildlife, tranquillity, land use, community use, recreation and heritage.

Community

This corridor avoids large residential areas but it is close to several community facilities (including a school). It crosses the South Downs Way to the northwest of Beacon Hill. However, its alignment near the existing pipeline means that land use for most of its length has already adapted to the existing pipeline infrastructure and maintenance operations.

The corridor includes National Trust owned land near Hinton Ampner, but diverges from the existing route to avoid Blackhouse Copse, an ancient woodland within the National Trust estate.

As with all corridors, it crosses farmland.

Cultural Heritage

It avoids high value cultural heritage assets, and has a low potential for affecting buried archaeology as it largely follows the existing pipeline where the ground is likely to have already been disturbed.

This corridor includes an option to move away from the existing pipeline alignment to skirt around the south of Chawton House Registered Park and Garden.

Ecology and Biodiversity

This corridor avoids sites with a statutory designation for ecology or biodiversity, and careful design and/or the use of appropriate installation techniques could allow avoidance of ancient woodland and reduce or avoid disturbance of most areas of priority habitats. This includes Stephen's Castle Down, an area of chalk grassland Priority Habitat and a non-statutory designated site within the South Downs National Park, where the corridor is widened to provide an opportunity to avoid this site.

Landscape

Approximately 24km (15 miles) of the corridor lie within the South Downs National Park.

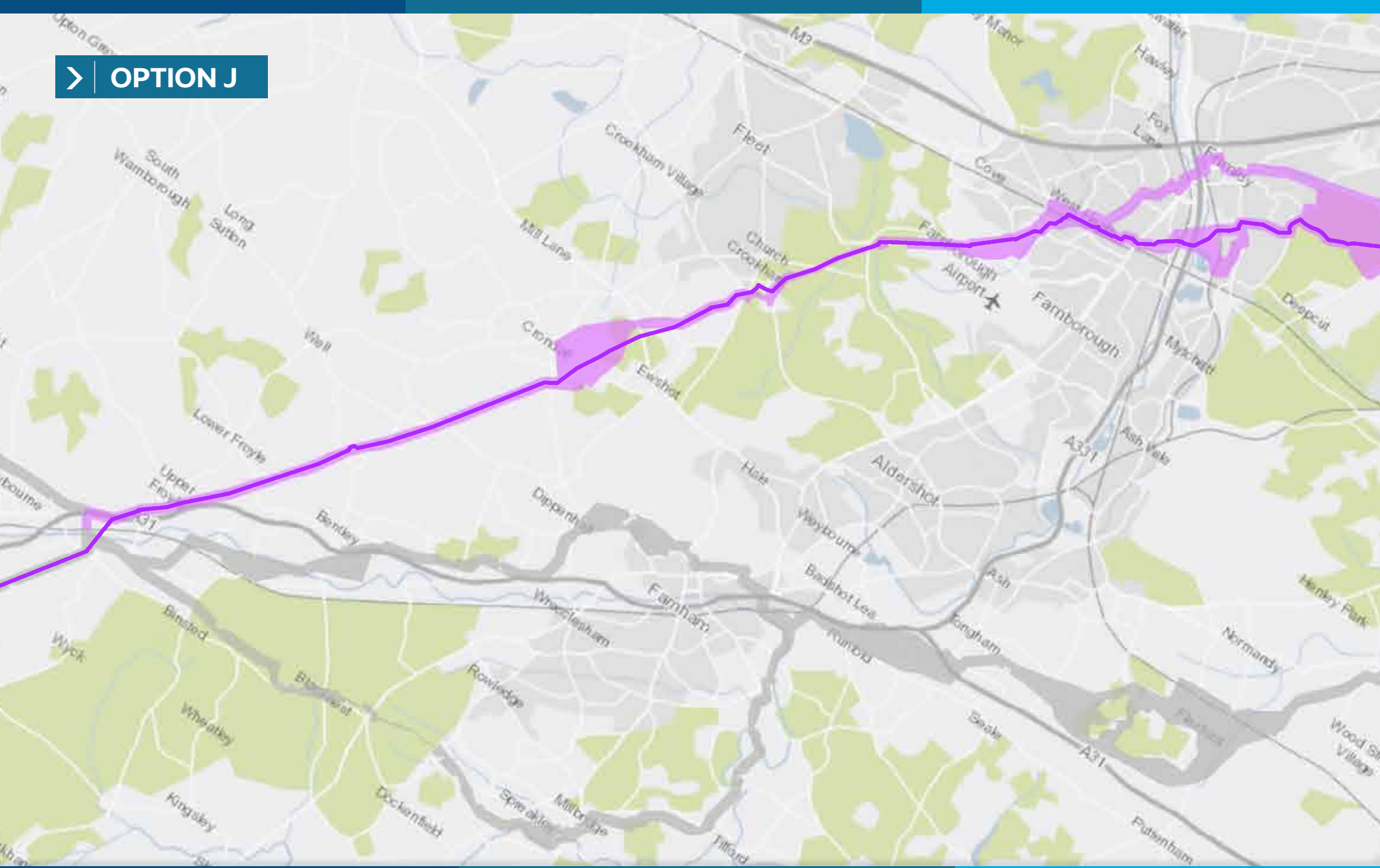
Landfills / Soil and Geology

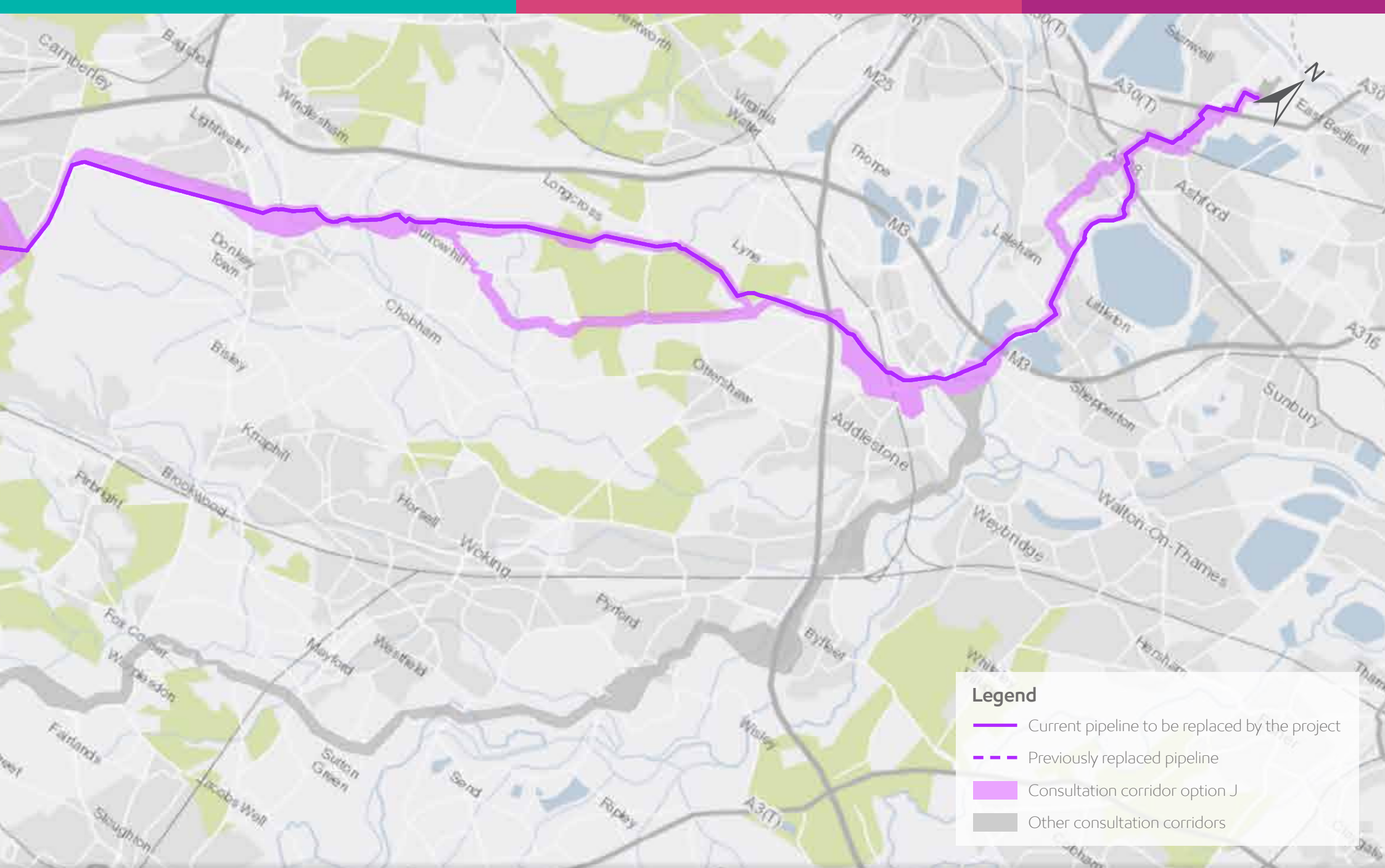
In common with the other southern corridors, there are no recorded historical or authorised landfills within the corridor. Unlike Options D and F it includes small areas of potentially sensitive soils and land instability.

