

# [Human beings and material assets environmental sciences essay](https://assignbuster.com/human-beings-and-material-assets-environmental-sciences-essay/)

## 15. 1 INTRODUCTION

Human beings and their associated material assets (physical resources in the environment, which maybe either of human or natural origin) are an important element of the environment. Any potentialimpact on the status of human beings by the proposed Greenway Project must therefore becomprehensively assessed. The principal concern is that human beings within the study areaexperience no significant unacceptable diminution in aspects of quality of life as a consequence of theConnemara Greenway Project - Clifden to Oughterard. Relevant components of this chapter of the EISinclude land use, demography, employment, amenity/community aspects and services/utilities. This chapter describes the potential impacts on material assets as a result of the proposed GreenwayProject. For the purposes of this assessment, material assets include:Economic Assets of Natural and Human Origin, andCultural Assets of a Physical and Social Type.

## 15. 2 METHODOLOGY

The EPA Advice Notes on Current Practice in the preparation of Environmental Impact Statements(2003) sets out a useful framework methodology, which has been consulted in the process ofpreparing this assessment. The Advice Notes suggest that the human environment be assessed underthe following headings:Economic Activity – will the proposed Greenway Project stimulate additional development and/orreduce economic activity, and if either, what type, how much and where?Social Consideration – will the proposed Greenway Project change patterns and types of activityand land use?Land Use – will there be severance, loss of rights of way or amenities, conflicts, or other changeslikely to ultimately alter the character and use of the surroundings?Health and Safety – will there be risks of death, disease, discomfort or nuisance? Likewise the Advice Notes suggest that Material Assets should be assessed under the followingheadings:Economic Assets of Natural and Human Origin, and

## Cultural Assets of a Physical and Social Type.

These issues are addressed in this assessment and a baseline study of the existing human andmaterial assets environment was undertaken in order to complete this. Desktop research comprisedthe method of obtaining this information. The following sources of information were consulted in theprocess of this assessment: Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 305 F012006 Census of Ireland, Central Statistics Office, 2006,2011 Census of Ireland, Central Statistics Office, 2011, andGalway County Development Plan 2009-2015. Some of the issues discussed in this chapter including traffic, noise, air quality, visual amenity andwater quality are addressed in greater detail in the relevant chapters of this EIS. This chapter shouldbe read in conjunction with the layout plans for the project description section of this EIS (Chapter 6). Where relevant, impacts on material assets such as the road network and designated conservationsites are more appropriately described in other chapters of this EIS. Table 15. 1 below highlights otherchapters that are relevant to human beings and material assets.

## Table 15. 1 EIS Chapters Relevant to Human Beings and Material Assets

## Chapter No. Title Human Aspect or Assets

7 Hydrology Water8 Soils, Geology & Hydrogeology Natural Resources10 Terrestrial & Aquatic Ecology Designated Conservation Sites11 Air Quality & Climate Air Quality12 Noise Noise Environment13 Archaeology, Architectural and Cultural Heritage Cultural Assets14 Landscape and Visual Views16 Traffic Road Infrastructure

## 15. 3 EXISTING ENVIRONMENT

The Connemara Greenway Project – Clifden to Oughterard is a community driven project by localcommunity groups in Clifden, Recess and Oughterard with support from Failte Ireland, Galway CountyCouncil and Forum Connemara Ltd. The proposed Greenway begins on the outskirts of Oughterardvillage and follows the N59 through the village of Recess. The Greenway diverges from the route ofthe N59 in the townland of Athry and runs to the south of Ballynahinch Lake, Lough Fada and CroghatLough. The Greenway rejoins the N59 at Gowland West before diverging to the south of LoughPhreaghaun and terminating at Clifden town. The two main settlements within this region areOughterard and Clifden. Beyond these urban settlements the land is mountainous and is composedpredominantly of blanket peat and bedrock outcrops. There are many mineral sites present in thestudy area. There are also two extractive industry related activities within a 1km boundary of theGreenway, including Lackagh Quarries and Lissoughter Green Marbles Quarry, both located inRecess. Oughterard and Clifden have some relatively dense, modern, semi urban development. There are veryfew industrial or commercial facilities outside of these two urban areas. The area between Oughterardand Clifden is characterised by low density ribbon settlement along the N59 and local roads withclusters at Oughterard, Recess and Clifden. The vast majority of the settlement is within 1km eitherside of the N59. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 306 F01

## 15. 3. 1 Human Environment

## 15. 3. 1. 1 Economic Activity

Demography & Employment - In this section, the key demographic and employment characteristicsof the resident population within the Study Area is examined. PopulationBetween 2006 and 2011 Clifden experienced a 23% increase in population, while Oughterardexperienced a 2% increase in population (see Table 15. 2). The pattern of increased growth in themajor towns, Clifden and Oughterard, has been balanced by population decreases in the rural areas.

