South East Strategic Reservoir Option

Preliminary Environmental Information Report

Appendix 16.2 - Preliminary assessment of effects for Human health

Date: October 2025

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1 Preliminary assessment of effects

1.1 Introduction

1.1.1 This Appendix sets out the preliminary assessment of effects for Human health, receptor by receptor, for the construction and operation stages respectively. The appendix is split into tables that list effects that are initially anticipated to be significant and tables that list effects that are not initially anticipated to be significant. The judgement of significance has been made assuming that embedded design mitigation and standard good practice mitigation relevant to Human health is applied (these are summarised in this Appendix with further detail provided in the Draft commitments register in Appendix 2.2). Nevertheless, the assessment assumes that additional mitigation is not applied, as the viability, nature and extent of any additional mitigation measures is not confirmed at this stage in the EIA process. As a result, consideration of residual effects (those that remain after the implementation of all mitigation, including additional mitigation) has not been completed for the PEI report.

1.1.2 Each receptor assessed for this aspect in the preliminary assessment is listed in the 'Baseline conditions' section of the associated PEI Report chapter, and also within the tables in this appendix. Each receptor has been assigned an Area ID which relates to the spatial extent of the receptor assessed. Where these have been spatially defined for the PEI Report, these are shown in figures cross-referenced from the 'Baseline conditions' section.

1.1.3 Each effect assessed has been assigned a unique identifier, the Effect ID.

1.1.4 The tables identify the following for each effect:

- Receptor name, Effect ID and sensitivity category
- Project components and activities giving rise to the effect
- Relevant embedded design mitigation and standard good practice mitigation (with unique Commitment ID, which relates to Appendix 2.2: Draft commitments register)
- Magnitude of impact category and narrative (if reported)
- Initial category of effect significance, including whether it is adverse, beneficial or neutral (taking account of embedded design mitigation and standard good practice measure)
- Description and duration of the effect
- Any additional mitigation and monitoring identified at this stage (with unique Commitment ID, to enable cross reference to the measures noted in Section 16.10: Next steps of applicable aspect chapters)

1.2 Likely significant construction effects

Table 1.1 Initial likely significant effects during construction (with embedded and standard good practice mitigation applied, but prior to additional mitigation)

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Community within the Local Study Area (vulnerable groups) [HH-9] (**High**)	Most / all project components	Most / all project activities (construction)	No embedded design or standard good practice mitigation identified at this stage.	**Medium** Whilst uncertainty has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information through ongoing consultation, including the Statutory Consultation process prior to DCO submission, and consultation prior to construction. However, for vulnerable groups the magnitude of impact will be higher than for the general population.	**Moderate** (**Significant**) Adverse	**Pre-construction uncertainty and anxiety relating to unknown effects**: Prior to the commencement of the construction of the Project, the community within the local study area may feel uncertain about the Project and how it will impact their lives including through impacts to environmental amenity, community facilities and the housing market. This may cause anxiety and stress, which can have a negative impact on mental health and wellbeing. This effect is only considered prior to the construction phase commencing as at that point anxiety and stress relating to the Project are considered within a range of effects occurring within the construction phase, including relating to access, amenity and sense of place. (Medium-term)	(AM-46) Measures to support the community prior to and during the construction.
Users of active travel routes (vulnerable groups) [HH-13] (**High**)	Most / all project components	General construction activities Off-site transport movements	(ED-19) Reduce transport disruption between Steventon and East Hanney. (SGP-01) Road safety audits. (SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The socio-economics and communities assessment identifies a significant effect due to the temporary closures of a section of NCN 5. The traffic and transport assessment has identified three likely significant and other not significant effects which may have a combined effect on the overall ease of access to active travel, however this is not likely to significantly discourage access. The significant effects do not interact with the National Cycle Network. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still	**Moderate** (**Significant**) Adverse	**Healthy lifestyles: Access and amenity changes to active travel routes on the road network**: There will be some changes to the road network during construction to facilitate road upgrades for construction traffic. There will be increased traffic associated with construction vehicles, which may cause delays and also lead to a change in air quality and noise conditions on roads and discourage NMU use. This includes on National Cycle Network Route 5, which passes through the local study area. Overall, these changes may negatively impact levels of usage of these resources due to reduced opportunity, attractiveness and amenity, and concerns about road safety.	(AM-08) Highways improvements to reduce effects on the wider transport network.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			(SGP-49) Temporary mitigation for Public Rights of Way and active travel route diversions.	be noticeable to regular users. The noise assessment has identified likely significant noise effects from construction activities to open space resources within the local study area. Overall where these effects occur they may cause some displacement to other, less affected, resources within the area.		At a population level, this may reduce the health and wellbeing benefits associated with physical activity and active lifestyles. Vulnerable groups, including children and older people, are more likely to be more susceptible to, or have greater concerns about, safety and amenity changes to active travel routes. (Long-term)	
Users of West End allotments [HH-23] (**Moderate**)	Most / all project components	General construction activities	(SGP-27) Liaison with communities prior to and during construction.	**Large** It is currently assumed that the part of the allotments lost would be removed with no other provision made, and would not be reinstated to this land use following completion of construction. Whilst there are two other allotment sites in Abingdon, allotments tend to serve localised communities and additionally may not have capacity for new members.	**Moderate** (**Significant**) Adverse	**Healthy lifestyles: Loss of West End Allotments**: Part of the West End Allotments will be permanently removed to facilitate the construction of the Project. The remaining allotments will experience environmental amenity effects, including air quality, noise and visual effects due to construction activities. For users of these facilities there will be a direct impact in terms of the lost opportunity for spending time in green space and participating in an activity that supports healthy lifestyles through physical activity and provision of healthy food. Opportunities for social interaction may also be reduced by the loss of a community resource. At a population level, this may reduce the social and mental health and wellbeing benefits associated with time spent in nature, and from participating in a community activity. (Permanent)	(AM-45) Provision of alternative land for West End Allotments. Provision of alternative land would allow the community use to continue, although some participants may not be able to or wish to access and use the new site. Additionally, due to the nature of allotmenting there would be a loss of amenity during the transition period. This could be further mitigated by timing the move outside of key growing seasons, and allowing for an overlap between the closure of the existing site and the opening of the new site.
Residents living within the Regional study area (in relation to housing) [HH-24] (**Moderate**)	Most / all project components	Site personnel influx / job creation	No embedded design or standard good practice mitigation identified at this stage.	**Medium** The population of the regional study area is 725,291. It is currently unknown what proportion of workers are likely to already be resident within this area. The workforce will fluctuate throughout the construction period. Assuming a worst-case scenario where no on-site worker accommodation is provided, at a peak period of 1,800 workers, there would likely be a noticeable short term impact to the	**Moderate** (**Significant**) Adverse	**Housing: Decrease in housing availability due to in-migration**: The construction of the Project is expected to require a peak workforce of 1,800 workers. This is likely to result in a degree of temporary in-migration to the region, which may increase housing demand. At a population level, this may increase the health and wellbeing disbenefits associated with the reduced availability of safe and appropriate housing, including increased use of temporary accommodation, and use of	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				housing market, which may cause some stress and anxiety to existing residents. Likely workforce migration and housing market impacts will be assessed in more detail in the Environmental Statement.		overcrowded or poor quality housing, and increased costs. (Long-term)	
Residents living within the draft Order limits (in relation to involuntary relocation) [HH-25] (**Moderate**)	Most / all project components	Demolition	No embedded design or standard good practice mitigation identified at this stage.	**Large** Residential properties will be compulsorily acquired and are assumed to be permanently demolished.	**Moderate** (**Significant**) Adverse	**Housing: Involuntary relocation**: There is expected to be a loss of 20 residential properties and nine farms or smallholdings (some including residential properties) within the draft Order limits. This can lead to stress and uncertainty in advance of relocation, and residents may face practical, work, or social difficulties associated with the move itself. (Permanent)	(AM-46) Measures to support the community prior to and during the construction.
Community within the Local Study Area (vulnerable groups) [HH-34] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified a likely significant severance effect for NMU due to traffic flows on A415 Marcham Road between Marcham and Farringdon Road, and a likely significant effect causing delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. The traffic and transport assessment has identified other non-significant traffic and transport effects throughout the local study area, including to public transport, which may have a minor combined effect on the overall ease of access to community services and between communities, however this is not likely to significantly discourage access to these resources.	**Moderate** (**Significant**) Adverse	**Community identity and cohesion: Access to assets and services, severance and social isolation**: Some communities including rural dwellings may experience decreased connectivity to community assets and services and to other communities, due to NMU severance and traffic delays caused by construction activities and construction traffic. Some members of the community may have a perception of worsened road safety which may discourage travel. Communities may be less likely to access community assets and services, which could increase social isolation, particularly for more vulnerable groups. This may decrease the health and wellbeing benefits associated with social connections. (Long-term)	(AM-46) Measures to support the community prior to and during the construction.
School community at the Unicorn School (vulnerable group) [HH-37] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic	**Small** The traffic and transport assessment has identified a likely significant effect of delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. These junctions would likely form part of the access route to this facility for	**Moderate** (**Significant**) Adverse	**Socio-economic conditions: Effects to The Unicorn School, A415 corridor in west Abingdon**: Construction traffic is expected to approach the Site primarily via the A34, after which a key route will be along the portion of the A415 in Abingdon, passing the Unicorn School	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	some users, who may have specific access arrangements or requirements in place. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to users of this facility. Overall these effects may cause temporary disruption and stress to some users of the education facilities, and alter existing access arrangements.		before turning south towards the Site. Road works will be required along the A415 to facilitate this route. This may cause changes to access and environmental amenity for nearby receptors. The Unicorn School, a specialist school for children with learning differences, is located in the A415 corridor between the A34 and Market Place Abingdon. Impacts on the school environments and/or access to the schools may cause stress for pupils, parents/carers and staff and also has the potential to reduce the social and educational benefits associated with attending school. (Long-term)	
School communities (vulnerable groups) [HH-39] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that effects in this area, including to public transport, are likely to be non-significant. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to users of these facilities. The noise assessment has identified significant effects from construction activity noise to the community in Steventon. The landscape and visual assessment has identified a significant effect in Steventon. Overall these effects may cause temporary disruption and stress to some users of the education facilities, but are unlikely to prevent access or alter education experiences.	**Moderate** (**Significant**) Adverse	**Socio-economic conditions: Effects to education facilities in Steventon**: In Steventon there will be access and amenity changes associated with construction traffic travelling through Steventon, site works and the Steventon-E Hanney diversion. There are two educational facilities located in Steventon: St Michael's Church of England Primary School and Duchess Nursery. Impacts on the school environments and/or access to the schools may cause stress for pupils, parents/carers and staff and also has the potential to reduce the social and educational benefits associated with attending school. (Long-term)	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.
Community within the Regional study area (in relation to employment and	Most / all project components	General construction activities	No embedded design or standard good practice	**Medium** The socio-economic and communities assessment has identified likely significant effects from increased	**Moderate** (**Significant**) Beneficial	**Socio-economic conditions: Employment and wider economic effects**: The construction of the Project is expected to require a peak workforce of 1,800	(AM-13) Measures to maximise economic benefits during construction.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
economic effects) [HH-41] (**Moderate**)		Site personnel influx / job creation	mitigation identified at this stage.	employment opportunities and increased GVA within this area. Quantitative calculation of employment generation and economic benefits will be undertaken in the Environmental Statement.		workers. This is likely to create employment and training opportunities within the local study area. There may be wider benefits to the economy in the regional study area due to the construction of the project. Improved economic conditions may have indirect benefits for the community such as increased indirect employment opportunities and improved assets and services. Secure, good quality work can have direct mental health and wellbeing benefits, and indirect benefits to wider health and wellbeing associated with increased financial resources. (Long-term)	
Users of community resources (vulnerable groups) [HH-43] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment.	**Small** The traffic and transport assessment has identified a likely significant severance effect for NMU due to traffic flows on A415 Marcham Road between Marcham and Farringdon Road, and a likely significant effect causing delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. The traffic and transport assessment has identified other non-significant traffic and transport effects throughout the local study area, including to public transport, which may have a minor combined effect on the overall ease of access to community services and between communities, however this is not likely to significantly discourage access to these resources.	**Moderate** (**Significant**) Adverse	**Health and social care: Access to health and social care services**: Some communities including rural dwellings may experience decreased connectivity to health and social care services, due to severance caused by construction activities and traffic and diversions to travel networks. Communities may find it more difficult to access health and social care services, which could affect mental wellbeing and in some cases discourage people from accessing services. This may have a negative effect on physical and mental health and wellbeing at a population level. (Long-term)	(AM-08) Highways improvements to reduce effects on the wider transport network.
Community in Drayton [HH-48] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities	**Medium** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant.	**Moderate** (**Significant**) Adverse	**Environmental amenity: Effects in Drayton**: In Drayton there will be changes associated with construction traffic along the A34 and travelling through Drayton, road upgrade works, , the connection to the Drayton Sewage Treatment Works and site works in the north-eastern part of the site. This may cause changes to access and environmental amenity, including air	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			prior to and during construction.	The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the community in Drayton. The landscape and visual assessment has identified a significant effect in Drayton.		quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing mental wellbeing and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	
Community in Steventon [HH-51] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Medium** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the community in Steventon. The landscape and visual assessment has identified a significant effect in Steventon.	**Moderate** (**Significant**) Adverse	**Environmental amenity: Effects in Steventon**: In Steventon there will be changes associated with construction traffic travelling through Steventon, site works and the Steventon-E Hanney diversion. Steventon is also near to the railway line which may see additional movements due to construction materials being brought to Site by rail. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing mental wellbeing and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.
Users of South Oxfordshire Crematorium and Memorial Park [HH-59] (**High**)	Most / all project components	General construction activities	(SGP-19) Standard good practice measures to reduce impact of construction traffic	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however	**Moderate** (**Significant**) Adverse	**Environmental amenity: Effects at the South Oxfordshire Crematorium and Memorial Park**: At the South Oxfordshire Crematorium and Memorial Park, there will be changes associated with	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
		Off-site transport movements	on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the South Oxfordshire Crematorium and Memorial Park. The landscape and visual assessment has not identified significant effects in this area.		increased traffic on the A338 and the presence of the construction site adjacent to the site. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community using this facility. The site is used for services and by visitors to graves or memorial sites and currently provides a peaceful setting which is of high value to users. The site is large with landscaped grounds and a rural setting and there are no comparable alternative facilities in the area. (Long-term)	
Users of South Oxfordshire Crematorium and Memorial Park (vulnerable groups) [HH-60] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the South Oxfordshire Crematorium and Memorial Park. The landscape and visual assessment has not identified significant effects in this area.	**Moderate** (**Significant**) Adverse	**Environmental amenity: Effects at the South Oxfordshire Crematorium and Memorial Park**: At the South Oxfordshire Crematorium and Memorial Park, there will be changes associated with increased traffic on the A338 and site works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community using this facility. The site is used for services and by visitors to graves or memorial sites and currently provides a peaceful setting which is of high value to users. The site is large with landscaped grounds and a rural setting and there are no comparable alternative facilities in the area. (Long-term)	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