Water

It passes through two areas of groundwater flood risk – at the A272 and south of Alton – and through three areas of Groundwater Source Protection Zone 2 (to the north of Bishop's Waltham and to the east and south of Ropley).

> OPTION J





Option J

Reasons for Inclusion

This corridor was developed to follow the existing pipeline where possible to make best use of existing infrastructure and our pre-existing relationships with landowners. Its route through Hampshire and Surrey has taken into full account features that weren't built or protected in the 1960s, when the existing pipeline was built.

Route Description

This corridor begins by heading east from Alton. It crosses the A32 and heads northeast while keeping to the southeast of Upper and Lower Froyle. The corridor continues to the southeast of Crondall before crossing the A287 and keeping to the south-eastern outskirts of Fleet. It then passes Tweseldown Racecourse from the northwest.

Where the Fleet Road (B3014) meets the railway line, this corridor has two sub-options. These are areas where the corridor could follow alternative routes, but are not separate corridors. This is because the area has built up around the existing pipeline. The first follows the existing pipeline route, until it joins back up with the other sub-options at The Maultway and Deepcut Bridge Road. The second sub-option heads from the Fleet Road/railway line towards where the A325 crosses the A331. From here it closely follows the Chobham Road (B311) and the Old Bisley Road. At The Maultway it joins up with the other sub-option.

This corridor travels around Bisley and Pirbright Ranges towards Chobham Common. At this point, there are two sub-options. This is because we are considering ways to reduce potential impacts on Chobham Common. The first follows the existing pipeline route through Chobham Common until it joins up with the other sub-option just north of the Longcross Road and Stonehill Road junction. The second sub-option travels easterly from the B383 near Burrow Hill Green and aims to avoid crossing Chobham Common. Near Dunstall Green it turns north to follow the Stonehill Road until it joins up with the other sub-option just north of the Longcross Road and Stonehill Road junction.

At this point the corridor travels easterly until it crosses the M25, the railway line and Chertsey Road, it then heads toward the Thames.

After crossing the Thames at Dumsey Meadow and the M3, this option (J), Option M and Option Q all head north, with sub-options to the west of the Queen Mary Reservoir. At the Staines Bypass the corridor merges back together and heads north until the West London Terminal storage facility.

Engineering and land

This is the shortest northern corridor at 69.2km (43.25 miles) long. It passes under 27 major features, including the M3, M25, the A31, A287, A323, A327, A325, A322, A30, A308, the Basingstoke-Waterloo and Ascot-Guildford railway lines, the Rivers Thames and Wey, canals and a substantial number of minor roads in Ashford.

This corridor has greatest potential to take advantage of existing infrastructure and offers greatest potential to build upon the existing relationships we have with current landowners. The corridor does contain Common Land and land actively used by the Ministry of Defence.

Along with Option Q, this corridor has the lowest amount of streetworks compared to other corridors on the shortlist. It is also likely to have the shortest installation programme. Additionally, there is generally less installation in areas of floodplain when compared to Option M and Option Q.

Environment Summary

This corridor does not pass through any nationally designated landscapes as it avoids both the South Downs National Park and Surrey Hills Area of Outstanding Natural Beauty. It therefore has fewer landscape constraints than Option M and Option Q.

This corridor passes through or next to several statutory designated sites of national or international ecological importance. The design of a route within this corridor will need to minimise adverse effects on these sensitive ecological sites.

Community

The corridor passes through several residential areas including Farnborough, Frimley, Lightwater, Chertsey and Ashford, and communities lying within or near to the corridor may face short-term disruption during installation.

The sub-option through Frimley also includes Frimley Park and crosses access to Frimley Park Hospital. The potential for short-term disruption to both could be reduced through the careful design of a route within this corridor and/or trenchless techniques.

As with all corridors, it crosses farmland. This corridor passes into the Metropolitan Green Belt around London.

Cultural Heritage

This corridor includes or is close to heritage assets, including one Grade I listed building (Farnborough Hill Convent), two scheduled monuments at West End Common and Chobham, and Frimley Park Registered Park and Garden. However, the design of a route within this corridor may be able to avoid impacts on all of these assets.

The majority of the corridor follows the existing pipeline and in these locations, buried archaeological remains are likely to have already been disturbed. The corridor, therefore, has fewer heritage constraints than Option M and Option Q.

Ecology and Biodiversity

This corridor has the potential to affect several statutory designated sites of national or international ecological importance, including Dumsey Meadow Site of Special Scientific Interest, the Thames Basin Heaths Special Protection Area, the Thursley, Ash, Pirbright and Chobham Special Area of Conservation and their constituent Sites of Special Scientific Interest (Colony Bog and Bagshot Heath, Eelmore Marsh, and Chobham Common and National Nature Reserve). The careful design of a route within this corridor and/or the use of appropriate installation techniques will help minimise adverse ecological effects on these sites.

Trenchless techniques could help to avoid Basingstoke Canal Site of Special Scientific Interest, although this would extend the works within Bourley and Long Valley Site of Special Scientific Interest.

Potential impacts to Thames Basin Heaths Special Protection Area could be minimised by timing works outside the bird breeding season (February to September), although this would not necessarily avoid potential impacts to the associated Site of Special Scientific Interest.

The potential for impact to the Thursley, Ash, Pirbright and Chobham Special Area of Conservation and Thames Basin Heaths Special Protection Area would also need a Habitats Regulations Assessment to better understand any effects.

Landscape

This corridor does not pass through any nationally designated landscapes as it avoids both the South Downs National Park and Surrey Hills Area of Outstanding Natural Beauty. It therefore has fewer landscape constraints than Option M and Option Q.

