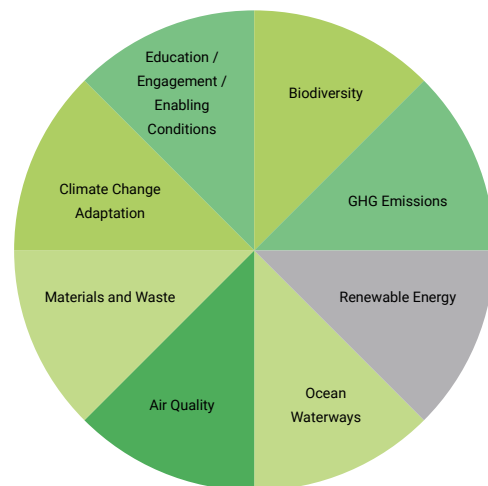


Colesdown Hill underbridge



Assessment ID: COL698

Assessment Author: Jim Woffenden

Assessment Initial Summary:

Reinstatement of an underbridge to allow the continuation of a walking and cycling route ensuring that the route is accessible for all users.

Assessment Final Summary:

The short term negative impacts of the construction of the scheme are expected to be more than offset by the fact that the scheme is helping to encourage sustainable transport, so helping to reduce the climate and other environmental impacts of private motorised transport in the city. Without a significant reduction in motorised traffic, it will not be possible for the city to meet its climate emergency objectives.

Biodiversity Score: 2

Biodiversity Score Justification: The local biodiversity impact of the proposed scheme is -0.26.

Biodiversity Score Mitigate: Yes

Biodiversity Revised Score: 4

Biodiversity Revised Score Justification: Planning requirements will mean that the scheme will need to deliver a 10% biodiversity net gain. Therefore the scheme will need to deliver 0.29 units of biodiversity net gain. It is likely that the far more significant impact however is that the scheme is helping to support sustainable transport so helping to reduce the detrimental impacts of car use.

GHG Emissions Score: 2

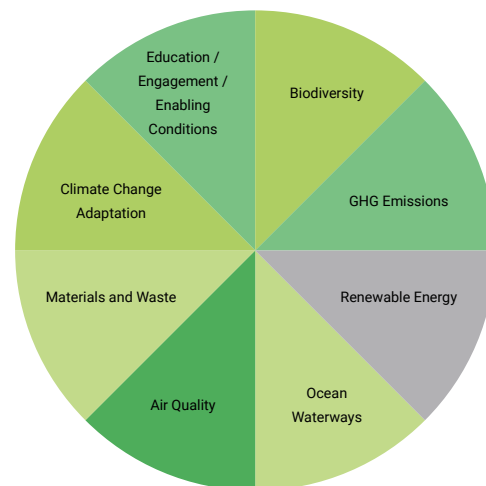
GHG Emissions Score Justification: The immediate impact of this scheme will be an increase in carbon emissions as a direct result of the construction of the scheme and also the loss of approximately 12 trees and also some habitat.

GHG Emissions Score Mitigate: Yes

GHG Emissions Revised Score: 5

GHG Emissions Revised Score Justification: Road transport represents 30% of Plymouth's

Colesdown Hill underbridge



carbon emissions, a proportion that is set to increase significantly in the coming years. This scheme is part of a wider network that is helping to make walking and cycling a viable alternative to the private car which has a very significant impact on carbon emissions through the following mechanisms: direct carbon impact of the construction of road schemes to increase capacity for general traffic; petrol and diesel consumption and to an extent electric consumption until UK electricity is carbon neutral; and construction of the vehicles themselves.

Renewable Energy Score: 3

Renewable Energy Score Justification: The scheme has no impact on renewable/waste energy

Renewable Energy Score Mitigate: No

Ocean and Waterways Score: 3

Ocean and Waterways Score Justification: The scheme will involve an increase in impermeable area but the drainage designs will ensure that all run-off is dealt with on site.