1.3 Likely significant operation effects

Table 1.2 Initial likely significant effects during operation (with embedded and standard good practice mitigation applied, but prior to additional mitigation)

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Visitors to the on-site recreational routes, including the local and wider community [HH-70] (**Moderate**)	Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice mitigation identified at this stage.	**Medium** Recreational routes on the site will be a major new resource which is not comparable with existing resources in the area. The new on-site provision caters to walkers, cyclists, wheelers and horse riders. This makes them accessible to a range of user groups, including more vulnerable groups such as people with reduced mobility/ wheelchair users or families with infants in prams.	**Moderate** (**Significant**) Beneficial	**Healthy lifestyles: Increased physical activity with provision of new on-site recreational routes**: The project will provide on-site cycling, walking/running and wheeling trails of varying lengths. This will provide additional opportunities for physical activity for a range of visitors to the Site which, at a population level, will provide mental and physical health and wellbeing benefits associated with physical activity and active lifestyles and access to blue and green open space. (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Visitors to the recreational lakes, including the local and wider community [HH-71] (**Moderate**)	Recreational lakes centre (including visitors centre) Recreational lakes (east and west)	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice mitigation identified at this stage.	**Medium** The Recreational Lakes Centre will be a major new resource which is not comparable with existing resources in the area. However, as it is likely to require an entry fee, it would not be freely available to the local community. The availability of facilities such as a rental buggy for persons with reduced mobility, shelter, benches and water bottle fill up stations support access to the lakes for a range of user groups, including more vulnerable groups such as older people, people with disabilities/reduced mobility, pregnant women or families with infants.	**Moderate** (**Significant**) Beneficial	**Healthy lifestyles: Increased physical activity and recreation with provision of Recreational Lakes**: The recreational lakes will provide new facilities for swimming, paddleboarding and fishing. Access to the lakes will be supported by changing and toilet facilities and there will be active travel and public transport connectivity. An accessible entry to the water will also be provided. The recreational lakes are intended to be lined, with water levels maintained for usage throughout the year. These facilities will provide new opportunities for recreation and physical activity for a range of user groups. At a population level, this will provide mental and physical health and wellbeing benefits associated with physical activity and active lifestyles and access to blue open space. (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Community within the Local study area (in relation to general environmental, access,	Most / all project components	Workforce and visitor vehicle movements	No embedded design or standard good practice	**Medium** The traffic and transport assessment has identified no significant effects to the road network, and significant delay effects to	**Moderate** (**Significant**) Adverse	**Community identity and cohesion: Access to assets and services, severance and social isolation**: During	(AM-08) Highways improvements to reduce effects on the wider transport network.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
social and lifestyle issues, and perceived effects) [HH-79] (**Moderate**)	Steventon to East Hanney road diversion	Presence (of project components)	mitigation identified at this stage.	NMU resulting from changes to PROW routing. However there is a risk that the presence of NMU access points to the Site may encourage visitors arriving by car to use villages as informal Site entrances. At East Hanney, parking restrictions are proposed to limit antisocial parking.		operation there will be a small amount of additional road traffic. Primary access to the site and main car park is from the A415, however at Steventon, East Hanney and Drayton, additional NMU access points to the Site are proposed, accompanied at Steventon and East Hanney by small car parks. Overspill from these car parks, or on-street parking in the villages may mean that people travelling from other communities including rural residences to access community assets and services in these villages may experience worsened access. Changes in access to and availability of existing community assets and services can impact mental health and wellbeing through worsening community severance or social isolation. (Permanent)	Measures will include parking restrictions to mitigate potential access effects for local community. (AM-46) Measures to support the community prior to and during the construction.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-81] (**High**)	Most / all project components Steventon to East Hanney road diversion	Presence (of project components)	(SGP-47) Measures to prevent antisocial behaviour and crime.	**Small** Security measures proposed by the Project may include detailed design that avoids the creation of dark/hidden spaces, CCTV, lighting and access control in car parks, and where required traffic regulation orders to prevent antisocial parking	**Moderate** (**Significant**) Adverse	**Community safety: Increase in actual and perceived crime and antisocial behaviour**: During operation, there will be increased visitors to the local area and during busy periods there is a potential for antisocial use of local facilities in villages close to the site. The facilities provided by the project, including parking, toilets and changing spaces, are expected to be sufficient to reduce this issue to a negligible level. The stopping up of the existing Steventon – East Hanney road will create a cul-de-sac with a small parking area which may attract antisocial behaviour. As a result of the measures and facilities included, there is not expected to be any actual or perceived increase in crime and antisocial behaviour as a result of the Project. (Permanent)	(AM-08) Highways improvements to reduce effects on the wider transport network. Measures will include parking restrictions to mitigate potential access effects for local community.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Community within the Local Study Area (in relation to personal safety and environmental hazards) (vulnerable groups) [HH-82] (**High**)	Most / all project components Steventon to East Hanney road diversion	Presence (of project components)	(SGP-47) Measures to prevent antisocial behaviour and crime.	**Small** Security measures proposed by the Project may include detailed design that avoids the creation of dark/hidden spaces, CCTV, lighting and access control in car parks, and where required traffic regulation orders to prevent antisocial parking	**Moderate** (**Significant**) Adverse	**Community safety: Increase in actual and perceived crime and antisocial behaviour**: During operation, there will be increased visitors to the local area and during busy periods there is a potential for antisocial use of local facilities in villages close to the site. The facilities provided by the project, including parking, toilets and changing spaces, are expected to be sufficient to prevent the risk of antisocial behaviour associated with visitors to the Project occurring. The stopping up of the existing Steventon – East Hanney road will create a cul-de-sac with a small parking area which may attract antisocial behaviour. As a result of the measures and facilities included, there is not expected to be any actual or perceived increase in crime and antisocial behaviour as a result of the Project. (Permanent)	(AM-08) Highways improvements to reduce effects on the wider transport network. Measures will include parking restrictions to mitigate potential access effects for local community.
Visitors to the Nature Education Centre (vulnerable groups) [HH-83] (**High**)	Nature education centre	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice mitigation identified at this stage.	**Small** Opportunities associated with the Nature education centre are not yet confirmed, and will be assessed in more detail in the Environmental Statement. It is assumed that some form of outdoor/nature education will be provided by the centre.	**Moderate** (**Significant**) Beneficial	**Socioeconomic conditions: Opportunities for on-site education**: The Project includes a Nature education centre, which will provide opportunities for outdoor learning and spending time in nature. For children and young people, outdoor educational activities help foster creativity, support cognitive development and increase physical activity. The opportunities provided by the Project will provide the mental health and wellbeing benefits associated with education and training and with encouraging participants to spend time in nature. (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Users of South Oxfordshire Crematorium and Memorial Park [HH-94] (**High**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base)	Operation Presence (of project components)	No embedded design or standard good practice mitigation	**Small** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak	**Moderate** (**Significant**) Adverse	**Environmental amenity: Effects at the South Oxford Crematorium and Memorial Park**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
	Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components		identified at this stage.	periods, may be noticeable to the community The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational mechanical and electrical plant are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified that effects in this area are not expected to be significant, however the visibility of the embankment will change views from the facility. The NMU route will bring an increase in members of the public passing close to the perimeter of the facility, which may cause disturbance to tranquillity at the facility. Overall these effects may cause limited or occasional disruption or stress to the local community.		impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. At the South Oxford Crematorium and Memorial Park changes will be primarily associated with the presence of the embankment, and Site access for NMU passing near to the facility. The site is used for services and by visitors to graves or memorial sites and currently provides a peaceful setting which is of high value to users. The site is large with landscaped grounds and a rural setting and there are no comparable alternative facilities in the area. (Permanent)	
Users of South Oxfordshire Crematorium and Memorial Park (vulnerable groups) [HH-95] (**High**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Small** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational mechanical and electrical plant are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified that effects in this area are not expected to be significant, however the visibility of the embankment will change views from the facility. The NMU route will bring an increase in members of the public passing close to the	**Moderate** (**Significant**) Adverse	**Environmental amenity: Effects at the South Oxford Crematorium and Memorial Park**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. At the South Oxford Crematorium and Memorial Park changes will be primarily associated with the presence of the embankment, and Site access for NMU passing near to the facility. The site is used for services and by visitors to graves or memorial sites and currently provides a peaceful setting which is of high value to users. The site is	No additional mitigation has been confirmed at this stage, however, mitigation measures are being actively explored as the design and EIA progresses.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				perimeter of the facility, which may cause disturbance to tranquillity at the facility. Overall these effects may cause limited or occasional disruption or stress to the local community.		large with landscaped grounds and a rural setting and there are no comparable alternative facilities in the area. (Permanent)	

1.4 Likely non-significant construction effects

Table 1.3 Initial likely non-significant effects during construction (with embedded and standard good practice mitigation applied, but prior to additional mitigation)

