



South East Strategic Reservoir Option
Preliminary Environmental Information Report

Appendix 14.1 - Preliminary assessment of effects for Noise and vibration

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 noise and vibration, 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 noise and vibration 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 and Effect ID
 - 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)
 - Initial category of effect significance, including whether it is adverse, beneficial or neutral (taking account of embedded design mitigation and standard good practice measures)
 - 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 14.10: 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]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Residential properties on Mill Road, Marcham [NV-142]	Site compounds, haul routes, temporary bridges or culverts Access roads Site-wide utilities diversions and new supplies	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Residential properties at Barrow Farm, Faringdon Road, Abingdon [NV-143]	Site compounds, haul routes, temporary bridges or culverts Access roads A34 Marcham Interchange	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Abingdon (South East) residential properties on South Key, West Key, Marina Way and Lambrick Way; Open green space around Abingdon Marina Park [NV-145]	Site compounds, haul routes, temporary bridges or culverts Intake/outfall structure	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Residential properties on Mill Road, Abingdon [NV-147]	Site compounds, haul routes, temporary bridges or culverts Highways improvements	Preparatory and enabling works General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
		Material excavation and handling	(where reasonably practicable).			
Culham community [NV-148]	Site compounds, haul routes, temporary bridges or culverts Intake/outfall structure	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Drayton (North) residential properties on Holly Lane, Willow Way, Walnut Way and Chestnut Drive; Open green space at Holly Lane play area [NV-150]	Site compounds, haul routes, temporary bridges or culverts Intermediate shaft Intermediate shaft road upgrade	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Drayton (South) community [NV-153]	Most / all project components	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Steventon (North) community [NV-155]	Steventon to East Hanney road diversion Noise bunds Most / all project components	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Grove (North) residential and non-residential properties to the north of Station Road, Grove [NV-186]	Rail siding and material handling facility Modifications to mainline to allow exit west (switch and crossing)	General construction activities Material excavation and handling Material stockpiling Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Grove (West) residential properties on Barley Way, Corn Lane, Straw Acre, Wheatfields and Townsend; Grove cemetery [NV-170]	Rail siding and material handling facility Modifications to mainline to allow exit west (switch and crossing)	General construction activities Material excavation and handling Material stockpiling Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Residential properties off Circourt Road [NV-171]	Rail siding and material handling facility	General construction activities Material excavation and handling Material stockpiling Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Challow community [NV-172]	Rail siding and material handling facility	General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
		Material stockpiling Off-site transport movements				
Residential properties at Bradfield Grove Farm, Cow Lane, Grove [NV-173]	Rail siding and material handling facility	General construction activities Material excavation and handling Material stockpiling Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Bradfield Barn, Old Mans Lane, Grove [NV-174]	Site compounds, haul routes, temporary bridges or culverts Steventon to East Hanney road diversion Rail siding and material handling facility	Preparatory and enabling works General construction activities Material excavation and handling Material stockpiling Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
East Hanney (South) residential properties on Franklin Gardens, Pullen Field and Davies Meadow [NV-175]	Site compounds, haul routes, temporary bridges or culverts Steventon to East Hanney road diversion	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
East Hanney (East) residential properties on Arthurs Close, Herman Close, Hunter Avenue, Lamble Walk and Stallwood Row; Open green space at Holmes Park Play Area [NV-177]	Site compounds, haul routes, temporary bridges or culverts Site-wide utilities diversions and new supplies Western watercourses diversion (Cow Common Brook, Portobello Ditch, East Hanney Ditch and Landmead Ditch)	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
Residential property at Venn Mill, Garford [NV-179]	Site compounds, haul routes, temporary bridges or culverts Western watercourses diversion (Cow Common Brook, Portobello Ditch, East Hanney Ditch and Landmead Ditch)	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.
South Oxfordshire Crematorium [NV-180]	Site compounds, haul routes, temporary bridges or culverts Western watercourses diversion (Cow Common Brook, Portobello Ditch, East Hanney Ditch and Landmead Ditch)	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	(AM-80) Additional measures to reduce noise and vibration.