## Table 15. 2 Population Profile of the Study Area (Source: CSO Census of Population 2002, 2006,

## 2011)

## Population Persons

## 2002

## Persons

## 2006

## Persons

## 2011

## Percentage

## Change 2002-

## 2006

## Percentage

## Change 2006-

## 2011

Clifden 1929 2118 2609 10% 23%Oughterard 2380 2563 2605 8% 2%Co. Galway 209, 077 231, 035 250, 541 11% 8%Connacht 464, 296 504, 121 542, 039 8% 8%State 3, 917, 203 4, 234, 925 4, 581, 269 8% 8%Age ProfileThe age profile of the study area is older than the state average. The largest weighting and the largestdisparity from the national average, lies in the 45-64 age group (see Table 15. 3).

## Table 15. 3 Age Profile (Source: CSO Census of Population 2006, Census 2011 figures not

## available for this data yet)

## Percentage of the population in each age group, 2006

## 0-14 15-24 25-44 45-64 65+

Study Area 19% 13% 26% 27% 15%Co. Galway 20% 16% 31% 21% 11%Connacht 20% 15% 29% 23% 13%State 20% 15% 32% 22% 11%EmploymentIn 2006 the study area had a substantially higher unemployment rate than the state average; 7% in thestudy area compared with 4% nationally (see Table 15. 4). Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 307 F01

## Table 15. 4 Employment Profile (Source: CSO Census of Population 2006, Census 2011 figures

## not available for this data yet)

## Persons aged 15 years and over by principal economic status,

## 2006

## At work Looking for first

## regular job

## Unemployed (having

## lost or given up

## previous job)

## Study Area 49% 1% 7%

## Galway 56% 1% 4%

## Connacht 55% 1% 4%

## State 57% 1% 4%

Sectoral Composition of EmploymentThe employment make-up of an area is an important element of its socio-economic profile. The CSOCensus of Population 2006 shows that employment in the study area is weighted towards ‘ farming, fishing, forestry and other agricultural’, ‘ manufacturing’ and ‘ building and construction’. This reflects thepredominantly rural make-up of the area. The study area has 1% less of its working age population in public administration i. e. clerical, office, administrative and government jobs than the State average. It also has 13% less working in commerceand trade roles than the state average. Again, this reflects the rural nature of the area (see Table

## 15. 5).

## Table 15. 5 Sectoral Composition of Employment (Source: CSO Census of Population 2006,

## Census 2011 figures not available for this data yet)

## Agriculture, forestry

## and fishing

## Building and

## construction

## Manufacturing

## industries

## Commerce and trade

## Transport and

## communications

## Public administration

## Professional services

## Other

Study Area 3% 10% 10% 15% 5% 5% 23% 29%Connacht 2% 12% 17% 22% 4% 6% 22% 15%Galway 1% 11% 18% 23% 4% 5% 22% 17%State 1% 10% 15% 28% 5% 6% 19% 16%The tourism industry remains an important element of employment for the region and is directlyassociated with the visiting community and amenity value of the region. West County Galway wasvisited by approximately 700, 000 overseas tourists in 2009. In 2011, the west region of Ireland wasvisited by 1, 148, 000 tourists. The Connemara area has a strong tourism product that links a richlanguage and culture with scenic landscapes and an unpolluted, unspoiled marine environment. TheN59 acts as one of only two accesses to the Connemara region from Galway City and the east, theother being the R336, which follows the coast from Galway to Rossaveal. The Galway County Development Plan 2009-2015 sets out economic development aims for the entireCounty and stresses the need for a balance between economic growth and sustainable development. The strategic aims of the development plan reflect this through the following strategic aims: Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 308 F01Implement an overall development strategy for the County aimed at achieving the balancedand sustainable development of County Galway in a strategic and plan led manner.Improve the quality of life for the people of Galway and maintain the County as a uniquelyattractive place in which to live, work and visit.Create a receptive development environment in response to national and regional policy, suchas the National Spatial Strategy, the National Development Plan 2007-2013 and the WestRegional Planning Guidelines 2004-2016 (i. e. Counties Galway, Mayo, Roscommon andGalway City) (RPGs) and secure the development of the identified major infrastructuralprojects which will underpin sustainable development throughout the County and Regionduring the Plan period.To drive forward the balanced economic and social development of Galway by facilitating newstrategic developments at appropriate locations and enhancing the quality of life for thecitizens of Galway within an environment of outstanding quality.To move towards a more sustainable and integrated concept of development with regard toland use, transportation, water services, energy supply and waste management over thelifetime of the Plan.