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues, and perceived effects) [HH-6] (**Moderate**)	Most / all project components	Most / all project activities (construction)	No embedded design or standard good practice mitigation identified at this stage.	**Small** Whilst uncertainty has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information through ongoing consultation, including the Statutory Consultation process prior to DCO submission, and consultation prior to construction.	**Minor** (**Not Significant**) Adverse	**Pre-construction uncertainty and anxiety relating to unknown effects**: Prior to the commencement of the construction of the Project, the community within the local study area may feel uncertain about the Project and how it will impact their lives including through impacts to environmental amenity, community facilities and the housing market. This may cause anxiety and stress, which can have a negative impact on mental health and wellbeing. This effect is only considered prior to the construction phase commencing as at that point anxiety and stress relating to the Project are considered within a range of effects occurring within the construction phase, including relating to access, amenity and sense of place. (Medium-term)	No additional mitigation required as the effect is not significant.
Users of PRoW [HH-10] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction. (SGP-49) Temporary mitigation for Public Rights of Way and active travel route diversions.	**Small** The socio-economics and communities assessment identifies significant effects due to temporary closures of PRoW. The traffic and transport assessment has identified that there are three likely significant and other not significant traffic and transport effects throughout the local study area which are not likely to directly impact PRoW.. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to regular users. The noise assessment has identified likely significant noise effects from construction activities to open space resources within the local study area.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity changes to PRoW**: There will be disruption to all PRoW within draft Order limits, which are expected to be unavailable throughout construction. Other PRoW within the Local study area, including the Vale Way, the Thames Path, and the Ridgeway National Trail may also experience amenity changes. There will be increased traffic associated with construction vehicles, which may lead to a change in air quality and noise conditions and perceived safety where PRoW intersect with or pass near to roads, which may discourage use. Changes to air quality and the noise and visual environments from construction activities may also impact environmental amenity on PRoW routes. Overall, these changes may negatively impact levels of usage of these resources due to reduced opportunity, attractiveness	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				The landscape and visual assessment has identified likely significant effects to PRoW within the study area. Overall where these effects occur they may cause some displacement to other, less affected, resources within the study area.		and amenity, and concerns about road safety. At a population level, this may reduce the health and wellbeing benefits associated with physical activity and active lifestyles, and with time spent outdoors and in nature. (Long-term)	
Users of active travel routes [HH-12] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(ED-19) Reduce transport disruption between Steventon and East Hanney. (SGP-01) Road safety audits. (SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction. (SGP-49) Temporary mitigation for Public Rights of Way and active travel route diversions.	**Small** The socio-economics and communities assessment identifies a significant effect due to the temporary closures of a section of NCN 5. The traffic and transport assessment has identified three likely significant and other not significant effects which may have a combined effect on the overall ease of access to active travel, however this is not likely to significantly discourage access. The significant effects do not interact with the National Cycle Network. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to regular users. The noise assessment has identified likely significant noise effects from construction activities to open space resources within the local study area. Overall where these effects occur they may cause some displacement to other, less affected, resources within the area.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity changes to active travel routes on the road network**: There will be some changes to the road network during construction to facilitate road upgrades for construction traffic. There will be increased traffic associated with construction vehicles, which may cause delays and also lead to a change in air quality and noise conditions on roads and discourage NMU use. This includes on National Cycle Network Route 5, which passes through the local study area. Overall, these changes may negatively impact levels of usage of these resources due to reduced opportunity, attractiveness and amenity, and concerns about road safety. At a population level, this may reduce the health and wellbeing benefits associated with physical activity and active lifestyles. (Long-term)	No additional mitigation required as the effect is not significant.
Users of open spaces [HH-14] (**Low**)	Most / all project components	General construction activities Off-site transport movements	(ED-39) Draft Order limits to avoid rugby pitches north of Abingdon STW. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified three likely significant and other not significant traffic and transport effects throughout the local study area which may have a combined effect on the overall ease of access to active travel and open spaces, however this is not likely to significantly discourage access.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity changes to open spaces used for physical activity and leisure**: There will be increased traffic associated with construction vehicles, which may cause delays on access routes to open and green spaces, particularly for users travelling west or south out of Abingdon. Changes to air quality, and the noise and visual environments may also impact	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to regular users. The noise assessment has identified likely significant noise effects from construction activities to open space resources within the local study area. The landscape and visual assessment has identified likely significant effects within the study area that could impact open spaces. Overall where these effects occur they may cause some displacement to other, less affected, resources within the study area.		environmental amenity and sense of place at some open and green spaces near to the draft Order limits. This includes the 48 parks within the Local study area, of which 12 are located close to construction activities or construction traffic routes. Overall, these changes may negatively impact levels of usage of these resources due to reduced opportunity, attractiveness and amenity. At a population level, this may reduce the health and wellbeing benefits associated with physical activity and active lifestyles. It may also reduce the social and mental health and wellbeing benefits associated with leisure time spent outdoors and in nature. (Long-term)	
Users of marina and river [HH-18] (**Low**)	Intake/outfall structure	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**Small** The traffic and transport assessment has identified that effects in these area, including to public transport, are not expected to be significant, however these may still be noticeable to the community. The traffic assessment has identified a likely significant effect to some river vessel users due to changes to the navigable width of the River Thames between Abingdon Marina and Nag's Head Island, which may cause inconvenience but is not likely to significantly disrupt leisure usage of the River Thames. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the communities in Culham and south-east Abingdon around the Abingdon Marina Park.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity effects at Abingdon Marina Park and to river vessel users**: At Abingdon Marina Park there will be changes associated with the Thames intake/outfall works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Environmental amenity can directly influence physical health, and can also have a negative impact on mental health and wellbeing. There is also a likely impact to some river vessel users due to changes to the navigable width of the River Thames between Abingdon Marina and Nag's Head Island, which may cause inconvenience but is not likely to significantly disrupt leisure usage of the River Thames. (Long-term)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Users of golf club [HH-19] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that effects in this area, including to public transport, are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified effects that in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activity are not expected to be significant however these may still be noticeable to the community.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity effects at Drayton Park Golf Club**: At Drayton Park Golf Club there will be changes associated with construction traffic along the A34 and travelling through Drayton, road upgrade works, the connection to the Drayton Sewage Treatment Works, and site works in the north-eastern part of the site. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for users of the golf club. Environmental amenity can directly influence physical health, and can also have a negative impact on mental health and wellbeing, and alter the experience of leisure use of the facility. (Long-term)	No additional mitigation required as the effect is not significant.
Users of Drayton Road allotments [HH-20] (**Moderate**)	Most / all project components Intake/outfall structure	General construction activities Off-site transport movements	(SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that effects in these area, including to public transport, are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction are not expected to be significant however these may still be noticeable to the community. Whilst there are two other allotment sites in Abingdon, allotments tend to serve extremely localised communities and additionally may not have space for a high number of new members.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity effects at Drayton Road Allotments**: At the Drayton Road Allotments there will be changes associated with the Thames intake/outfall works, which may cause changes to environmental amenity, including air quality and the noise and visual environment. Environmental amenity can directly influence physical health, and can also have a negative impact on mental health and wellbeing. Any decrease in use of the allotments would also reduce the social and mental health and wellbeing benefits associated with time spent in nature, and from participating in a community activity. (Long-term)	No additional mitigation required as the effect is not significant.
Users of Drayton Road allotments (vulnerable groups) [HH-21] (**High**)	Most / all project components Intake/outfall structure	General construction activities Off-site transport movements	(SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that effects in these area, including to public transport, are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in these areas are not expected to be significant.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity effects at Drayton Road Allotments**: At the Drayton Road Allotments there will be changes associated with the Thames intake/outfall works, which may cause changes to environmental amenity, including air quality and the noise and visual environment.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				The noise assessment has identified that effects from construction are not expected to be significant however these may still be noticeable to the community. Whilst there are two other allotment sites in Abingdon, allotments tend to serve extremely localised communities and additionally may not have space for a high number of new members.		Environmental amenity can directly influence physical health, and can also have a negative impact on mental health and wellbeing. Any decrease in use of the allotments would also reduce the social and mental health and wellbeing benefits associated with time spent in nature, and from participating in a community activity. (Long-term)	
Users of Steventon allotments [HH-22] (**Moderate**)	Most / all project components Steventon to East Hanney road diversion	General construction activities Off-site transport movements	(SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that effects in this area, including to public transport, are likely to be non-significant. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the community in Steventon. This is the only allotment site in Steventon. Whilst there are other sites in the Local study area, allotments tend to serve extremely localised communities and additionally may not have space for a high number of new members.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Access and amenity effects at Steventon Allotments**: At Steventon Allotments there will be changes associated with construction traffic travelling through Steventon, site works and the Steventon-E Hanney diversion. The allotments are located near to the railway line which may see additional movements due to construction materials being brought to Site by rail. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the users of the allotments. Environmental amenity can directly influence physical health, and can also have a negative impact on mental health and wellbeing. Any decrease in use of the allotments would also reduce the social and mental health and wellbeing benefits associated with time spent in nature, and from participating in a community activity. (Long-term)	No additional mitigation required as the effect is not significant.
Residents (in relation to risk of flooding) [HH-26] (**High**)	Most / all project components	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**No change** As described in Chapter 5: Water environment the Project has been designed to ensure that the flood risk to residential properties does not increase. Whilst uncertainty has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information through ongoing consultation, including the Statutory Consultation process prior to DCO submission, and consultation prior to and during construction.	**None** (**Not Significant**) Adverse	**Housing: Increase in flood risk to residential properties**: The Project will alter areas of flood risk within the Local study area. Flooding is a highly impactful event for communities and impacts can continue long term after the event, particularly as residents may not have the option to relocate. This can lead to stress and anxiety for directly impacted residents, for residents who fear they may be impacted, and for the wider community. At a population level, this may reduce the health and wellbeing benefits associated with	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						secure, high-quality housing and with residents feeling they are part of a safe and cohesive community. (Permanent)	
