The Mersey Gateway Project

The Mersey Gateway Project is a £390million project to build a new bridge over the River Mersey between Runcorn and Widnes.

The objectives of the project are to:

- relieve the congested Silver Jubilee Bridge
- apply minimum toll and road user charges on the new bridge and Silver Jubilee Bridge to allow the scheme to be funded
- improve accessibility in order to maximise economic growth and development opportunities
- improve local air quality and enhance the urban environment
- improve public transport links across the River Mersey
- encourage the increased use of cycling and walking
- restore effective network resilience for road transport across the river.

A number of planning applications and legal orders have now been submitted to Halton Borough Council and the Department for Transport. Together, they detail the plans for a new six-lane toll bridge crossing the river between Runcorn and Widnes and the work along the access routes through the two towns. They also outline improvements for the Silver Jubilee Bridge.

This exhibition describes the different applications and orders and is an opportunity for you to ask questions and give your views.

Our work with partners and stakeholders won't stop with these submissions. It is vital that we continue to receive valuable input from everyone who has an interest in a new bridge in Halton to ensure this project delivers the maximum possible benefits for Halton and the wider region.

The full details of all the applications and orders are available online at **www.merseygateway.co.uk**



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Mersey Gateway Project planning applications and legal orders

The applications and orders being submitted to or made by Halton Borough Council and the Department for Transport are summarised below.

Name	Matters covered	Likely determining authorities
Expressway planning application	To change the road network in Runcorn from the Central Expressway to M56 junction 12 via Weston Link	Halton Borough Council
Silver Jubilee Bridge planning application	To change the road network from Ditton roundabout in Widnes to the Runcorn end of the Silver Jubilee Bridge	Halton Borough Council
Listed Building Consent	To change the Silver Jubilee Bridge road layout and to introduce new pedestrian and cycle routes	Halton Borough Council
Transport and Works Act Order	To build the new bridge, the main tolling plaza in Widnes and a series of new access roads throughout Halton. It will also give compulsory purchase powers to buy land required along the route. There will be no compulsory acquisition of any residential properties. It will also authorise tolls on the new bridge	Department for Transport
Road User Charging Order Consultation	Consultation about details of tolls or charges on the Silver Jubilee Bridge	Halton Borough Council and Department for Transport
Side Roads Orders	To close off and, where necessary, re-route access routes like side roads, bridleways and footpaths that are affected by the project	Halton Borough Council and Department for Transport
Compulsory Purchase Orders	To use compulsory purchase powers to buy land required along the route where it is not covered by the Transport and Works Act Order. There will be no compulsory acquisition of any residential properties	Halton Borough Council and Department for Transport

What happens next?

March – May 2008
Mersey Gateway planning applications and accompanying legal orders submitted

April – July 2008
Halton Borough Council consultation on the planning applications

May – July 2008
Government consultation on the required legal orders

Summer 2008
Halton Borough Council gives formal response to planning applications