Landfills / Soil and Geology

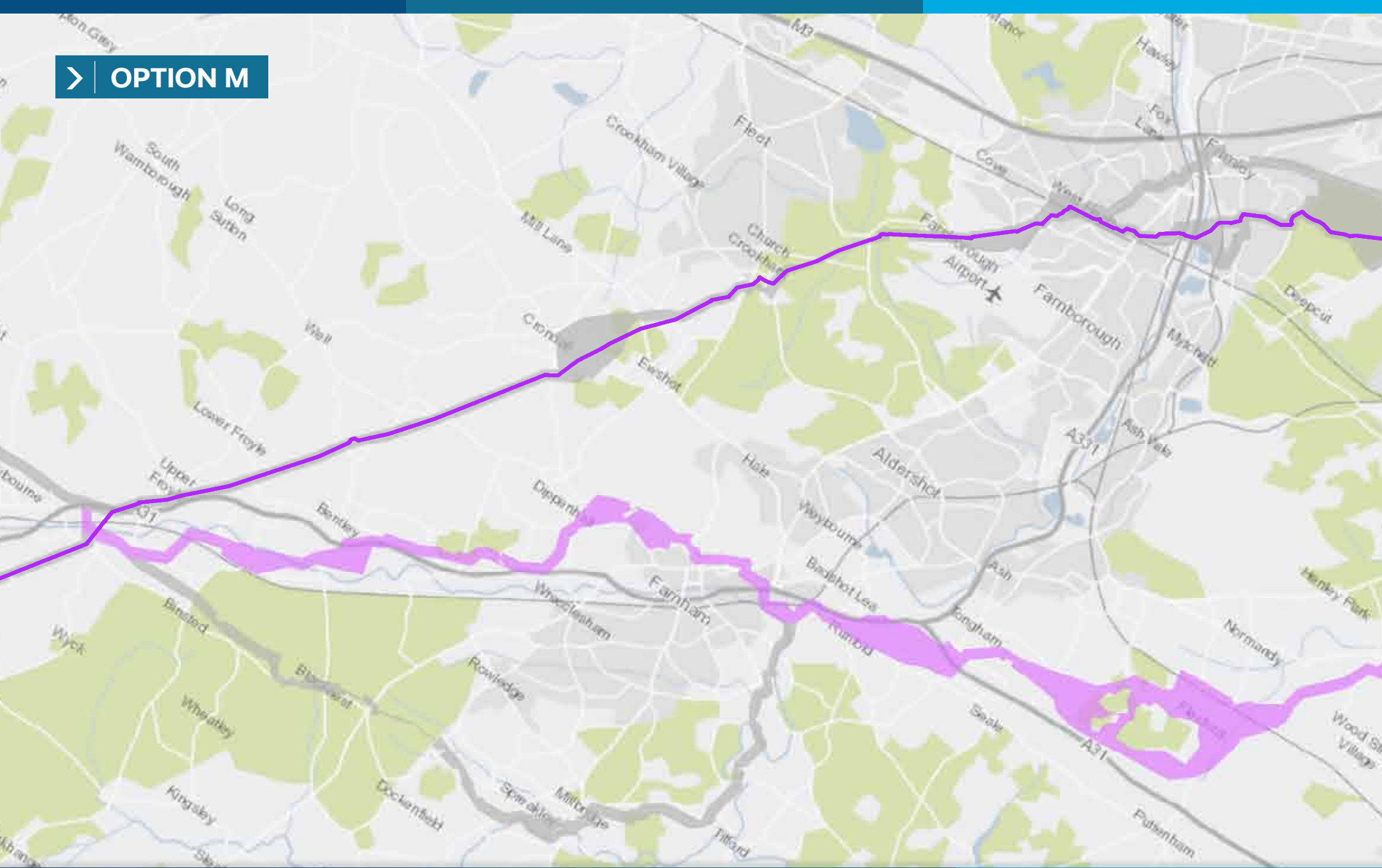
This corridor, in common with all of the northern corridors, crosses or runs next to numerous mineral and landfill sites, including near Ewshot, Frimley, Addlestone, Shepperton, Laleham and Ashford.

Water

This corridor, in common with all of the northern corridors, crosses or runs next to numerous mineral and landfill sites, including near Ewshot, Frimley, Addlestone, Shepperton, Laleham and Ashford.

This corridor has numerous interactions with rivers and Flood Zone 3, including the Rivers Wey and Blackwater. This corridor crosses one area of Source Protection Zone 2 (around Chertsey) and also crosses extensive areas of Primary and Secondary Aquifer in the Thames Valley area. The crossing of the Thames is similar across all corridors and cannot be avoided.

> OPTION M





Option M

Reasons for Inclusion

This corridor was developed to avoid national and European designated sites that Option J passes through. It also avoids the South Downs National Park, that Option Q passes through.

Route Description

This corridor begins by following the A31 to its south-eastern side, crossing just south of Bentley. It then continues northeast following the A31 and then avoids the urban area west of Farnham before joining the A287 adjacent to Farnham Castle. The corridor then follows along streets in Farnham in a general easterly direction before crossing the A325 and the A31, skirting around the south of the Shepherd and Flock roundabout. The corridor heads east and crosses the River Wey to the point where Moor Park Lane and Rock House Lane meet. From this point this corridor is the same route as Option Q.

From Rock House Lane, it goes east, parallel to Seale Lane and crosses the A31 before continuing east to Wanborough. The corridor turns northeast in Wanborough and Wanborough Wood and then follows the A323 eastbound until it reaches Holly Lane where it turns briefly north again to skirt around the northwest of Worplesdon, before heading east towards Sutton Green.

The corridor then goes northeast, crossing the River Wey and A247 and keeping to the southeast of Woking Sewage Treatment Works before passing West Byfleet and Byfleet to cross the M25 near Byfleet Recreation Ground. From here, the corridor follows the eastern bank of the River Wey, and northbound crosses the river again between Addlestone and Weybridge. Finally, the corridor crosses the Thames east of Dumsey Meadow Site of Special Scientific Interest before joining Option J, just before it crosses the M3.

After crossing the River Thames at Dumsey Meadow and the M3, this option (M), Option J and Option Q all head north, with sub-options the west of the Queen Mary Reservoir. These are areas where the corridor could follow alternative routes, but are not separate corridors. At the Staines Bypass the sub-options merge back together and the corridor heads north until the West London Terminal storage facility.

Engineering and land

This corridor is 61.5km (38.4 miles) long. It passes under 30 major features, including the M3, M25, the A31, A287, A323, A327, A325, A322, A30, A308, the Byfleet and New Haw railway line, the West Byfleet railway and Chertsey branch railway, the Rivers Thames and Wey, canals and a substantial number of minor roads.

It has the least risk of impact on Common Land and land actively used by the Ministry of Defence, that are associated with Option J.

This corridor has the least potential for impact on built-up areas. Along with the Option J, it has the lowest amount of streetworks when compared to other corridors on the shortlist.

Environment Summary

This corridor has the fewest ecological concerns of the northern corridors, as it largely avoids the Thames Basin Heaths Special Protection Area, in the same way as Option Q.

Unlike Option Q though, it also avoids the large area of ancient woodland at Alice Holt Forest, the South Downs National Park, and the Surrey Hills Area of Outstanding Natural Beauty.

This corridor enters into part of the Surrey Hills Area of Outstanding Natural Beauty, although careful route design within this corridor could avoid this feature. The route crosses through Farnham, where short term community disruption will need to be minimised. The corridor includes several designated heritage assets, and interacts with a large number of main rivers and floodplains.

Community

This corridor avoids many of the residential areas crossed by Option J such as Farnborough, Frimley and Lightwater, but travels through the north of Farnham.

Possible short-term disruption of local access to Farnham Community Hospital could be avoided or reduced through the use of trenchless techniques to cross the A325.

It avoids the South Downs National Park and slightly encroaches on Surrey Hills Area of Outstanding Natural Beauty.

As with all corridors, it crosses farmland.

Cultural Heritage

This corridor is close to a large number of designated heritage assets including Grade I and II* listed buildings and scheduled monuments (Waverley Abbey, a Romano-Celtic temple complex west of Long Common, and Woking Palace). This corridor does not follow the existing pipeline and thus there may be a greater risk of disturbing buried archaeological remains.

This corridor includes three conservation areas (Pierrepont, the Wey Navigation and the Wey and Godalming Conservation Areas) that could be difficult to avoid. The Option M corridor also runs close to Farnham Park Registered Park and Garden and Farnham Castle scheduled monument, both of which can be avoided, and Farnham Conservation Area that cannot be avoided.

