

- 1.1 The following is the Summary of Impacts Table for the construction phase, taken from the Environmental Statement. It sets out a summary of the impacts and the mitigation measures that have been identified for each of the environmental issues during construction across the whole of the site, in order to minimise any potential adverse significant impacts and enhance beneficial impacts.

Table 17.1: Summary of Impacts and Mitigation

Construction Phase

ENVIRONMENTAL TOPIC	SIGNIFICANCE OF POTENTIAL EFFECT		PROPOSED INHERENT MITIGATION	PROPOSED ADDITIONAL MITIGATION	SIGNIFICANCE OF RESIDUAL EFFECT	
	POTENTIAL EFFECT BEFORE MITIGATION	SUBSTANTIAL, MAJOR MODERATE, MINOR, NEGLIGIBLE			SUBSTANTIAL, MAJOR MODERATE, MINOR, NEGLIGIBLE	ADVERSE, BENEFICIAL, NEUTRAL
SOCIO-ECONOMIC AND COMMUNITY						
Impact on Housing and subsequent population	Major	Beneficial	None Required	None Required	Major	Beneficial
Economy and Employment	Moderate	Beneficial	Construction process would include the creation of a range of occupational levels providing employment.	None Required	Moderate	Beneficial
Health and Wellbeing	Negligible	Neutral	Production and implementation of the Construction Environmental Management Plan (CEMP) to minimise any risks to health.	None required	Negligible	Neutral
GROUND CONDITIONS, HYDROLOGY AND HYDROGEOLOGY						
Land/Water Contamination by intrusive works resulting in potential contamination or release of contaminants	Negligible	Adverse	None Proposed	Use of a CEMP. By employing appropriate site management practices, the potential for contamination of land and controlled waters from site plant and activities during the works can be minimised	Negligible	Neutral

REDROW HOMES.

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - PHASE 2 BEREWOOD, WATERLOOVILLE, HAMPSHIRE

Surface and Groundwater pollution from general construction activities	Negligible	Adverse	None Proposed	Use of a CEMP. By employing appropriate site management practices, the potential for contamination of land and controlled waters from site plant and activities during the works can be minimised	Negligible	Neutral
Unexploded Ordnance	Substantial	Adverse	None Proposed	Detailed proposals in CEMP and Table 7.8 including site safety induction and clearance certification	Negligible	Neutral
Existing ground conditions including risk to buried structures from chemicals in the ground	Minor to Moderate	Adverse	None Proposed	Materials encountered should be suitable for excavation using conventional earth moving equipment; nevertheless for ongoing construction more detailed site specific surveys are recommended. In addition, buried concrete should be designed to resist the effects of known concentrations of contaminants	Negligible	Neutral
Existing ground conditions – high potential compressibility which affect the foundation structures	Minor to Substantial	Adverse	None Proposed	Adopt a piled foundation solution to improve the load carrying capacities of the near surface soils, or soil stabilisation using either lime or cement additives with recommendations in line with those set out in the Geotechnical Report (Appendix 7.1) or use suspended floor slabs	Negligible	Neutral
Soil gas contamination	Minor	Adverse	Incorporation of damp proof membrane in accordance with best practice construction	Further detailed assessment in areas of made ground and provision of specific gas protection solutions where required	Negligible	Neutral
ARCHAEOLOGY & CULTURAL HERITAGE						
Plant Farm Farmhouse	Major	Beneficial	Repair and restore listed buildings	None (historic building record already completed)	Major	Beneficial
The setting of Plant Farm Farmhouse	Moderate	Adverse	Proposed development to be set back from Plant Farm	None (historic building record already completed)	Minor	Adverse
Tithe Barn at Plant Farm	Major	Beneficial	Repair and restore listed buildings	None (historic building record already completed)	Major	Beneficial
Modern Farm buildings at Plant Farm	Minor/Moderate	Adverse	Demolition of modern buildings	None (historic building record already completed)	Negligible	Beneficial

REDROW HOMES.