Late 2008
Likely public inquiry

Late 2009
Outcome of public inquiry announced

2010
Invite tenders from companies interested in building and operating the Mersey Gateway

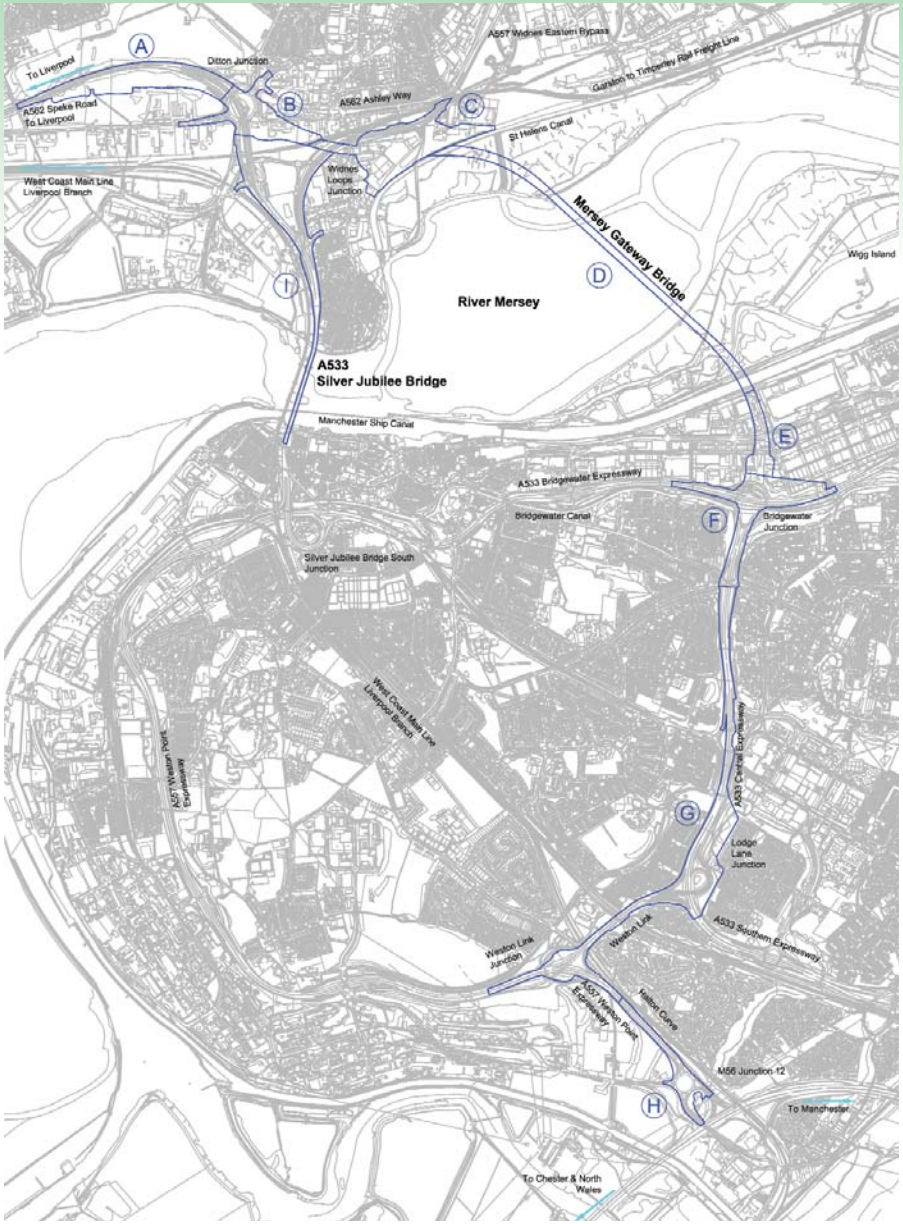
2011
Appoint the successful company and start on construction

2014
Mersey Gateway opens

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Construction Areas A - C





Area A – Main Toll Plazas

Works in this area will include the construction of the main toll plazas and associated structures. Existing infrastructure will be incorporated into the toll plazas' requirements. This part of the route occupies part of the disused St. Michael's golf course. Halton Borough Council is looking at options for re-opening the golf course and improving the golfing facilities for local people. The culvert which contains Stewards Brook will be extended to accommodate the increased carriageway width. Balancing ponds will be provided to the south of the new carriageway on either side of Stewards Brook.

Area B – Ditton Junction to Freight Line

Ditton Junction will be converted from a roundabout to a signal controlled junction. Toll facilities will be constructed on approach roads. Utility services along Ditton Road will be diverted.









Area C – Freight Line to St Helens Canal including Widnes Loops Junction

The following new structures and earth works will be required in this section of the works:

a. Freight Line Bridge – a single-span bridge over the Garston to Timperley Rail Freight Line

b. Victoria Road Viaduct – a high level, multi-span viaduct connecting the Freight Line Bridge to the edge of the Widnes Loops Junction including the crossing of Victoria Road

c. Two bridges carrying the main carriageway over the new Widnes Loops Junction carriageways

d. Embankments carrying the new carriageway at high level

e. A bridge to carry the Widnes Loops Junction southbound on-slip over itself

f. Toll plazas connecting the project to the Widnes Eastern Bypass

g. The St Helens Canal Bridge – the high level bridge crossing the potential development corridor to the north of the St Helens Canal and the crossing of the St Helens Canal itself, which would then land on the north abutment of the New Bridge. A short length of the St Helens Canal will be temporarily filled during construction.