Ecology and Biodiversity

This corridor largely avoids the Thames Basin Heaths Special Protection Area, except at Worplesdon where the western extent of Whitmoor Common Site of Special Scientific Interest and Thames Basin Heaths Special Protection Area are within the corridor. These could be avoided through careful route design within this corridor.

This corridor includes Dumsey Meadow Site of Special Scientific Interest, but has the potential to avoid the Site of Special Scientific Interest and pass through Chertsey Meads Local Nature Reserve instead. This corridor also avoids major areas of ancient woodland.

Landscape

Unlike Option Q, this corridor avoids the South Downs National Park, but slightly encroaches into part of the Surrey Hills Area of Outstanding Natural Beauty, although the design of a route within this corridor could avoid this feature. Overall, this corridor has greater landscape concerns than Option J.

Landfills / Soil and Geology

This corridor, in common with all of the northern corridors, crosses or runs next to numerous mineral and landfill sites, including at Runfold, Addlestone, Weybridge, Shepperton, Laleham and Ashford. Like Option Q, it includes an operational non-inert landfill in the Runfold area.

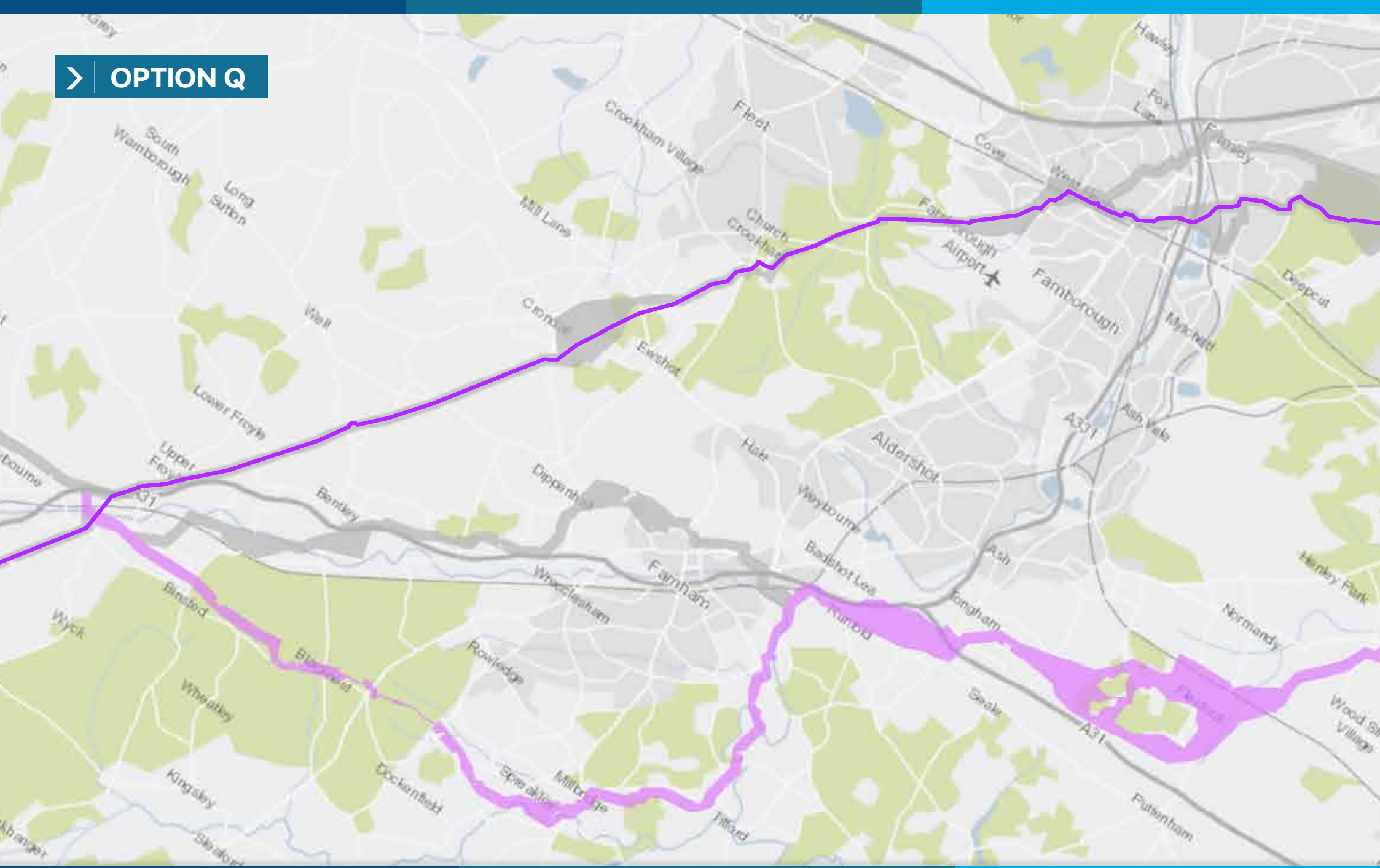
Water

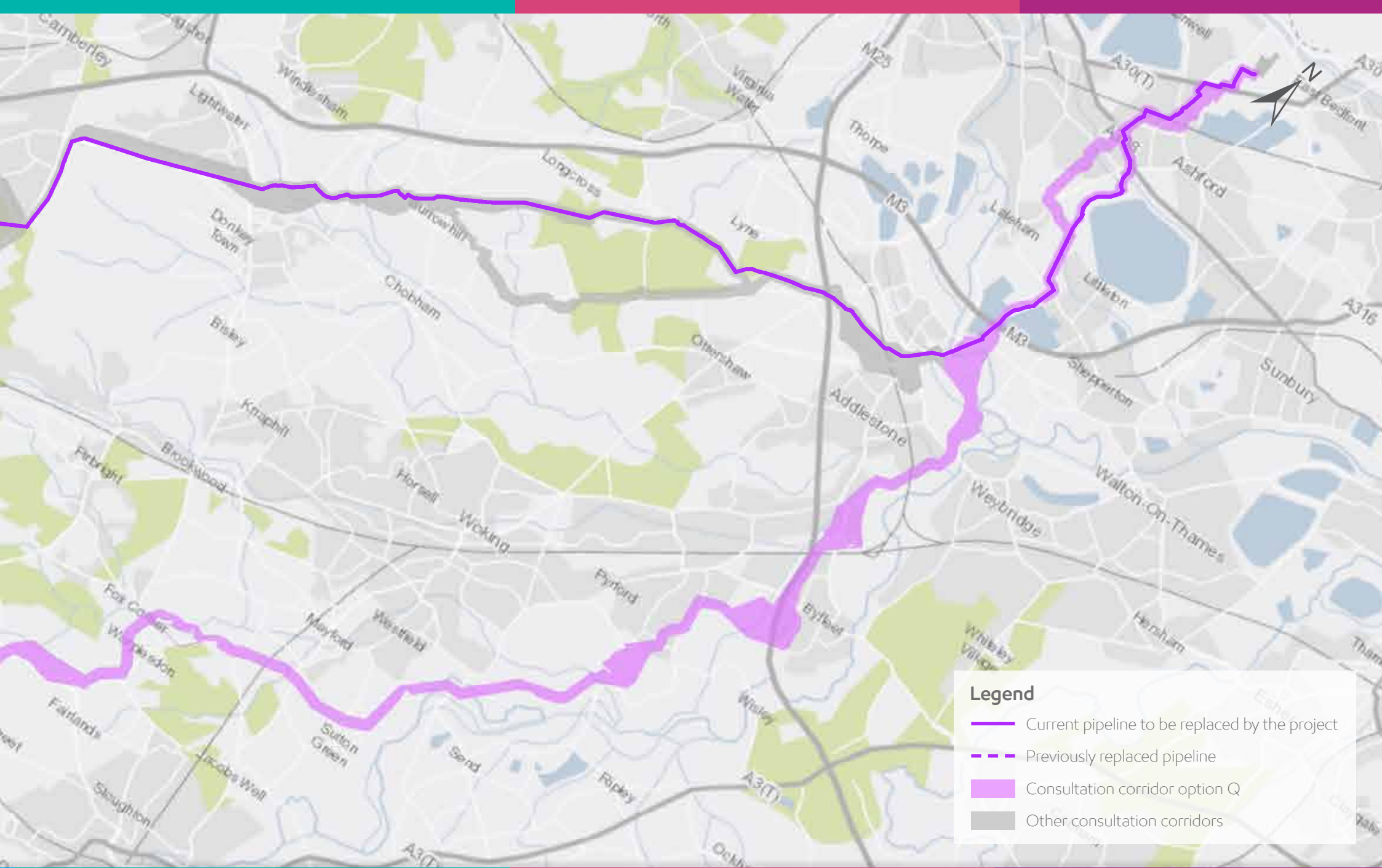
This corridor has greater water concerns than Option J, as it has numerous interactions with main rivers and floodplains (Flood Zone 3), and passes through one Source Protection Zone 2 at Shepperton, as does Option Q.