## 15. 3. 1. 2 Social Consideration

Community FacilitiesThe communities in the vicinity of the proposed Greenway route have developed a range of facilitiesthat contribute to the quality of life of the area’s residents. These facilities could benefit from theimproved connectivity provided by the Greenway. It is unlikely that the Greenway will impactcommunities through severance of supporting communities. The following sections list the keycommunity and social infrastructure along the route of the proposed Greenway. In addition, the townsof Clifden and Oughterard provide a wide range of facilities used by the residents of the study area. Community FacilitiesBallinahinch ChurchRecess National SchoolRecess Garda StationRecess ChurchHealth Centre, RecessLeam National SchoolTourist Accommodation10 B&Bs adjacent to nearby N59 routeo River View B&B, Galway Road, Clifdeno ‘ All the 2’s’ B&B, Galway Road, Clifdeno Byrne Mal Dua House Guest House, Galway Road, Clifdeno Joyce’s Waterloo House B&B, Galway Road, ClifdenConnemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 309 F01o Cregg B&B, Killymongaun, Clifdeno Lakeside B&B, Derrylea, Clifdeno Dan O’Hara Farmhouse B&B, Lettersheao Wilderness B&B, Emlaghmoreo Cushlough B&B, Recesso Tullaboy House, Maam CrossClifden Glen Holiday Village, Galway Road, ClifdenBallinahinch Castle HotelAn Óige Hostel, LetteryLough Inagh Lodge, Hotel and Fishery, RecessPeacock Hotel, Maam CrossTourism Facilities on-lineDan O’Hara Heritage Centre, LettersheaGlengowla Mine Experience, GlengowlaRecreational FacilitiesConnemara Ponies, Canal, RecessGlenmaroon Pitch and Putt, GarromanOwenglin Fishery, ClifdenBallinahinch Fishery, ClifdenDerryclare Lough and Lough Inagh, Fishing, RecessScreebe Fishery, Camus, GalwayDerroura Mountain Bike Trail, Oughterard,The Golden Mile, Leam, including the ‘ Quiet Man’ Bridge, ConnemaraCommercial and other Business Premises in proximity to the GreenwayGrapefruit Moon, RecessJoyce’s Craft Shop, RecessJoyce’s of Recess: Grocery, Petrol, café, post officePaddy Feistí Bar, RecessJoyce’s Conamara Marble, RecessJoyce’s Hardware and Animal Feeds, RecessWool Merchants, Farm Supplies, Agri Oil, Tyres, Maam CrossMichael Nee Bus Hire, Canal, RecessConnemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 310 F01Walking and Cycle RoutesThere are a number of long-distance walking, cycling and driving routes within the vicinity of theproposed Greenway as shown in Figure 15. 1. These are:Western WayThe Western Way is a long-distance walkway that runs from Oughterard through Westport andBallina to the border of Mayo / Sligo. Within County Galway it travels through Maam, Maumeen, Inagh and Leenane. The route is connected to Recess village by another walkingroute, the Slí Conamara, described below. The route is 6 km from Maam Cross, but connectionhere is via the existing R336 regional road.Slí ChonamaraThis is a way-marked long-distance walking route that journeys through Connemara, primarilyalong the coastline. The western part of the Slí connects the Connemara Coast at Rosmuc, northwards through forests to the Western Way north of Recess. Slí Conamara interacts withthe proposed Greenway in the vicinity of Recess village.Bord Fáilte National Cycle NetworkThe Galway to Clifden route as set out in the A Strategy for the Development of Irish CycleTourism’ (2007) plan identifies a route on the proposed N59 road development west ofOughterard that turns south at Maam Cross (Chainage 256100) and arriving at Clifden via thecoastal orientation on the regional road (R341), rejoining the proposed N59 road development.The Connemara Loop (Fáinne Conamara)This is an 85 km long sign-posted driving route through Connemara. It goes from Maam Crossto Leenane and onwards to Renvyle, Letterfrack and Recess before returning to Maam Crossalong the existing N59.Clifden Looped CyclesClifden serves as a hub for a number of looped cycle routes from the town. These range inlength from 14 km to 40 km and run to Cleggan, the Sky Road, Errislannan and Roundstone. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 311 F01

