

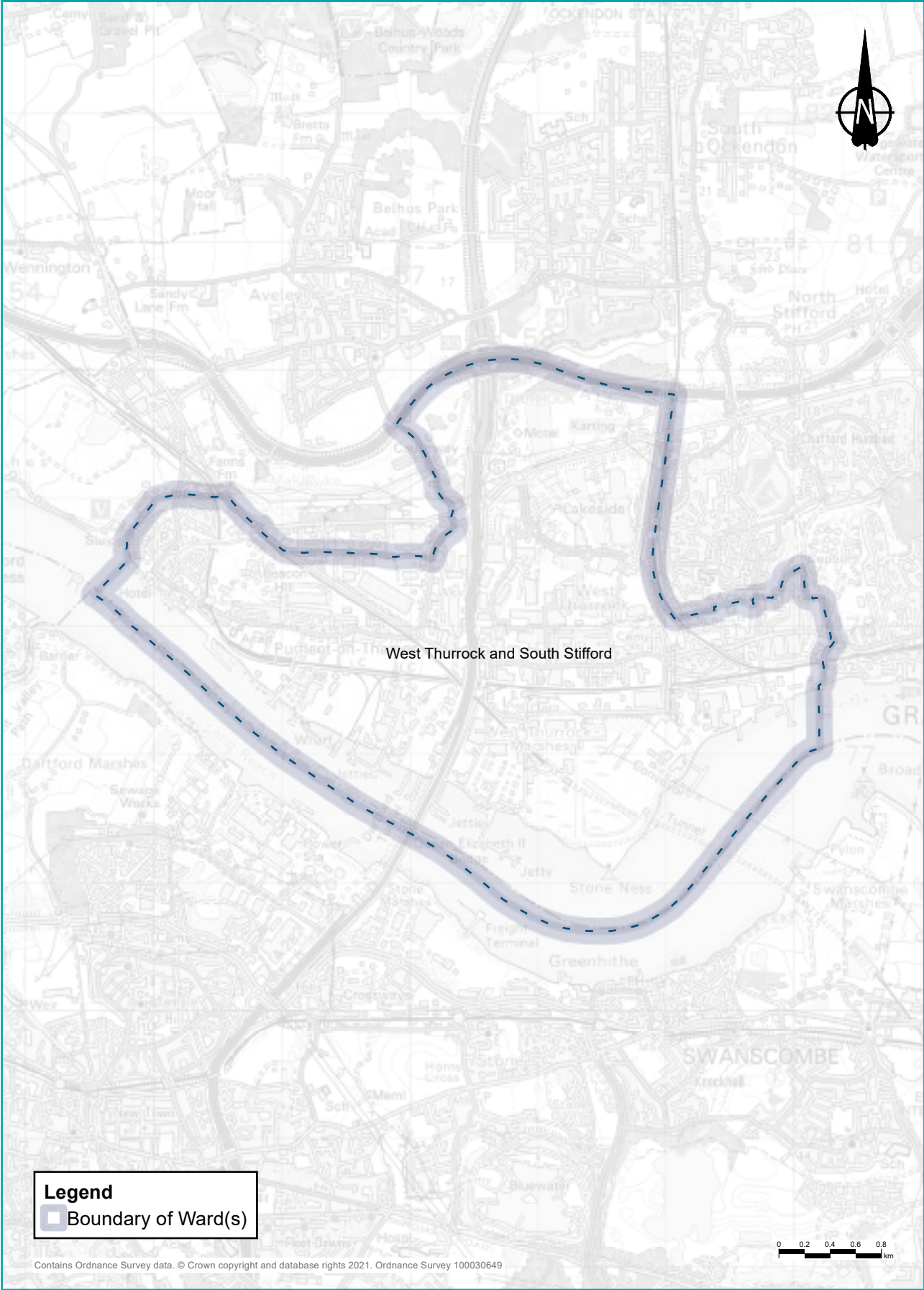
Chapter 19: West Thurrock and South Stifford ward

This chapter summarises the activities in West Thurrock and South Stifford ward relating to the project's construction and its operational phase (when the new road is open). It also explains the measures intended to reduce the project's impacts on local communities. For more information about the assessments in this chapter and other information available during this consultation, see chapter 1, which also includes a map showing all the wards described in this document.

West Thurrock and South Stifford ward does not include any elements of the project's construction or operation. It has been included in our Ward impact summaries because it would experience impacts due to changes in traffic flows at the Dartford Crossing that are a result of the implementation of the Lower Thames Crossing. We predict a reduction in traffic flow at the Dartford Crossing of 21% in 2029, the project's opening year, which would have an impact on journey times, noise and air quality in this ward. The reduction in traffic at the Dartford Crossing is one of the key objectives of the project.

Within this document, we sometimes advise where additional information can be found in other consultation documents, including the Construction update, Operations update, You said, we did, Register of Environmental Actions and Commitments (REAC), Code of Construction Practice (CoCP), Outline Traffic Management Plan for Construction (OTMPfC) and Design principles. To find out more about these documents, see chapter 1. References to these documents provide an indication as to how our proposals to reduce the project's impacts will be secured within our application for development consent.

Figure 19.1: Ward boundary map for West Thurrock and South Stifford ward



19.1 Overview

19.1.1 About this ward

There is no construction activity or elements of the completed project in this ward. It has been included because the project would result in substantial changes to traffic flow, in particular traffic using the Dartford Crossing. This would have beneficial outcomes for local communities.

West Thurrock and South Stifford is the ward that includes the northern side of the Dartford Crossing. The ward is predominantly industrial with some residential properties in the west, near Purfleet.

The ward has an area of around 11km² and an estimated population of 14,021¹. The M25-A282 passes through the ward north-south, with the Queen Elizabeth II Bridge carrying traffic southwards over the River Thames. The Dartford Tunnel carries traffic from the south to the north of the river.

The High Speed 1 (HS1) railway line runs north-west to south-east through this ward, while the London, Tilbury and Southend railway line runs through the ward east to west with Purfleet station, off London Road, and Chafford Hundred station near the Lakeside Shopping Centre.

Lakeside Shopping Centre is the tenth-largest shopping centre in the UK. It expanded substantially in 2019 and a planning application has been submitted for additional growth.

Purfleet-on-Thames is a major regeneration project being taken forward by Purfleet Centre Regeneration Ltd. It is located on the northern banks of the River Thames near the Dartford Crossing, about 5km west of the area in which the Lower Thames Crossing is being built. Outline planning permission was granted by Thurrock Council in April 2019 for up to 2,850 homes, a new town centre, and employment uses.

The Mardyke River runs along the ward's western northern boundary, and travels through it again in the east.

¹ Office for National Statistics, 2018 ward-level population estimate

19.1.2 Summary of impacts

Table 19.1: Summary of impacts during the project’s construction and operation

Topic	Construction	Operations
<p>Traffic</p>	<p>Impacts</p> <p>The construction of the project should not result in any noticeable impacts on the performance of the highway network in the ward.</p> <p>Mitigation</p> <p>There are several mitigation measures to reduce the impact of the construction process on local residents including reducing the use of local roads by construction vehicles. Further details on the mitigation measures can be found in the traffic section of this chapter.</p>	<p>Impacts</p> <p>Changes to traffic flows and journey times are predicted on several key roads within the ward. Further details can be found in the traffic section of this chapter.</p> <p>Mitigation</p> <p>Regular reporting would take place once the project is operational. Further details about the mitigation measures for West Thurrock and South Stifford ward can be found in the traffic section of this chapter.</p>
<p>Public transport</p>	<p>Buses</p> <p>There would no impacts on buses during construction.</p> <p>Rail</p> <p>There would no impacts on rail services or journeys to stations during construction.</p>	<p>Buses</p> <p>It is predicted that most bus journeys would not be impacted once it is operational. There would, however, be a reduction in journey times on the 25 bus from Stifford Clays through Grays to Purfleet, the 44, the X80 from Bluewater, the 73 from Tilbury through Grays to Lakeside Shopping Centre, and the 83 from Chadwell St Mary through Grays to Lakeside.</p> <p>Rail</p> <p>There are no discernible changes predicted for access times to the railway station, nor impacts on rail services.</p>
<p>Footpaths, bridleways and cycle routes</p>	<p>No footpaths, bridleways or cycle routes would be affected in this ward during construction or operation of the project.</p>	

Topic	Construction	Operations
Visual	There would be no views towards the land on which the project would be built, so there would be no visual effects experienced from this ward.	
Noise and vibration	<p>There are no construction activities within 300 metres of the ward boundary so there are no noise and vibration impacts expected during construction.</p> <p>There would be negligible changes in traffic noise during all construction years.</p>	<p>This ward is located approximately 4.5km south of the project and so no direct noise impacts would be experienced.</p> <p>There would be indirect noise impacts, ranging from minor decreases to minor increases in noise levels as a result of changes in traffic flow and speed on the existing road network, especially along the M25 and A282 across the Dartford Crossing.</p>
Air quality	<p>Impacts</p> <p>As there are no properties within 200 metres of the worksite, properties are unlikely to be affected by dust or emissions during construction activities. There would be negligible changes in air quality as a result of construction traffic, and no change in air quality as a result of traffic management.</p> <p>Mitigation</p> <p>All impacts would be controlled through the range of good practice measures set out in the CoCP and the REAC.</p>	<p>Impacts</p> <p>There would be no exceedance of NO₂ and PM₁₀.</p> <p>Mitigation</p> <p>No mitigation is required.</p>

