

National Environmental Assessment Service

Internal Environmental Assessment

Draft Environmental Action Plan

Project name	Leigh FSA Expansion Scheme
Project 1B1S reference	IMSE100377
Area	Kent
Date	August 2020
Version number	Revision 1
Author	

Revision history

Revision date	Summary of changes		Version number
21.08.2020	First issue	Tim Carter	1

EAP Approvals

Name	Signature	Title	Date	Version

Distribution

Name	Title	Date	Version

Purpose

This Environmental Action Plan (EAP) summarises the actions required to implement the environmental mitigation and outcomes contained within the Environmental Statement (ES) that has been prepared following Environment Agency Operational Instructions. It sets out specific objectives and targets defining the way in which we wish the ES and its relevant findings to be addressed during the implementation phase of the project (detailed design, construction and post-construction phases). It also details roles and responsibilities of those involved in the proposal and refers to all **temporary** and **permanent** works.

These actions form part of the contract documentation and must be adhered to.

Roles

Each action in the table below has <u>one</u> named person who is responsible for ensuring that the action is implemented. It is ultimately the contractor's responsibility for ensuring the EAP commitments are delivered. The EAP will be updated following planning to include any planning conditions imposed.

NEAS are responsible for agreeing any changes to the EAP and for signing off, or agreeing to the signing off of, the actions.

The contractor and Project Manager are responsible for advising NEAS on any changes to method statements or the planned construction work as these may result in changes to the EAP or additional consultation with statutory consultees. NEAS will assess the significance of these changes and determine the appropriate course of action.

The contractor is also responsible for implementing good environmental practice on site, in line with their own EMS. The ECW will monitor adherence to the EMS. Typical issues include:

- Any working hour restrictions
- Dust suppression measures
- Traffic management
- Site waste management
- Materials management
- Maintenance of the carbon calculator
- Vehicle maintenance and management
- Pollution prevention and control (including storage, refuelling and incident response)
- Response procedures eg services strike, contaminated land
- Hazardous materials handling and storage
- Noise management
- Securing and delineation of working areas including signage

Environmental Audits

The appended template should be used when undertaking any site audits during construction. Such audits can be undertaken by NEAS Environmental Project Managers (EPM) or delegated by NEAS to the ECW or other individuals. Technical assistance can be obtained from functional staff as appropriate. Site audits can potentially highlight good practice and can be separate to the review of EAP actions as undertaken in progress meetings. They do not replace the regular checks undertaken by the ECW during the works; no set template has been provided for this.

Environmental Audit timings to be confirmed in preparation for construction..

Environmental Incident Reporting system

All environmental incidents must be reported to the Environment Agency Incident Hotline 0800 80 70 60 as per the <u>Environmental Incident Reporting Poster</u> at the earliest opportunity and then to the ECC Project Manager, Site Supervisor, Environment Agency Project Manager and Environment Agency NEAS Environmental Project Manager. In addition, near misses must be reported via the hotline where there was/is the potential for a significant impact and where lessons can be learned.

Initial reports for such incidents and near misses must be followed by a written report using the contractor's in-house forms. This must include the following information (project/location, date, contractor, NIRS reference number, details of what happened, cause of incident, lessons learned). This final and comprehensive investigation report is to be provided by the Contractor to the ECC Project Manager, Environment Agency Project Manager and Safety, Health and Environment Manager within 14 days.

www.environment-agency.gov.uk

Summary of scope of works

Relevant contact details

Project Sponsor	
Project Executive	
Project Manager	Andy Dellar
NEAS	Carol Peirce
ECW	ТВС
Contractor	Volker Stevin
Site Supervisor	ТВС

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Environmental Action Plan – Leigh FSA Expansion Scheme

Key

Actions split by topic/interest area:

- B Biodiversity, Flora, Fauna
- C Communications (Community and Human Environment issues also consents and permits)
- W Water and WFD

A – Archaeology – Note no actions currently identified/required.

