

Appendix 4 - Princes Parade: Schedule of Environmental Mitigation

Introduction

This document collates the various mitigation measures that have been proposed or assumed in the environmental statement (ES) and specifies how these are to be delivered and monitored. The measures are identified for each assessment topic and are divided into three schedules, relating respectively to the construction phase, scheme design and operation of the completed development. This is a summary only; reference should be made to the ES technical chapters and annexes for further details.

Construction

The construction works would be subject to a Construction Environmental Management Plan (CEMP) or Code of Best Practice. Compliance with the CEMP would be a legal obligation on all contractors (and sub-contractors) and enforced by planning condition or unilateral undertaking. In addition to generic good practice, the key measures relating to the identified sources of impact are set out below.

Potential Impact Identified in ES	Proposed Mitigation	Mechanism for Delivery and Monitoring
Cultural Heritage		
Disturbance of any buried assets (e.g. ditch associated with Royal Military Canal, foundations of boathouses).	Targeted site evaluation and recording prior to construction (to be coordinated with the SI and remediation works).	Scheme of investigation to be agreed by condition and implemented/ monitored by qualified archaeologist.
Intrusion of construction works into setting of canal and other assets.	General controls on the visibility of the works, good housekeeping etc.	CEMP; monitored by environmental clerk-of-works.
Ecology		
Loss of on-site habitats (e.g. grassland close to Princes Parade).	Phased re-establishment of comparable habitats within proposed green infrastructure where practicable.	Ecological Mitigation and Enhancement Plan (EMEP); monitored by qualified ecologist.
Disturbance of breeding birds	Site clearance to take place outside nesting season or following survey.	EMEP/planning condition; survey and/or monitoring by qualified ecologist.
Accidental killing of amphibians and reptiles.	Capture/translocation of relevant species to suitable nearby habitat; use of "Herptile" exclusion fencing and ecological watching brief during site clearance.	EMEP/planning condition; capture/ translocation and monitoring by qualified ecologist.
Disturbance of foraging bats due to temporary lighting.	Selection, positioning and use of lighting to minimise off-site light spill.	Lighting scheme to be reviewed by qualified ecologist.
Physical encroachment into adjoining habitats (e.g. canal bank).	Use of temporary fencing and monitoring of work close to canal.	EMEP; position of fencing to be agreed with qualified ecologist.
Pollution risk to canal (eutrophic standing water habitat).	Prohibition of dewatering or discharge of wastes to canal; use of temporary on-site drainage works to divert runoff away from the canal.	CEMP; monitoring by environmental clerk-of-works.
Indirect effects on surrounding habitats, e.g. due to noise or fugitive	Monitoring of works and adoption of best practicable means to minimise emissions.	CEMP; monitoring by environmental clerk-of-works.

dust emissions.		
Flood Risk and Drainage		
Risk of uncontrolled and contaminated runoff to canal.	Temporary on-site drainage measures (e.g. bunding) to prevent such runoff; off-site discharge of aqueous wastes under licence.	CEMP; monitoring by environmental clerk-of-works.
Uncontrolled disturbance of contaminated ground, causing potential contamination risk to air (through dust emissions), soils, controlled waters (groundwater and canal), and health risk to site workers.	Further site investigations and ground gas monitoring to categorize extent/level of risk; agreement and implementation of remediation strategy as part of earthworks phase, with best practice adopted to minimise associated risks (e.g. dust and runoff controls); disposal of any hazardous wastes under licence; adoption of appropriate health and safety measures.	Scope of intrusive SI and remediation strategy to be agreed by condition and carried out by suitable geotechnical consultants/contractors. Best practice enforced through CEMP and monitored by environmental clerk-of-works.
Intrusion of construction works into local views.	Unavoidable, but minimise visibility of works through use of hoardings etc.	Monitored by environmental clerk-of-works.
Loss of semi-natural green space.	Works to be phased to allow re-provision of comparable space.	Phasing plan to be agreed by condition.
Socio-Economics		
No other adverse impacts identified.	Recruitment, training and procurement strategy to optimise opportunities for local suppliers and workforce.	To be an obligation on contractors.
Transport		
Delay and safety implications of construction traffic, especially HGVs.	Traffic management plan to include agreed HGV routes, hours of working, parking strategy etc.	Traffic Management Plan to form part of CEMP and agreed by condition; monitored by marshals and environmental clerk-of-works.
Temporary or partial closures of Princes Parade and existing car park.	Complete realignment of Princes Parade as early as possible and establish as diversionary route; re-provide parking on western part of site in Phase 1; minimise extent/duration of parking displacement; ensure that roadworks follow highway authority procedures.	Realignment and phasing strategy to be agreed with highway authority; implementation to be monitored by environmental clerk-of-works and highway authority.

Scheme Design

The key design measures proposed in response to the identified sources of impact are set out below. Measures relating to the outline elements of the scheme would be secured through Reserved Matters, whilst those relating to the detailed (leisure centre) element would be secured by condition.