## Figure 15. 1 Walking and Cycling Routes

Source: Fáilte IrelandPublic TransportThe N59 route is served by the 419 / 421 Bus Éireann service. This travels between Clifden andOughterard 3 times a day in winter and 5 times a day in summer. School bus services are alsoprovided in the study area. Amenity & Communities - There are three principal elements to the community of the study area, namely:the residential community;the working community, andthe visiting community. For the purpose of this assessment the residential community consists of those living within the StudyArea. The Study Area is largely rural, apart from the urban settlements of Oughterard and Clifden. The villages of Oughterard and Clifden host a number of local shops and a basic range of services areprovided for those residing within these villages and in their immediate hinterland e. g. hotels, shops, pubs, Corporate Park, GAA club, community centre, leisure centre and offices. Oughterard remains adesirable residential location for those prepared to commute to work in the larger urban centres ofGalway City. Oughterard displays the characteristics of a dormitory settlement: a high residentialcontent, no significant local employment base and a high level of commuting. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 312 F01The majority of the townlands located within the Study Area are mountainous with many lakes. Thereis some intensive agricultural land in the regions but it is largely extensively farmed agricultural landsand bog. Table 15. 6 shown overleaf, sets out the population structure, employment trends and employmentlevels for the nine main electoral divisions that cover the study area of the Connemara GreenwayProject – Clifden to Oughterard. From this table it is clear that the female working community consists mainly of professional workers orworkers in the service industry. The male community consists predominantly of building andconstruction workers or " other workers". There is also some reliance on the fishing, forestry andfarming industry. The study area is close to Galway City for commuting for professional workers. Oughterard and Clifden are also popular tourist destinations which have resulted in the creation of alarge service industry in the region. As this information is taken from the 2006 census, it is likely that the breakdown of these workingsectors has changed to reflect recent economic changes. It is likely that unemployment levels haveincreased and that the level of those employed in the building and construction sector will havedecreased. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 313 F01

## Table 15. 6 Population Structure, Employment Trends and Employment Levels for the Nine Main Electoral Divisions (Census 2011 figures not

## available for this data yet

## Electoral

## Division

## Binn an

## Choire Clifden Derrycunlagh/

## Derrylea An Uillinn Maíros An

## Crompán Letterfore Oughterard Wormhole

Population(15yrs +) 218 1723 202 82 316 1854 233 2027 1458UnemploymentLevels (%) 3. 2 5. 5 4 8. 5 7. 6 9. 1 1. 7 4. 1 3. 2MainEmploymentSector\*F ServiceWorkersServiceWorkersServiceWorkersProfessional /Service WorkersServiceWorkersProfessionalWorkersSalesWorkersProfessionalWorkersProfessionalWorkersM OtherWorkersOtherWorkers Other Workers Farming, Fishing& ForestryBuilding &ConstructionBuilding &ConstructionBuilding &ConstructionBuilding &ConstructionBuilding &Construction

## \*F – Female M – Male (Source: CSO, 2006)

Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 314 F01In terms of the visiting community the predominant attraction is angling and tourism. Connemara is apopular region for driving, cycling and walking. A document published by Fáilte Ireland " Tourism Facts2010" shows that approximately 693, 000 tourists engaged in hiking and cross country walking whilevisiting Ireland in 2010. This figure accounts for 58% of all activities surveyed and displays theimportance of hiking and cross country walking to the Irish tourism industry. Fáilte Ireland promotes anumber of activities in Connemara on their website www. discoverireland. ie, including the DerrouraMountain Bike Trail at Derroura Mountain in Connemara; the Connemara Garden Trail which includessites such as Ballynahinch Castle Hotel, Brigit’s Garden’s Roscahill and Cashel House Hotel Cashel; as well as the Connemara History and Heritage Trail which includes sites along the N59 such asKilcummin Parish Church, Glengowla Mines and Aughnanure Castle in Oughterard, BallynahinchCastle, Cashel House Hotel and Clifden Castle.