Topic	Construction	Operations
<p>Health</p>	<p>Impacts</p> <p>There are likely to be health benefits as a result of access to work and training opportunities.</p> <p>Mitigation</p> <p>There would be engagement and effective two-way communication with communities before and during construction, including sharing information about the programme and impact of works, to reduce mental health and wellbeing impacts associated with uncertainty, stress and anxiety.</p>	<p>Impacts</p> <p>There are likely to be minor improvements to noise and air quality levels in the ward due to the reduction in volume of traffic using the Dartford Crossing, which would lead to positive health outcomes.</p> <p>Mitigation</p> <p>No mitigation would be required.</p>
<p>Biodiversity</p>	<p>The project would have no impacts on biodiversity in this ward during construction or operation.</p>	
<p>Built heritage</p>	<p>The project would have no impacts on built heritage in this ward during construction or operation.</p>	
<p>Contamination</p>	<p>The project would have no impacts on contamination in this ward during construction or operation.</p>	

19.2 Project description

19.2.1 Construction

Construction activities

No construction activity would take place within this ward, apart from the use of the M25 and the A13 as routes for construction traffic accessing the project. There would be no traffic management measures within this ward.

Construction compounds and Utilities Logistics Hubs

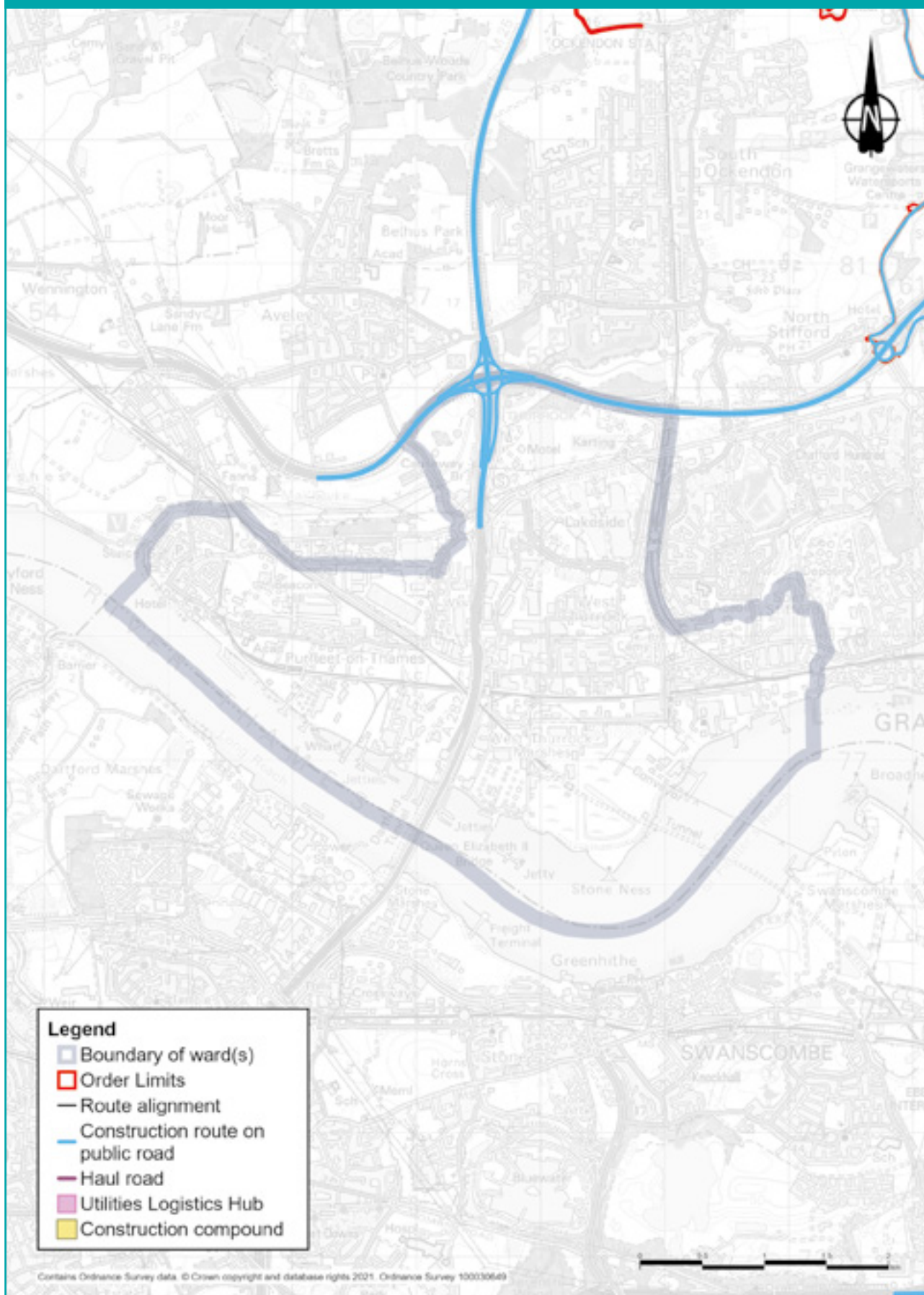
Construction compounds are fenced-off areas, accessible to construction traffic, which provide the facilities for our project to be built efficiently. For example, compounds would provide parking, storage for machinery and materials, offices, welfare facilities, refuelling, and vehicle and wheel-washing facilities to make sure vehicles leaving the compound do not dirty local roads.

There are no construction compounds or Utility Logistics Hubs located within the ward of West Thurrock and South Stifford.

Construction related traffic

The construction related traffic will be mainly using the M25 and A13 through the ward. The local road network would be used by any staff who live in the ward and are working at any of the construction compounds or Utility Logistics Hubs.

Figure 19.2: Main construction areas in West Thurrock and South Stifford ward



Traffic management

There are no traffic management measures planned within the ward of West Thurrock and South Stifford.

Measures required across the project would include narrow lanes, reduced speed limits, lane closures and temporary traffic lights. We have sought to minimise traffic management measures wherever practical. However, they would be necessary in some places to allow construction traffic and local communities to travel safely, while providing construction workers with sufficient space to operate. An overview of the traffic management required across the project can be found in the Outline Traffic Management Plan for Construction. All traffic management measures are based on an indicative construction programme, which would be finalised by the appointed contractor. The contractor's final traffic management plans will be subject to final approval by the Secretary of State for Transport, following consultation with the local highways authority.

19.2.2 Operations

Operational activities

There are no elements of the operational project in this ward.

19.3 Traffic

We carried out traffic assessments to understand how construction and operation would affect nearby roads, compared with the situation if the project was not implemented. For more information, see chapter 4 of the Operations update.

19.3.1 Construction

Construction impacts

The construction of the project would not result in any noticeable impacts on the performance of the highway network in the ward.

Measures to reduce construction traffic impacts

Our approach to construction has been refined after further investigations and feedback. A summary of the proposed measures introduced to reduce the volume of construction materials transported in and out by road can be found in chapter 2 of the Construction update. To reduce the construction traffic impacts in West Thurrock and South Stifford, we would carry out measures such as the following:

- Minimise use of the local road network as far as possible through construction of temporary offline haul routes directly from the strategic road network.
- Our proposals allow for re-use of excavated materials, and would substantially reduce the need to dispose of excavated material via the road network, thereby reducing the number of HGV movements from the public road network during the construction phase.
- Stockpile material within the Order Limits to allow material to be managed on-site rather than offsite, reducing the number of HGVs journeys needed.

19.3.2 Operations

Operational impacts

Traffic modelling has been carried out to predict the change in traffic flows on roads in the area, including those within or on the boundary with West Thurrock and South Stifford ward for the first year of operation (2029).

Figures 19.3, 19.5 and 19.7 below show the predicted changes in traffic in the morning peak (7am to 8am), interpeak (an average hour between 9am and 3pm) and evening peak (5pm to 6pm) measured in Passenger Car Units (PCUs per hour), where 1 PCU is equivalent to a car, and 2.5 PCUs is equivalent to an HGV. Figures 19.4, 19.6 and 19.8 below show the predicted percentage changes in traffic flow during the morning, interpeak and evening peak. For information about how we assessed operational traffic impacts, see chapter 1. For more information about how we carried out our traffic modelling, see chapter 4 of the Operations update.

Within this ward, there would be a major decrease in traffic predicted on the M25. On the M25 between the Dartford Crossing and junction 31, there would be a predicted decrease of over 1,000 PCUs per hour in the morning and evening peaks and the interpeak period in both directions.

