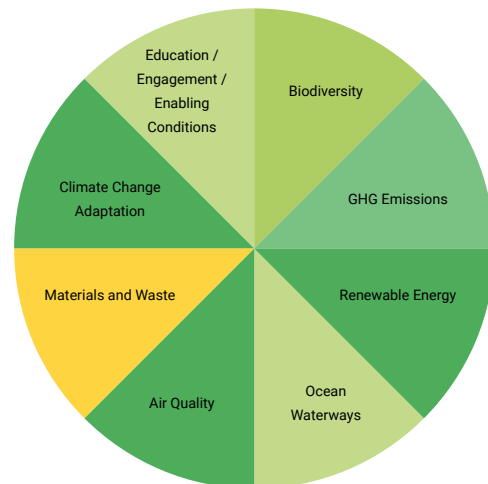


Heat Decarbonisation Phase B.1 - Harewood House FINAL



Assessment ID: HEA960

Assessment Author: Alastair Gets

Assessment Initial Summary:

Decarbonise Harewood House by the following measures:

Replace the gas space heating boilers with air source heat pumps (ASHPs)

Upgrade the electricity capacity to accommodate the heat pump demand

Install a rooftop solar

Replace all fluorescent and sodium lamps with LED lighting

Increase the loft insulation

Assessment Final Summary:

Overall this project contributes positively, especially to GHG emissions, renewable energy, air quality and climate change adaptation.

Biodiversity Score: 4

Biodiversity Score Justification: Removal a gas boilers will improve air quality which will have a positive affect on the nature and people surrounding the building. There is no change to land use and low likelihood of any negative changes in diversity or increase in invasive species . All works besides a small plant room outside the building for the heat pump will be on or within the existing building.

Biodiversity Score Mitigate: No

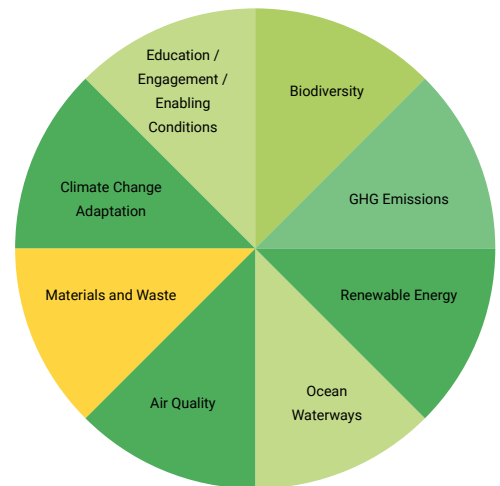
GHG Emissions Score: 5

GHG Emissions Score Justification: This project will decrease GHG emissions by about 16 tonnes CO₂e per year.

GHG Emissions Score Mitigate: No

Renewable Energy Score: 5

Heat Decarbonisation Phase B.1 - Harewood House FINAL



Renewable Energy Score Justification: About 10kWp of solar PV will be installed, as well as a 40kW and 5kW heat pump.

Renewable Energy Score Mitigate: No

Ocean and Waterways Score: 4

Ocean and Waterways Score Justification: Removal of gas boilers will remove pollutants from the environment. No affect on water or marine

Ocean and Waterways Score Mitigate: No

Air Quality Score: 5

Air Quality Score Justification: Removal of gas boilers will decrease air emissions and particulates

Air Quality Score Mitigate: No

Materials and Waste Score: 2

Materials and Waste Score Justification: Besides the removal of the gas boilers most of the heating system will be reused. While operating the project will not increase waste volumes. The materials will be dictated by the design but likely to contain virgin materials.

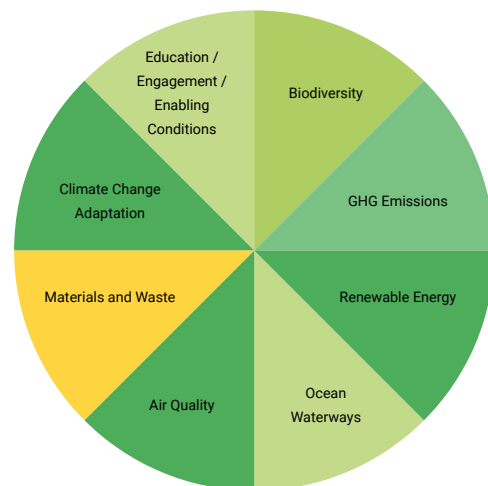
Materials and Waste Score Mitigate: No

Climate Change Adaptation Score: 5

Climate Change Adaptation Score Justification: This project helps mitigate climate change and contributes to net zero.

Climate Change Adaptation Score Mitigate: No

Heat Decarbonisation Phase B.1 - Harewood House FINAL



Education / Engagement / Enabling Conditions Score: 4

Education / Engagement / Enabling Conditions Score Justification: We do conduct tours of decarbonisation sites to Plymouth businesses and schools.

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