It has a few more concerns than Option Q as it runs adjacent to Source Protection Zone 2 and close to Source Protection Zone 1 at Farnham.

The crossing of the Thames is similar in all options and cannot be avoided.

> | **OPTION Q**





Option Q

Reasons for Inclusion

This corridor was developed to avoid the national and European designated sites that Option J enters, as well as to avoid the community of Farnham that Option M passes through. This corridor follows the route of another Esso pipeline, along a route through Alice Holt Forest and within the South Downs National Park.

Route Description

The corridor begins by heading east from Alton Pumping Station, crossing the A325 and Alice Holt Forest (western section) before approaching the northwest of Frensham. After crossing the A287, the corridor heads north by skirting east of Alice Holt Forest (eastern section) and keeping to the east of Farnham.

At the point where Moor Park Lane and Rock House Lane meet, this corridor is the same as Option M.

From Rock House Lane, it goes east, parallel to Seale Lane (C119) and crosses the A31 before continuing east to Wanborough. The corridor turns northeast in Wanborough and Wanborough Wood and then follows the A323 eastbound until it reaches Holly Lane where it turns briefly north again to skirt around the northwest of Worplesdon before heading east towards Sutton Green.

It then goes northeast, crossing the River Wey and A247, keeping to the southeast of Woking Sewage Treatment Works before passing West Byfleet and Byfleet to cross the M25 near Byfleet Recreation Ground.

From here, the corridor follows the eastern bank of the River Wey, and northbound crosses the river again between Addlestone and Weybridge. Finally, the corridor crosses the Thames east of Dumsey Meadow Site of Special Scientific Interest before joining the same corridor as Option J, just before it crosses the M3.

After crossing the Thames at Dumsey Meadow and the M3, this option (Q), Option J and Option M all head north, with sub-options to the west of the Queen Mary Reservoir. These are areas where the corridor could follow alternative routes, but are not separate corridors. At the Staines Bypass the sub-options merge back together and the corridor heads north until the West London Terminal storage facility.

Engineering and land

This corridor is 63km (39.3 miles) long. It passes under 28 major features, including the M3, M25, the A31, A287, A323, A327, A325, A322, A30, A308, Byfleet and New Haw, West Byfleet, Chertsey Branch railway lines, the Rivers Thames and Wey, canals and a substantial number of minor roads at urban areas in Byfleet and Ashford.

As this corridor is near to another Esso pipeline it has greater opportunity to take advantage of existing infrastructure and to build upon the established relationships we have with current landowners, when compared to Option M. When compared to our favoured option, this corridor avoids Common Land and land actively used by the Ministry of Defence.

The corridor also performs better on planning grounds, by avoiding areas of committed or proposed housing or commercial development. Similar to Option J, this route has the lowest amount of streetworks when compared to other corridors on the shortlist.

This corridor offers an installation benefit as it has the least number of trenchless crossings of all the northern corridors.

Environment Summary

This corridor stays out of Farnham (unlike Option M) and other residential areas such as Farnborough and Frimley (like Option M) where possible. It also largely avoids the Thames Basin Heaths Special Protection Area (like Option M), so has fewer ecological constraints than favoured Option J.

The corridor passes through both the South Downs National Park and Surrey Hills Area of Outstanding Natural Beauty. It also intersects with a large area of ancient woodland at Alice Holt Forest, but much of this could be avoided through careful route design within this corridor and trenchless installation techniques. In this area, the corridor follows a similar path to an existing Esso pipeline that runs to Gatwick Airport (that is not part of this project).

Community

This corridor avoids many of the residential areas crossed by Option J such as Farnborough, Frimley and Lightwater, and unlike Option M also avoids Farnham.

This corridor passes through the South Downs National Park. It slightly encroaches on the Surrey Hills Area of Outstanding Natural Beauty. As with all corridors, it crosses farmland. As with all corridors, it crosses farmland.

Cultural Heritage

This corridor is close to a large number of designated heritage assets including Grade I and II* listed buildings and scheduled monuments (Waverley Abbey, a Romano-Celtic temple complex west of Long Common, and Woking Palace). This corridor does not follow the existing pipeline and thus there may be a greater risk of disturbing buried archaeological remains.

This corridor includes three conservation areas (Pierrepont, the Wey Navigation and the Wey and Godalming Conservation Areas) that could be difficult to avoid.

Ecology and Biodiversity

This corridor largely avoids the Thames Basin Heaths Special Protection Area, except at Worplesdon where the western extent of Whitmoor Common Site of Special Scientific Interest and Thames Basin Heaths Special Protection Area are within the corridor, although these could be avoided through careful route design within this corridor and/or trenchless installation techniques.

This corridor includes Dumsey Meadow Site of Special Scientific Interest, but has the potential to avoid the Site of Special Scientific Interest and pass through Chertsey Meads Local Nature Reserve instead. This corridor also avoids major blocks of ancient woodland.

Landscape

This corridor passes through the South Downs National Park. It slightly encroaches on the Surrey Hills Area of Outstanding Natural Beauty, although the careful design of a route within this corridor could avoid this feature. Overall, this corridor has greater landscape concerns than Option J.

Landfills / Soil and Geology

This corridor, in common with all of the northern corridors, crosses or runs next to numerous mineral and landfill sites, including at Runfold, Addlestone, Weybridge, Shepperton, Laleham and Ashford. Like Option M, it includes an operational non-inert landfill in the Runfold area.

Water

This corridor has greater water concerns than Option J, as it has numerous interactions with main rivers and floodplains (Flood Zone 3), and passes through one Source Protection Zone 2 at Shepperton.

The crossing of the Thames is similar in all options and cannot be avoided.

CHAPTER 10

What you will see above ground

A limited amount of above-ground equipment is needed, which is described below.

Once installed, the pipeline is typically buried underground. There are a small number of points along the pipeline where we will need to install above-ground equipment or fenced enclosures. A single pipeline corridor is needed before the exact locations can be determined. This is because the equipment needs to be above or near to the pipeline.

Pipeline markers

These are a legal requirement and are found at key points such as road crossings. The marker posts indicate the presence of a pipeline below the ground.

Valves

We would typically expect to install at least ten **valves** along the total length of the pipeline to control the flow of aviation fuel. These valves are mostly installed in secure buried chambers surrounded by a fence and are typically 5m x 3m. They will be remotely operated from our control room.

Pigging stations

Pigging stations allow the entry and exit points for pipeline inspection gauges or 'PIGs' from time to time (typically once or twice a year). These are part of the maintenance system that ensures the line is safe.