As drivers travel east on the A13 to take advantage of the new road instead of using the Dartford Crossing, on the A13 west of the M25, there would be increases in predicted traffic flows westbound of just between 250 and 500 PCUs in the morning peak hour and between 50 and 205 PCUs in an average interpeak hour and the evening peak hour. These increases are all between 0% and 10% of the predicted traffic flows without the project. Eastbound the increase in traffic is between 50 and 250 PCU, an increase of between 0% and 10% in each of the modelled time periods.

Road users taking advantage of the new connection would also lead to forecast increases in traffic flows at the following locations:

- Increases of between 50 and 250 PCUs in the morning and evening peak hours on the northbound off-slip from the M25 at junction 31.
- Increases of between 50 and 250 PCUs per hour (an increase of between 10% and 20%) on Botany Way, south of the A1090 Arterial Road Purfleet, in the morning peak period northbound and southbound.
- Increases of between 50 and 250 PCUs southbound in the evening peak, which is an increase of between 0% and 10%.

The new crossing would relieve congestion on the Dartford Crossing and the approach roads, leading to a decrease in forecast traffic flows of between 500 and 1000 PCUs on the A13 east of the M25 in each direction in the morning, interpeak and evening peak hours. Westbound this is a decrease of between 10% and 20%. Eastbound the decrease is between 10% and 20% in the morning peak hour and between 0% and 10% in the interpeak hours and the evening peak hour.

South of the A13 on the eastern side of the M25, there would be a decrease in traffic flows northbound in the morning peak hour of between 250 and 500 PCUs on the A125 which runs on the eastern side of the Lakeside Shopping Centre up to the A13. This is a decrease of between 20% and 40%. In the evening peak hour, there would be an increase in traffic flows of between 50 and 250 PCUs, which is an increase of between 20% and 40%. Southbound there would be a decrease of between 50 and 250 PCUs an hour in the evening peak period, a decrease of between 0% and 10%.

There is also a predicted decrease in traffic westbound in the evening peak on the West Thurrock Arterial Road between junction 31 and the West Thurrock Way. On the West Thurrock Way, there would be an increase of traffic southbound between the A1306 and the first junction south of between 50 and 250 PCUs per hour in the morning and evening peaks. There would be an increase of between 50 and 250 PCUs northbound on this stretch of road during the evening peak hour.

Figure 19.3: Predicted change in traffic flows (PCUs) with the project during the morning peak in 2029

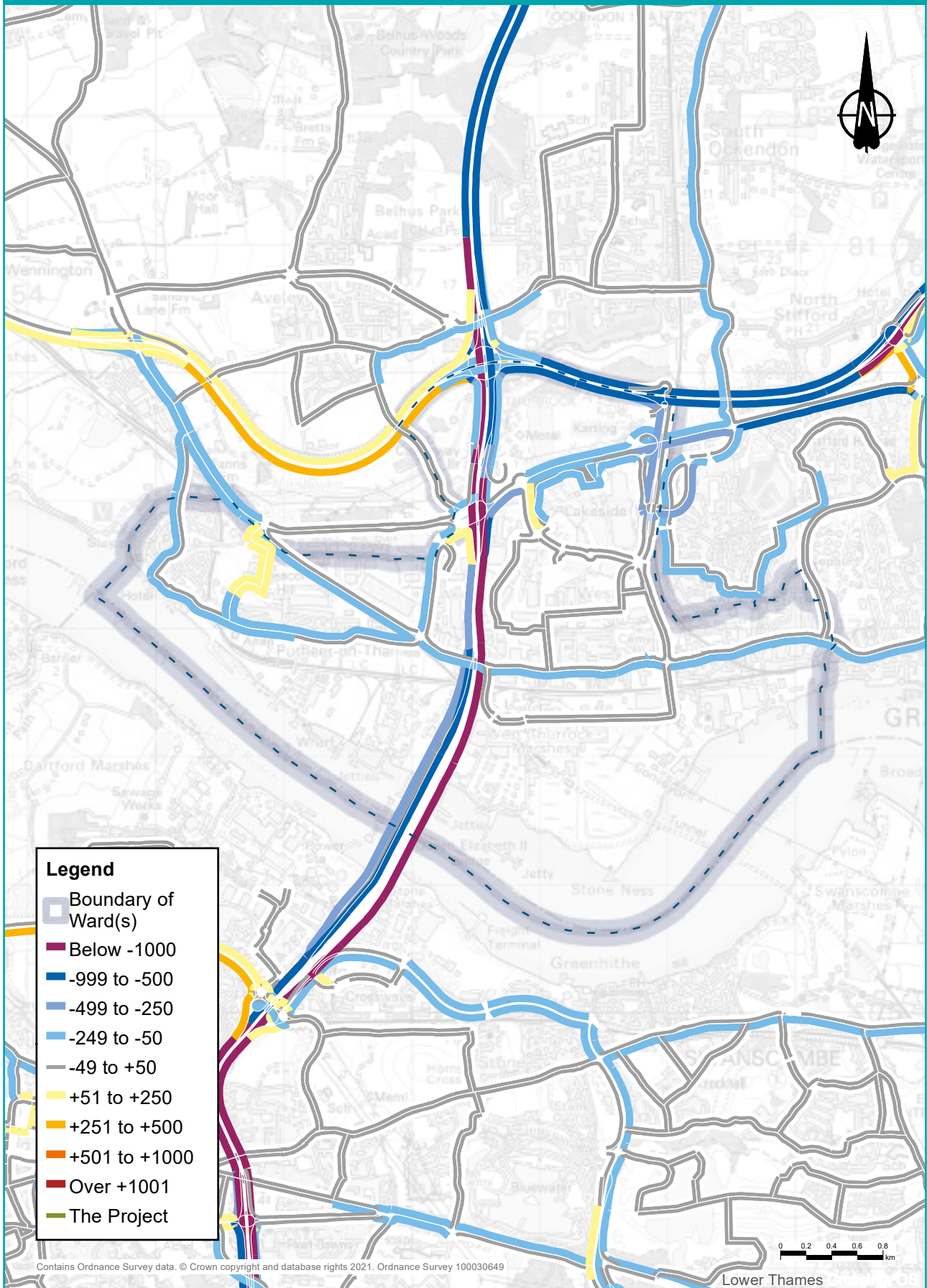


Figure 19.4: Predicted percentage change in traffic flows with the project during the morning peak in 2029

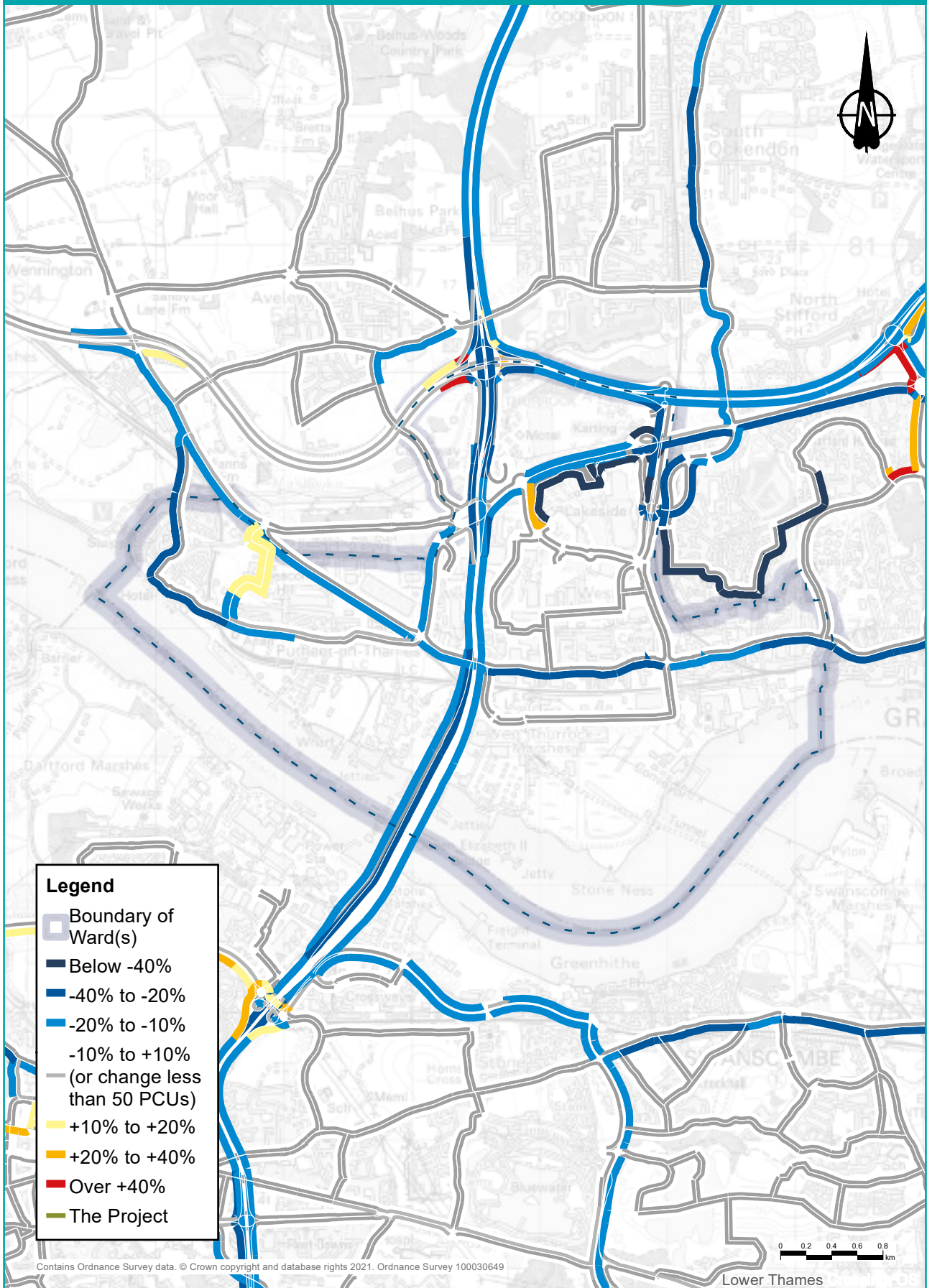


Figure 19.5: Predicted change in traffic flows (PCUs) with the project during the interpeak in 2029