## 15. 3. 1. 3 Land Use

The route for the proposed Greenway is located on the disused Galway and Clifden Railway line in arelatively sparsely populated area between Clifden and Oughterard. There are no topographicalconstraints in the area, as the Greenway will be located for the most part on the existing rail line. Themajority of the route is located in an area designated as a ‘ Poor Aquifer’. Under the landscapesensitivity rating in the County Development Plan, the Plan area is classified from Class 3 (highsensitivity) to Class 5 (Unique sensitivity). The Study Area is located between the coastal town ofClifden to the west and travels through a lake-rich transitional zone which lies between the southernfoothills of the mountainous Connemara National Park to the north and extensive bog lands to thesouth. There are four designated or protected sites within the Study Area and surrounding environs:Lough Corrib NHA/SPA/cSAC;Connemara Bog Complex cSAC/NHA (Site Code: 002034);Maumturk Mountains cSAC/NHA (Site Code: 002008);Twelve Bens cSAC/NHA (Site Code: 002031). Designated sites are discussed further in Chapter 10. Land ownership along the route for the proposed Greenway is mostly private. The disused railway lineis not a public right of way and there are a number of dwellings and one commercial operationoccupied immediately adjacent to the track. The rail track is currently unfenced in many parts andtherefore it is considered part of each landholding it runs through.

## 15. 3. 1. 4 Health and Safety

Currently there are no risks of death, disease, discomfort or nuisance associated with the existing railline. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 315 F01

## 15. 3. 2 Material Assets

Material assets can be defined as physical resources in the environment, which may be either ofhuman or natural origin. These are further broken down in the EPA publication ‘ Advice Notes onCurrent Practice in the preparation of Environmental Impact Statements’ (2003) into the following: Economic Assets of Natural and Human Origin: The most significant natural resource occurringwithin the study is the scenic landscape. The mountainous peat landscape and bedrock outcrop havean economic value in terms of tourism and amenity value. The proposed Greenway is likely to attractfurther tourism to the area. Other significant natural and economic assets occurring within the study area are the blanket peat andassociated soils areas, the mineral resources (quarries and mines) as well as the many rivers andlakes scattered throughout the study area. The main man-made material assets include thetransportation network, utilities (electricity and telephone), water and wastewater. Blanket Peat and Associated Soils: These areas are considered to be a non-renewable naturalresource of importance for the region. Mineral Resources: There are known mineral or aggregate deposits existing within the study area. There are also two extractive industry related activities within a 1km boundary of the Greenway –Lackagh Quarries and Lissoughter Green Marbles Quarry, both located in Recess. These aspects willnot be impacted negatively by the proposed GreenwayRivers, Lakes and Streams: These freshwater habitats are important fisheries habitats which havean economic value in terms of angling, tourism and amenity value. The water quality and morphologyof the river channels, lakes and streams have the potential to be influenced by the proposedConnemara Greenway Project – Clifden to Oughterard, particularly during construction stage of theworks. Transportation Network: The remnants of the railway line from Oughterard to Clifden consist of awell defined corridor for much of its length with a number of intact bridges. The corridor merges withthe N59 at Lough Aggrafard, Bunscanniff townland to Cloonoppeen Bridge and at Recess. TheGreenway also merges with the regional road R341 from Ballinafad to Cloonbeg Bridge. TheGreenway crosses the N59 at Shannakinlough, Glendollagh Loch and Athry Lough. There are noexisting modern rail corridors in the area. Work at the river crossings, i. e. bridges, may constrain the local transport network and have thepotential for disruption to electricity and telephone lines. This will need to be considered further atlocations where these features are coincident. Utilities Infrastructure: A medium voltage, 3-phase, 10kV ESB overhead powerline runs fromOughterard to Recess to Clifden, following, in different sections, the corridor of the dismantled railwayline and the N59. The 10kV powerline follows the route of the proposed Greenway for approximately5km from Oughterard village to Lough Aggrafard and for approximately 8km from Bunscannifftownland though Maam Cross to Bunnakill townland. West of Recess the 10kV overhead powerlinediverges from the dismantled railway line. The proposed Greenway will cross under an additional 10kVoverhead powerline close to Ballinahinch and again when entering the environs of Clifden town. The ESB also has a 38kV overhead powerline between Oughterard and Clifden. The 38kV powerlinedoes not follow the route of the proposed Greenway/N59 exactly. Instead the 38kV powerline runs in anorth of the N59 from Oughterard to Recess crossing the N59 and the proposed Greenway atBoocaunmore. The 38kV line then follows a route between the N59 and the proposed Greenway fromRecess to Clifden and crosses the Greenway at Lough Muingacurry. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 316 F01Through correspondence with Bord Gais it was found that there are no gas networks in the vicinity ofthe study area. Telecommunications infrastructure in the study area includes overhead telephone lines. Constructionof the Greenway underneath overhead telephone lines is likely and some diversion of telephone polesmay be required. Water Supply: There are 2 public water schemes in the study area at Oughterard and Clifden. Wastewater Treatment: There is no local authority wastewater treatment plants located within thestudy area. All wastewater is currently treated via private wastewater treatment systems. Cultural Assets of a Physical and Social Type: There are 32 Records of Monuments and Places(RMP’s)12 located within 300m of the proposed Greenway. All of the 32 individual recorded archaeological sites are listed within the RMP (Recorded Monumentsand Places), with the exception of AH 32, which is a potential ringfort site. A total of 4 of the 52 sitesare also designated Protected Structures in the Development Plan. None of these are listed asNational Monuments, or subject to preservation orders. The closest recorded site consists of apossible late 18th century burial. This is located c. 30m south of the proposed route within thetownland of Killymongaun. The remaining sites vary in type and date, ranging from early medievalthrough to post medieval garden features. Several of the recorded sites have been deemed to be ‘ nonantiquities’. A survey as part of the archaeology assessment for this EIS found 123 built heritage sites. Due to thepast use of the proposed route as a railway, many of the structures (85 out of 123) relate directly to itsformer use. A review of the County Galway Development Plan (2009−2015), the Clifden Local Area Plan (2009−2015) and the Oughterard Local Area Plan (2006-2012) revealed that there are a total of eightprotected structures located within c. 300m of the proposed route. The closest structure to the schemeis Ardbear Old Bridge, which is located at the beginning of the routeA total of 20 individual or groups of buildings were identified within the survey in proximity of theproposed Greenway. Of these, eight are already listed within the register of protected structures. Several of the structures are located along the scheme. These include Ardbear Old Bridge, a railwaybridge at Ballynahinch, a road bridge at Cloonbeg, a railway bridge at Letterfore and the ‘ Quiet Man’bridge. Refer to Chapter 13 for details pertaining to all archaeological issues.