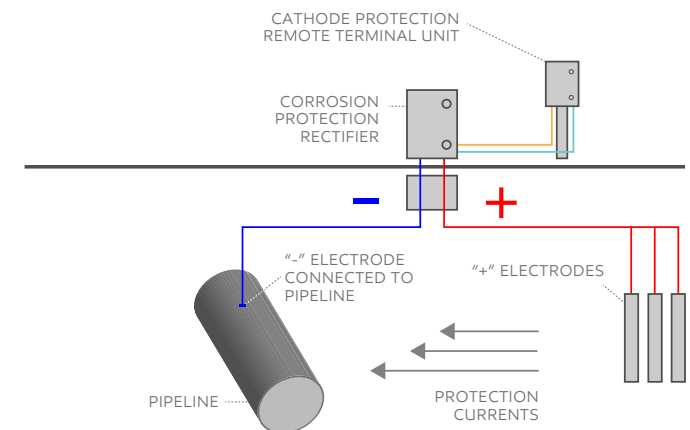
We will install only one new pigging station outside of Esso's existing property. This will be where the new

pipeline meets the previously replaced section at Boorley Green. We will also modify the existing pigging station at the West London Terminal storage facility.

The new pigging station at Boorley Green will be located within a fenced area of around 55m x 35m.

Corrosion Protection Cabinets

Corrosion protection cabinets will be located adjacent to the pipeline. Visually you would only see a cabinet above the ground, as all other elements are below ground. The cabinets would be approximately 60cm x 30cm and can be sited a short distance away from the pipeline. About six cabinets would be needed.



Corrosion Protection Cabinet showing underground elements

CHAPTER 11

Building the pipeline

The installation of the replacement pipeline would follow good industry practice through established techniques. The most common technique would be open-cut trenches.

Although the pipeline is relatively small, with an internal diameter of about 30cm, the working width needed for the safe installation of this type of pipeline is usually between 20m and 30m. This width allows sufficient space for digging the trench, laying a pipe alongside the trench before installation, storing soil during installation and enabling access for vehicles.

At times, we will use narrower working widths, for example in urban areas, or trenchless techniques, for example under railway lines.

We will need to install the pipeline on private land, but we would not install any pipeline under existing homes.

Site facilities during installation

Temporary facilities would be needed during the installation phase. These would be set up to provide site teams with office, staff welfare and storage facilities during installation. Details of these will be developed after we have identified the preferred pipeline corridor.

Our Construction Commitment

As part of the planning conditions set out in the Development Consent Order, Esso will clearly set out its working methods and how it will minimise its potential installation impacts. This will include the preparation of a Code of Construction Practice, which will represent our commitment to communities along the route.

The Code of Construction Practice will describe methods to minimise impacts on recreation, for example footpath closures or diversions. This may include measures such as changing installation timings to avoid peak periods of use and could also include:

- environmental management, for example how land drainage systems would be crossed;
- how we will keep communities informed;
- good housekeeping of installation sites, such as dust reduction;
- minimising evening and weekend working hours and noise levels, including using low-noise equipment; and
- carefully managing traffic to minimise disruption and delays.

The Code of Construction Practice will apply to everyone working on the project.

Reinstatement after installation

Once the pipeline installation is complete, the land will, where possible, be reinstated to its former state.

Typically, this includes:

- the replacement of topsoil;
- restoration of access routes and fencing;
- reinstatement of drainage; and
- reseeding and replanting as appropriate.



How long would you be in my area?

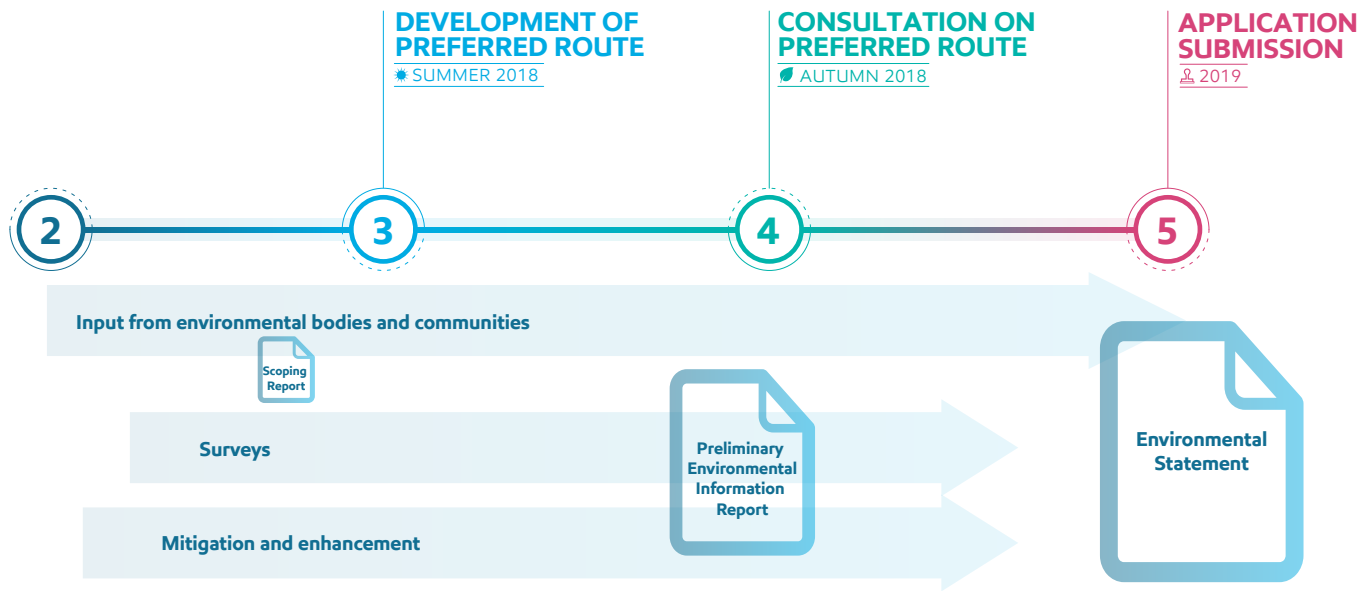
Typically, installation of the pipeline itself should take around one to two months in a location; in complex areas, it might take longer. Once a single pipeline corridor is chosen we will develop our plans for installation in detail.

At the second consultation, we will be able to give more details about installation in your area.

CHAPTER 12

Environmental assessment

As part of our Development Consent Order application, we will clearly identify the potential environmental impacts. Here we explain the assessment process and mitigation techniques



The diagram [above] illustrates the process of environmental assessment.

The key reports required by the Development Consent Order process on environmental matters are:

- **Scoping Report.** The scoping process is used to determine which environmental topics should be assessed and the level of detail for the Environmental Impact Assessment. We will submit a Scoping Report, setting out the key potential impacts and the proposed

approach to assessment. The Planning Inspectorate will respond with a 'Scoping Opinion' setting out what they believe should be included in our environmental impact assessment.

- **Preliminary Environmental Information Report.** This report details the likely significant environmental effects of the proposals, to help inform those taking part in the consultation. This Preliminary Environmental Information Report will accompany the second consultation.

- **Environmental Statement.** This document provides the findings of the Environmental Impact Assessment including our proposed mitigation measures. We will provide it to the Planning Inspectorate as part of the Development Consent Order application. This will allow the environmental concerns to be fully considered as part of the decision-making process.

To develop these reports there are ongoing activities, including:

- **Surveys and information gathering.** It is important to establish the baseline conditions and the sensitivity of features that may be affected by the proposals at an early stage. This work (including some field surveys) is currently underway and will continue throughout 2018.
- **Input from environmental bodies and communities.** We are working with statutory and expert environmental organisations to develop our assessment and potential mitigation.
- **Mitigation and enhancement.** Where significant adverse effects are identified, appropriate mitigation measures will be considered. Also, in some cases, it may be possible to identify opportunities for enhancements to achieve improved environmental outcomes.

Mitigation Examples

Mitigation starts when corridor development starts.