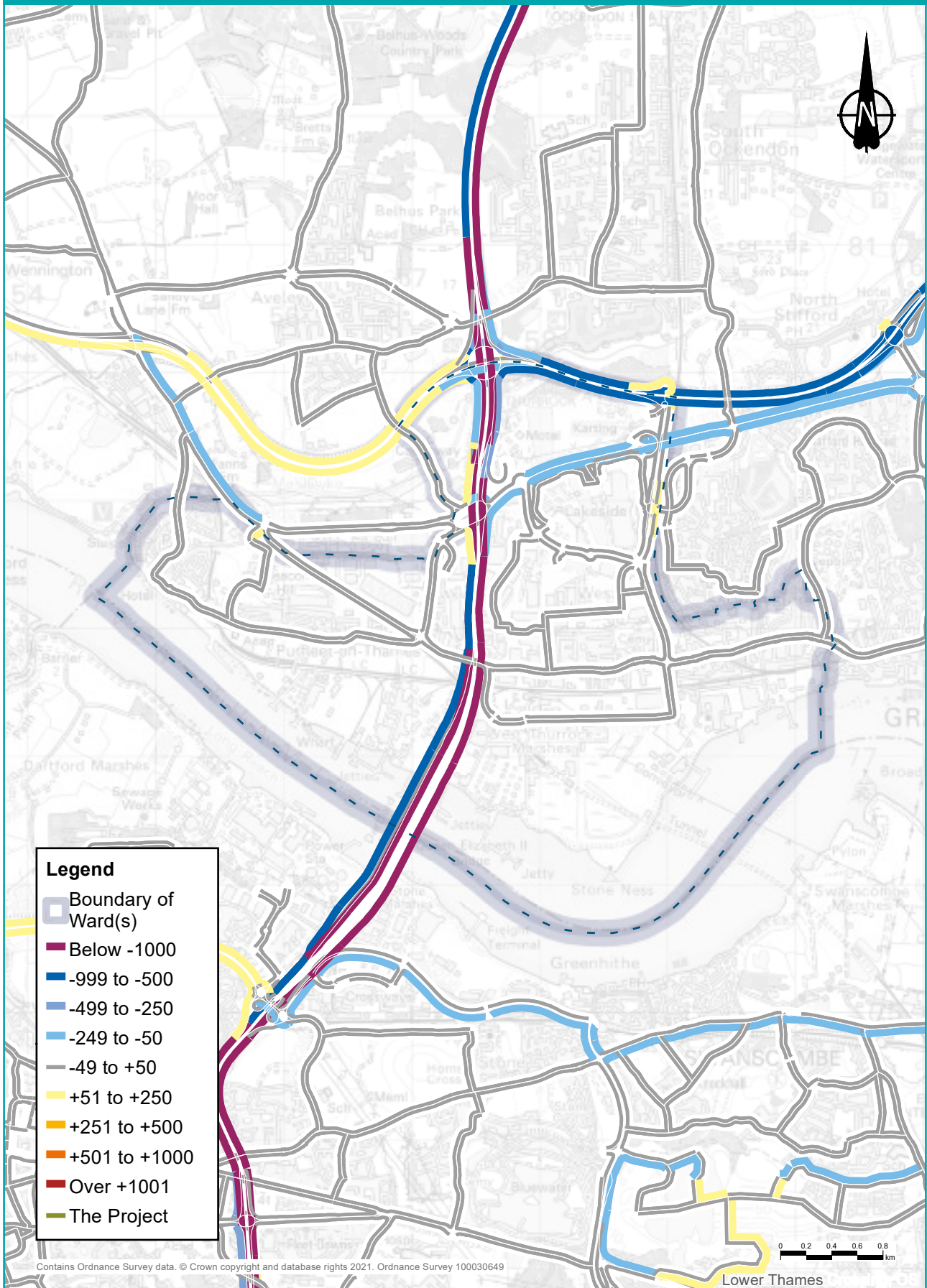


Figure 19.6: Predicted percentage change in traffic flows with the project during the interpeak in 2029

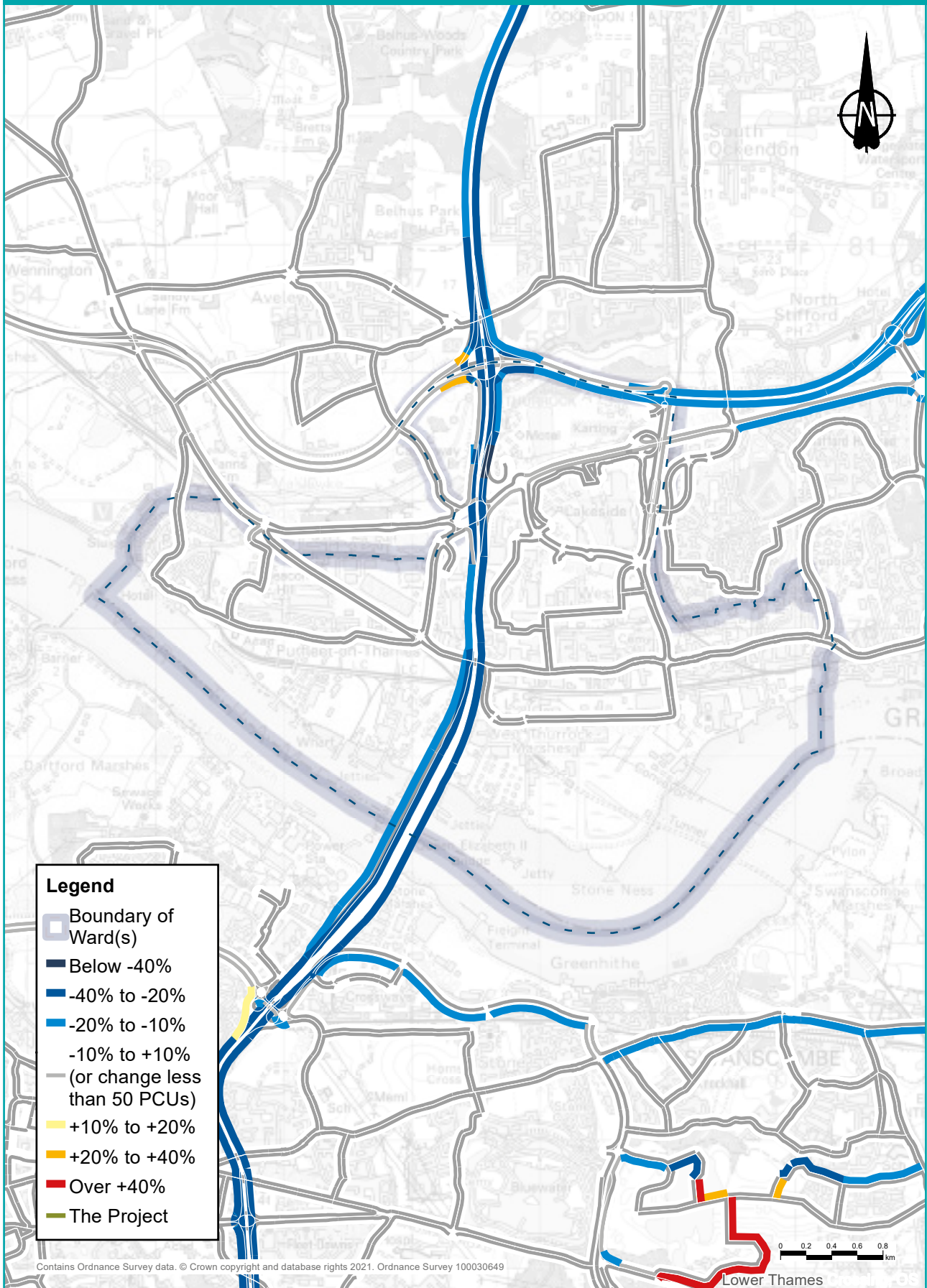


Figure 19.7: Predicted change in traffic flows (PCUs) with the project during the evening peak in 2029