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-27] (**High**)	Most / all project components	Most / all project activities (construction)	No embedded design or standard good practice mitigation identified at this stage.	**No change** The major accidents and disasters assessment has identified that all risks have been mitigated to ALARP. Whilst uncertainty has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information through ongoing consultation, including the Statutory Consultation process prior to DCO submission, and consultation prior to and during construction.	**None** (**Not Significant**) Adverse	**Community safety: Risks to health from major accidents and disasters**: A major accident or disaster can involve a large group of people, and therefore potentially impact human health at a population level. Uncertainty about such events can also cause stress and anxiety. The major accident and disaster assessment undertaken for this PEI Report (see Chapter 19) has concluded that all risks from potential major accidents or disasters have been mitigated to as low as reasonably possible (ALARP). (Permanent)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-28] (**High**)	Most / all project components	Off-site transport movements	(SGP-01) Road safety audits. (SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified no likely significant effects to road safety due to changes in traffic flows.	**Minor** (**Not Significant**) Adverse	**Community safety: Increased risk of transport related accidents and injuries**: During construction there will be additional road traffic, including HGVs, and road diversions in place including for NMU. Construction access points are located on all sides of the Site, from the A415, A338, A417, Hanney Road, and B4017, which are the main access routes for many of the villages in the local study area. There will also be an increase in rail movements, however as there are no level crossings within the local study area this is not considered further as a potential source of additional accidents or injuries. Impacts to road safety from additional traffic and road diversions and the safety of NMU route alternations are mitigated by a range of embedded and good practice measures. Therefore there is no material population health effect from the potential for increased risk of transport related accidents and injuries. (Long-term)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-29] (**High**)	Most / all project components	Off-site transport movements General construction activities	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment.	**Negligible** The traffic and transport assessment has identified a likely significant effect of delay to drivers at the junctions of the A415 with the A34 and Colwell Drive. The stretch of the A415 between these two junctions provides the access to the Abingdon Community Hospital and potential access to the John Radcliffe Hospital in Oxford, Abingdon Fire Station to the A34 is and Abingdon Police Station. The CTMP will require that emergency services are liaised with to ensure that any potential increase to emergency response time is mitigated.	**Minor** (**Not Significant**) Adverse	**Community safety: Increased emergency response times**: During construction there will be additional road traffic, including HGVs, and road diversions in place. Delays along the A415 could impact emergency response times for police and fire services travelling from Abingdon stations, and for ambulances travelling from Oxford to Abingdon. There is a potential population health effect from increased emergency response times. (Long-term)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-30] (**High**)	Most / all project components Steventon to East Hanney road diversion	General construction activities	(SGP-27) Liaison with communities prior to and during construction. (SGP-47) Measures to prevent antisocial behaviour and crime.	**Negligible** Security measures proposed by the Project may include detailed design that avoids the creation of dark/hidden spaces, CCTV, lighting and access control in car parks, and where required traffic regulation orders to prevent antisocial parking.	**Minor** (**Not Significant**) Adverse	**Community safety: Increase in actual and perceived crime and antisocial behaviour**: During construction, there will be environmental amenity changes to the outdoor environment. This may reduce public use of certain routes and areas, leading to a decrease in passive surveillance and associated safety benefits. The stopping up of the existing Steventon – East Hanney road will create an isolated cul-de-sac area which may attract antisocial behaviour. Although overall levels of crime and anti-social behaviour are unlikely to significantly increase, the community may have the perception or fear or increased crime and antisocial behaviour. This may decrease the health and wellbeing benefits associated with populations feeling that they are part of a safe and cohesive community. (Long-term)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues, and perceived effects) [HH-31] (**Moderate**)	Most / all project components	Site personnel influx / job creation	(SGP-27) Liaison with communities prior to and during construction.	**Small** The population of the local study area is 148,901. It is currently unknown what proportion of workers are likely to already be resident within the local study area. The workforce will fluctuate throughout the construction period.	**Minor** (**Not Significant**) Adverse	**Community identity and cohesion: Decrease in sense of cohesion and safety due to in-migration**: The construction of the Project is expected to require a peak workforce of 1,800 workers. This is likely to result in a degree of temporary in-migration to the region which	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				Assuming a worst-case scenario where no on-site worker accommodation or amenities are provided, at a peak period of 1,800 workers, there would likely be a noticeable presence of construction workers within the local community, which may cause some stress and anxiety to existing residents. However, this is likely to be limited by the most realistic location of off-site workforce accommodation in Abingdon and Drayton, which are larger towns with a greater ability to absorb new residents. Likely workforce migration and community cohesion impacts will be assessed in more detail in the Environmental Statement.		may impact existing community identity. Workforce in-migration may decrease perceptions of safety and community trust due to an influx of new, temporary, members of the community. Although actual crime and anti-social behaviour are not expected to significantly increase, the community may have the perception or fear or increased crime and antisocial behaviour. This may decrease the health and wellbeing benefits associated with populations feeling that they are part of a safe and cohesive community. (Long-term)	
Community within the Local Study Area (in relation to personal safety and environmental hazards) (vulnerable groups) [HH-32] (**High**)	Most / all project components Steventon to East Hanney road diversion	General construction activities	(SGP-27) Liaison with communities prior to and during construction. (SGP-47) Measures to prevent antisocial behaviour and crime.	**Negligible** Security measures proposed by the Project may include detailed design that avoids the creation of dark/hidden spaces, CCTV, lighting and access control in car parks, and where required traffic regulation orders to prevent antisocial parking.	**Minor** (**Not Significant**) Adverse	**Community safety: Increase in actual and perceived crime and antisocial behaviour**: During construction, there will be environmental amenity changes to the outdoor environment. This may reduce public use of certain routes and areas, leading to a decrease in passive surveillance and increased concerns about safety. The stopping up of the existing Steventon – East Hanney road will create an isolated cul-de-sac area which may attract antisocial behaviour. Although actual crime and anti-social behaviour are unlikely to significantly increase, the community may have the perception or fear or increased crime and antisocial behaviour. This may decrease the health and wellbeing benefits associated with populations feeling that they are part of a safe and cohesive community. (Long-term)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues, and perceived effects) [HH-33] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment.	**Small** The traffic and transport assessment has identified a likely significant severance effect for NMU due to traffic flows on A415 Marcham Road between Marcham and Farringdon Road, and a likely significant effect causing delay to drivers at the	**Minor** (**Not Significant**) Adverse	**Community identity and cohesion: Access to assets and services, severance and social isolation**: Some communities including rural dwellings may experience decreased connectivity to community assets and services and to other communities, due to NMU severance and traffic delays caused by	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				interchanges of the A415 with the A34 and Colwell Drive. The traffic and transport assessment has identified other non-significant traffic and transport effects throughout the local study area, including to public transport, which may have a minor combined effect on the overall ease of access to community services and between communities, however this is not likely to significantly discourage access to these resources.		construction activities and construction traffic. Some members of the community may have a perception of worsened road safety which may discourage travel. Communities may be less likely to access community assets and services, which could increase social isolation, particularly for more vulnerable groups. This may decrease the health and wellbeing benefits associated with social connections. (Long-term)	
School communities (vulnerable groups) [HH-35] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified a likely significant effect of delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. These junctions would likely form part of the access route to these facilities for some users. However, the total delay time is unlikely to impact access. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to users of these facilities. Overall these effects may cause temporary disruption and stress to some users of the education facilities, but are unlikely to prevent access or alter education experiences.	**Minor** (**Not Significant**) Adverse	**Socio-economic conditions: Effects on education facilities adjacent to the A34**: Construction traffic is expected to approach the Site primarily via the A34, which may cause changes to access and environmental amenity for nearby receptors. There are three education facilities located adjacent to the A34. These are The Manor Preparatory School, Larkmead School (secondary), and St Helen and St Katherine (secondary). Impacts on the school environments and/or access to the schools may cause stress for pupils, parents/carers and staff and also has the potential to reduce the social and educational benefits associated with attending school. (Long-term)	No additional mitigation required as the effect is not significant.
School communities (vulnerable groups) [HH-36] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified a likely significant effect of delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. These junctions would likely form part of the access route to these facilities for some users. However, the total delay time is unlikely to impact access. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not	**Minor** (**Not Significant**) Adverse	**Socio-economic conditions: Effects to education facilities in the A415 corridor in west Abingdon**: Construction traffic is expected to approach the Site primarily via the A34, after which some traffic will travel east along the A415 in Abingdon, before turning south towards the Site. Road works will be required along the A415 to facilitate this route. This may cause changes to access and environmental amenity for nearby receptors. There are three education facilities located in the A415 corridor between the A34 and	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				expected to be significant but may still be noticeable to users of these facilities. Overall these effects may cause temporary disruption and stress to some users of the education facilities, but are unlikely to prevent access or alter education experiences.		Market Place Abingdon: Mctimoney College of Chiropractic, The Unicorn School (specialist school – learning differences), Carswell Community Primary School. The Unicorn School has been assessed separately and is not included in this effect. Impacts on the school environments and/or access to the schools may cause stress for pupils, parents/carers and staff and also has the potential to reduce the social and educational benefits associated with attending school. (Long-term)	
School communities (vulnerable groups) [HH-38] (**High**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that effects in these areas, including to public transport, are likely to be non-significant. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant but may still be noticeable to users of these facilities. Overall these effects may cause temporary disruption and stress to some users of the education facilities, but are unlikely to prevent access or alter education experiences.	**Minor** (**Not Significant**) Adverse	**Socio-economic conditions: Effects to education facilities adjacent to construction traffic routes**: Construction traffic is expected to approach the Site primarily via the A34 and then via access points on all sides of the Site. To facilitate access there will be road upgrades on some of these routes. This may cause changes to access and environmental amenity for nearby receptors. There are a number of education facilities located adjacent to road upgrade works and potential traffic routes that are not otherwise considered as part of the A34, Abingdon or Steventon groupings. These are: Caldecott Primary School, Caldecott Junior School, Abingdon Preparatory School, Drayton Community Primary School, Gems Wantage Primary Academy, Little Pioneers Childrens Day Nursery. Impacts on the school environments and/or access to the schools may cause stress for pupils, parents/carers and staff and also has the potential to reduce the social and educational benefits associated with attending school. (Long-term)	No additional mitigation required as the effect is not significant.
Community within the Regional study area (in relation to employment and economic effects) [HH-40] (**Moderate**)	Most / all project components	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**Small** It is assumed that there will be some provision within the Skills and employment strategy for training opportunities that would be open to the community within the Regional study area.	**Minor** (**Not Significant**) Beneficial	**Socio-economic conditions: Skills and training opportunities**: The construction of the Project is expected to require a peak workforce of 1,800 workers. This is likely to create training opportunities within the local study area. It is expected that a Skills and	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				Effects associated with the skills and training offer will be assessed in more detail in the Environmental Statement.		employment strategy will be delivered by the project. Improved skills and training can support secure, good quality work, which can have direct mental health and wellbeing benefits, and indirect benefits to wider health and wellbeing associated with increased financial resources. (Long-term)	
Users of community resources [HH-42] (**Low**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment.	**Small** The traffic and transport assessment has identified a likely significant severance effect for NMU due to traffic flows on A415 Marcham Road between Marcham and Farringdon Road, and a likely significant effect causing delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. The traffic and transport assessment has identified other non-significant traffic and transport effects throughout the local study area, including to public transport, which may have a minor combined effect on the overall ease of access to community services and between communities, however this is not likely to significantly discourage access to these resources.	**Minor** (**Not Significant**) Adverse	**Health and social care: Access to health and social care services**: Some communities including rural dwellings may experience decreased connectivity to health and social care services, due to severance caused by construction activities and traffic and diversions to travel networks. Communities may find it more difficult to access health and social care services, which could affect mental wellbeing and in some cases discourage people from accessing services. This may have a negative effect on physical and mental health and wellbeing at a population level. (Long-term)	No additional mitigation required as the effect is not significant.