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - PHASE 2 BEREWOOD, WATERLOOVILLE, HAMPSHIRE

St John's Conservation Area	Negligible	Neutral	None Proposed	None Required	Negligible	Neutral
Heritage sites 3 to 8	Negligible	Neutral	N/A	Publication of excavation results	Minor	Beneficial
Heritage sites 9 to 13, 16 & 18	Minor/Moderate	Adverse	N/A	Archaeological investigation and recording	Minor	Beneficial
Historic landscape	Minor/Negligible	Adverse	Field boundaries and other topographic features retained	None Required	Minor/Negligible	Adverse
Heritage sites 14, 15 & 17	Negligible	Neutral	Open Space	None Required	Negligible	Neutral
BIODIVERSITY						
Woodland (including all woodland SINC's) – very small area of habitat loss and fragmentation. Impact on associated fauna	Minor (Significant at a Local scale)	Adverse	Scheme designed to avoid majority of woodland	Occurs during operation phase – see below	Minor (Significant at a Local scale)	Adverse
Hedgerows – small net loss of hedgerow habitat	Minor (Significant at the Parish scale)	Adverse	Scheme designed to avoid majority of hedgerows	Occurs during operation phase – see below	Minor (Significant at the Parish scale)	Adverse
Wildflower grassland – small area of species-poor semi-improved grassland would be lost	Minor (Significant at a Local scale)	Adverse	None Proposed	Occurs during operation phase – see below	Minor (Significant at a Local scale)	Adverse
Water features (ponds and watercourses) – river restoration and SuDS installation would adversely impact on existing fauna and flora. Also potential for pollution incidents.	Moderate (Significant at the District scale)	Adverse	None Proposed	Adherence to EA pollution prevention guidance	Negligible	Neutral
Badgers – potential for sett destruction/ disturbance possibly resulting in fatalities	Minor (Significant at a Local scale)	Adverse	Scheme designed to avoid setts and best habitat	Careful timing of works, exclusion zones around setts, trench provisions to prevent Badgers becoming trapped etc.	Negligible	Neutral
Otters - temporary displacement from small sub-optimal section of home range unlikely to be important.	Negligible	Neutral	None Proposed	Adherence to EA pollution prevention guidance	Negligible	Neutral
Dormice - small risk of fatalities if unmitigated.	Minor (Significant at a Local scale)	Adverse	Scheme designed to avoid majority of woodland	Careful timing of works to avoid direct fatalities	Negligible Significant Within	Adverse

REDROW HOMES.

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - PHASE 2 BEREWOOD, WATERLOOVILLE, HAMPSHIRE

				Most mitigation during operation.	Immediate Zone of Influence	
Bats - loss of several small roosts at Plant Farm	Minor (Significant at a Local scale)	Adverse		Mostly during operation. Careful timing and supervision of demolition and tree felling works to prevent direct loss of bats	Minor (Significant at a Local scale)	Adverse
Great Crested Newts - potential for fatalities during construction	Minor (Significant at a Local scale)	Adverse	Scheme designed to avoid ponds and majority of sensitive terrestrial habitat	Careful timing of works to avoid direct fatalities	Negligible	Neutral
Reptiles - potential for fatalities during habitat loss and disruption	Minor (Significant at a Local scale)	Adverse	Scheme designed to avoid majority of sensitive habitat	Translocation/habitat modification/destructive searches	Negligible	Neutral
Breeding birds - potential for nest and egg losses and aborted breeding attempts due to disturbance. Loss of open arable habitat favoured by arable specialists.	Minor (Significant at a Local scale)	Adverse	Scheme designed to avoid majority of sensitive habitat	Avoidance of nests when being built or containing eggs or young in compliance with legal requirements.	Negligible	Adverse
Wintering waterfowl - construction loss/ displacement of much of existing, but limited, wintering waterfowl population. (no Brent Geese seen in 4 years)	Minor (Significant at the scale of the Site and its zone of influence)	Adverse	None Proposed	Should Brent Geese return suitable habitat still available in Brent Goose Compensation Lands; but Lapwing likely to be displaced permanently	Minor (Significant at the scale of the Site and its zone of influence)	Adverse
Fish - loss/displacement of existing fish population	Minor (Significant adverse effect at the scale of the Site and its zone of influence)	Adverse	Work phased so time for existing fish population to adapt to changes	Techniques to ensure aquatic continuity through construction and avoid pollution events. Phased works would give fish population time to adapt	Negligible	Neutral
Invertebrates -loss/ displacement of existing aquatic invertebrate populations of ditches etc, though key populations in ponds not affected	Minor (Significant at a the scale of the Site and its zone of influence)	Adverse	Phased development would give invertebrates time to adapt to changing conditions.	Mitigation mostly during operation	Minor (Significant at a the scale of the Site and its zone of influence)	Adverse
LANDSCAPE AND VISUAL IMPACT						
Landscape character adjacent to site – LCA4 Waterlooville Business	Negligible	Adverse	N/A	N/A	Negligible	Adverse