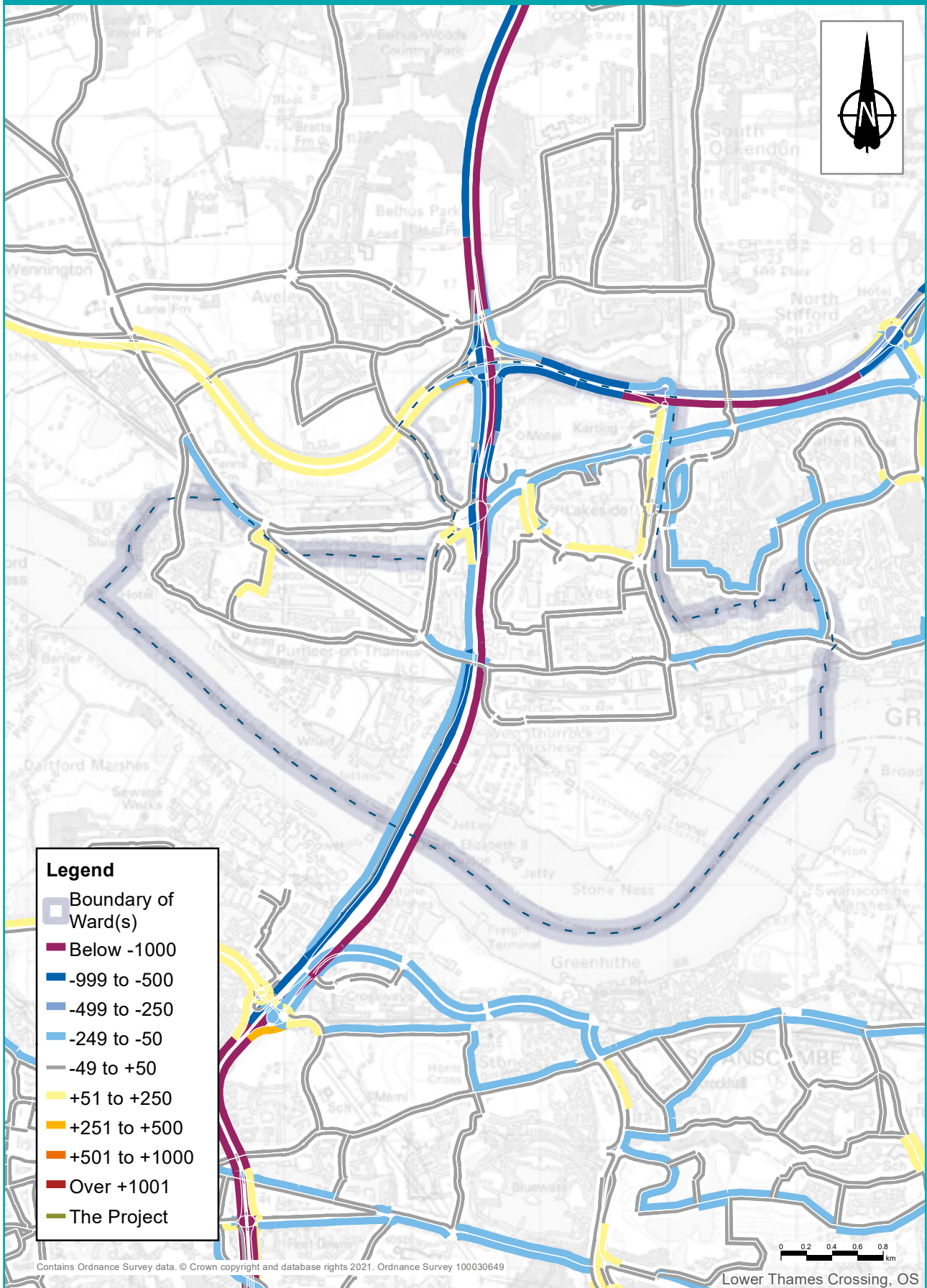
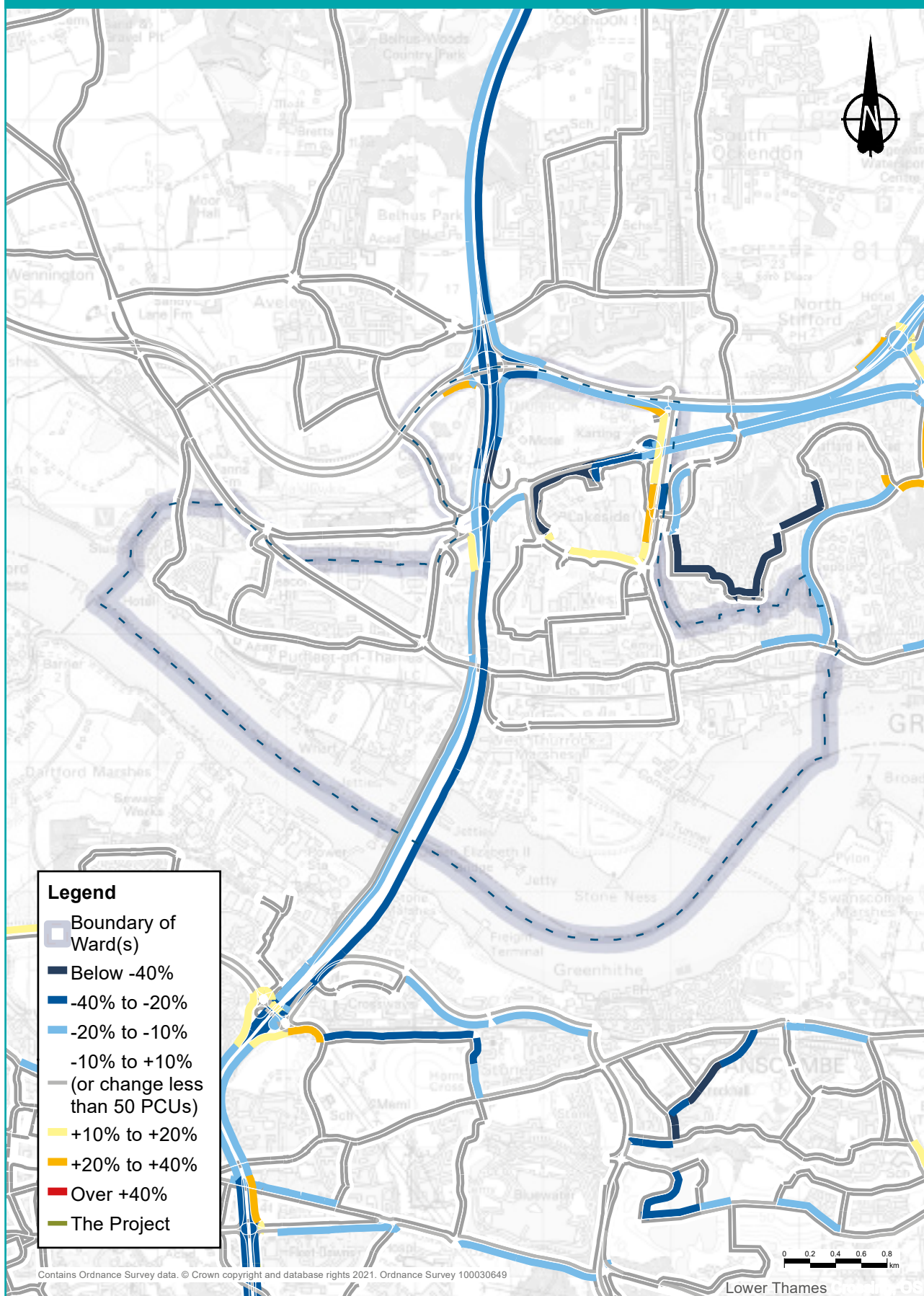