Users of community resources [HH-44] (**Low**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified a likely significant effect of delay to drivers at the interchanges of the A415 with the A34 and Colwell Drive. The stretch of road between these two junctions provides a key access route to these facilities, and users may experience delays and disruption to access. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant but may still be noticeable to users of these facilities.	**Minor** (**Not Significant**) Adverse	**Health and social care: Effects to healthcare facilities located along the A415 in west Abingdon**: During construction there will be road upgrades, a potential new access route to the Site, and additional traffic along the section of the A415 east of the A34. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for nearby receptors. There is a cluster of healthcare facilities located in this area: Abingdon Community Hospital, Marcham Road Health Centre, Ock Street Clinic Dentist, Rejoice Dental Practice, Newmedica Eye Care Clinic. Impacts on healthcare facility environments and/or access to the facilities may cause stress for patients and staff and also has the	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				Overall these effects may cause temporary disruption and stress to some users of the healthcare facilities, but are unlikely to prevent access or alter healthcare experiences.		potential to reduce the mental and physical health benefits associated with using these services. In some cases these effects could discourage people from accessing services. For most patients there will not be an option to use alternative services. (Long-term)	
Community in west Abingdon [HH-45] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified increased traffic movements at the interchanges of the A415 with the A34 and Colwell Drive. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has not identified significant effects in this area.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in west Abingdon**: In Abingdon there will be construction traffic and road upgrade works along the A415 east of the A34. There will also be a new construction access road constructed to extend the secondary access route to Tesco Extra. There may also be changes associated with works in the north-east of the Site. This may cause localised changes to environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental wellbeing and quality of life. (Long-term)	No additional mitigation required as the effect is not significant.
Community in Caldecott [HH-46] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Caldecott**: In Caldecott there will be construction traffic and road upgrade works along the B4017 Drayton Road south of the A415, and Mill Road. There may also be changes associated with works in the north-east of the Site. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment,	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				effects from construction activity noise to residential properties along Mill Road. The landscape and visual assessment has not identified significant effects in this area.		including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	
Community in Culham, Sutton Courtenay and south-east Abingdon [HH-47] (**Moderate**)	Most / all project components Intake/outfall structure	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. assessment has identified significant effects from construction activity noise to the communities in Culham and south-east Abingdon around the Abingdon Marina Park. The landscape and visual assessment has identified a likely significant effect in Culham.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Culham, Sutton Courtenay, and south-east Abingdon**: In Culham, Sutton Courtenay, and south-east Abingdon (area surrounding Abingdon Marina Park) there will be changes associated with the Thames intake/outfall works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Community in Harwell [HH-49] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has not identified significant effects in this area.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Harwell**: In Harwell there will be changes associated with construction traffic along the A34 and A417, and road upgrade works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						can have a negative effect on mental health and wellbeing. (Long-term)	
Community in Milton and Milton Heights [HH-50] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in these area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has not identified significant effects in this area.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Milton and Milton Heights**: In Milton and Milton Heights there will be changes associated with construction traffic along the A34, and road upgrade works. This may cause localised changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Community in Rowstock, East Hendred, West Hendred and Wantage [HH-52] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in these areas are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has not identified significant effects in this area.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Rowstock, East Hendred, West Hendred and Wantage**: In Rowstock, East Hendred, West Hendred, and Wantage there will be changes associated with construction traffic along the A417, and road upgrade works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Community in Grove [HH-53] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified that significant effects from construction activity noise to the community in Grove. The landscape and visual assessment has identified a significant effect in Grove.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Grove**: In Grove there will be changes associated with construction traffic along A338, rail works, and site works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Community in Challow [HH-54] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the community in Challow. The landscape and visual assessment has not identified significant effects in this area.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Challow**: In Challow there will be changes associated with construction traffic along A417 and rail works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Community in East Hanney [HH-55] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in East Hanney**: In East Hanney there will be changes associated with construction traffic along A338, site works, and the stopping up of the East Hanney – Steventon Road. This may cause changes to access and environmental amenity, including air quality	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			(SGP-27) Liaison with communities prior to and during construction.	The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic are not expected to be significant however these may still be noticeable to the community. The noise assessment has identified significant effects from construction activity noise to the community in East Hanney. The landscape and visual assessment has identified a significant effect in East Hanney.		and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	
Community in West Hanney [HH-56] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Negligible** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in West Hanney.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in West Hanney**: In West Hanney there will be changes associated with construction traffic along A338, site works, and the stopping up of the East Hanney – Steventon Road. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Community in Frilford [HH-57] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified that any increased traffic movements in this area are not expected to be significant, however these may still be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Frilford**: In Frilford there will be changes associated with construction traffic along A338 and A415, road upgrade works, site works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment,	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in Frilford		including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	
Community in Marcham [HH-58] (**Moderate**)	Most / all project components	General construction activities Off-site transport movements	(SGP-19) Standard good practice measures to reduce impact of construction traffic on communities and the environment. (SGP-27) Liaison with communities prior to and during construction.	**Small** The traffic and transport assessment has identified increased traffic movements on the A415 Marcham Road between Marcham and Farringdon Road. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from construction traffic and construction activities are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in Marcham.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Marcham**: In Marcham there will be changes associated with construction traffic along A415, road upgrade works, and site works. This may cause changes to access and environmental amenity, including air quality and the noise and visual environments, for the community. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Construction workforce (in relation to climate change and extreme weather) [HH-61] (**Moderate**)	Most / all project components	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**No change** The climate change risk assessment has not identified any significant risks to construction workers.	**None** (**Not Significant**) Adverse	**Climate change: Risks to construction workers from extreme weather**: There are risks to construction workers and visitors to the Site from extreme weather, which are expected to be managed via standard construction practices in line with legislative and regulatory requirements. This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Long-term)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-62] (**High**)	Most / all project components Intake/outfall structure	General construction activities	(ED-02) Manage water quality at the SESRO intake. (SGP-03) Standard good practice measures for works	**No change** The water environment assessment has not identified any likely significant effects to water quality in the River Thames.	**None** (**Not Significant**) Adverse	**Environmental amenity: Risks associated with changing water quality in the River Thames**: The Project may interact with water quality in the River Thames during the construction of the intake/outfall structure. This could result in changes to water quality in the River Thames.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
	River tunnel and shafts		within or adjacent to waterbodies.			The CoCP will include measures to manage water quality, including at private abstraction points, during construction. This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Long-term)	
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-63] (**High**)	Most / all project components	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**No change** There is no likely significant effect to human health identified from existing sources of contamination.	**None** (**Not Significant**) Adverse	**Environmental amenity: Risks from contamination**: During construction, there is a risk that activities may result in new contamination to water and soils or mobilise areas of historic pollution. This could expose workers, Site visitors or members of the public to harmful substances, with a resulting effect to human health. However, these risks are managed by the Project in line with a range of legislation, standards and guidance designed to prevent exposure to harmful substances, as set out in Chapters 5: Water environment and 10: Geology and soils. New utilities connections will also be provided by the Project which will accommodate foul sewer and waste water requirements at the Site during construction. This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Long-term)	No additional mitigation required as the effect is not significant.
Community (in relation to food availability) [HH-64] (**Low**)	Most / all project components	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** Whilst there is a likely significant effect to loss of agricultural land, this is unlikely to reduce food supply within the local study area.	**Neutral** (**Not Significant**) Adverse	**Environmental amenity: Changes to availability of agricultural land**: The construction of the Project will move some land out of agricultural use. Whilst this change may reduce food production within the local study area, it is unlikely to impact human health through reducing access to healthy food due to food availability from regional, national, and international sources. (Permanent)	No additional mitigation required as the effect is not significant.
Residents at Drayton and Marcham Mill (in relation to exposure to radiation) [HH-65] (**High**)	Existing 132kV overhead line diversion	General construction activities	No embedded design or standard good practice mitigation identified at this stage.	**No change** No altered risk to human health has been identified.	**None** (**Not Significant**) Adverse	**Community safety: Increase in actual risk from radiation**: During construction the Project will be diverting overhead 132kV powerlines. The diversion is located in the north-east of the Site, between the small	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						group of residences at Marcham Mill and the village of Drayton. The new section of powerline does not pass closer to these communities than the existing route, and would comply with all relevant legislation, standards and guidance, which limit radiation exposure to prevent the risk of harm to human health. This will break the source-pathway-receptor relationship, minimising risk to population health. (Permanent)	
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues, and perceived effects) [HH-66] (**Moderate**)	Existing 132kV overhead line diversion	General construction activities	(SGP-27) Liaison with communities prior to and during construction.	**Negligible** Whilst perceived risk has the potential to cause anxiety, this will be mitigated by the provision of Project information regarding actual risk through the Statutory Consultation process and ongoing liaison during construction.	**Minor** (**Not Significant**) Adverse	**Community safety: Increase in perceived risk from radiation**: During construction the Project will be diverting overhead 132kV powerlines in the north-east of the Site, between the small group of residences at Marcham Mill and the village of Drayton. The new section of powerline does not pass closer to these communities than the existing route, and would comply with all relevant legislation, standards and guidance, which limit radiation exposure to prevent the risk of harm to human health. Although there will be no increase in actual risk from radiation, the community may still feel fears associated with unknown impacts. These concerns may be partially mitigated by the provision of clear and accurate information regarding the location of the new section of powerline and compliance of with legislation, standards and guidance. Concerns about the risk of radiation may increase stress and decrease healthy behaviours relating to accessing outdoor space, and can have a negative impact on mental and physical health and wellbeing. (Long-term)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues,	Most / all project components	General construction activities	(SGP-27) Liaison with communities prior to and during construction.	**Small** Any disruption is likely to be in the form of limited and temporary outages, to an extent that is not considered likely to result in significant effects on population health.	**Minor** (**Not Significant**) Adverse	**Effects to wider societal infrastructure**: During construction, there is potential for localised disruption to societal infrastructure, such as energy, water, IT and communication infrastructure. Infrastructure disruption impacts such as lost	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
and perceived effects) [HH-67] (**Moderate**)						communication, sub-optimal building temperatures, and loss of water could lead to effects to physical health, along with mental wellbeing. (Short-term)	