Our aim is to carefully design the pipeline to avoid or reduce environmental impacts. At this stage, we have already identified and considered a broad range of potential environmental impacts. Where practicable the design of the pipeline corridors has avoided areas where there could be significant impacts, for example the ancient woodland at Blackhouse Copse, and the Registered Park and Garden at Chawton House.

The options listed below are examples of possible mitigation techniques the project may consider in the future. The exact mitigation can only be determined once a single pipeline corridor has been selected and environmental assessments progressed.

Typical mitigation



A Code of Construction Practice will be developed. This will include mitigation measures to be implemented during installation. For example, various measures may be adopted to regulate the management of installation-related disturbance; such as:

- limits on the noise output of installation plant; and
- limits on the contractor to certain hours of working.



Impacts on heritage sites may be mitigated by installing physical protection during the installation phase; by undertaking archaeological investigations before, or during, installation; and by sharing the results of surveys.



Landscape impacts may be mitigated through protecting existing vegetation and, where possible, restoring land to its former state. This would include the replanting of hedgerows and trees where removal had occurred.



Nature conservation impacts may be mitigated using good practice methods to deal with disturbance, habitat loss and severance (splitting an area of habitat).

The project will explore the possibilities for habitat enhancement or replacement.



Impacts from installation work on soil quality may be mitigated by keeping soil from trenches on site and returning soil to the area that it was removed from.

CHAPTER 13

What comes next?



This section sets out what happens after this consultation.

This consultation will help us to decide which pipeline corridor to take forward.

In summer 2018, we will announce a preferred pipeline corridor. Then a route within this corridor will be designed and we will meet with organisations, communities and landowners during this design process. The proposed pipeline route will then be presented at the second consultation which we hope to launch in autumn 2018.

We will continue investigative works during this consultation period to gather further information to help us make a final decision and streamline future development work.

Following this initial consultation

When this consultation closes in April 2018, an independent company will review and analyse all responses. This consultation specialist will produce a report on the views shared by respondents, highlighting any issues and concerns, and additional information provided in responses. This report, along with other information, will help us inform our decisions on a preferred pipeline corridor.

The report will be published on our website and we will notify respondents when it is available.

We will also publish our response to the issues raised in the consultation. We are grateful for all contributions, but we will not be responding individually to everyone taking part in the consultation.

CHAPTER 14

How you can respond to the consultation

It's easy to contribute to this consultation, and we do hope you will. We welcome your views, ideas and opinions.

The fastest way to respond is online. You can save, edit and upload documents to your response before sending it in. You will also receive an email confirming that it has been received. Simply go to **www.slpproject.co.uk**

This consultation starts on 19 March and closes at 23:45 on 30 April 2018.

If you are unable to respond online, then you can also

Email info@slpproject.co.uk

*If possible, please use the Word document version of our response form. This can be downloaded at **www.slpproject.co.uk***

Post FREEPOST SLP PROJECT

If possible please use the response form at the back of this consultation document, or download the Word document version from our website.

If you post your submission, please include your name and postcode to avoid double counting of responses.

Please only respond using one of the approved channels as outlined above, which have been set up specifically to receive responses to this consultation.

We cannot accept responsibility for ensuring responses that are sent to addresses other than those described above are included in the consultation process.

When submitting your response, please note the privacy statement on the response form, which explains how the information that you provide will be processed and used.

Tuesday 27th March

1400-2000

Byfleet

St Mary's Centre for the Community, Stream Close, Byfleet, Surrey, KT14 7LZ

Thursday 29th March

1400-2000

Alton

Alton Community Centre, Amery Street, Alton, Hampshire, GU34 1HN

Tuesday 3rd April

1400-2000

Ashford

Ashford Community Centre, Woodthorpe Road, Ashford, Middlesex, TW15 3NJ

Friday 6th April

1400-2000

Chobham

Chobham Village Hall, Station Road, Chobham, GU24 8AQ

Saturday 7th April

1100-1700

Wrecclesham

The Wrecclesham Community Centre, Greenfield Road, Wrecclesham, Farnham, Surrey, GU9 8TJ

Monday 9th April

1400-2000

Addlestone and Chertsey

Chertsey Hall, Heriot Road, Chertsey, Surrey, KT16 9DR

Tuesday 10th April

1400-2000

Frimley

Lakeside Country Club, The Lakeside Complex, Wharf Road, Frimley Green, Surrey, GU16 6PT

Wednesday 11th April

1400-2000

Ropley

Ropley Parish Hall, Vicarage Lane, Ropley, Alresford, SO24 0DU

Thursday 12th April

1300-1900

Worplesdon

Worplesdon Memorial Hall, Perry Hill, Worplesdon, Guildford, Surrey, GU3 3RF

Wednesday 18th April

1400-2000

Church Crookham

Church Crookham Baptist Church, 64 Basingbourne Road, Fleet, GU52 6TH

Friday 20th April

1400-2000

Bishop's Waltham

Jubilee Hall, Little Shore Lane, Bishop's Waltham, Southampton SO32 1ED

CHAPTER 15

Thank you

We are grateful for your interest in the Southampton to London Pipeline Project.

We have tried to give you as much information as we can about the project at this stage, together with details about the pipeline corridor proposals we have developed and the ones we have selected for consultation.

Your views and those of others will contribute significantly to this process and we welcome your participation.

We hope we have answered many of the questions you may have about the project.

If you have more questions, or would like clarification on any aspect of the project, please feel free to raise them with our project team, via email at info@slpproject.co.uk



CHAPTER 16

Response Questionnaire

You can complete this questionnaire online at: www.slpproject.co.uk

YOUR DETAILS

Please provide your name (required)

Title:.....

First Name:

Last Name:.....

Please tell us your address (required)

.....
.....

Please tell us your postcode (required)

.....

Please provide your email address (we will use this to contact you regarding the outcomes of the consultation)

.....

Are you completing this questionnaire as:

☐ An individual ☐ An organisation

Are you:

☐ A landowner on the existing route

☐ Land agent or solicitor on behalf of a landowner on the existing route

If you are responding on behalf of an organisation, please tell us:

The name of the organisation:

The category of your organisation:

- ☐ A County, District or Parish Council
- ☐ A statutory body (e.g. the Environment Agency)
- ☐ A voluntary or community sector organisation
- ☐ A business
- ☐ Other (Please specify below)

.....

Privacy and use of the information you provide.

Please see the confidentiality statement at the end of this form for details about how the information that you provide will be used and to indicate if you would like your response to be treated as confidential.

YOUR VIEWS ON THE PIPELINE ROUTE CORRIDOR OPTIONS

For each of the pipeline route corridor options, please indicate using the tick boxes below how strongly you favour or oppose each corridor and the main reasons for your view.

Southern Options

1 Option D

1a) How strongly you favour or oppose option D

- | | | | |
|--------------------------|-----------------|--------------------------|-----------------|
| <input type="checkbox"/> | Strongly favour | <input type="checkbox"/> | Oppose |
| <input type="checkbox"/> | Favour | <input type="checkbox"/> | Strongly oppose |
| <input type="checkbox"/> | Neutral | <input type="checkbox"/> | No opinion |

1b) On which of the following main issues are your views based?
(Please pick as many as apply)

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Engineering (e.g. technical deliverability) | <input type="checkbox"/> | Water (e.g. potential impact on or benefit for on rivers, lakes, the water table or drinking water sources) |
| <input type="checkbox"/> | Installation (e.g. potential benefits or impacts during installation) | <input type="checkbox"/> | Soil and geology (e.g. management of soil resources, erosion, or impact on local geology) |
| <input type="checkbox"/> | Nature (e.g. potential impact on or benefit to wildlife, plants and trees or biodiversity) | <input type="checkbox"/> | Social and economic impacts (e.g. community facilities, land use, health, noise, transport or access) |
| <input type="checkbox"/> | Landscape/visual (e.g. potential impact on or benefit for existing landscape) | <input type="checkbox"/> | Safety (e.g. potential benefits to safety or safety concerns during or following installation) |
| <input type="checkbox"/> | Cultural Heritage (e.g. potential impact on or benefit to historical features) | | |

1c) Please give any further details about your response, in particular information about specific locations.