REDROW HOMES.

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - PHASE 2 BEREWOOD, WATERLOOVILLE, HAMPSHIRE

Park character area (HBC)						
Landscape character adjacent to site – LCA6 Purbrook character area (HBC)	Nil - Minor	Adverse		N/A	Nil - Minor	Adverse
Landscape character adjacent to site – LCA18 Forest of Bere Lowlands character area (WCC)	Minor	Adverse	N/A	N/A	Minor	Adverse
Landscape character within site- LCA18 Forest of Bere Lowlands character area (WCC)	Minor - Moderate	Adverse	N/A	N/A	Minor - Moderate	Adverse
Landscape features – existing landform	Negligible	Adverse	Development layout follows landform, thus minimising earthworks.	N/A	Negligible	Adverse
Landscape features – existing ponds	Nil	-	Assumes existing ponds retained and protected during construction.	N/A	Nil	-
Landscape features – River Wallington	Nil	-	N/A	N/A	Nil	-
Landscape features – existing woodland	Minor	Adverse	Assumes existing woodland retained and protected during construction except at a small number of areas where proposed development necessitates its removal.	N/A	Minor	Adverse
Landscape features – hedgerows	Minor	Adverse	Assumes hedgerows to be retained will be protected during construction. Adverse effects due to the necessary removal of hedgerows to facilitate development.	N/A	Minor	Adverse
Landscape features – arable land	Minor	Adverse	N/A	N/A	Minor	Adverse
Landscape features – public access	Minor	Adverse	Assumes existing footpaths will be retained as long as possible, but some closures/diversions will be necessary.	N/A	Minor	Adverse
Visual amenity from the south (including Portsdown Hill)	Negligible - Minor	Adverse	N/A	N/A	Negligible - Minor	Adverse
Visual amenity from the west (including Newlands and Cutlers Farms and Newlands Lane)	Minor - Moderate	Adverse	N/A	N/A	Minor - Moderate	Adverse

REDROW HOMES.

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - PHASE 2 BEREWOOD, WATERLOOVILLE, HAMPSHIRE

Visual amenity - from the north (including Taylor Wimpey site, Brambles Farm Industrial Estate, Closewood Rd, Closewood Farm & footpaths)	Negligible - Moderate	Adverse	N/A	N/A	Negligible - Moderate	Adverse
Visual amenity - from the east (London Rd, Forest End, Purbrook Gardens, Maurepas Way)	Negligible - Moderate	Adverse	N/A	N/A	Negligible - Moderate	Adverse
Visual amenity - from within the site	Minor - Substantial	Adverse	N/A	N/A	Minor - Substantial	Adverse
TRAFFIC & TRANSPORT						
Construction Traffic	Impacts are dealt with under Air Quality and Noise and Vibration		Connection to strategic highway network	Construction traffic management plan including commitments on HGV routes to minimise impact in residential areas	Impacts are dealt with under Air Quality and Noise and Vibration	
AIR QUALITY						
Generation of airborne fumes and dusts from general construction activities	Negligible to moderate (depending on sensitivity of the receptor)	Neutral to adverse	Construction phasing	Examples of measures to control air quality impacts from construction through CEMP. • Routine monitoring of dust at the site boundary and sensitive receptors • Spraying of areas with water in order to reduce dust generation, as and when conditions dictate • A road sweeper to be readily available whenever the need for road cleaning arises • Vehicles carrying waste material off-site to be sheeted • Under no circumstances should fires be allowed on sit • Special provisions will apply for any materials containing asbestos. The safety method statement should	Negligible to minor (depending on sensitivity of the receptor)	Neutral to adverse