1.3 Likely non-significant construction effects

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

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Marcham community [NV-141]	Site compounds, haul routes, temporary bridges or culverts Access roads Site-wide utilities diversions and new supplies	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Abingdon (North and West) and Caldecott communities [NV-144]	Site compounds, haul routes, temporary bridges or culverts Access roads Site-wide utilities diversions and new supplies Intermediate shaft A34 Marcham Interchange	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Community moorings at Abingdon Marina Park [NV-146]	Site compounds, haul routes, temporary bridges or culverts Intake/outfall structure	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Residential and non-residential properties on Oday Hill, Stonehill Lane, Drayton [NV-149]	Site compounds, haul routes, temporary bridges or culverts Intake/outfall structure Intermediate shaft River tunnel and shafts	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Drayton (West) residential properties on Lyford Close, Hilliat Fields, Fisher Close, Whitehorns Way, Lockway, and west of Steventon Road; Non-residential properties including Drayton Village Hall [NV-151]	Noise bunds	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Drayton (Central) community [NV-152]	Site compounds, haul routes, temporary bridges or culverts Access roads Site-wide utilities diversions and new supplies Intermediate shaft Noise bunds	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Drayton Park Golf Club [NV-154]	Most / all project components	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to non-residential receptor near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Steventon (Central) community including non-residential property at St Michael's CoE primary school [NV-156]	Steventon to East Hanney road diversion Most / all project components	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Steventon (South) residential properties on Vicarage Road and The Causeway; Non-residential property at St Michael and All Angels' Church [NV-157]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).		existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	
Steventon (South) community [NV-158]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Residential Properties on Church Lane, Steventon [NV-159]	Project Priority Areas for Biodiversity Planting Access roads	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Milton community [NV-160]	Highways improvements	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Short-term)	No additional mitigation required as the effect is not significant.
Harwell community [NV-161]	Highways improvements	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works.	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			standard working hours (where reasonably practicable).		(Short-term)	
Rowstock community [NV-162]	Highways improvements	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Short-term)	No additional mitigation required as the effect is not significant.
Residential properties on Featherbed Lane, East Hendred [NV-163]	Highways improvements Access roads	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Short-term)	No additional mitigation required as the effect is not significant.
East Hendred community [NV-164]	Highways improvements Access roads	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Short-term)	No additional mitigation required as the effect is not significant.
Residential and non-residential properties in Ardington and Ardington Wick [NV-165]	Highways improvements Access roads	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Short-term)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Residential properties in Grove Park and Lockinge, Wantage [NV-166]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Pinmarsh, Grove Park Drive, Wantage [NV-167]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptor near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Grove community [NV-168]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Williams Racing F1, Grove [NV-169]	Rail siding and material handling facility Modifications to mainline to allow exit west (switch and crossing)	General construction activities Material excavation and handling Material stockpiling Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration.	Not Significant Adverse	Construction noise and vibration effect: Airborne noise and vibration causing a temporary disturbance to non-residential receptor near construction and rail siding areas. This is based on consideration of, amongst other things, the study area, the existing sound and vibration environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
East Hanney (West) community [NV-176]	Site compounds, haul routes, temporary bridges or culverts Steventon to East Hanney road diversion Western watercourses diversion (Cow Common Brook, Portobello Ditch, East Hanney Ditch and Landmead Ditch)	Preparatory and enabling works General construction activities Material excavation and handling	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
West Hanney community [NV-178]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential receptors near construction areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Garford community [NV-181]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Frilford community [NV-182]	Project Priority Areas for Biodiversity Planting	General construction activities	(SGP-25) Apply measures including Best Practicable Means to reduce construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).	Not Significant Adverse	Construction noise effect: Airborne noise causing a temporary disturbance to residential and non-residential receptors near species relocation areas. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	No additional mitigation required as the effect is not significant.
Noise and vibration receptors within the study area [NV-183]	Most / all project components	Off-site transport movements	(SGP-25) Apply measures including Best Practicable Means to reduce	Not Significant Neutral	Construction noise effect: Airborne construction road traffic noise causing a temporary negligible effect to residential and non-residential receptors near construction traffic areas. This is based on consideration of, amongst other things, the study	No additional mitigation required as the effect is not significant.

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
			construction noise and vibration. (SGP-26) Carry out construction works during standard working hours (where reasonably practicable).		area, the existing sound environment in terms of the absolute level and the character, the number and grouping of receptors potentially subject to a noise effect, and the frequency and duration of the construction works. (Medium-term)	

1.4 Likely non-significant operation effects

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

Receptor name [Effect ID]	Project component(s)	Project activity(ies)	Embedded design / standard good practice mitigation applied	Initial significance / Direction of effect	Description of effect (including duration)	Additional mitigation identified (including monitoring)
Noise and vibration receptors within the study area [NV-184]	Most / all project components	Workforce and visitor vehicle movements	(ED-44) Noise bunds.	Not Significant Neutral	Operational noise effect: Airborne operational road traffic noise causing a negligible effect to residential and non-residential receptors near new/upgraded roads. This is based on consideration of, amongst other things, the study area, the existing sound environment in terms of the absolute level and the character and the number and grouping of receptors potentially subject to a noise effect. (Permanent)	No additional mitigation required as the effect is not significant.
Noise and vibration study area [NV-188]	Pumping station Recreational lakes centre (including visitors centre) Water sports centre Nature education centre	Operation	(ED-11) Mitigate noise emissions from reservoir infrastructure.	Not Significant Neutral	Operational noise effect: Airborne noise from operational mechanical and electrical plant causing no change and therefore a negligible effect to residential and non-residential receptors near proposed plant, such as the pumping station. (Permanent)	No additional mitigation required as the effect is not significant.



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