## 15. 4 POTENTIAL IMPACTS

The human environment and their associated material assets in the region of the proposed GreenwayProject have been set out in the previous section. This section further assesses the potential impactson this element of the environment resulting from the proposed Greenway Project. 12 A statutory list of all known archaeological monuments provided for in the National Monuments ActsConnemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 317 F01

## 15. 4. 1 Greenway Project Construction

## 15. 4. 1. 1 Impacts on Human Beings

Economic Activity – Construction of the proposed Greenway will be carried out by Galway CountyCouncil staff and/or contractors and will not result in any additional employment in the area. There willbe a total of approximately 14 people employed during the construction phase. Social Consideration – The construction phase of the proposed Greenway will not impact any typesof activity and land use. Land Use – The construction phase of the proposed Greenway may impact on use by walkers orfarmers in the area where construction is underway. Health and Safety – During construction of the proposed Greenway workers on site will be at riskfrom activities associated with this work. In addition, members of the public who come into contact withconstruction activities will be at risk from these activities. Members of the public who live in proximity tothe works may also be at risk of increased noise levels and decreased air quality levels from theconstruction work.

## 15. 4. 1. 2 Impacts on Material Assets

## Economic Assets of Natural and Human Origin

Blanket Peat and Associated Soils: The majority of the proposed Greenway will be located on theexisting disused railway line. During the construction phase there will be some loss of cutover peat. Nopart of the Greenway is proposed for blanket peat areas. Mineral Resources: Lackagh Quarries and Lissoughter Green Marbles Quarry, both located inRecess will not be impacted negatively by the construction of the proposed Greenway. Stone for theGreenway base and surface, approximately 50, 000 tonnes, will be sourced from local quarries. Rivers, Lakes and Streams: The water quality and morphology of the river channels, lakes andstreams have the potential to be influenced by the proposed Greenway during the construction stageof the works. This is particularly so when bridge replacement and land drain works are being carriedout. Transportation Network: The proposed Greenway route merges with the N59 at Lough Aggrafard, Bunscanniff townland to Cloonoppeen Bridge and at Recess and with the regional road R341 fromBallinafad to Cloonbeg Bridge. The Greenway crosses the N59 at Shannakinlough, Glendollagh Lochand Athry Lough. The Greenway has the potential to impact on the road network at these locationsand in particular at river crossings on the network. Work at the river crossings, i. e. bridges, may constrain the local transport network and have thepotential for disruption to electricity and telephone lines. This will need to be considered further atlocations where these features are coincident. Utilities Infrastructure: Construction of the Greenway underneath overhead telephone lines is likelyand some diversion of telephone poles may be required. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 318 F01Water Supply: It is not likely that construction of the proposed Greenway will impact on water supplyin the area. Wastewater Treatment: All wastewater is currently treated via private wastewater treatment systemsin the vicinity of the Greenway. It is not likely that construction of the proposed Greenway will impacton wastewater treatment in the area. Construction of the proposed Greenway route will for the most part not pose constraints on the mainland uses, population or employment in the region. Any in-stream or adjacent to river works requiredincluding bridge and drainage works could have an effect on the fisheries potential of localwaterbodies, fish passage and flows with resulting impacts on the angling resources of the region. There may be temporary impacts for local people who currently use the route as a walking trail andnoise sensitive receptors due to the construction of the route. However implementation of suitablemitigation measures should ensure that these impacts are minor in magnitude.