				outline the control measures necessary to minimise the risks to an acceptable level and all statutory notices will be placed with the Health and Safety Executive (HSE) Effective wheel/body washing facilities to be provided and used as necessary		
Increase in local pollutant levels (smoke/fumes) from road haulage vehicles (and potentially as a result of slow moving traffic, should local congestion ensue)	Negligible to moderate (depending on sensitivity of the receptor)	Neutral to adverse	Construction phasing	Proposed minimal impact construction routes	Negligible to minor	Neutral to adverse
NOISE & VIBRATION						
Increase in local noise and vibration levels from road haulage vehicles	Negligible to moderate	Neutral to adverse	Construction phasing	Proposed minimal impact construction routes	Negligible to minor	Neutral to adverse
Generation of noise and vibration from construction plant.	Minor to Moderate	Adverse	Construction phasing	All contractors and sub contractors will be required to go beyond best practice site management principles as defined by the Considerate Constructors scheme. The following are examples of measures to control noise and vibration impacts from construction which can be adopted within a CEMP: - choice of methodologies to minimise generation of noise and vibration, for example the use of cutting rather than breaking in order to reduce the transfer of vibration; - setting of 'Action Levels' for noise and vibration based upon: - specific receptor locations;	Negligible to Minor	Neutral to Adverse

				○ source and type of impact; ○ baseline measurements taken; and ○ guidance levels set out in the Magnitude of Impact section; ● routine monitoring of noise and vibration at the site boundary and sensitive receptors; ● use of hoardings for as long as practicable to provide acoustic screening; ● requirement for engines to be switched off on-site when not in use; ● use of quieter plant; ● regular plant maintenance; and ● screening of plant (if appropriate).		
WASTE DISPOSAL & RECYCLING						
Disposal of earthworks	Minor to Moderate	Adverse	None Proposed	Use of Lime stabilisation to minimise excavation & retain surplus earthworks material on site	Minor	Adverse
Generation of demolition waste	Minor to Moderate	Adverse	None Proposed	Retain and re-use as many existing farm structures as is practical	Minor	Adverse
Generation of construction waste	Minor to Moderate	Adverse	None Proposed	Sign up to BRE SMARTWaste scheme	Minor	Adverse
Wastage of material	Minor to Moderate	Adverse	None Proposed	Implement effective Site Waste Management Plans (SWMP) Maximise the use of materials from recycled and reclaimed sources Use of standard sizes and elements to reduce wastage through cutting of materials on site	Minor	Adverse

REDROW HOMES.

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - PHASE 2 BEREWOOD, WATERLOOVILLE, HAMPSHIRE

Transport to licensed tips	Minor to Moderate	Adverse	None Proposed	Skips to be covered in transit and reduction in quantity through above measures as per SWMP	Minor	Adverse
General waste production by operatives	Minor to Negligible	Adverse	None Proposed	Use of temporary litter and recycling bins as per SWMP	Negligible	Adverse
SERVICE SUPPLIES						
Noise, vibration and dust generating activities in close proximity to potentially sensitive receptors during works associated with the provision or alteration of services	Minor	Adverse	None Proposed	Noise and air quality impact from the utilities trenching, laying and reinstatement works will be mitigated by employing appropriate site management practices within a CEMP	Negligible	Adverse
The laying of utilities underground requires clear working space. Clearance of vegetation including trees and shrubs, which may impact on local wildlife	Minor	Adverse	None Proposed	Avoid ecologically sensitive areas wherever possible. Where such avoidance is not possible, the works shall be undertaken so as to minimise damage by avoiding identified wildlife and high value trees	Negligible	Adverse
Potential for disturbance of Archaeology	Minor	Adverse	None Proposed	All sensitive routes with archaeological potential to be reviewed by the archaeologist prior to works commencing	Negligible	Adverse