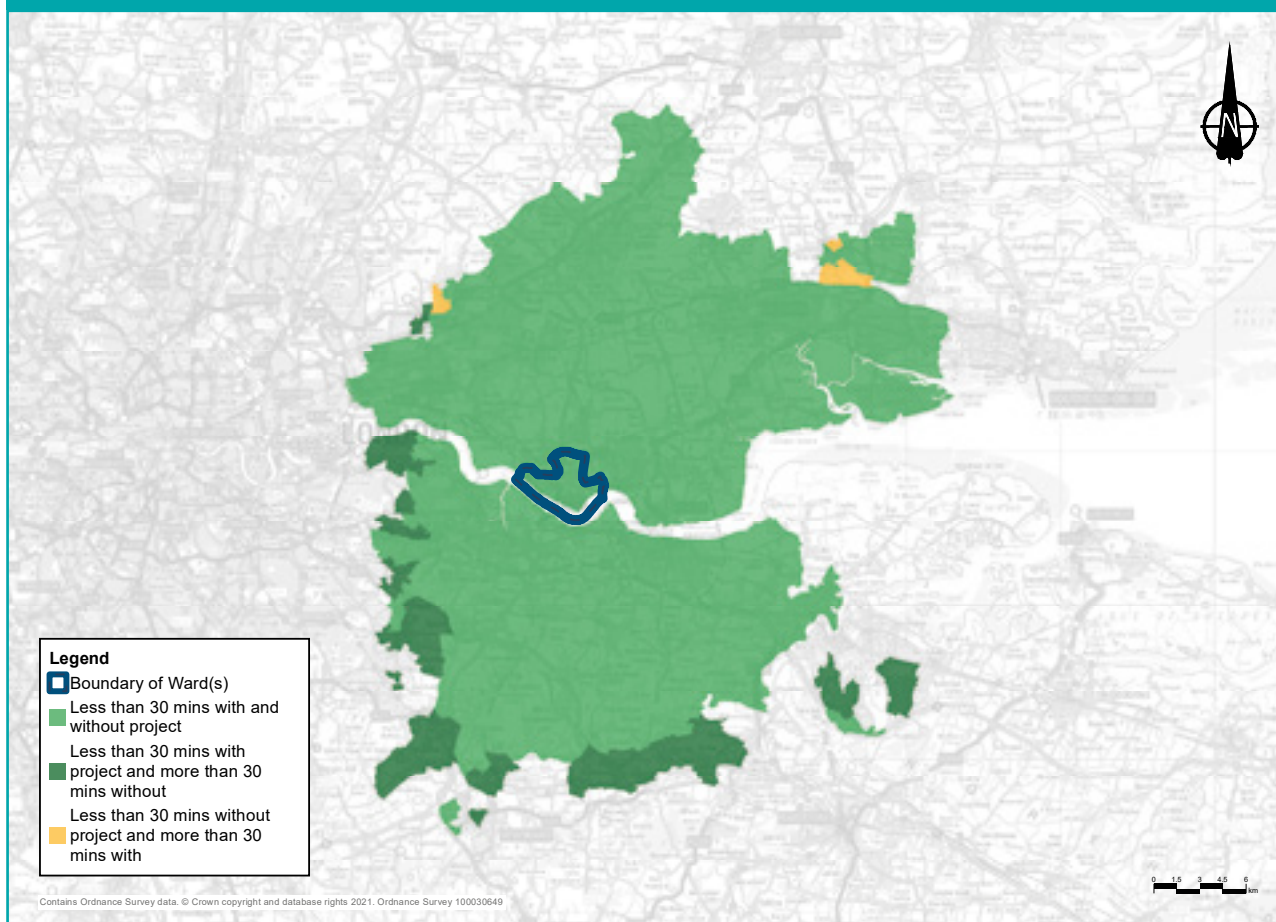
Figure 19.8: Predicted percentage change in traffic flows with the project during the evening peak in 2029



Changes to journey times

Figure 19.9 below shows the change in the area that could be reached within a 30-minute drive from the centre of the ward both with and without the project. Figure 19.10 shows the change in area that can be reached within a 60-minute drive. The areas have been calculated for the morning peak hour (7am-8am). The number of jobs within a 30-minute catchment area would increase by 10% with the project, providing access to 61,600 additional jobs. The number within a 60-minute drive would decrease by 2%, providing access to 82,000 fewer jobs. Despite the project providing a substantial net gain in access for motorists within West Thurrock and South Stifford ward, there are areas (shown in orange on the maps) that would no longer be accessible by car within 30 and 60 minutes because of changes to traffic flows on the wider road network.

Figure 19.9: Change in the area that motorists could drive to within 30 minutes from West Thurrock and South Stifford ward

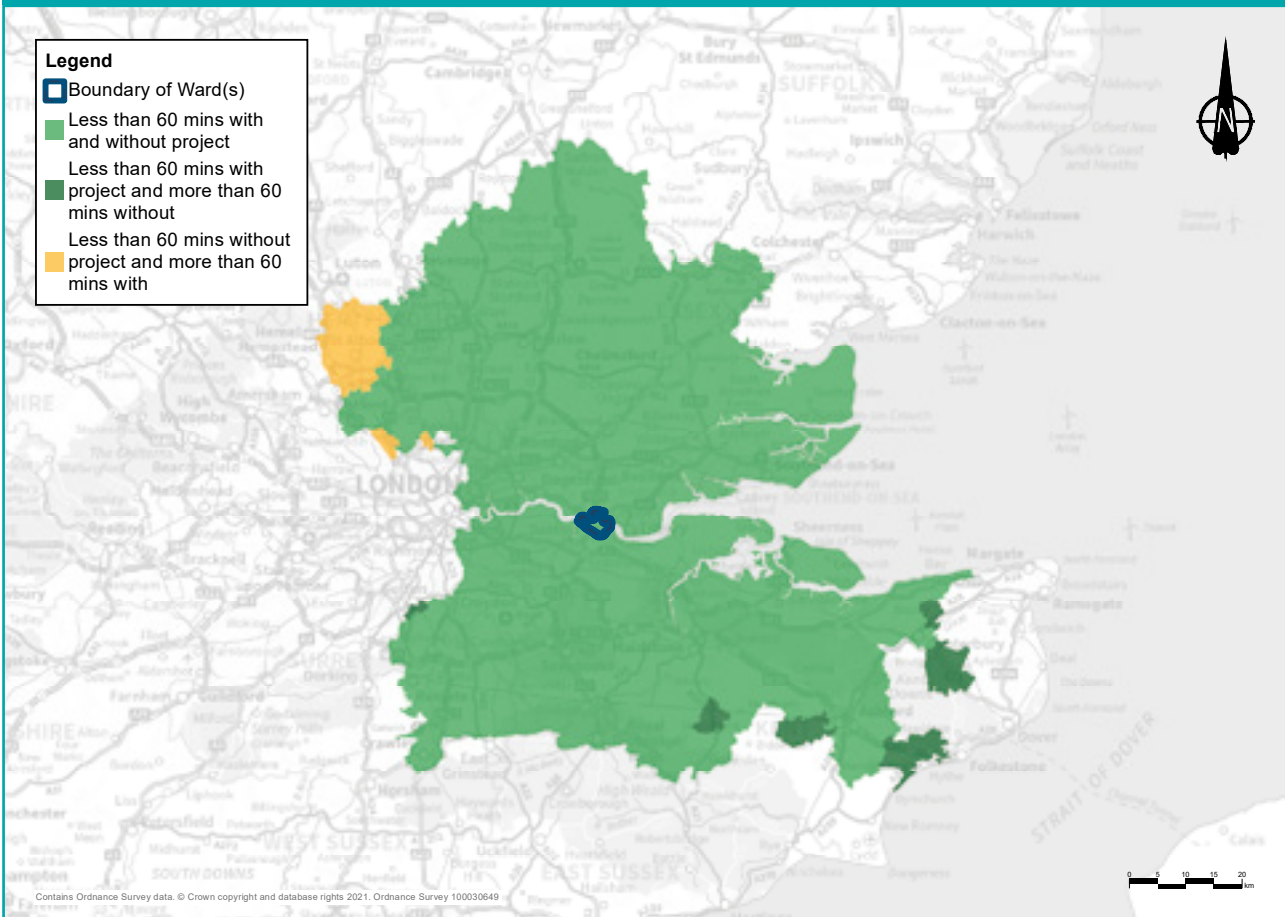


Operational traffic flows

Traffic flow in this ward would improve as a result of the implementation of the Lower Thames Crossing over the River Thames. This would have benefits for the Dartford Crossing itself, as well as other roads in the vicinity of the crossing that currently become congested.

Once the project is operational, traffic impacts on the affected road network would be monitored, including local roads. Where appropriate, we would work with the relevant highway authority to seek funding from the Department for Transport for further interventions.

Figure 19.10: Change in the area that motorists could drive to within 60 minutes from West Thurrock and South Stifford ward



19.4 Public transport

Existing situation

Rail

Purfleet train station is within West Thurrock and South Stifford ward, it is serviced by the c2c services between Shoeburyness/Southend and London Fenchurch Street.

Buses

There are several bus routes that run through this ward including: 100; 11; 22; 25; 32; 370; 372; 44; 66A; 73; 77; 77A; 83; 88A; X1; X80; Z1; and Z2.

19.4.1 Construction

There are no anticipated impacts on public transport associated with the construction of the project in this ward.

19.4.2 Operations

Rail

There would be no discernible change in local access times to the station and no change to the rail services at the station.

Buses

There would be no changes to bus routes through the ward once the project opens. The 25 bus runs from Stifford Clays through Grays to Purfleet and the westbound services would experience a quicker journey time by up to two minutes in the morning peak hour. The 44 bus would also run around a minute quicker in the morning peak hour.

The main change in bus journey times would be for the hourly X80 service which runs from Bluewater, over the Dartford Crossing, to Lakeside and Chafford Hundred station. This would experience a reduction in journey times of around five minutes throughout the day for the northbound route and around three to four minutes in the peak hours southbound.