Ocean and Waterways Score Mitigate: Yes

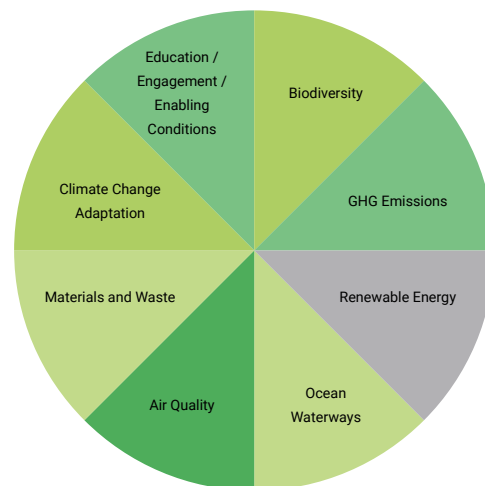
Ocean and Waterways Revised Score: 4

Ocean and Waterways Revised Score Justification: Road network pollutants come from tyre and brake wear, exhaust emissions, oil and fuel deposits. All of these can and do enter the water environment. In addition it's believed that 68,000 tonnes of microplastics are generated from tyre wear in the UK every year of which 7,000 to 19,000 tonnes enter surface waters. (Environment Agency, towns, cities and transport: challenges for the water environment, October 2021). By helping to provide an alternative to the private car, this scheme could be expected to have a long-term positive impact on water quality in Plymouth.

Air Quality Score: 5

Air Quality Score Justification: In the UK, air pollution is the largest environmental risk to public health. The annual mortality of human made air pollution in the UK is roughly equivalent to

Colesdown Hill underbridge



between 28,000 and 36,000 deaths every year. www.gov.uk/government/publications/air-pollution-applying-all-our-health/air-pollution-applying-all-our-healthThe scheme has been assessed using the DfT's Active Mode Appraisal Toolkit (AMAT) which indicates a positive impact as a result of modal shift from car and taxi to walking and cycling. These benefits will be long lasting because of the scheme, once constructed will be in place for a number of years and continue to encourage walking and cycling.

Air Quality Score Mitigate: No

Materials and Waste Score: 2

Materials and Waste Score Justification: Any construction project inevitably creates waste, and therefore there will be a short-term negative impact.

Materials and Waste Score Mitigate: Yes

Materials and Waste Revised Score: 4

Materials and Waste Revised Score Justification: Every effort will be made to minimise the waste impact of the construction of the project, and the contractor will be required to provide details as to how this will be achieved. The use of private cars and taxis generates significant waste associated with construction of the vehicles, vehicle consumables such as tyres, and road construction and repair. By helping to make alternative forms of transport more viable, this scheme can have a long-term beneficial impact on the waste impacts of car use

Climate Change Adaptation Score: 2

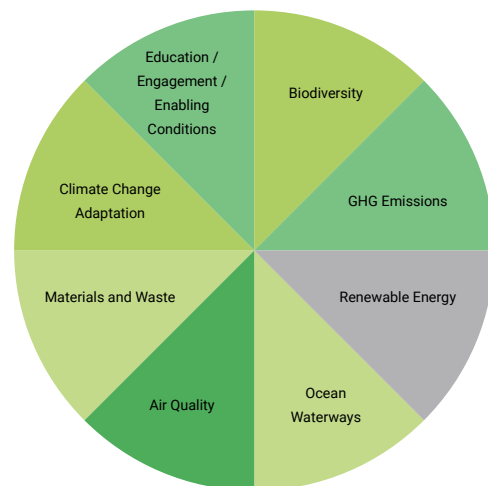
Climate Change Adaptation Score Justification: The increase in tarmac area could be expected to have a small localised detrimental impact on excessive urban heating associated with global heating.

Climate Change Adaptation Score Mitigate: Yes

Climate Change Adaptation Revised Score: 4

Climate Change Adaptation Revised Score Justification: Motor vehicles are a significant source

Colesdown Hill underbridge



of heat in the urban environment and therefore, this scheme by providing a sustainable alternative means of transport can be expected to reduce this effect. It is estimated that around 20% of urban areas is dedicated to roads and parking. Walking and cycling requires just a fraction of the road/parking space compared to the private car and therefore helps reduce congestion and the pressure to construct new and wider roads and car parks to accommodate motor vehicles.

Education / Engagement / Enabling Conditions Score: 5

Education / Engagement / Enabling Conditions Score Justification: The project enables residents and businesses to travel more sustainably.

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