Number relates to periods of construction

- 1 Pre-construction
- 2 Construction
- 3 Post-construction Management and Monitoring

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-con	struction					
Biodive	rsity, Flora and Fauna					
B1.1	Ensure no impact on bats – and species licence requirements met.	Obtain protected species licences for work near the Bat Cave if required – and other Bats and confirm no feeling of trees with Roost Potential during hibernation period. Undertake appropriate pre- construction surveys to confirm trees/vegetation and structures are clear of constraints prior to felling or other clearance work.	Consultant	Environmental Statement – Chapter 7 Monitoring baseline conditions in the Bat Cave prior to start of construction before using temperature and humidity data loggers. Previous ecology surveys		
B1.2	Ensure no impact on Great Crested Newts – and species licence requirements met.	Low impact licence applied for in good time to allow clearance works to proceed by Pumping Station Embankment and Compound Ensure GCN Low Impact Licence Site Registration Form submitted and in place.	Consultant to obtain licence and undertake any pre- commencement surveys in good time and during appropriate seasonal windows. Vegetation clearance to be carried out when newts likely to be in pond habitat (rather than terrestrial habitat) – Feb/March-June depending on weather conditions	Previous ecology surveys		
B1.3	Ensure no impact on dormouse – and species licence requirements met.	Vegetation clearance to be carried out under Dormouse licence in advance of any works starting on site.	Consultant and EA Operations – or Main Contractor.	2 stage clearance may be needed – removal of trees/scrub to knee height in Autumn – removal of base of trees in April/May when conditions warm and dormice out of hibernation dormice back in the canopy – subject to weather conditions and under ecological supervision.		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-con	struction					
Biodive	rsity, Flora and Fauna					
B1.4	Develop further detail regarding proposed mitigation and enhancement proposals - also associated monitoring plans for key habitats on site or where enhancements proposed.	Undertake further surveys on mitigation areas to confirm constraints – consider all seasons. Detailed proposals/designs required for Areas 2, 3, 5, 7 and 8. Also Areas 4 and 6 if funding allows these measures to progress. WFD measures to be progressed with Richard Charman – EA Geomorphology and Sam Ho – EA Biodiversity. Potential liaison with landowners and other interested parties – Powdermill residents group.	Consultant – to be agreed by NEAS and EA PM Develop in consultation with TMBC, KWT and other stakeholders (including EA staff/teams)	Undertake MORPH assessment of Powdermill Stream and Straight Mile to confirm constraints and opportunities.		
B1.5	Avoid impact on reptiles or delay due to nesting birds/other protected species	Early vegetation clearance of previously identified key areas (site compounds) to ensure start on site in Spring 2021 is not delayed by reptile. May require support and or liaison with EA and TMBC. Clearance of vegetation during appropriate seasonal window – to avoid bird nesting (Feb-Sept), clear areas with reptile potential (may require two-stage cut to discourage reptiles to move into adjacent areas. Remove vegetation in proximity to Bat Cave before winter hibernation.	EA Operations – David Lowe – and Main Contractor – advice from Consultant. Chris Fox and Mike Harris TMBC contacts – also Haysden Country Park Wardens.			

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-con	struction					
Biodive	rsity, Flora and Fauna					
B1.6	Badger sett – ensure appropriate protection and awareness of constraint.	Badger sett – ensure extent of badger sett is confirmed and clearly marked on the ground as a constraint. Site staff to be briefed regarding ecological restrictions include in toolbox talk	Consultant			
B1.7	Protection of vegetation and trees	Install appropriate protective fencing and boundary markers for trees to be retained - Root Protection Areas, avoiding use of single use plastic products	Contractor – with support from Consultant to identify and confirm requirements			
B1.8	Avoid spreading INNS	Write an Invasive Species Management Plan, covering invasive species present) i.e. Himalayan Balsam and New Zealand Mudsnail. Good plant/equipment and boot hygiene required.	Consultant			
B1.9	Ensure all ecology consents are in place and conditions discharged	Toolbox talk issue Review all consents (e.g. planning, Impoundment Licence, FRAP, etc) and add all conditions to EAP as required to ensure discharged. Ensure all pre-commencement planning conditions are discharged and permits in place	EA PM/Consultant			
B1.10	Manage any impacts to aquatic biodiversity as a result of proposed enhancements	Undertake required ecology surveys for Powdermill Stream and Straight Mile enhancement areas	EA Biodiversity/FBG team or Consultant - to be confirmed			

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-con	struction					
Biodive	rsity, Flora and Fauna					
B1.11	Avoid impacts on water vole populations	Undertake further surveys in July and September 2020 focussing on areas where in channel works are proposed and where habitat for water voles is most suitable (upstream and downstream of Powdermill Stream)				
B1.12	Consider establishment of mitigation in advance of construction.	Undertake mitigation planting in Areas during first available planting season – if work is not reliant on construction – e.g. Area 3 and management of woodland within Areas 2 and 7.	Consultant/Contractor and partner organisations such as KWT and TMBC	Detailed designs to be developed		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-cons	struction					
Water an	nd WFD					
W1.1	Ensure all water related consents are in place and conditions discharged	Review all consents (e.g. planning, Impoundment Licence, FRAP, etc) and add all conditions to EAP as required to ensure discharged. Ensure all pre-commencement conditions are discharged – FRAP and Impoundment permit	EA PM/Consultant			
W1.2	Appropriate pollution control measures	Develop Pollution Prevention Plan before the start of construction – working near water on the Medway and other watercourses – Powdermill Stream and Straight Mile	Contractor and Contractor for Method Statements – include in Toolbox talks			