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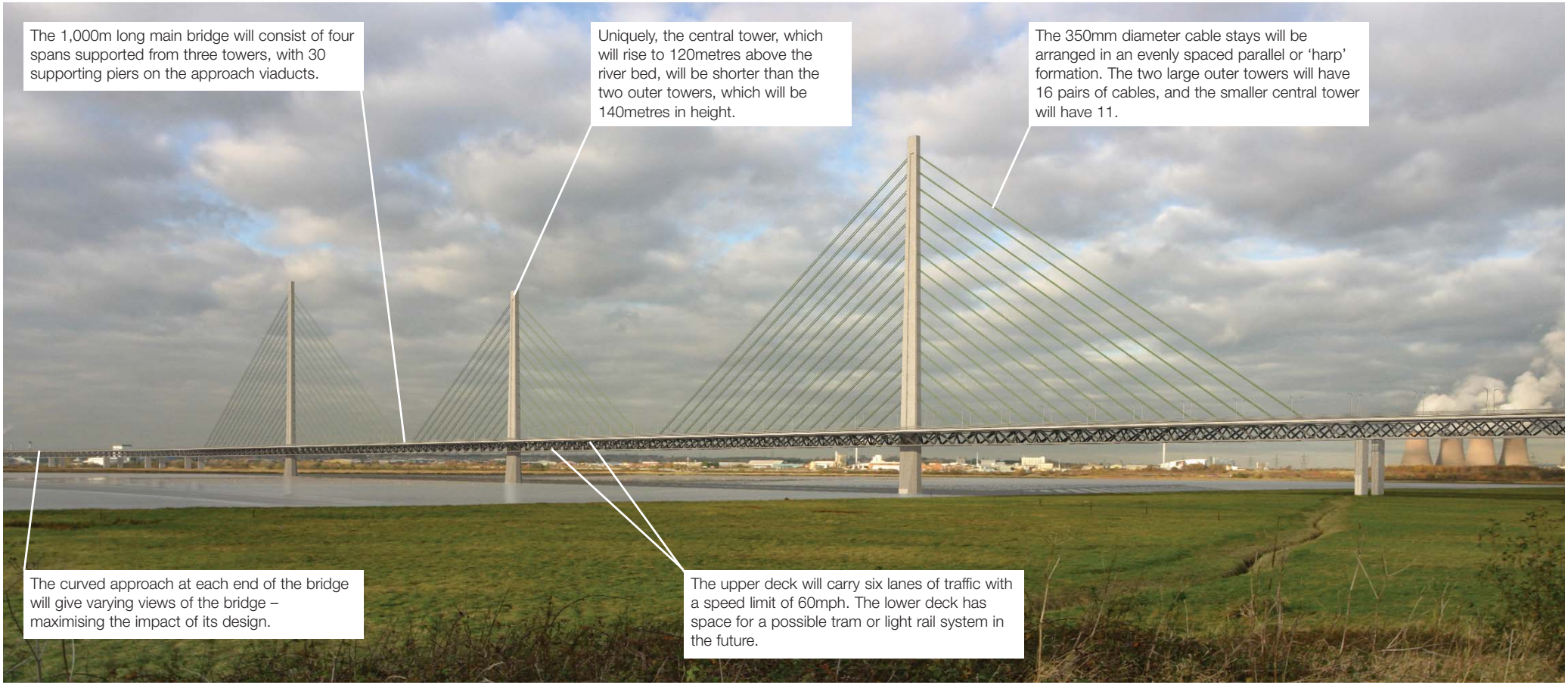
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Construction Area D - The new bridge

Described by Commission for Architecture and the Built Environment (CABE) as a 'project of a lifetime for all those involved,' the new bridge will be a unique and iconic structure that will be recognised worldwide as a symbol for the north west.

Its striking yet efficient design will be a dynamic addition to the Halton skyline that will complement the existing Silver Jubilee Bridge.

The total length of the new bridge and its approach viaducts will be 2.13 kilometres. There will be three towers in the estuary, with a further 30 piers on land supporting the approach viaducts.



All measurements shown are approximate figures.

Image by Knight Architects

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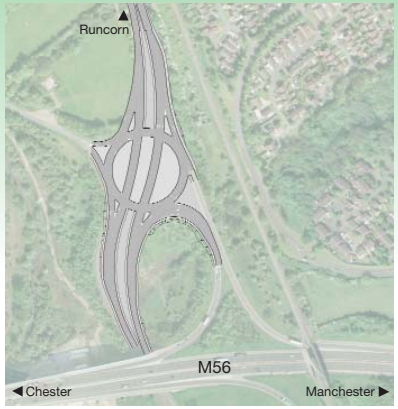
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Construction Areas E - I



Area E – Astmoor Viaduct

The height of the carriageway as it crosses the river will be maintained to provide sufficient clearance for vessels using the Manchester Ship Canal, and it will remain elevated as it crosses the Astmoor Industrial Estate. This viaduct will be 340m long and comprise 12 spans. Although this will require demolition of some existing light industrial buildings, the area below the viaduct will be suitable for development following construction. Existing road infrastructure will be modified to tie in with the new Bridgewater Junction.



Area H – M56 Junction 12

The existing roundabout to the north of the M56 Junction 12 will be modified to include a signal controlled link directly across the centre of the existing roundabout for the main line of the new road, leaving the outer roundabout segments for local turning traffic and for eastbound access to the M56 Junction 12. The works will comprise carriageway realignment and the installation of new traffic signals. A new retaining wall will be required to support the carriageway realignment on the south side of the roundabout.