## 15. 4. 2 Greenway Project Operation

## 15. 4. 2. 1 Impacts on Human Beings

Economic Activity –It is estimated that operation of the proposed Greenway will stimulate additionaltourism for the local area and for the country. A similar scheme, the Great Western Greenway(Westport-Newport-Mulranny-Achill), has resulted in an increased opportunity for employment andeconomic stimulation in that local area and has provided the region with an additional local andtourism amenity. It has been estimated that the Great Western Greenway contributed an additional€3. 8 million spend in the local economy in 2011 and helped to create an estimated 38 new full-timeequivalent jobs. Social Consideration – It is estimated that the operational phase of the proposed Greenway willimpact on the types of activity in the area. The Great Western Greenway has seen use by ‘ local’ Co. Mayo residents at 38%. Activities on the trail were broken down into 56% of local users walking on thetrail, while 90% of domestic visitors and 80% of overseas visitors participating in cycling as either asole activity or in combination with walking. It is expected that similar activities and participation levelsby user groups will result during operation of the Connemara Greenway Project – Clifden toOughterard. Land Use – It is intended that the disused railway route will remain in private ownership with allboundaries respected. There will be no payment for access or maintenance with the route to bemaintained by Galway County Council. However, it may be necessary to put alternative arrangementsin place in the future. On all waymarked way trails, the owners and occupiers of private propertycrossed by the way will be indemnified against any negligence claims by a recreational user foraccident, damage or injury sustained while walking on private property. Indemnity will be provided byGalway County Council through a policy administered by Irish Public Bodies Mutual Insurance Ltd.; hence the landowner is indemnified from any claims. The limit of indemnity provided for any oneaccident is €9, 500, 000 inclusive of all damages, costs and expenses. As such, the policy extends to alllandowners whose lands either cross or adjoin the designated walking route. The indemnity is validwhether the recreational user is actually on the way or has strayed off it. Where a walking / cycling trail development crosses either public or private land, the landowner’spermission to do so must always be obtained. The majority of recreational trail developments inIreland are established on a permissive basis. A permissive trail is a trail which people are allowed touse with the agreement of the landowner. Where the proposed Greenway crosses private lands it willbe considered a permissive trail and not a public right of way. In order to maintain the permissivenature of this access the route will be closed for one day every year. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 319 F01It is possible that a reduction in connectivity of the area of workable lands for agricultural purposesmay occur. Health and Safety – The proposed Greenway route will be limited to use by walkers and cyclists. Where the proposed route is adjacent to or crosses a public road there is a risk of injury or death tousers and possible nuisance to road traffic.

## 15. 4. 2. 2 Impacts on Material Assets

## Economic Assets of Natural and Human Origin:

Blanket Peat and Associated Soils: No impacts to ‘ Blanket Peat and Associated Soils’ duringoperation of the proposed Greenway are foreseen. Mineral Resources: No impacts to ‘ Mineral Resources’ during operation of the proposed Greenwayare foreseen. Rivers, Lakes and Streams: During the operational phase of the Greenway water quality of the riverchannels, lakes and streams have the potential to be influenced by the proposed Greenway as a resultof weed spraying activities on the route. Transportation Network: Where the Greenway crosses roadways there is the potential for negativeimpacts road traffic. Utilities Infrastructure: No impacts to ‘ Utilities Infrastructure’ during operation of the proposedGreenway are foreseen. Water Supply: No impacts to ‘ Water Supply’ during operation of the proposed Greenway areforeseen. Wastewater Treatment: No impacts to ‘ Wastewater Treatment’ during operation of the proposedGreenway are foreseen.

