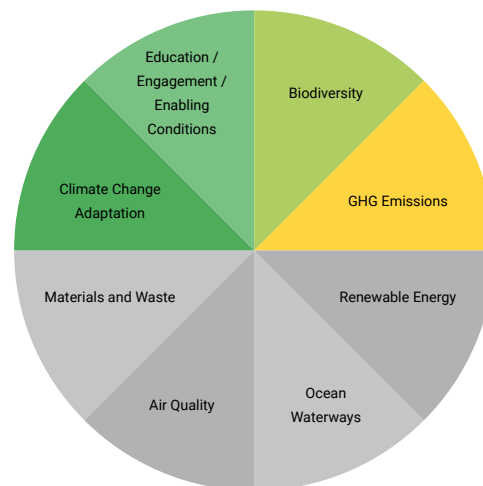


Plymouth MRN Scheme FINAL



Assessment ID: PLY316

Assessment Author: Neil Honey

Assessment Project Summary:

The Plymouth Major Road Network (MRN) Scheme will improve the operation of the city's MRN route specifically along the A374 Embankment Road and the A3064 St Budeaux Bypass.

Delivery of the Scheme will increase the resilience of the city's road network and will support the growth of the city and the delivery of the Plymouth and South West Devon Joint Local Plan.

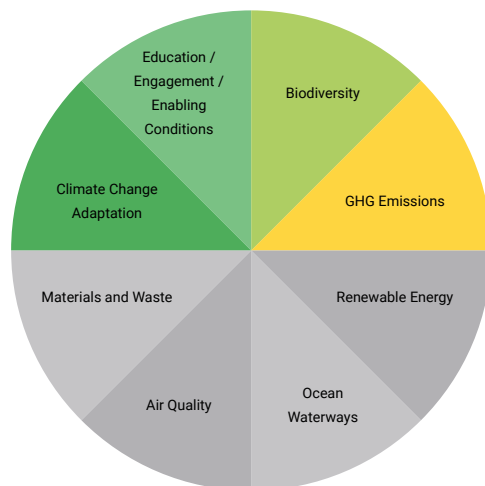
The scheme includes:

- Road capacity, pedestrian, cycling and bus priority improvements at Marsh Mills and along the St Budeaux Bypass
- A second phase of the Flood Defence works along the A374 Embankment Road
- The removal of the low rail bridge that crosses the A374 just east of Embankment Lane
- Widening of the off-road cycle and pedestrian path along the Embankment at Blagdons Meadow to a segregated facility
- Widening of the off-road cycle and pedestrian path along the St Budeaux Bypass to a segregated facility

Assessment Final Summary:

The Plymouth MRN scheme is a strategically important project delivering infrastructure identified within the Joint Local Plan and the Infrastructure Needs Assessment. The MRN route within Plymouth was selected by The Department for Transport for MRN status due to its ability to improve the resilience of the A38, acting as an alternative route when required. It directly supports the sustainable development of the Eastern Corridor and City City Growth Areas as well as growth of the city in the west too. The project will reduce congestion, improve journey times, promote walking, cycling and use of public transport, improve network resilience and accessibility. Integral to the scheme is high quality walking and cycling facilities including new and improved crossings and the upgrading of cycle paths to segregated facilities compliant to LTN1/20. The scheme is multi-modal and designed to encourage greater travel choice and sustainable travel options to encourage people to switch from car based travel to more active and sustainable forms. Tackling climate change represents a major challenge for the delivery of future growth and operation of the transport network. Without delivery of the Scheme, the

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performance of the transport network along the MRN route will further deteriorate across all modes. Delivery of the scheme will be supported by the development and delivery of a Construction Environmental Management Plan (CEMP) to ensure delivery of the project in accordance with best practice. The CEMP and other project documents such as the Site Waste Management Plan will identify key mitigation to be implemented throughout construction. The nature of construction projects such as the MRN scheme means that the impact on some outputs such as materials and waste, air quality are considered to be neutral.