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-con	struction					
Commu	nication					
COM1.1	Maintain good relations with local residents and key stakeholders	Community Liaison – identify Community Liaison Officer (CLO) and provide contact details. Contact local residents and key stakeholders in advance of construction. Develop Site induction and Tool- Box Talks for all site staff. To	Contractor – with support from Contractor for TBT	Communications Plan	CLO to be member of contractors site staff	
		cover all potential constraints – to include ecology and water issues.				
COM1.2	PROW users and visitors Public Rights of Ways – closures or diversions required are in place in advance of construction	Discuss and agree approach with Sam Honey – KCC PRoW Officer. Diversions and closures to be covered by the necessary formal closure/diversion applications.	Contractor – with support from consultant			
		Erect notices and signage for PROW closures and diversions prior to works starting on site if required				
		Discuss options with Sustrans for cycleway – and local horse groups/BHS				
COM1.3	Keep local residents and other stakeholders informed re progress through project website and newsletter	Produce updated Communications Plan to detail planned consultation and communications routes.	EA Communications Team and Contractor	Communications Plan		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-cons	struction					
Commu	nication					
COM1.4	Keep wider stakeholders informed	Display Public information notices prior to works commencing, as identified in the Communications Plan. Commencement dates and	Environment Agency Communications Team and Contractor	Communications Plan		
		dates that may cause local disruption to be identified and notified to residents and stakeholders.				
		Drop-in sessions will occur if required and as identified in the Communications Plan. Notice of entry to be issued at least 7 days before the works commence for land not in Environment Agency ownership. Notices will include clear details of the nature and timings of works.				
COM1.5	Ensure all consents are in place and conditions discharged	Review all consents (e.g. planning, Impoundment Licence, FRAP, etc) and add all conditions to EAP as required to ensure discharged. Ensure all pre-commencement conditions are discharged	EA PM/Consultant	Planning conditions, FRAP, Impoundment Licence – PROW diversions		
COM1.6	To limit noise and vibration disturbance to local residents and those involved with recreation.	Contact TMBC and SDC Environmental Health Officers (EHO) to advise on site proposals. Prepare a noise monitoring plan prior to construction works commencing. Noise limits and monitoring requirements agreed prior to works commencing.	Contractor	Section 61 of the Control of Pollution Act 1974 - Limits agreed with local authority		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Pre-cons	struction	·		·	·	
Commu	nication					
COM1.7	Minimise disruption to local community	Register for Considerate Constructors Scheme https://www.ccscheme.org.uk/	Contractor			
COM1.8	Enhance pedestrian access – design of Area 8 proposals to be confirmed prior to start of these works.	Provision of timber steps to facilitate access up and over the Main Embankment on PROWs SR435 and MU46. Area 8 - Creation of 1.5m hard surfaced footpath to Botany Pond and decking area to allow future access. Screens to shield visitors and avoid disturbing birds.	Consultant to confirm detailed design – Contractor to deliver			
COM1.9	Minimise traffic disruption in the local area	Traffic Management Plan to be developed and agreed with Local Authorities	Contractor	Planning conditions		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
During	construction					
Biodive	rsity, Flora and Fauna					
B2.1	Minimise impact to bats	Bat cave - All plant will be restricted to low speeds and plant operators briefed as to the presence of Bat Cave in this location.	Contractor			
B2.2	Minimise impact to badgers during construction	Badger sett - All plant will be restricted to low speeds and plant operators briefed as to the presence of Badgers in this location. Construction work will take place during normal working hours only, thus avoiding contact with Badgers locally. Large areas of habitat will be left undisturbed in proximity to signs of Badger activity.	Contractor – with input from Ecologists			
B2.3	Comply with bat licence	Bats – Works around the Haysden Park bat cave to be carried out under licence. Undertake vegetation clearance before hibernation period (Oct- Mar) to avoid impact on use of the cave by hibernating bats. Earthworks to the area around the entrance to the bat cave to increase water running into the cave – resulting in an increase in humidity.	Consultant/Contractor and Kent Bat Group	Monitoring during construction – temperature and humidity data loggers.		
B2.4	Establish mitigation planting early where possible – during construction if not in advance of construction.	Develop mitigation planting in Areas during first available planting season – if work is not reliant on construction – e.g. Area 3 and management of woodland within Areas 2 and 7. Deliver mitigation for all areas at the end of construction.	Consultant/Contractor and partner organisations such as KWT and TMBC			