Area F – Bridgewater Junction

Bridgewater Junction is a complex of structures and slip roads leading to a new roundabout that will provide grade separation and access to and from the Central Expressway (running north-south) and the Daresbury/Bridgewater Expressways (running east-west). Traffic leaving or accessing the new bridge from the remodelled Central Expressway will flow uninterrupted between the two. The existing Daresbury/Bridgewater Expressway will no longer have priority. It will have new raised approaches bringing it into the new roundabout. A two-level interchange is proposed with east-west movements at the lower level and the new road linking to the Central Expressway at the higher level. Existing bridges over the Bridgewater Canal will be removed.



Area I – Silver Jubilee Bridge and Widnes De-linking

Reduced traffic flows will allow a downgrade of the carriageway from two lanes to one lane in each direction. This will provide space on the bridge deck to re-introduce a footpath and provide a cycleway. A toll plaza will be constructed to the north of the Silver Jubilee Bridge on the existing carriageway of Queensway. Links to the Silver Jubilee Bridge on the north side will be modified and new signal controlled junctions provided on slip roads.







Area G – Central Expressway, Lodge Lane Junction and Weston Link Junction

Improvements will be required to the alignment of the Central Expressway to link with the requirements of the new bridge. These should not involve significant earthworks and will generally be undertaken within the existing highway boundary. An existing footbridge and busway bridge will be replaced. Lodge Lane and Weston Link junctions will be modified to change traffic priorities.

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Tolling/Road User Charging

Both the new bridge and the Silver Jubilee Bridge will be tolled as part of the project.

The toll revenue is the main source of funding for the project. Central government is providing a subsidy of £86million and an additional £123million of PFI credits which will be used to keep toll charges minimised.

The revenue from the tolls will go towards the cost of building and maintaining the new bridge, and other improvements to the road network in Halton. The project is not being funded by council tax.

Any surplus revenue will be returned to Halton Borough Council. This will help provide a package of discounts for different groups of users and finance new investment in improved sustainable transport throughout Halton.

The exact toll levels have not yet been fixed, but it is envisaged they will be at a similar level to the cost of using the Mersey Tunnels (currently £1.40 for a car journey).

Halton Borough Council is consulting on the exact form of the charges for the Silver Jubilee Bridge and needs to hear your views.

The current design assumes that the technology used to collect tolls will be a combination of manned toll booths and unmanned tag systems at toll plazas. There will be four locations for toll booths, all of which will be in Widnes, namely:

- Main toll plaza – north west of the proposed new Ditton Junction
- Local slip roads leading to/from the proposed new Ditton Junction to the new bridge
- A557 Widnes Eastern Bypass
- A533 Queensway approaching/leaving the Silver Jubilee Bridge.

Their scale and impact will be screened by a mix of existing trees and new landscaping measures.









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Environmental Issues

We attach great importance to environmental issues in this unique location, and the Mersey Gateway Project will inevitably interact with its environment. This will bring significant benefits and some negative impacts to Halton.

As the project area contains some sensitive environments, we have spent several years studying the local environment to assess these impacts.

In addition to the natural environment, the project will affect communities, public spaces, the urban areas around Runcorn and Widnes and the local economy. All of these issues have been carefully and thoroughly evaluated to ensure that adverse effects are identified and mitigated against and that benefits are maximised.

This information is presented in the Environmental Statement (ES), which has been submitted to Halton Borough Council as part of the planning applications and to the Secretary of State for Transport as part of the TWA Order.

As part of this assessment process, we have carefully studied any potential impacts on health caused by every aspect of the project. This includes looking at the positive impacts associated with the increased opportunities for walking and cycling that will be created in the borough.

There are 14 separate environmental topics that are considered in the ES. They are:

- Hydrodynamics and estuarine processes
- Surface water quality
- Land use
- Terrestrial ecology and birds
- Aquatic ecology
- Landscape and visual amenity
- Cultural heritage
- Contamination of soils, sediments and groundwater
- Waste
- Transportation
- Noise
- Navigation
- Air quality and climate
- Socio-economics







Some of the most important findings from key aspects of the ES are presented as part of this exhibition along with proposed mitigation measures that will minimise any negative impacts.

More details of the environmental impact of the project can be found in the Environmental Statement and its non-technical summary.

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Noise and Air Quality

Noise and Vibration

Overall, the noise assessment shows that, with the project, fewer people in Halton are likely to be adversely affected by road traffic noise than they are today. However, the construction of the new bridge and its links with the national road network will generate noise and vibration along and around the route. The redistribution of traffic flows around the road network will also cause changes in noise levels in the vicinity of the existing and new road links affected.