Biodiversity Score: 4

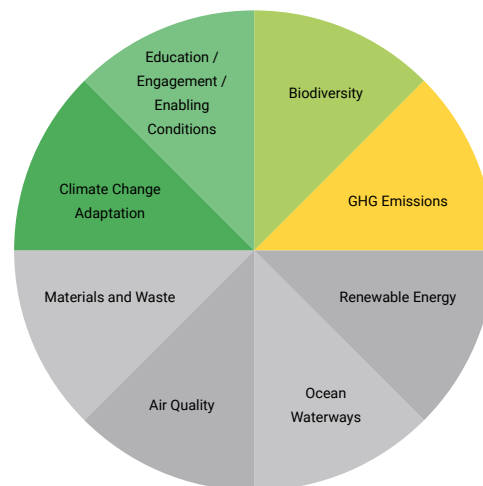
Biodiversity Score Justification: The scheme has been assessed as not having any impact on the European conservation sites it is in proximity of and will not directly impact upon the conservation status of any designated site for nature conservation purposes. The dominant habitat of the site is hardstanding due to the current highway and associated infrastructure and this habitat is of negligible ecological value. Any measures identified in the Preliminary Environmental Assessments (and subsequent reports) will be incorporated within the Construction Environmental Management Plan (CEMP). In line with PCC's requirements, the scheme will deliver 10% biodiversity net gain (BNG) as required.

Biodiversity Score Mitigate: No

GHG Emissions Score: 2

GHG Emissions Score Justification: The nature of construction work means that there is likely to be a short term negative impact on greenhouse gas emissions. Longer term, the scheme will deliver a more efficient highway network by reducing congestion and supporting a shift to sustainable modes. Whilst the scheme does provide increased capacity to not only relieve congestion now as well as support future demand within the City Centre and Eastern Corridor Growth Areas but also in the west of the city, the MRN route itself is not considered to generate significant increases in volumes of traffic from people re-routing. Additional growth in trips will be derived from any proposed new developments which will be subject to their own CIA and checks through the planning system. The scheme will help to lower GHG emissions by significantly reducing existing congestion which not only causes increased emissions but also affects the reliability of bus services and timetabled information affecting people's confidence in

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the services offered. New bus priority measures are included as part of the scheme at Marsh Mills and Camels Head junctions which will deliver improved reliability and consistent journey times for bus users. Integral to the scheme is high quality walking and cycling facilities including new and improved crossings at Marsh Mills and the St Budeaux Bypass plus upgrading of the off-road cycle-pedestrian paths along the St Budeaux Bypass and the Embankment at Blagdons Meadow. to a LTN1/20 compliant segregated facility. The scheme is multimodal and designed to encourage greater travel choice and sustainable travel options to encourage people to switch from car based travel to more active and sustainable forms. Modelling following the Department for Transport's prescribed WebTag methodology shows that the Scheme will increase carbon emissions by 14033 tonnes across the 60 year appraisal period primarily from infrastructure carbon associated with construction.

GHG Emissions Score Mitigate: No

Renewable Energy Score: 3

Renewable Energy Score Justification: The MRN scheme will have no direct impact on Renewable Energy. The impact is therefore felt to be neutral.

Renewable Energy Score Mitigate: No

Ocean and Waterways Score: 3

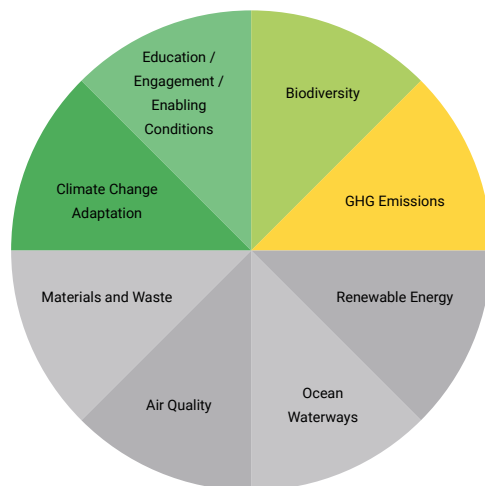
Ocean and Waterways Score Justification: Surface water run-off discharge to sewers will be appropriately restricted (in line with national and LLFA guidance) to ensure flood risk is not increased. A Construction Environmental Management Plan will detail best practice measures and mitigation to limit the risk of contamination of water resources.