## 15. 5 MITIGATION MEASURES

## 15. 5. 1 Greenway Project Construction

Any potential negative impact identified will be mitigated for through a range of measures which areassessed in detail in this EIS. Table 15. 9 summarises the potential impacts identified for humanbeings and material assets as a result of the proposed Greenway Project. Mitigation measures areincluded where required.

## 15. 5. 2 Greenway Project Operation

Where alteration of existing land use will occur it will be necessary to obtain landownerpermission/consent and to replace lands adjacent to the Greenway fit for purpose post GreenwayProject works. Potential pollution of water as a natural resource through weed spraying will bemitigated through selective weed spraying as per measures in Chapters 10. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 320 F01

## 15. 6 RESIDUAL IMPACTS

There may be minor temporary impacts for local road users and noise sensitive receptors duringconstruction of the Greenway Project. However implementation of suitable mitigation measure shouldensure that these are minor in magnitude. The proposed Greenway Project will provide positiveimpacts for the local community with an added local and tourist amenity providing both economic andsocial benefits.

## 15. 7 CONCLUSIONS

It is anticipated that the proposed Greenway Project – Clifden to Oughterard will have significantpositive impacts for the local human environment in both economic and recreational terms. It is hopedthat this development would benefit local communities in as much as it would provide a secure andsafe environment for walkers and cyclists leading to an increased opportunity for physical exercise. Itwould also provide a unique and novel experience for visitors to the area. It is anticipated that there may be some minor temporary disturbances to the local farming communityand walkers along the disused rail line and to noise sensitive receptors during construction of theGreenway. However if proposed mitigation measures are put in place as recommended these impactsshould remain minor or insignificant in nature. Connemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 321 F01

## Table 15. 9 Summary of Impact Assessment on Human Beings & Material Assets

## Potential

## Impact on

## Human and

## Material

## Assets

## Environment

## Positive/

## Negative

## Major/Moderate

## /Minor

## Area

## Affected Duration\* Mitigation Measures

## Residual Impact

## Greenway Route Construction

Transportmachinery tosite causingtrafficinconvenienceNegative Minor Local TemporaryNotify local road users of time that machinerywill be transport to siteTransport machinery during non- peak traffichoursNoneIncreased noiselevels Negative Minor Adjacentto site Temporary Ensure that activities are restricted to workinghours where working near sensitive receptors NoneDecreased airquality Negative Minor Adjacentto site Temporary Measures to be put in place as per Section12. 5. NonePollution ofwater as anatural resourceNegative Major Local Temporary A range of measures to be put in place as perChapters 8 and 10. NoneHealth andSafety Risks Negative MinorGalwayCo. Co. workersTemporaryFollow Galway County Council Health andSafety Policies and Statements at all timesduring works. None

## Greenway Route Operation

Alteration ofexisting landuseNegative Minor Local PermanentObtain landowner permission/consentReplace lands adjacent to the Greenway fit forpurpose post Greenway Project works. The land will beeconomically beneficialto the local communityPollution ofwater as anatural resourcethrough weedsprayingNegative MajorAdjacentordownstream of siteTemporary Selective spraying as per measures in Chapters 8and 10. NoneVisual Impactfor localresidentsNegative Minor Local -Adjacent PermanentRetention of the existing vegetation as far aspossible.Site preparation areas and compound areas willbe kept tidy at all times. Potential minor impactfor local residentsConnemara Greenway Project - Clifden to Oughterard - EISHuman Beings & Material AssetsMGE0269RP0003 322 F01

## Potential

## Impact on

## Human and

## Material

## Assets

## Environment

## Positive/

## Negative

## Major/Moderate

## /Minor

## Area

## Affected Duration\* Mitigation Measures

## Residual Impact

Public use ofprivate lands forrouteNegative Minor Local PermanentObtain landowner permission/consentMaintain upkeep of Greenway by Galway Co. Co.Maintain indemnity insurance by Galway Co. Co.Maintain permissive nature of route by closingroute for one day each yearPotential minor impactfor local landownersSeverance ofagriculturallandholdingsNegative Minor Local Permanent Provide cattle stops and fencing betweenlandholding severed by the Greenway NoneIncreased localand nationaltourism spendPositive Moderate Local/Regional Permanent N/A Economic benefits forCounty and RegionHealth andSafety Risksduring operationof the proposedGreenwayNegative MinorPublicusers ofGreenwayPermanentFollow Galway County Council Health and SafetyPolicies and Statements at all times during works. NoneConnemara Greenway Project - Clifden to Oughterard - EIS