

The Water Environment (Controlled Activities) (Scotland) Regulations 2011

Licence Application Form E

To be completed for Engineering Activities

How we use your personal information

Under the Data Protection Act 2018 (DPA 2018), we must have a legal basis for processing your information – in this case, processing personal information is necessary to perform our statutory duties ('Public Task').

Some of the ways in which we collect and use the information may be through:

- granting and administering of authorisations and maintaining registers
- investigating environmental complaints
- undertaking formal enforcement action
- maintaining our own accounts and records

The personal information we collect and use may include the following: name; address, including postcode; email address and telephone number. SEPA is required, by law, to organise and maintain public registers, and make these registers available for public inspection. We do this by collecting and using the personal information that applicants (or their agents) share in their applications for SEPA authorisations and SEPA permits. After the application form has been processed, some of the information from the form is added to the public register, and becomes available for public inspection. Signatures, personal email addresses, and telephone numbers are not published, unless publication is statutorily required.

There may be occasions when we are required by law to share your personal information with other organisations, e.g. for regulatory reasons, or because doing so is in the general public interest. Any sharing will be carried out lawfully and securely in accordance with the <u>SEPA Data Protection Policy</u>. For more information on how SEPA handles personal information, please refer to our general Privacy Policy at https://www.sepa.org.uk/help/privacy-policy/

If there is any information you wish to justify being kept from the public register on grounds of commercial confidentiality you should contact SEPA before submission of your application.

You should ensure that any persons named on this form are informed of the contents of this Data Protection Notice

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1: ASSOCIATED and DEPENDENT ENGINEERING ACTIVITIES (Please complete for all applications)

List all engineering activities which are being applied for under this application. Enter the number of each activity at each level of authorisation. Associated activities applied for under a single authorisation will be subject to reduced charges. Activities upon which another controlled activity depends (e.g. bed reinforcement associated with a bridge) are classed as dependent engineering activities and will not be subject to charges. All dependent and associated activities should be included below. Please complete a separate sheet E1-6 for each activity (including any dependent activities)

Activity Category	Activity Type	Registration	Simple Licence	Complex Licence	Dependent activity
SEDIMENT	Sediment removal				
MANAGEMENT See Sheet E1	Sediment addition / reintroduction				
BANK REINFORCEMENT, EMBANKMENTS,	Green bank reinforcement (soft)				
FLOODWALLS AND OTHER BANK	Grey bank reinforcement (hard)				
MODIFICATIONS See Sheet E2	Bank re-profiling				
See Sileet E2	Embankments /floodwalls				
	Removal of bank modifications				
BRIDGES AND OTHER	Bridges				
TYPES OF CROSSING STRUCTURES	Culverts				
See Sheet E3	Causeways				
	Fords				
	Pipeline/cable crossings				
	Removal of crossings				
IN-STREAM or IN-LOCH STRUCTURES	Jetties, platforms, marinas				
See Sheet E4	Boat slips				
	Boulder placements				
	Croys, groynes, flow deflectors				
	Bed reinforcement				
	Removal of structures				
CHANNEL MODIFICATIONS	Straightening and/or resectioning				
See Sheet E5	Realignment			Х	
	Culverting for land gain				
	Removal of land gain culvert				
	Flood by-pass channel				
OTHER ENGINEERING ACTIVITIES See Sheet E6	Please see guidance for definition of other activities				

2: ENGINEERING ACTIVITIES - DETAILS

The following information is required for ALL activities listed in Section 1. If there is more than one engineering activity being applied for under this application, and the information in the relevant sections below varies between each activity, then the relevant sections must be copied and completed separately for each activity.

2.1 Best Practice

SEPA promotes general good practice for any works; however this specific test will only apply to licensed activities:

- which cause a failure of an environmental standard
- proposed on a water body already below Good Status or close to the lower class boundary.

This table provides evidence that you have considered Best Practice for the proposed activity.