Today, areas adjacent to the current access to the Silver Jubilee Bridge via the Weston Point Expressway experience moderate to high road traffic noise levels but, in comparison, areas such as the St Helens Canal, the new bridge route over the River Mersey and Wigg Island are all relatively quiet.

When the new bridge opens, there will be a reduction in noise levels for areas adjacent to the Silver Jubilee Bridge, its approaches and the Weston Point Expressway, improving the environment in these locations. Where traffic flows increase, there will be an increase in road traffic related noise. These increases can be minimised by using specially designed and located noise barriers.

Construction noise will be controlled using a variety of measures. The measures that may be applied include timing of key operations, sensitive location of construction plant and key operational areas and ongoing measures such as monitoring and reporting of construction-related noise at key locations in the community throughout the process.



An example of how noise barriers are used elsewhere



Local Air Quality and CO_2 Emissions

Areas that currently have some of the worst air quality in Halton will experience significant improvements in air quality as a result of the project.

The environment around the Silver Jubilee Bridge and its direct access roads through and next to the two town centres will experience significant improvements in local air quality as high volumes of traffic – often congested - will be removed. Whilst this transfer of traffic to the routes connecting the new bridge to other parts of the road network will cause an increase in emissions in these areas, predicted concentrations in all locations remain below the relevant air quality objectives. The re-routing of traffic and reductions in congestion that the project will achieve will lead to an overall reduction in CO_2 emissions.

During construction, there is the potential for dust to be released during earthworks activities, which has the potential to cause nuisance at some locations. This would be minimised with effective mitigation. Where potentially contaminated materials are being handled, specific management measures will be put in place to protect workers and prevent any release of dust. These measures will be supported by a comprehensive monitoring strategy and will ensure that no contaminated dust is released.

Air quality impacts from construction traffic are not predicted to exceed relevant air quality objectives.

Ecology & Nature Conservation and Social Impact

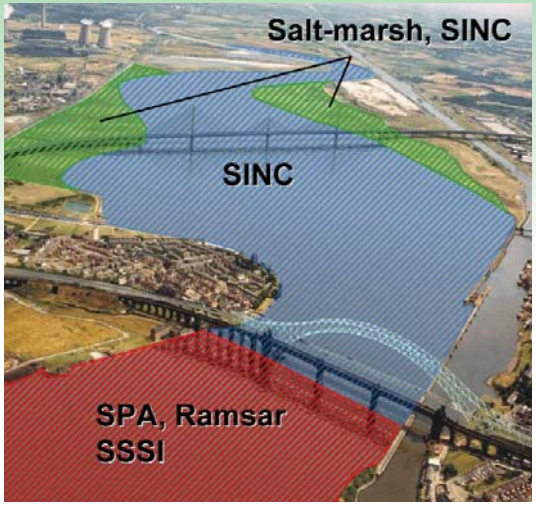
Ecology and nature conservation

The Mersey Estuary is home to a number of internationally important and protected species of birds, plants and animals. As a result, the 'middle estuary', downstream of the Silver Jubilee Bridge at Runcorn Gap, is an internationally protected conservation site. The project crosses the locally important 'upper estuary', and avoids these areas of international conservation importance. However, because the entire estuary system is linked it is important to ensure that the project does not result in changes in the upper estuary which might adversely alter the valuable habitats elsewhere.

Birds visit the area in large numbers because the inter-tidal habitats and saltmarshes are rich in worms and small shellfish and have very large areas of undisturbed habitats which birds need for roosting and feeding. The estuary is also used by migrating fish during certain parts of their breeding cycle. Other nature conservation issues are the birds, butterflies and other wildlife of Wigg Island Local Nature Reserve, the wild orchids of the Manchester Ship Canal bank, and breeding birds of the saltmarshes and the St Helens Canal.

Construction of the new bridge will have little effect on birds, habitats and other wildlife. Over the long term, the project will have no effect on the birds visiting the middle estuary. In the upper estuary, measures to conserve wildlife include managing a large proportion of the saltmarsh habitat to make it a much more attractive place for birds and other wildlife.

The greatest potential impact of the project on aquatic species was considered to be underwater noise generated during construction. This is of prime concern for some species of migratory fish like salmon, lamprey and eel, and marine mammals. Following mitigation, this effect is expected to be of low negative significance.