1.5 Likely non-significant operation effects

Table 1.4 Initial likely non-significant effects during operation (with embedded and standard good practice mitigation applied, but prior to additional mitigation)

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Users of active travel routes [HH-68] (**Moderate**)	Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision	Workforce and visitor vehicle movements	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** Upgrades to existing and new active travel infrastructure will increase connectivity in the local study area, however given the size of the Site and distances of the routes benefits are likely to be mainly limited to amenity improvements for cyclists. Changes will be localised and not expected to change overall levels of participation in active travel.	**Minor** (**Not Significant**) Beneficial	**Healthy lifestyles: Positive access and amenity changes to active travel routes on the road network**: Planned improvements for off-site active travel for walking, wheeling, cycling and horse riding, include new routes along the Stevenson to East Hanney road diversion and at the Marcham Interchange and alongside the A415. There will be changes to existing PROW that result in less direct routes from north to south and east to west of the Site. However, overall connectivity will be maintained. At a population level, this may enhance the health and wellbeing benefits associated with physical activity on new active travel routes. (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Users of active travel routes [HH-103] (**Moderate**)	Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision	Workforce and visitor vehicle movements	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that there will be no likely significant effects to delays on the road network or to road safety due to changes in traffic flows.	**Minor** (**Not Significant**) Adverse	**Healthy lifestyles: Negative access and amenity changes to active travel routes on the road network**: During operation there will be additional road traffic associated with operational workforce and visitors to the Site which may be noticeable to pedestrians, cyclists and equestrians using the roads, and could affect amenity and the perception of safety on these routes for some users. There will be changes to existing PROW that result in less direct routes from north to south and east to west of the Site. At a population level, this may reduce the health and wellbeing benefits associated with physical activity on these routes. (Permanent)	No additional mitigation required as the effect is not significant.
Users of PRoW [HH-69] (**Moderate**)	Active travel routes, additional footpaths and non-motorised	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice	**Small** The traffic and transport assessment has identified that some existing PRoW routes will be longer, increasing journey times by foot,	**Minor** (**Not Significant**) Beneficial	**Healthy lifestyles: Access and amenity changes to off-site PRoW**: There will be changes to existing PRoW within the local study area, comprising both new routes	No additional mitigation has been identified at this stage as the