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
During	construction					
Biodive	rsity, Flora and Fauna					
B2.5	Undertake management operations to deliver BNG targets.	Implement Leigh pasture and Marsh KWT Management Plan recommendations in Area 2 - Initial measures – including woodland thinning and coppicing works Annual vegetation clearance in herb-rich fen. Rotational coppicing of flooded willow carr. Rotational coppicing of wet woodland. Control of invasive species. Managing broadleaved woodland with mature trees as non-intervention. Thinning secondary woodland standards and coppicing scrub to provide a varied structure. Mowing semi-improved neutral grassland and removing cuttings to restore to species-rich grassland.	EA Operations team	<i>KWT Management plan for</i> <i>Area 2</i>		
		Maintenance of access paths to facilitate access for management purposes.				
B2.6	Deliver biodiversity enhancements in the Country Park	Undertake clearance works to Shallows and Botany Pond. Also Area 7 woodland management as for Area 2	Contractor – working with TMBC Woodland management by EA Operations or Contractor	ES measures		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date		
During c	During construction							
Biodiver	Biodiversity, Flora and Fauna							
B2.7	Prevent spread of INNS	Monitoring of INNS – Himalayan Balsam and New Zealand Mudsnail to prevent spread and control populations.	Contractor – with monitoring by Consultant	Invasive species management plan				

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date			
During co	During construction								
Commun	ication								
COM2.1	Minimise dust and safety risks to local community	Imposition of strict speed limits on construction vehicles travelling along Lower Haysden Lane and on haul routes/access tracks within the site. Good dust management of haul roads if required – road sweeping and spray with bowser. Reinforce restrictions with site inductions and Tool- Box Talks and site notices. CEEQUAL Assessment to be completed during construction.	Contractor						
COM2.2	Avoid parking conflicts – impact on residents	Contractors' staff will be prohibited from parking on residential streets within Leigh and Lower Haysden – all parking to be within construction compounds. Site Induction – provide adequate on-site parking or travel plans	Contractor						

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date		
During co	During construction							
Communi	ication							
COM2.3	Ensure works do not disrupt weekends/evenings and recreation activities.	Ensure Working Hours commitments are observed. Normal site working hours will be 08.00 to 18.00 Monday to Friday, 08.00 to 13.00 Saturday, with no work taking place on Sundays or Bank Holidays. Weekend working will be avoided where possible to minimise disruption to the public – and where possible, special events for the Sailing Club, Angling Club and Triathlon Club will be avoided.	Contractor					
COM2.4	Minimise traffic disruption to the local area	Timing of deliveries to be outside of peak times (where peak times are considered to be between 08:00 and 09:00 and between 16:00 and 18:00). Detailed within traffic Management Plan to be agreed with Local Authorities	Contractor	Reference to agreed Traffic Management Plan				
COM2.5	Ensure continued vehicular access to the Sailing Club	Vehicular access to be maintained from Lower Haysden Lane through to the Sailing Club throughout construction.	Contractor					
COM2.6	Ensure continued access for anglers and users of Haysden Water	Access to Haysden Water and the River Medway to be maintained for Anglers and Swimming Clubs throughout construction.	Contractor					

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
During co	onstruction			•		
Communi	ication					
COM2.7	Ensure disruption to PROW network and Country Park is minimised	Any footpath or PROW diversions or closures needed during construction to be discussed and agreed in advance with KCC. Advance notices of works and any closures and diversions to	Contractor with support from Consultant			
		be provided at key access points to affected footpaths – and any clubs potentially affected. Note time required to apply for diversions if these are needed –				
		apply early				
COM2.8	Maintain safe pedestrian access to key PROW routes across the works.	Footpath SR432 to be kept open for duration of works, with secure segregation of users from construction access, site compound and works to raise Cattle Arch embankment.	Contractor			
		Footpath MU60 / Tudor Cycle Trail to be kept open at all times during construction.				
		Use of banksperson to marshal construction traffic across footpaths where necessary.				
COM2.9	Monitor noise and vibration – to minimise disturbance to local residents and those involved with recreation.	Implement noise mitigation and monitoring measures	Contractor	Section 61 of the Control of Pollution Act 1974 - Limits agreed with local authority		

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
During co	onstruction			•		•
Communi	ication					
COM2.10	Maintain good relations with residents/visitors	Record any complaints or issues raised by residents or visitors and how these are addressed.	Contractor - Community Liaison Officer			
		Dust and noise monitoring will be carried out where concerns are raised and additional mitigation considered – e.g. additional road sweeping and water dust suppression.				