SPA:	Special Protection Area
SSSI:	Site of Special Scientific Interest
SINC:	Site of Importance for Nature Conservation
Ramsar:	Wetland Site of International Importance as designated under the Ramsar Convention



Social impact

The project will bring social benefits to Halton residents in terms of noise and air quality improvements by redistributing traffic away from the congested Silver Jubilee Bridge to the new bridge. It will also create additional walking, cycling and public transport opportunities, so that individuals will be provided with an increased choice of methods which can be safely used to cross the river.

This provides a unique opportunity to improve the health, fitness and the quality of life of people within the area, and improve reliable access across the river to services, amenities and community facilities, including schools, medical facilities, places of work, and social and family contacts.

During its construction phase, the project will have beneficial effects on Halton's economy and provide jobs for local people. Negative effects, for example construction nuisance close to the route, will also occur. There will be some disruption to daily movements due to closures and diversions on the local transport network as roads are improved and built to connect the new bridge to the wider road network. These negative effects will be eliminated or reduced through use of appropriate mitigation measures.

Once complete the project will provide a strategically important, resilient and reliable transport link for the borough and the surrounding area which will open up opportunities for regeneration and economic investment, and with it, new residential, leisure and employment possibilities.

Contaminated Land and Cultural Heritage

Contaminated Land

The project will provide long-term benefits to areas of contaminated land across Halton, particularly in South Widnes. Former manufacturing and chemical industries alongside the Mersey Estuary have left a legacy of contaminated land due to unregulated disposal of industrial waste products. Widespread contamination associated with these past land uses is present along the route of the scheme.

Environmental specialists have conducted extensive site investigation works, focusing on the most contaminated areas of the proposed route. This has enhanced our understanding of the nature of the contaminants present and the extent of their presence. This means we can consider the options available to ensure that contamination is either left undisturbed, or cleaned up to prevent movement into sensitive water courses or release into the air. The outputs from these investigations have provided information which has been used by the project team to ensure that potential adverse effects on ecology, air quality, surface and groundwater are prevented.

Investigations will continue to monitor pollutant behaviour so that monitoring during construction and the operation of the bridge has a good basis for comparison. This will ensure that any changes can be easily recognised and addressed.





Cultural Heritage

The Mersey Estuary and the area around it has been a human settlement since the prehistoric period, with the Runcorn Gap providing a crossing point of the River Mersey since at least medieval times. The Mersey Gateway Project continues this tradition of bridging the gap between the communities either side of the river.

The project area contains a rich variety of cultural heritage features including roman roads, Halton Castle and the Silver Jubilee Bridge. Built in 1961, for a time the Silver Jubilee Bridge enjoyed the status of being the largest steel arch in Europe, befitting of the area's past as a centre for heavy industry. As a result of its historic and architectural significance the bridge is designated as a Listed Structure.

As part of the EIA process a programme of identification and assessment of all the cultural heritage sites in the project area has been undertaken. Where possible, the project has been designed to avoid negative effects, or to record for posterity any cultural heritage features that will be disturbed. Benefits of the project, including improvements to the context of local features and buildings of cultural heritage interest, have also been identified so that these advantages can be maximised. The project will allow the Silver Jubilee Bridge to undergo essential maintenance works, and reduce the extreme demands of modern road transport and heavy traffic on this ageing structure.

Minimising Environmental Impact

Every aspect of the project has been designed and carefully thought out to protect the environment and bring the maximum possible benefits to Halton and the surrounding areas. However, as is inevitable in a project of this size, there are some negative effects which need to be minimised by additional measures. These measures are known as ‘mitigation’.

Mitigation measures are an important part of any Environmental Impact Assessment and are used to reduce negative impacts if other actions are unable to eliminate them. Some mitigation measures go beyond the point of reducing or eliminating adverse effects and actually promote improvements and benefits. Some of the mitigation measures that will be used on the project are:

- During construction, sensitive and valuable salt marsh vegetation in areas like Astmoor Saltmarsh and Widnes Wharf which may be damaged by the works will be removed to a holding area, where it will be managed and preserved. Once construction work is finished, it will be reinstated
- The start of construction works and associated processes, such as vegetation clearance, will be sensitively timed so that it does not interrupt bird breeding
- Roadside noise barriers will be installed adjacent to areas with the most significant increases in traffic flows and noise levels to ensure that noise is minimised
- Existing vegetation and trees will, where possible, be retained to provide screening from the demolition and construction work or to screen new parts of the scheme. There will also be an extensive tree and vegetation planting programme included in the project’s landscaping scheme
- Balancing ponds will be used to ensure that rainwater running off the new bridge and other roads does not put an unreasonable burden on relevant brooks and watercourses. This will prevent the risk of flooding from the drainage of the road system