Guidance on Best Practice for a range of activities is available from your local SEPA office. 2.1.1 Justification for As part of the proposals for the Earba Pumped Storage Hydroelectric Scheme the Activity. water level in Loch Earba will increase. To facilitate this increase in water level the construction of two new dams will be required, one of which will be at the southern Please indicate the reason end of Loch Earba and is called the Shuas dam. the proposed activity is At present water flows into the southern end of loch Earba from the Allt Coire Pltridh being undertaken. Also water course and smaller tributaries of this burn. As part of the proposed indicate where relevant the development these burns will be diverted around the Shuas dam such that they underlying nature or cause discharge into Loch Earba on the reservoir side of Shuas dam. This diversion is of the problem being called the Pitridh aqueduct and is covered under a separate Application Form E. addressed. There will be a small area of residual catchment downstream of the Pitridh aqueduct, approximately 1km2, that will continue to flow towards the Shuas dam and will therefore collect on the downstream or non-reservoir side (the 'dry' side). This water requires to be managed and would therefore be collected and diverted to the Allt Loch a' Meall Ardruighe Reservoir via the Shuas Aqueduct. The Shuas aqueduct works involves the collection of water at Shuas dam, and subsequent transfer to the Allt Loch a' Meall Ardruighe reservoir via a short section of channel and then a buried pipe/culvert before discharging through a new outlet structure on the existing reservoir.

Please continue on separate sheet if required.

Document name/reference:

2.1.2 Alternative Approaches.

Please detail all the alternative approaches that have been considered to address the need identified in Section 2.1.1 above.

In response to the issue of water collecting on the 'dry' side of Shuas dam the following was also considered:

- Do nothing and accept water build up on the south west side of the Shuas dam, flooding the peatland area south west of the Shuas dam to a depth of around 5m, which would then then spill over the south watershed into the Meall Ardruighe reservoir.
- Provide an open channel to drain the area into Allt Loch a' Meall Ardruighe, and
- Provide facilitates to pump water from the 'dry' side to the reservoir side.

Please continue on separate sheet if required.

Document name/reference:

2.1.3 Selected Approach.

Please state why your selected approach represents the best practical environmental option.

Please state why any alternatives given in section 2.1.2 above were rejected. Where cost is given as a reason, please provide details. It was not considered viable to accept a build-up of water on the non reservoir side of the dam as it would lead to significant inundation, require a watertight face on both sides of the dam and a spillway would also be required into Meall Ardruighe reservoir.

Alternative channel arrangements by means of an open cut were non-viable given the depth of the channel, close to 7m for a 200m section. (refer to the long section on figure 2.22)

Pumping is an option but it is considered as a fail-safe and would likely still be provided. To rely only on pumping is considered not preferred particularly when an option to drain the area by gravity can be provided.

For the reasons above a channel then culvert draining to Allt Loch a' Meall Ardruighe was considered the optimum solution, allowing controlled drainage of the peatland area to a sustainable level.

Please continue on separate sheet if required.

Document name/reference:

SHEET E1: SEDIMENT MANAGEMENT

Please complete Sheet E1 for all sediment management activities. A separate sheet should be used for each individual activity.

PART 1 – Please complete for Sediment Management Activities										
1. Type of Activity (please tick)	Sediment removal				Sediment addition / reintroduction					
2. Type of licence	Simple li	icence			Complex licence					
	Depende	ent activity	1							
3. Type of surface water affected	River				Loc	h				
	Wetland				Can	al/Lac	de			
4. Name of surface water										
5. National grid reference of activity (MIDPOINT) (10 characters e.g. XY 1234 5678)										
If length of activity greater that	an 50m plea	ase also co	omplete	6 & 7 belo	w					
6. National grid reference of activity (UPSTREAM EXTENT) (10 characters e.g. XY 1234 5678)										
7. National grid reference of activity (DOWNSTREAM EXTENT) (10 characters e.g. XY 1234 5678)										
8. Width of the surface water (m)? (at the point where the activity is to occur) As measured from the toe of one bank to the toe of the opposite bank										
9. Does the activity qualify as an environmental service? (please tick)	YES				NO					
10. If Yes, please provide justification on separate sheet	Docume name/ref									
PART 2 – please complete for	SEDIMENT	T REMOVA	\L							
11. Maximum length of watercourse or Loch/Wetland affected (m) measured along the bed				12. Tot of wate /Wetlar	ercours	se or I	Loch			
13. Will sediment be removed from >50% of the width of the watercourse	YES				NO					
14. Frequency of activity (please tick)	Single			Annua	lly			Other		
15. If Other, please provide further information on frequency and justification on a separate sheet	Docume name/ref									
PART 3 – please complete for SEDIMENT ADDITION / RE-INTRODUCTION										
16. Maximum length of watercourse or Loch/Wetland affected (m) measured along bed				17. Tot of wate /Wetlar	ercours	se or I	Loch			
18. Frequency of activity (please tick)	Single			Annua	lly			Other		
19. If Other, please provide further information on frequency and justification on a separate sheet	Docume name/ref									