Potential Impact Identified in ES	Proposed Mitigation	Mechanism for Delivery and Monitoring
Cultural Heritage		
Intrusion of development into setting of Royal Military Canal and associated assets.	Layout and massing to be in accordance with assessment parameters; detailed landscaping strategy to mitigate impacts on specific views.	Reserved Matters/ Conditions; prior agreement of landscape strategy; LPA to monitor compliance.
Ecology		
Loss of on-site habitat.	Compensatory habitats to be incorporated into green infrastructure	EMEP/Reserved Matters; LPA to monitor compliance.

	where practicable, to include features such as nesting boxes and hibernacula on and off site.	
Disturbance of foraging bats due to the introduction of lighting.	External lighting to be designed and located to minimise light spill, particularly in the vicinity of the canal.	Detailed lighting scheme to be developed with ecological input and agreed under Reserved Matters; LPA to monitor compliance.
Flood Risk and Drainage		
Exposure of new residents/users to flood risk under storm surge conditions.	Building levels to be set at a minimum of +7.8mAOD as agreed with the Environment Agency; design of beachfront promenade to incorporate a secondary sea wall.	Detailed design and levels to be agreed under Reserved Matters; EA/LPA to monitor compliance.
Hydrological and qualitative impact on Royal Military Canal due to runoff from developed site.	Surfacewater drainage strategy to be based on discharge to the Royal Military Canal; drainage from trafficked areas to include oil interceptors.	Drainage design to be agreed under Reserved Matters; EA/LPA to monitor compliance.
Risk of localised flooding due to surcharging of foul drainage system.	Upgrading of system to provide additional capacity.	Upgrading to be agreed with/implemented by Southern Water.
Geo-Environment		
Risk to new residents/users from any residual ground contamination.	Adoption of remediation strategy during construction; use of clean cover, break layers and imported topsoil for landscaped areas.	Remediation strategy to be agreed and implemented by condition/CEMP and monitored by environmental clerk-of-works.
Risk to new residents/users from any residual ground gas.	Incorporation of gas protection measures into the design of vulnerable spaces (e.g. basements).	Gas protection to be secured under Reserved Matters; LPA to monitor compliance.
Damage to foundations and underground services.	Use of resistant materials.	To be secured under Reserved Matters; LPA to monitor compliance.
Landscape and Views		
Intrusion into local character and views (e.g. from Princes Parade, Seaview Footbridge and residential properties).	Adherence to development parameters and design code; adoption of landscape strategy as agreed with LPA.	Landscaping and other design details to be agreed under Reserved Matters; LPA to monitor compliance.
Socio-Economics		
Net loss of semi-natural green space.	Re-provision of comparable space to a higher design/amenity value as part of the green infrastructure strategy.	Open space design/standards to be secured under Reserved Matters.
Transport		
Increased driver delay at selected junctions during peak periods.	Enhancement of pedestrian/cycle links between development and local area.	Enhancement to be secured by condition; highway authority to monitor compliance.

Operational Development

The key management measures relating to potential sources of impact associated with the completed and occupied development are set out below. These measures would be secured under Reserved Matters or by condition, as appropriate, and through specific management instruments such as the Ecological Mitigation and Enhancement Plan (EMEP).

Potential Impact Identified in ES	Proposed Mitigation	Mechanism for Delivery and Monitoring
Cultural Heritage		
Intrusion of development into setting of Royal Military Canal and associated assets.	Funding of restoration and interpretation to increase access to/appreciation of the relevant assets where practicable.	Package of measures to be agreed and implemented by developer under Reserved Matters/condition.
Ecology		
Loss of on-site habitat.	Management and monitoring of compensatory habitats to maintain/enhance their ecological status as part of the Ecological Mitigation and Enhancement Management Plan.	EEMP to be secured by Reserved Matters/condition; implementation to be monitored by county ecologist.
Flood Risk and Drainage		
Hydrological and qualitative impact on Royal Military Canal due to runoff from developed site.	Monitoring and maintenance of drainage systems to ensure effective operation.	Monitoring by EA/drainage board as appropriate.
Risk of localised flooding due to surcharging of foul drainage system.		Monitoring by EA/Southern Water.
Geo-Environment		
Risk to new residents/users from any residual ground contamination.	None required beyond routine monitoring and maintenance.	Monitoring by developer, management company and utility providers.
Risk to new residents/users from any residual ground gas.		
Damage to foundations and underground services.		
Landscape and Views		
Intrusion into local character and views (e.g. from Princes Parade, Seaview Footbridge and residential properties).	Monitoring and maintenance of landscaping in accordance with Landscape and Ecological Management Plan.	Monitoring by management company and LPA landscape officer.
Net loss of semi-natural green space.	Maintenance of re-provided green space in accordance with Landscape and Ecological Management Plan.	Monitoring by management company and LPA landscape officer/county ecologist.
Socio-Economics		
Additional demand for education and healthcare.	Potential to fund additional capacity through CIL contributions if necessary.	LPA to agree any requirement with education and healthcare providers.
Transport		
Increased driver delay at selected junctions during peak periods.	Effects not anticipated to be significant, so no specific mitigation required.	None required.