Ocean and Waterways Score Mitigate: No

Air Quality Score: 3

Air Quality Score Justification: The scheme will help to improve local air quality by significantly reducing existing congestion which not only causes increased emissions but also affects the

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reliability of bus services and timetabled information affecting people's confidence in the services offered. The scheme includes bus priority measures at the Marsh Mills and Camels Head junctions. Integral to the scheme is high quality walking and cycling facilities including the upgrade of the off-road cycle-pedestrian path along the St Budeaux Bypass and the section of the off road path along the Embankment through Blagdons Meadow to LTN1/20 compliant segregated cycleways. The scheme is multi-modal and designed to encourage greater travel choice and sustainable travel options to encourage people to switch from car based travel to more active and sustainable forms. None of the scheme is within the city's Air Quality Management Area (AQMA). There may be some short term temporary impacts on air-quality during the construction process but these will be offset by the longer term benefits the scheme will bring.

Air Quality Score Mitigate: No

Materials and Waste Score: 3

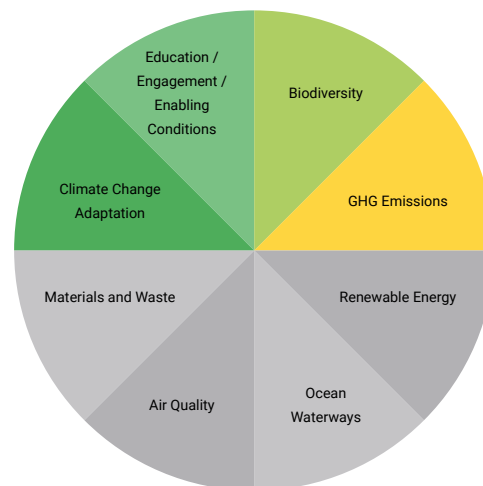
Materials and Waste Score Justification: Best practice waste management techniques will be adopted throughout construction. A Site Waste Management Plan (SWMP) will ensure that the principles of the waste management hierarchy (i.e. reduce, reuse, recycle) will be adopted. The reuse of site won materials will be prioritised and retained where possible. A Construction Environmental Management Plan (CEMP) will also support scheme delivery.

Materials and Waste Score Mitigate: No

Climate Change Adaptation Score: 5

Climate Change Adaptation Score Justification: The MRN scheme covers land within Flood Zone 2 and 3, medium / high probability of flooding from fluvial and tidal sources but the scheme will make Plymouth more resilient to the effects of climate change. A flood study undertaken in 2012 confirmed that the existing revetment structure at Arnold's Point which protects the embankment upon which the A374 is constructed, is being eroded by tidal action, threatening the integrity of the embankment itself and the MRN infrastructure it supports. 148 residential properties, 9 non-residential properties, 10ha of mainline railway, sections of the MRN (A374) and strategic high voltage electricity apparatus are at risk at this location from tidal flooding. The flood defence

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works at Arnold's Point which are part of the MRN scheme will resolve the potential for flooding along the A374 from the River Plym. The MRN scheme as a whole will not increase urban heat islands. The highway works at Marsh Mills and along the St Budeaux Bypass will include new drainage systems which will improve resilience to local flooding events and will be designed to take account of climate change impacts.

Climate Change Adaptation Score Mitigate: No

Education / Engagement / Enabling Conditions Score: 5

Education / Engagement / Enabling Conditions Score Justification: Cycle and pedestrian paths will be improved along the MRN route making it easier to adopt to climate friendly behaviours. The flood prevention works at Arnold's Point will mitigate against rising tides and waters due to climate change and will have a long lasting positive impact.

Education / Engagement / Enabling Conditions Score Mitigate: No

Wheel Key

- Long lasting or severe negative impact
- Short term or limited negative impact
- No impact or neutral impact
- Short term or limited positive impact
- Long lasting or extensive positive impact