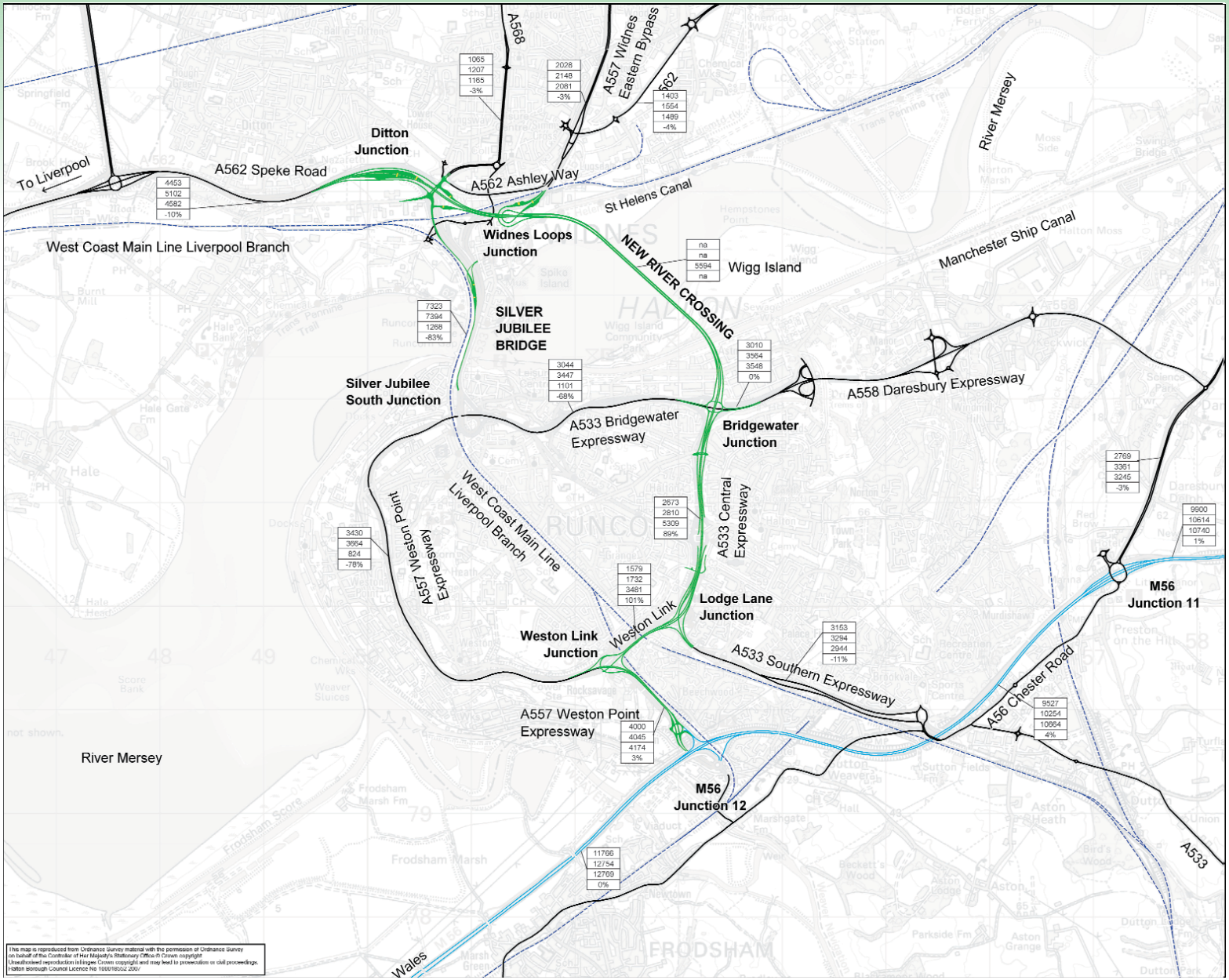
In addition to the specific measures to prevent adverse effects during construction listed in the Environmental Statement, a Construction Environmental Management Plan (CEMP) will be produced. This will require all stages of the construction process to conform to strict management procedures and processes. It will also ensure that adverse effects beyond those predicted in the Environmental Statement during construction are prevented or, if they do occur, that they are identified and stopped as quickly as possible.