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
	vehicles (NMU) provision		mitigation identified at this stage.	however overall changes will increase connectivity in the local study area due to the additional connections to the network. Amenity changes to off-site PRoW are not expected.		and reinstated PROW connecting the Site to the local community with access points at regular intervals around the perimeter. On-site these routes will then connect in to all facilities, and to each other providing increased connectivity within the local study area. This may increase physical activity for the local community which, at a population level, may provide health and wellbeing benefits associated with physical activity and active lifestyles. (Permanent)	effect is likely to be beneficial.
Visitors to the water sports centre, including the local and wider community [HH-72] (**Low**)	Water sports centre	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice mitigation identified at this stage.	**Small** The Water Sports Centre will be a major new resource which is not comparable with existing resources in the area. Sailing is a sport that has barriers to entry due to unfamiliarity, physical ability, opportunity and cost. Whilst there are opportunities for the facility to support access to sport for new populations, including specifically targeting vulnerable groups such as people on low incomes and people with disabilities, any strategies to achieve this are not currently confirmed.	**Minor** (**Not Significant**) Beneficial	**Healthy lifestyles: Increased physical activity and recreation with provision of Water Sports Centre**: The water sports centre will provide new facilities for sailing, including seven slipways, one of which will provide an accessible entry point to the water, changing and toilet facilities. These facilities will provide additional opportunities for recreation and physical activity for existing populations participating in sailing. The facilities may also provide opportunities for new populations to engage with the sport, although this is not known at this stage. At a population level, this may increase the physical health and wellbeing benefits associated with physical activity and active lifestyles, as well as the mental health and wellbeing benefits associated with access to blue open space. (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Visitors to on-site open space, including the local and wider community [HH-73] (**Low**)	Recreational lakes (east and west) Nature education centre New green open space Wilts and Berks Canal	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice mitigation identified at this stage.	**Small** The Recreational Lakes Centre will be a major new resource which is not comparable with existing resources in the area. However, as it requires an entry fee, it is not freely available to the local community. Much of Site is located away from traffic and can only be accessed via the new recreational routes. This will provide areas of quietness	**Minor** (**Not Significant**) Beneficial	**Healthy lifestyles: Improved access to open space and nature for leisure and play**: The Site will provide a range of opportunities for access to high quality open space and nature, including the nature education centre and areas, bird hides, routes along the reservoir embankment and canal tow path, and recreational lake for fishing.	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				where visitors can enjoy a tranquil open space. There is vehicle access to the nature education centre, along with cafes and toilets, which will support access to the nature-focused areas of the Site for a range of user groups such as older people, people with disabilities/reduced mobility, pregnant women or families with infants.		These amenities may also provide enhanced opportunities for recreation and social interaction, although provision specifically targeted at children and play is currently limited. Play and leisure activities offer physical and mental wellbeing benefits to children and adults, by reducing stress and anxiety and promoting socialization, strengthening community bonds. For children particularly, outdoor play is essential for their physical, cognitive and emotional development. (Permanent)	
Residents living within the Regional study area (in relation to housing) [HH-74] (**Moderate**)	Most / all project components	Operation	No embedded design or standard good practice mitigation identified at this stage.	**No change** The population of the regional study area is 725,291. It is likely that most operational staff will be drawn from this area. Likely workforce migration and housing market impacts will be assessed in more detail in the Environmental Statement.	**None** (**Not Significant**) Adverse	**Housing: Decrease in housing availability due to in-migration**: The operation of the Project is expected to require a workforce of around 100 staff. This is not expected to result in a noticeable increase in in-migration to the region, and therefore there is no likely effect to population health from changes to the availability of safe and appropriate housing. (Permanent)	No additional mitigation required as the effect is not significant.
Residents (in relation to risk of flooding) [HH-75] (**High**)	Most / all project components	Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**No change** As described in Chapter 5: Water environment the Project has been designed to ensure that the flood risk to residential properties does not increase. Whilst uncertainty has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information through ongoing consultation, including the Statutory Consultation process prior to DCO submission, and consultation prior to and during construction.	**None** (**Not Significant**) Adverse	**Housing: Increase in flood risk to residential properties**: The Project will alter areas of flood risk within the Local study area. Flooding is a highly impactful event for communities and impacts can continue long term after the event, particularly as residents may not have the option to relocate. This can lead to stress and anxiety for directly impacted residents, for residents who fear they may be impacted, and for the wider community. At a population level, this may reduce the health and wellbeing benefits associated with secure, high-quality housing and with residents feeling they are part of a safe and cohesive community.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						(Permanent)	
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues, and perceived effects) [HH-76] (**Moderate**)	Recreational lakes centre (including visitors centre) Nature education centre	Use of publicly accessible areas and recreation facilities	No embedded design or standard good practice mitigation identified at this stage.	**Small** There are a wide range of new amenities provided which will be likely to appeal to a variety of user groups within the local community.	**Minor** (**Not Significant**) Beneficial	**Community identity and cohesion: Provision of community assets**: The visitor centre and cafe will be a new resource which can be used by the local community. These spaces are expected to be high quality environments that are attractive and accessible to all. The provision of a new community asset can increase community cohesion, and decrease social isolation, particularly for more vulnerable groups. This may increase the mental health and wellbeing benefits associated with social connections. (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-77] (**High**)	Most / all project components	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**No change** The major accidents and disasters assessment has identified that all risks have been mitigated to ALARP. Whilst uncertainty has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information through ongoing consultation, including the Statutory Consultation process prior to DCO submission, and consultation prior to and during construction.	**None** (**Not Significant**) Adverse	**Community safety: Risks to health from major accidents and disasters**: A major accident or disaster can involve a large group of people, and therefore potentially impact human health at a population level. Uncertainty about such events can also cause stress and anxiety. The major accident and disaster assessment undertaken for this PEI Report (see Chapter 19) has concluded that all risks from potential major accidents or disasters have been mitigated to as low as reasonably possible (ALARP). (Permanent)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-78] (**High**)	Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision	Workforce and visitor vehicle movements	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified no likely significant effects to road safety due to changes in traffic flows. Users of the local transport network would not have realistic alternative options available should road safety worsen.	**Minor** (**Not Significant**) Adverse	**Community safety: Increased risk of transport related accidents and injuries**: During operation there will be a small amount of additional road traffic. There will also be new road, pedestrian, cycle and horse-riding routes which may be unfamiliar to users at the start of operation. Impacts to road safety from additional traffic and the safety of the Steventon to East Hanney road diversion and NMU route alternations are mitigated by a range of embedded and good practice measures. (Permanent)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-80] (**High**)	Most / all project components	Workforce and visitor vehicle movements	No embedded design or standard good practice mitigation identified at this stage.	**No change** The traffic and transport assessment has identified no significant effects that could impact emergency response times.	**None** (**Not Significant**) Adverse	**Community safety: Increased emergency response times**: During operation there will be a small amount of additional road traffic. Journey times by road, including for emergency response vehicles, are not expected to substantially increase. (Permanent)	No additional mitigation required as the effect is not significant.
Community within the Regional study area (in relation to employment and economic effects) [HH-84] (**Moderate**)	Most / all project components	Operation	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The socio-economic and communities assessment has identified positive economic effects from the presence of the Project but these are not considered to be significant. Quantitative calculation of employment generation and economic benefits will be undertaken in the Environmental Statement.	**Minor** (**Not Significant**) Beneficial	**Socio-economic conditions: Employment and wider economic effects**: The operation of the Project is expected to require a workforce of around 100 staff. There may be wider benefits to the economy in the regional study area due to the presence of the Project which will increase visitor numbers to the area. Improved economic conditions may have indirect benefits for the community such as increased indirect employment opportunities and improved assets and services. Secure, good quality work can have direct mental health and wellbeing benefits, and indirect benefits to wider health and wellbeing associated with increased financial resources. Access to improved community assets and services can provide health and wellbeing benefits associated with being part of a safe and cohesive community (Permanent)	No additional mitigation has been identified at this stage as the effect is likely to be beneficial.
Community in Marcham [HH-85] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components	Operation Presence (of project components) Workforce and visitor vehicle movements	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational traffic are not expected to be significant. However these may still be noticeable to the community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Marcham**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				The landscape and visual assessment has identified a significant effect in this area primarily due to the visibility of the embankment from parts of the village. Overall these effects are unlikely to cause a substantial change to the community's perception of, or attachment to, their local environment disruption or stress to the local community.		In Marcham, changes will be primarily associated with proximity to the main Site access and the presence of the embankment. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	
Community in Frilford [HH-86] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Most / all project components	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational traffic are not expected to be significant. However these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in this area primarily due to the visibility of the embankment from parts of the village. Overall these effects are unlikely to cause a substantial change to the community's perception of, or attachment to, their local environment disruption or stress to the local community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Frilford**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. In Frilford, changes will be primarily associated with proximity to the main Site access and the presence of the embankment. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						(Permanent)	
Community in Garford [HH-87] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Most / all project components	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** Garford is located on a small rural road off the A338 that is unlikely to provide a through route to the Site, therefore traffic and transport effects are not expected in this area. Air quality and noise effects are also not expected in this area. The landscape and visual assessment has identified a significant effect in this area primarily due to the visibility of the embankment from parts of the village. Overall these effects are unlikely to cause a substantial change to the community's perception of, or attachment to, their local environment disruption or stress to the local community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Garford**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. In Garford, changes will be primarily associated with the presence of the embankment. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	No additional mitigation required as the effect is not significant.
Community in Culham, Sutton Courtenay and south-east Abingdon [HH-88] (**Moderate**)	Intake/outfall structure	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational mechanical and electrical plant are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in this area	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Culham and Sutton Courtenay and south-east Abingdon**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may lead to a change in air quality and noise conditions on roads. In Culham and Sutton Courtenay and south-east Abingdon, changes will be	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				primarily due to the loss of trees along the river at Culham. Overall these effects are unlikely to cause substantial disruption or stress to the local community.		primarily associated with the River Thames intake/outfall structure. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	
Users of Drayton Road allotments [HH-89] (**Moderate**)	Intake/outfall structure	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational mechanical and electrical plant are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified that effects in this area are not expected to be significant Overall these effects are unlikely to cause substantial disruption or stress to the local community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects at Drayton Road Allotments**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. At the Drayton Road Allotments changes will be primarily associated with the River Thames intake/outfall structure. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing (Permanent)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Users of Drayton Road allotments (vulnerable groups) [HH-90] (**High**)	Intake/outfall structure	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational mechanical and electrical plant are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified that effects in this area are not expected to be significant Overall these effects are unlikely to cause substantial disruption or stress to the local community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects at Drayton Road Allotments**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. At the Drayton Road Allotments changes will be primarily associated with the River Thames intake/outfall structure. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	No additional mitigation required as the effect is not significant.
Users of West End allotments [HH-105] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components	No project activities identified at this stage.	No embedded design or standard good practice mitigation identified at this stage.	**Small** The traffic and transport assessment has identified that effects in this area are not expected to be significant . However the increase in traffic, particularly during peak periods, may be noticeable to allotment users. The air quality and noise assessments have identified that effects in this area are not expected to be significant. The landscape and visual assessment has not identified a significant effect on users of the allotments specifically, however a significant adverse visual effect has been identified on the community in Marcham which is nearby. Overall these effects are unlikely to cause substantial disruption or stress to users of the allotments.	**Minor** (**Not Significant**) Adverse	**Environmental Amenity: Effects at West End Allotments**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. At the Drayton Road Allotments changes will be primarily associated with the River Thames intake/outfall structure. Noise and air quality effects can directly influence physical health. Environmental	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress and anxiety levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (None)	
Community in Steventon [HH-91] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Small** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community There is an NMU access point to the Site and small car park, and the presence of any overflow of parked cars and associated congestion may contribute to amenity impacts. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational traffic are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in this area primarily due to the visibility of the embankment and landscape changes. Overall these effects are unlikely to cause substantial disruption or stress to the local community.	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Steventon**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. In Steventon changes will be primarily associated with the presence of the embankment, emergency and secondary Site access. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	No additional mitigation required as the effect is not significant.
Community in Drayton [HH-92] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base)	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Small** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in Drayton**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir	No additional mitigation required as the effect is not significant.