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
During	construction	L	L	L		
Water a	and Flooding					
W2.1	Appropriate pollution control measures	Develop Pollution Prevention Plan before the start of construction – working near water on the Medway and other watercourses – Powdermill Stream and Straight Mile	Contractor and Contractor for Method Statements – include in Toolbox talks	https://www.netregs.org. uk/media/1418/gpp-5- works-and-maintenance- in-or-near- water.pdf?utm_source= website&utm_medium=s ocial&utm_campaign=G PP5%2027112017		
W2.2	Deliver WFD mitigation	Installation of eel pass on the River Medway at the Control Structure to allow eel passage – WFD measure.	Contractor	WFD measures identified in ES and WFD report. The effectiveness of the eel pass will be monitored post- construction and adjustments made to design and flows if necessary.		
W2.3	Deliver WFD mitigation	Undertake Powdermill Stream and Straight Mile WFD works once detail confirmed – working in conjunction with EA specialists and TMBC.	Contractor/TMBC			
W2.4	Deliver WFD mitigation	Increase water flows into Haysden Water by changing the water control management - to increase flows downstream in the Straight Mile and Country Park Shallows.	Contractor/TMBC	Potential impact on levels in Haysden Water and sailing/fishing club activities – therefore to be implemented once these issues have been considered.		
W2.5	Deliver WFD mitigation	Undertake reedbed, marginal planting and other measures identified in ES	Contractor – liaison with TMBC			
W2.6	No pollution incidents	Maintain water pollution control measures and monitor effectiveness	Contractor			

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date
Post-co	Instruction	1	L		1	
Biodive	rsity, Flora and Fauna					
B3.1	Monitoring to ensure successful establishment and delivery of Biodiversity Net Gain commitments – in particular Areas 2, 3, 5, 7 and 8. Also 4 and 6 if included.	Long-term monitoring of key habitat and species affected by the scheme - EIA requirement. Monitoring of Area 6 – Hay/Water Meadow, the Straight Mile and the bat cave can contribute to this objective.	Consultant			
B3.2	Obtain data on the effectiveness of the mitigation proposals – and involve the local community in monitoring work.	Monitoring of landscape establishment during the 5-year maintenance period – and species diversity where enhancement is proposed e.g. within Area 6 (to include quadrat monitoring over 3 years).	Consultant	To support delivery of the Country Park Management plan targets		
B3.3	Monitoring to confirm achievement of Carbon offsetting commitments	Monitoring of Carbon Offsetting – if implemented and completion of the Final Carbon Report for the Scheme. Review on-site offsetting proposals within the Scheme	Consultant			
B3.4	Obtain long-term data by monitoring of bat activity following completion of the works. Involve community groups.	Post-completion of the works, the Bat Cave site will be monitored, starting in the winter immediately following construction completion and then two years later. This would take the form of an internal hibernation survey of the Bat Cave. Ongoing monitoring of bat use by Kent Bat Group				

Ref. No.	Objective	Action	Responsibility	Reference to further information	Progress and Further Action	Sign off and date		
Post-co	Post-construction							
Water								
W3.1	Monitoring to confirm extent and depth of flooding as predicted	Installation of depth gauge on Rogues Hill Bridge in Penshurst – and monitoring of properties during extreme flooding events/when the FSA is fully impounded to 28.6m AOD.	EA/Consultant					
W3.2	Ensure delivery of Eel Pass WFD mitigation	Monitor effectiveness of eel pass and make adjustments to design and flows if necessary	EA FBG/Consultant					
W3.3	Ensure delivery of WFD mitigation	Monitor effectiveness of 'stage- zero' river restoration and other WFD measures	EA FBG/Consultant					

Environmental audit record

Project	Project ref.:	
Project Manager:	NEAS EPM:	
Location	Grid reference	

Site Visit Audit Details

Visit During/Post Construction:	Date of Visit:	Time of Visit:	
Audit Officer:	Photos taken (y/n):	Referenced to Pre- Photos(y/n):	

Does the Site Supervisor have an up to date copy of the EAP? Yes / No

General comments