Traffic Impact



Key

- Mersey Gateway Project - Main Works
- Existing major roads
- M56 motorway
- Railway lines
- Likely location of tolling booths

2006 base flow*
2015 without scheme*
2015 with scheme*
% change between with and without scheme

*am peak two way flows

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Scheme Plan



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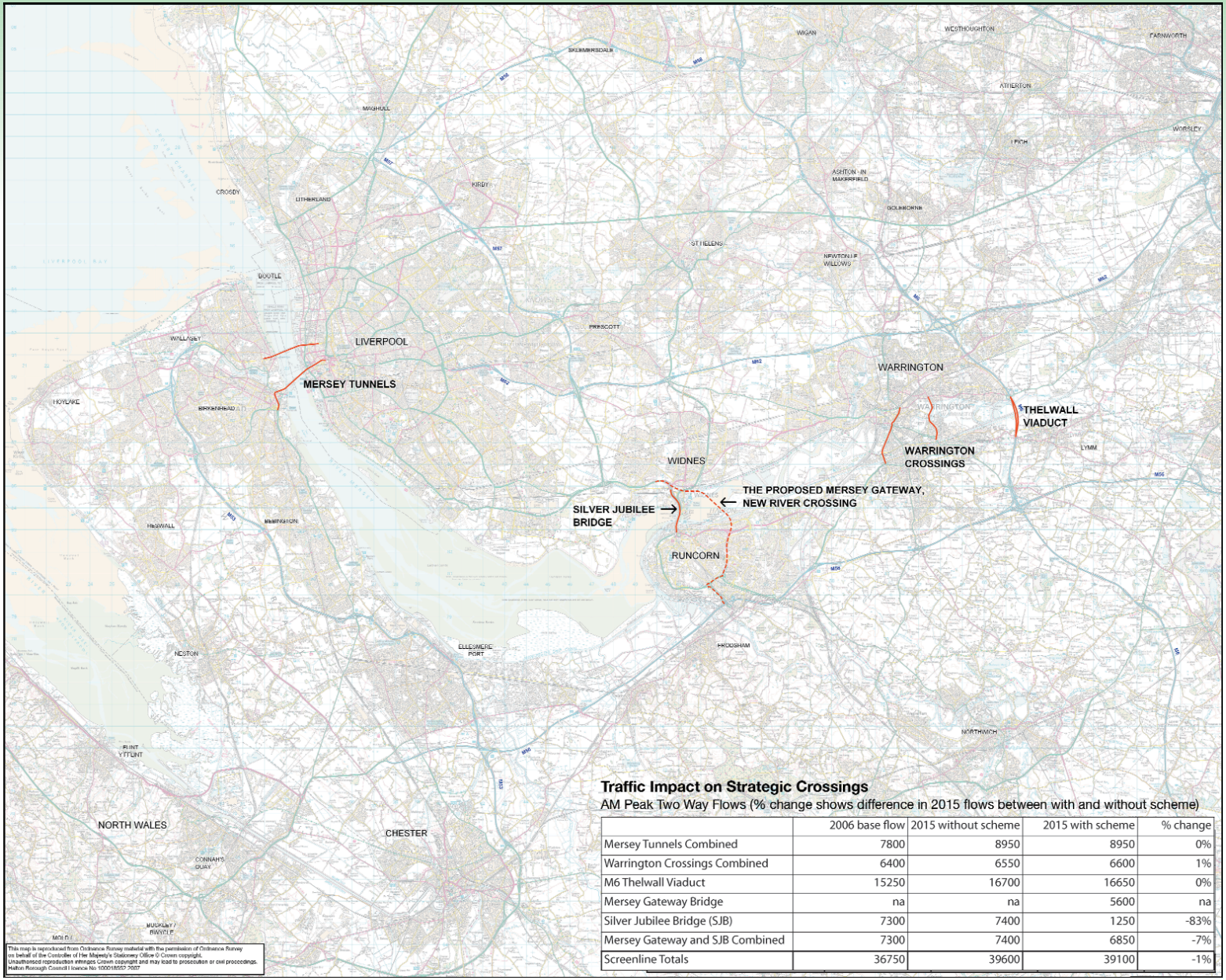
Key

- Mersey Gateway Project - Main Works
- Existing major roads
- Motorway
- Railway lines
- Likely location of tolling booths

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Context Plan



Key

- Existing strategic crossings of the River Mersey
- The proposed Mersey Gateway, New River Crossing

Traffic Impact on Strategic Crossings

AM Peak Two Way Flows (% change shows difference in 2015 flows between with and without scheme)

	2006 base flow	2015 without scheme	2015 with scheme	% change
Mersey Tunnels Combined	7800	8950	8950	0%
Warrington Crossings Combined	6400	6550	6600	1%
M6 Thelwall Viaduct	15250	16700	16650	0%
Mersey Gateway Bridge	na	na	5600	na
Silver Jubilee Bridge (SJB)	7300	7400	1250	-83%
Mersey Gateway and SJB Combined	7300	7400	6850	-7%
Screenline Totals	36750	39600	39100	-1%

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