The 73 bus runs from Tilbury through Grays to Lakeside Shopping Centre. The journey times westbound in the morning peak hour would decrease by around two minutes.

The 83 bus from Chadwell St Mary through Grays to Lakeside would also run slightly quicker in the morning peak westbound, with a decrease in journey time of one to two minutes.

19.5 Footpaths, bridleways and cycle routes

No footpaths, bridleways or cycle routes would be affected during construction or operation in West Thurrock and South Stifford ward.

19.6 Visual

There are no views towards the land on which the project would be built from West Thurrock and South Stifford and therefore no visual effects would be experienced from this ward. More information about how the area would look during construction, including visualisations, can be found in the Construction update. You can also view a video fly-through of the project showing proposed construction activities by visiting our consultation website.

19.7 Noise and vibration

We have carried out noise and vibration assessments for both the construction and operational phases of the project. As explained in chapter 1, some of the assessments set out below are based on earlier versions of the project. The information provided still presents a reasonable representation of the likely effects from the proposals presented during this consultation.

Existing situation

The existing noise environment in West Thurrock and South Stifford ward is mainly a result of traffic noise from the M25, A13, A282, A126, A1306 and the A1090 roads. There is also noise from other roads, railways and other human activity.

As part of our environmental assessment process, we carried out surveys of existing background noise at one location in the ward, which was agreed with the local authority. The levels monitored at this location recorded average existing noise level of 66 dB(A)² during the day.

2 Decibel (dB) is the unit used to measure noise levels, with dB(A) being a standardised way of averaging noise levels that accounts for how humans hear sounds. The typical level of sounds in the environment ranges from 30 dB(A), which is a quiet night-time level in a bedroom, to 90 dB(A), which is how it would sound by a busy road. See chapter 1 for more information about what decibel levels mean.

In order to understand how noise levels would vary with and without the project, we use noise modelling to predict what noise levels would be like in the project's proposed opening year if the project was not built. We model this because we cannot assume that noise levels when the project opens would be the same as they are now. For example, our assessment of the opening year noise levels takes into account predicted changes in traffic levels.

We also model the predicted noise levels for the opening year with the project in place. This provides a useful comparison as to how the project would change the noise levels in the project's opening year if it were implemented.

In the opening year (2029), noise levels without the project are predicted to range, on average, from 47 to 77 dB(A) during the day and from 36 to 63dB (A) during the night at the identified locations within the ward. As such, our noise assessments predict that by opening year noise levels would increase compared to the existing situation even if the road is not built. Information about noise levels with the project, during its construction and operation, are presented below.

19.7.1 Construction

Daytime construction noise impacts

There are no construction activities within 300 metres of the ward. There are no main works compounds or Utility Logistics Hubs currently proposed to be located within the West Thurrock and South Stifford ward, nor are there any haul roads proposed within this ward.

There are no percussive or vibratory works proposed in this ward.

Construction traffic noise impacts

Maps showing predicted changes in road traffic noise on roads within West Thurrock and South Stifford ward during each year of construction can be found in chapter 7 of the Construction update. Based on the currently available traffic data (which offers a representative picture of what receptors within the ward are likely to experience), during the construction period there would be negligible changes in road traffic noise (less than 1dB change in noise levels) during all construction years.

Measures to reduce construction noise and vibration

No specific measures would be required to reduce noise and vibration in West Thurrock and South Stifford ward during construction.

19.7.2 Operations

Operational noise impacts

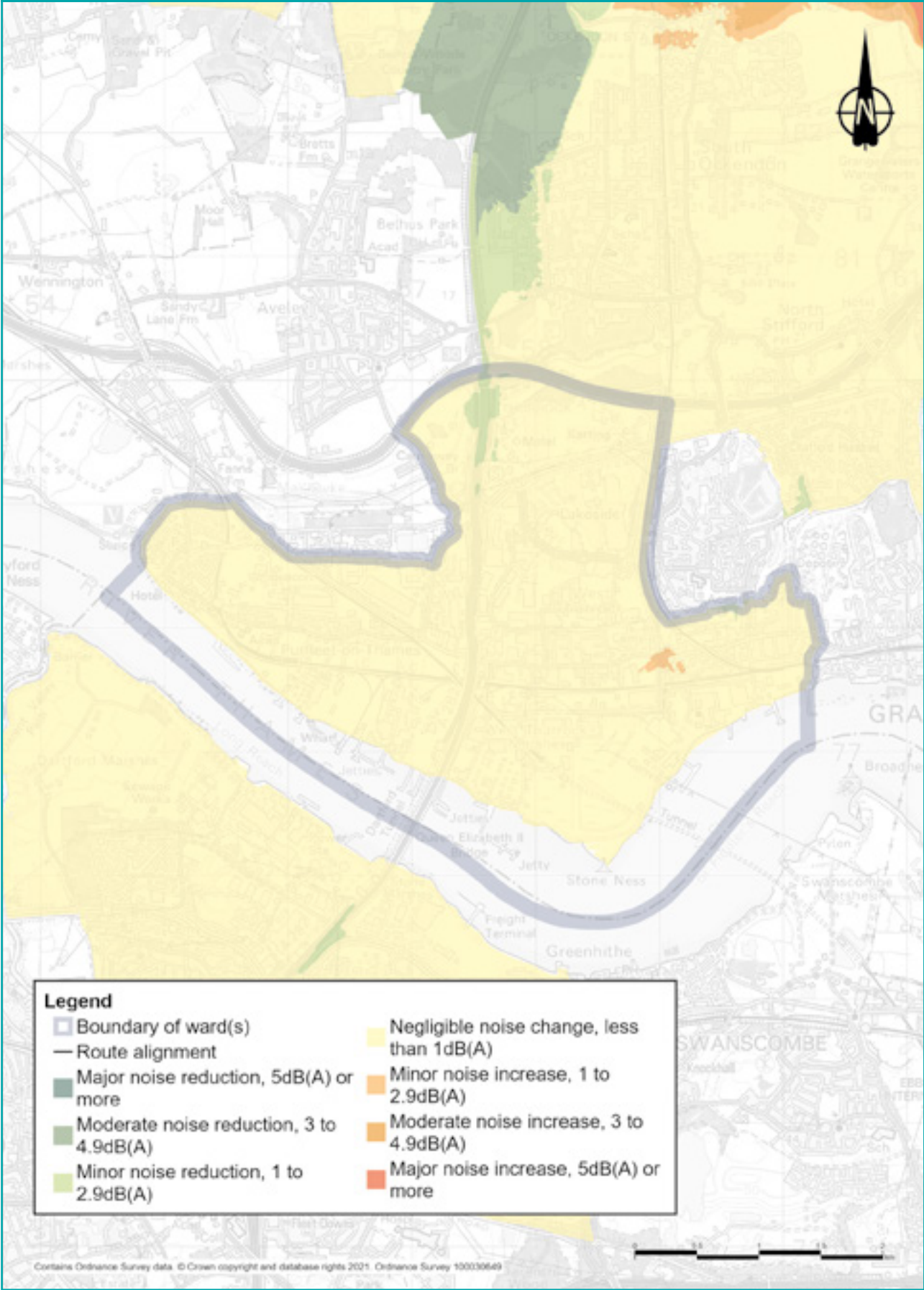
West Thurrock and South Stifford ward is located approximately 4.5km to the south of the main project route and, as such, there would be no direct noise impacts from the project in the ward. Noise impacts within this ward would be as a result of changes in traffic flow, the number of HGVs, and traffic speeds on the existing road network within the ward and because of changes along the M25 and A282 across the Dartford Crossing.

Figure 19.11 shows the predicted changes in traffic noise in the opening year of the project. Within the ward, changes in road traffic noise at identified noise sensitive locations (such as nearby properties) are predicted to range from a minor decrease in noise levels of between 1.0 and 2.9dB to a minor increase in noise levels of between 1.0 and 2.9dB. For more information about how we define noise impacts (negligible, minor, moderate and major), see chapter 1.

Measures to reduce traffic noise and vibration during operation

There are no proposed measures in this ward.

Figure 19.11: Noise impacts during operation in West Thurrock and South Stifford ward



19.8 Air quality

We have carried out air quality assessments for both the construction and operational phases of the project. As explained in chapter 1, some of the assessments set out here are based on earlier versions of the project. The information provided here still presents a reasonable representation of the likely effects from the proposals presented during this consultation.

Existing situation

Within West Thurrock and South Stifford ward, close to the A282 has been declared an Air Quality Management Area (AQMA) due to annual levels of airborne pollution being above accepted standards. AQMAs are areas that have been identified by local authorities as areas of poor air quality that require additional monitoring and controls. No other areas within the ward have been identified as AQMA.