2 Option F

2a) How strongly you favour or oppose option F

- | | | | |
|--------------------------|-----------------|--------------------------|-----------------|
| <input type="checkbox"/> | Strongly favour | <input type="checkbox"/> | Oppose |
| <input type="checkbox"/> | Favour | <input type="checkbox"/> | Strongly oppose |
| <input type="checkbox"/> | Neutral | <input type="checkbox"/> | No opinion |

2b) On which of the following main issues are your views based?
(Please pick as many as apply)

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Engineering (e.g. technical deliverability) | <input type="checkbox"/> | Water (e.g. potential impact on or benefit for on rivers, lakes, the water table or drinking water sources) |
| <input type="checkbox"/> | Installation (e.g. potential benefits or impacts during installation) | <input type="checkbox"/> | Soil and geology (e.g. management of soil resources, erosion, or impact on local geology) |
| <input type="checkbox"/> | Nature (e.g. potential impact on or benefit to wildlife, plants and trees or biodiversity) | <input type="checkbox"/> | Social and economic impacts (e.g. community facilities, land use, health, noise, transport or access) |
| <input type="checkbox"/> | Landscape/visual (e.g. potential impact on or benefit for existing landscape) | <input type="checkbox"/> | Safety (e.g. potential benefits to safety or safety concerns during or following installation) |
| <input type="checkbox"/> | Cultural Heritage (e.g. potential impact on or benefit to historical features) | | |

2c) Please give any further details about your response, in particular information about specific locations.

3 Option G

3a) How strongly you favour or oppose option G

- | | | | |
|--------------------------|-----------------|--------------------------|-----------------|
| <input type="checkbox"/> | Strongly favour | <input type="checkbox"/> | Oppose |
| <input type="checkbox"/> | Favour | <input type="checkbox"/> | Strongly oppose |
| <input type="checkbox"/> | Neutral | <input type="checkbox"/> | No opinion |

3b) On which of the following main issues are your views based?
(Please pick as many as apply)

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Engineering (e.g. technical deliverability) | <input type="checkbox"/> | Water (e.g. potential impact on or benefit for on rivers, lakes, the water table or drinking water sources) |
| <input type="checkbox"/> | Installation (e.g. potential benefits or impacts during installation) | <input type="checkbox"/> | Soil and geology (e.g. management of soil resources, erosion, or impact on local geology) |
| <input type="checkbox"/> | Nature (e.g. potential impact on or benefit to wildlife, plants and trees or biodiversity) | <input type="checkbox"/> | Social and economic impacts (e.g. community facilities, land use, health, noise, transport or access) |
| <input type="checkbox"/> | Landscape/visual (e.g. potential impact on or benefit for existing landscape) | <input type="checkbox"/> | Safety (e.g. potential benefits to safety or safety concerns during or following installation) |
| <input type="checkbox"/> | Cultural Heritage (e.g. potential impact on or benefit to historical features) | | |

3c) Please give any further details about your response, in particular information about specific locations.

4 Option J

4a) How strongly you favour or oppose option J

- 4b) On which of the following main issues are your views based?
(Please pick as many as apply)

- 4c) Please give any further details about your response, in particular information about specific locations.

5 Option M

5a) How strongly you favour or oppose option M

- | | | | |
|--------------------------|-----------------|--------------------------|-----------------|
| <input type="checkbox"/> | Strongly favour | <input type="checkbox"/> | Oppose |
| <input type="checkbox"/> | Favour | <input type="checkbox"/> | Strongly oppose |
| <input type="checkbox"/> | Neutral | <input type="checkbox"/> | No opinion |

5b) On which of the following main issues are your views based?
(Please pick as many as apply)

- | | | | |
|--------------------------|--|--------------------------|---|
| <input type="checkbox"/> | Engineering (e.g. technical deliverability) | <input type="checkbox"/> | Water (e.g. potential impact on or benefit for on rivers, lakes, the water table or drinking water sources) |
| <input type="checkbox"/> | Installation (e.g. potential benefits or impacts during installation) | <input type="checkbox"/> | Soil and geology (e.g. management of soil resources, erosion, or impact on local geology) |
| <input type="checkbox"/> | Nature (e.g. potential impact on or benefit to wildlife, plants and trees or biodiversity) | <input type="checkbox"/> | Social and economic impacts (e.g. community facilities, land use, health, noise, transport or access) |
| <input type="checkbox"/> | Landscape/visual (e.g. potential impact on or benefit for existing landscape) | <input type="checkbox"/> | Safety (e.g. potential benefits to safety or safety concerns during or following installation) |
| <input type="checkbox"/> | Cultural Heritage (e.g. potential impact on or benefit to historical features) | | |

5c) Please give any further details about your response, in particular information about specific locations.

6 Option Q

6a) How strongly you favour or oppose option Q

- | | |
|--|--|
| <input type="checkbox"/> Strongly favour | <input type="checkbox"/> Oppose |
| <input type="checkbox"/> Favour | <input type="checkbox"/> Strongly oppose |
| <input type="checkbox"/> Neutral | <input type="checkbox"/> No opinion |

6b) On which of the following main issues are your views based?
(Please pick as many as apply)

- | | |
|---|--|
| <input type="checkbox"/> Engineering (e.g. technical deliverability) | <input type="checkbox"/> Water (e.g. potential impact on or benefit for on rivers, lakes, the water table or drinking water sources) |
| <input type="checkbox"/> Installation (e.g. potential benefits or impacts during installation) | <input type="checkbox"/> Soil and geology (e.g. management of soil resources, erosion, or impact on local geology) |
| <input type="checkbox"/> Nature (e.g. potential impact on or benefit to wildlife, plants and trees or biodiversity) | <input type="checkbox"/> Social and economic impacts (e.g. community facilities, land use, health, noise, transport or access) |
| <input type="checkbox"/> Landscape/visual (e.g. potential impact on or benefit for existing landscape) | <input type="checkbox"/> Safety (e.g. potential benefits to safety or safety concerns during or following installation) |
| <input type="checkbox"/> Cultural Heritage (e.g. potential impact on or benefit to historical features) | |

6c) Please give any further details about your response, in particular information about specific locations.

.....

.....

.....

.....

.....

.....

7) Do you have any other comments about the proposed pipeline route corridors?

.....

.....

.....

.....

.....

.....

.....

.....

.....

YOUR VIEWS ON THE CONSULTATION PROCESS

8) Please rate the following areas of the consultation:

Area of consultation	Very good	Good	Average	Poor	Very poor	Not Applicable
8a) Materials – were the materials clear and easy to understand?						
8b) Information – was enough information made available for you to respond?						
8c) Promotion – was the consultation promoted well and to the right people?						
8d) Exhibitions – were the exhibitions of good quality and suitably located?						

8e) Please give any further comments about the consultation

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Esso Petroleum Company, Limited and our 3rd party project partners will store and process your data in full compliance with our legal obligations for the purposes of the application, development and operation of the proposed Southampton London Pipeline. Further details about how your data will be used can be found on the website (www.slpproject.co.uk), or by contacting us by email (info@slpproject.co.uk) or telephone (07925 068905).

Please do not provide personal information about other individuals. However if you provide any details of other individuals or organisations within the text body of your consultation response, we will assume that you have obtained the consent of such individuals for such disclosure.

If you would prefer that your response is not quoted within the consultation report, including anonymously, please tick the box below.

☐ Please do not quote from my response within the consultation report.



Southampton to London
Pipeline Project

For more information please visit
www.slppproject.co.uk