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	Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components			There is a risk that the presence of a NMU access point to the Site may encourage visitors arriving by car to use the village as an informal Site entrance, and the presence of parked cars and associated congestion may contribute to adverse amenity impacts The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational traffic are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in this area primarily due to the visibility of the embankment and landscape changes. Overall these effects may cause limited or occasional disruption or stress to the local community.		embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may also lead to a change in air quality and noise conditions on roads. In Drayton changes will be primarily associated with the main Site access, the presence of the embankment, and secondary Site access. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place, tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	
Community in West Hanney, East Hanney and Grove [HH-93] (**Moderate**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Active travel routes, additional footpaths and non-motorised vehicles (NMU) provision Most / all project components	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** The traffic and transport assessment has identified that effects in this area are not expected to be significant. However the increase in traffic, particularly during peak periods, may be noticeable to the community There is an NMU access point to the Site and small car park, and the presence of any overflow of parked cars and associated congestion may contribute to adverse amenity impacts. Parking restrictions are proposed in this area to limit antisocial parking. The air quality assessment has identified that effects in this area are not expected to be significant. The noise assessment has identified that effects from operational traffic are not expected to be significant however these may still be noticeable to the community. The landscape and visual assessment has identified a significant effect in this area	**Minor** (**Not Significant**) Adverse	**Environmental amenity: Effects in West Hanney, East Hanney and Grove**: During operation, there may be environmental amenity changes for receptors within the local study area. These include landscape and visual impacts from the presence of the reservoir embankment, and increased noise and lighting associated with operational and recreational activities. There will be increased traffic associated with workforce and visitor vehicles, which may lead to a change in air quality and noise conditions on roads. In West Hanney, East Hanney and Grove changes will be primarily associated with secondary Site access, including provision of a new car park. Noise and air quality effects can directly influence physical health. Environmental amenity can also affect people's experience of and feelings about their local environment, including sense of place,	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
				primarily due to the visibility of the embankment from parts of East Hanney. Overall these effects may cause limited or occasional disruption or stress to the local community.		tranquillity and neighbourhood quality, influencing stress levels and affecting the way the public realm is used. Adverse impacts on these aspects can have a negative effect on mental health and wellbeing. (Permanent)	
Operational workforce and visitors (in relation to climate change and extreme weather) [HH-96] (**Moderate**)	Most / all project components	Operation	No embedded design or standard good practice mitigation identified at this stage.	**No change** Parts of the climate change risk assessment for the operational workforce are still uncertain due to the immaturity of design development. It is expected that with the application of operational management plans, including a plan for the safe operation of the site during extreme weather, risks to staff and visitors would be sufficiently mitigated.	**None** (**Not Significant**) Adverse	**Climate change: Risks to operational staff and recreational visitors from extreme weather**: There are risks to operational staff and visitors to the Site from extreme weather, which are expected to be managed via operational management plans in line with legislative and regulatory requirements. This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Permanent)	No additional mitigation required as the effect is not significant.
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-97] (**High**)	Intake/outfall structure River tunnel and shafts	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**No change** The water environment assessment has not identified any likely significant effects to water quality in the River Thames.	**None** (**Not Significant**) Adverse	**Environmental amenity: Risks associated with changing water quality in the River Thames**: The Project may interact with water quality in the River Thames during the operation of the intake/outfall structure. Abstraction and discharge to the Thames will be subject to an environmental permit, the conditions of which are expected to include water quality. Water quality will be monitored at abstraction points. This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Permanent)	No additional mitigation required as the effect is not significant.
Users and operators of the reservoir and recreational lakes (in relation to water quality) [HH-98] (**High**)	Reservoir (including embankment and directly associated infrastructure, such as pipes in the base) Recreational lakes (east and west)	Operation Use of publicly accessible areas and recreation facilities Presence (of project components)	(SGP-48) Monitoring and management of safety in waterbodies in recreational lakes.	**No change** Monitoring and management measures will prevent effects to human health.	**None** (**Not Significant**) Adverse	**Environmental amenity: Risks associated with water quality in the reservoir and recreational lakes**: Water quality in the reservoir will be monitored routinely during operation to ensure safe bathing water standards are met. Should a breach of standards be identified, water-based activities would be suspended until the water quality has returned to a safe standard.	No additional mitigation required as the effect is not significant.

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						This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Permanent)	
Community within the Local study area (in relation to personal safety and environmental hazards) [HH-99] (**High**)	Most / all project components	Operation	No embedded design or standard good practice mitigation identified at this stage.	**No change** The geology and soils assessment has identified that there is no likely significant effect to human health identified from existing sources of contamination.	**None** (**Not Significant**) Adverse	**Environmental amenity: Risks from contamination**: There is a risk that operational and maintenance activities may result in new contamination to water or soils (including risks from contaminated water and soils including from foul sewer and waste water). This could expose workers, Site visitors or members of the public to harmful substances, with a resulting effect to human health. However, these risks are managed by the Project in line with a range of legislation, standards and guidance designed to prevent exposure to harmful substances, as set out in Chapters 5: Water environment and 10: Geology and soils. New utilities connections will also be provided by the Project which will accommodate foul sewer and waste water requirements at the Site. This will break the source-pathway-receptor relationship, minimising the risk of exposure to population health. (Permanent)	No additional mitigation required as the effect is not significant.
Residents at Drayton and Marcham Mill (in relation to exposure to radiation) [HH-100] (**High**)	Existing 132kV overhead line diversion	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**No change** As no risk to human health has been identified, there is no likely associated effect.	**None** (**Not Significant**) Adverse	**Community safety: Increase in actual risk from radiation**: The Project will result in the operation of a new diverted section of overhead 132kV powerlines. The diversion is located in the north-east of the Site, between the small group of residences at Marcham Mill and the village of Drayton. The new section of powerline does not pass closer to these communities than the existing route, and would comply with all relevant legislation, standards and guidance, which limit radiation exposure to prevent the risk of harm to human health. This will break the source-pathway-receptor relationship, therefore minimising risk of exposure to population health.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID] (Sensitivity of receptor)	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Magnitude of impact category and commentary	Initial significance category (Initial significance) / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
						(Permanent)	
Community within the Local study area (in relation to general environmental, access, social and lifestyle issues, and perceived effects) [HH-101] (**Moderate**)	Existing 132kV overhead line diversion	Operation Presence (of project components)	No embedded design or standard good practice mitigation identified at this stage.	**Negligible** Whilst perceived risk has the potential to cause real anxiety and stress to communities, this will be mitigated by the provision of Project information regarding actual risk through the Statutory Consultation process and ongoing engagement.	**Minor** (**Not Significant**) Adverse	**Community safety: Increase in perceived risk from radiation**: The Project will result in the operation of a new diverted section of 132kV powerlines in the north-east of the Site, between the small group of residences at Marcham Mill and the village of Drayton. The new section of powerline does not pass closer to these communities than the existing route, and would comply with all relevant legislation, standards and guidance, which limit radiation exposure to prevent the risk of harm to human health. Although there will be no increase in actual risk from radiation, the community may still feel fears associated with unknown impacts. These concerns may be partially mitigated by the provision of clear and accurate information regarding the location of the new section of powerline and compliance of with legislation, standards and guidance. Concerns about the risk of radiation may increase stress and decrease healthy behaviours relating to accessing outdoor space, and can have a negative impact on mental and physical health and wellbeing. (Permanent)	No additional mitigation required as the effect is not significant.

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