19.8.1 Construction

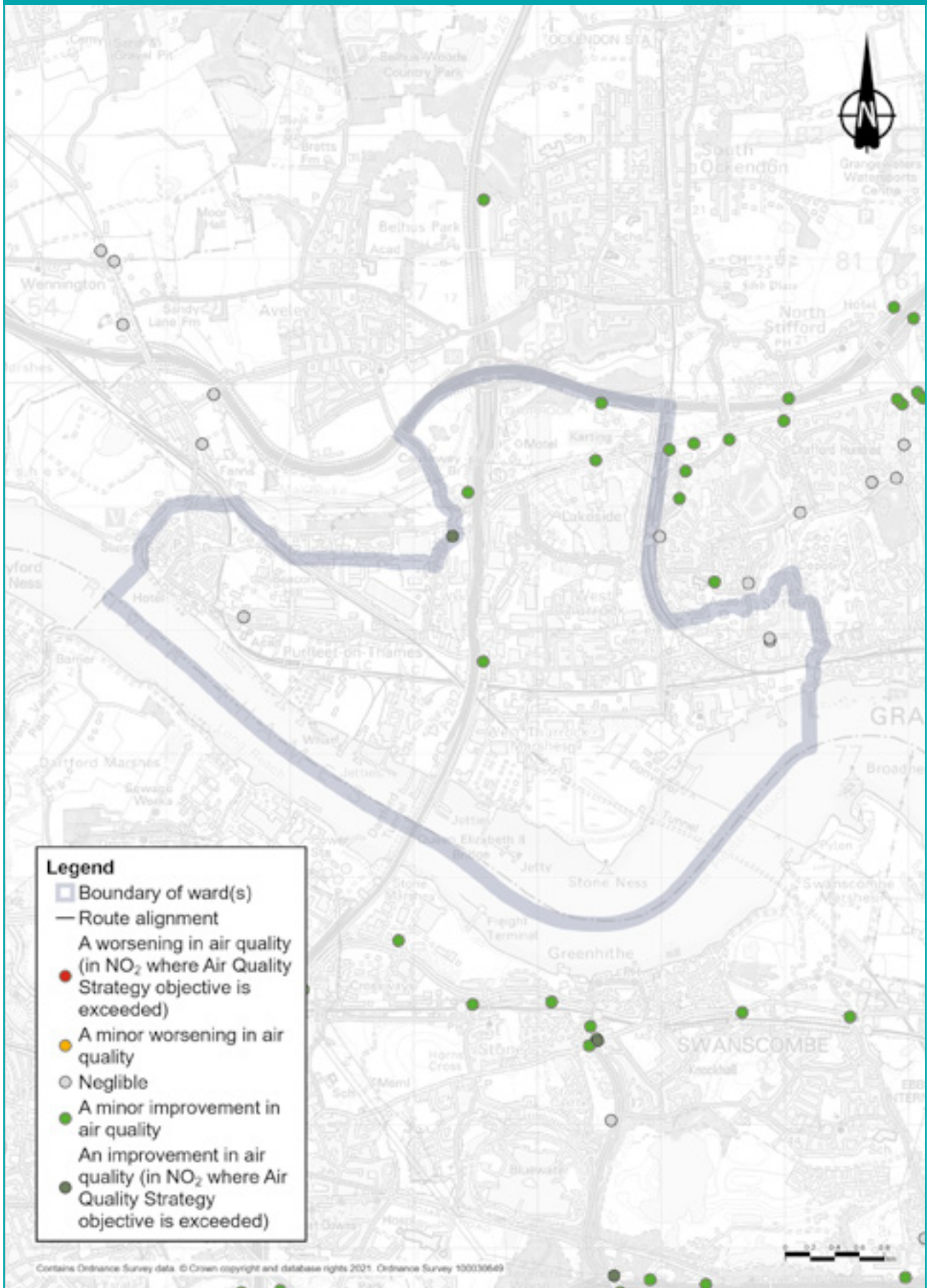
Construction impacts

Construction activities have the potential to affect nearby air quality through the release of dust and emissions from construction equipment and traffic. The areas most likely to be affected are those close to haul roads, compounds and soil storage areas.

Properties more than 200 metres from the worksite, which is the majority of properties within this ward, are outside the area likely to be affected by construction dust or emissions from the worksite. In this ward, there are no properties within 200 metres of the worksite.

Our analysis of construction traffic predicts that the impact on most roads in this ward would be negligible, although there would be no changes in air quality in the area as a result of traffic management in place from 2024 to 2029. More information about construction traffic impacts on air quality can be found in chapter 7 of the Construction update.

Figure 19.12: Predicted changes in NO₂ levels within West Thurrock and South Stifford ward once the new road is open



Measures to reduce air quality impacts during construction

The impact of construction machinery and traffic on air quality would be controlled through the range of good practice measures set out in the CoCP and the REAC. For example, there would be measures to suppress dust, such as damping down dry haul roads and spoil heaps, as well as the use of low-emission machinery and vehicles. We would put in place an Air Quality Management Plan to ensure the measures set out in the CoCP and the REAC would effectively monitor and control dust and exhaust emissions. The location and type of monitoring would be submitted in advance to Thurrock Council for consultation (see REAC entry AQ006).

19.8.2 Operations Operational impacts

We have carried out an assessment of the operational impacts of the new road on air quality. The assessment area includes a 200 metre buffer around the roads within the affected road network, with this area being the most likely to experience changes to air quality as a result of the new road. More information about air quality impacts once the road is open can be found in chapter 5 of the Operations update.

At all locations within the ward, there are no predicted exceedances of air quality thresholds. There are receptors (properties or habitats that are sensitive to changes in air quality) within the ward, along the A282 that are predicted to experience a minor improvement in the air quality for nitrogen dioxide (NO₂), the main traffic-related pollutant³. The highest modelled yearly average NO₂ concentration within this ward is 38.1µg/m³, which is below the yearly average threshold of 40µg/m³. Our assessment is based on our opening year model, which represents a worst-case scenario, without accounting for the increase in less-polluting vehicles on our roads over time.

Measures to reduce air quality impacts during operation.

The assessed air quality impacts in this area as a result of the project would not trigger the need for any monitoring or other mitigation measures once the road is open.

³ NO₂ levels are measured in 'micrograms per cubic metre', or µg/m³, where a microgram is one millionth of a gram.

19.9 Health

Existing situation

A range of personal, social, economic and environmental factors influence our health. Different groups may be more sensitive to these – for example, children, older people or those with pre-existing health conditions.

West Thurrock and South Stifford is characterised by a younger population, with a higher proportion of children under the aged of 16 (28.3% compared with 24.2% for Thurrock and 20.3% for England).

Economic activity rates are very similar to that of Thurrock, as are the number of people claiming benefits. West Thurrock and South Stifford has a lower proportion of residents in social grade AB (13.2%) than is the case for Thurrock (15.0%). West Thurrock and South Stifford has a significantly lower proportion of households that are owned outright (51%), compared to Thurrock (66.2%).

West Thurrock and South Stifford residents generally have higher rates of self-reported 'very good' health when compared to Thurrock and England as a whole (50.5%, 48.2% and 47.2% respectively).

Life expectancy at birth for men and women is slightly better in West Thurrock and South Stifford than is the case for Thurrock as a whole. However, rates are significantly worse in West Thurrock and South Stifford than for Thurrock for deaths from all causes (these are causes where all or most deaths could potentially be prevented by public health interventions in the broadest sense) respiratory diseases, coronary heart diseases and cancer.

19.9.1 Construction

Construction impacts

There are no construction activities directly affecting West Thurrock and South Stifford ward, apart from construction routes along the M25 and A13.

There are likely to be health benefits as a result of access to work and training opportunities.

Measures to reduce construction health impacts

Engagement and effective two-way communication with communities before and during construction, including sharing information about the programme and impact of works, is important to reduce mental health and wellbeing impacts associated with uncertainty, stress and anxiety. The CoCP sets out proposals for how we would make sure communities, stakeholders and any affected parties are kept updated about the construction works, their progress and associated programme.

19.9.2 Operations

Operational impacts

West Thurrock and South Stifford ward is located approximately 4.5km to the south of the main project route and, as such, there would be no direct noise impacts from the project in the ward. Noise impacts within this ward would be as a result of changes in traffic flow, the number of HGVs, and traffic speeds on the existing road network within the ward and because of changes to the M25 and A282 across the Dartford Crossing.

Within the ward, changes in road traffic noise at identified noise sensitive locations (such as nearby properties) are predicted to range from a minor decrease in noise levels of between 1.0 and 2.9dB to a minor increase in noise levels of between 1.0 and 2.9dB.

Measures to reduce operational health impacts

No essential mitigation measures that specifically address health outcomes have been identified within this ward except that relating to noise and visual impacts described elsewhere.

19.10 Biodiversity

The project would have no adverse effects on biodiversity in this ward during construction or operation. The reduction in traffic flow through this ward as a result of the project's operation would see an improvement in air quality, in the form of a reduction in nitrogen deposition, at West Thurrock Lagoon and Marshes SSSI.

19.11 Built heritage

The project would have no impacts on built heritage in this ward during construction or operation.

19.12 Contamination

The project would have no impacts on contamination in this ward during construction or operation.