SHEET E2: BANK REINFORCEMENT, EMBANKMENTS, FLOODWALLS AND OTHER BANK MODIFICATIONS

Please complete Sheet E2 for all bank modification activities. A separate sheet should be used for each individual activity.

cacif individual activity.							
PART 1 – Please complete for ba	nk modifications						
1. Type of activity (please tick)	Green bank reinforceme	ent	Embank	ment			
	Grey bank reinforcemen	it 📗	Floodwa	ıll			
	Bank re-profiling		Remova	I			
2. Type of licence (please tick)	Simple licence		Complex	Complex licence			
	Dependent activity						
3. Type of surface water affected (please tick)	River		Loch				
	Wetland		Canal/La	Canal/Lade			
4. Name of surface water							
5. National grid reference of activity (MIDPOINT) (10 characters e.g. XY 1234 5678)							
If length of activity greater than 5	0m please also complete 6	6 & 7 below					
6. National grid reference of activity (UPSTREAM EXTENT) (10 characters e.g. XY 1234 5678)							
7. National grid reference of activity (DOWNSTREAM EXTENT) (10 characters e.g. XY 1234 5678)							
8. Width of the surface water (m) As measured from the toe of one)				
9. Does the activity qualify as an environmental service? (please tick)	YES	NO					
10. If Yes, please provide justification on separate sheet	Document name/reference:						
PART 2 – please complete for GR	EEN AND GREY BANK RE	INFORCEMENT	AND RE-PRO	OFILING			
11. Total maximum length of rein	forcement/reprofiling alon	g bank (m)					
12. Type of reinforcement (please tick)	Green (Soft)	13. Bank affect		Left			
	Grey (Hard)	downstream) (p	olease	Right			
PART 3 – please complete for EN	IBANKMENTS & FLOODW	ALLS					
14. Total maximum length of modification along the bank		15. Bank affect (viewed looking		Left			
(m)		downstream) (p	olease	Right			
16. Distance from bank top (m) (enter 0m if on bank top)		17. Raised heig (above existing height)					
PART 4 – please complete for RE	MOVAL OF BANK MODIFI	CATIONS					
18. Type of structure removed							
19. Total length of modification removed (m)		20. Bank affect		Left			
(As measured along the bank)		downstream) (p		Right			

SHEET E3: BRIDGES AND OTHER TYPES OF CROSSING STRUCTURES

Please complete Sheet E3 for river and loch crossings. A separate sheet should be used for each individual activity

PART 1 – please complete	e for all river and loch	crossing ac	tivities					
1. Type of activity	Bridge		Ford					
(please tick)	Culvert		Pipeline/Cable					
	Causeway		Removal (pleas					
2. Type of licence (please tick)	Simple licence		Complex licence	·				
(prodeo tion)	Dependent activity							
3. Type of surface water affected (please	River		Loch					
tick)	Wetland		Canal/Lade					
4. Name of surface water								
5. National grid reference of activity (MIDPOINT) (10 characters e.g. XY 1234 5678)	of activity (MIDPOINT) (10 characters e.g. XY 1234							
If length of activity greater	r than 50m please also	o complete 6	6 & 7 below					
6. National grid reference of activity (UPSTREAM EXTENT) (10 characters e.g. XY 1234 5678)								
7. National grid reference of activity (DOWNSTREAM EXTENT) (10 characters e.g. XY 1234 5678)	7. National grid reference of activity (DOWNSTREAM EXTENT) (10 characters							
8. Width of the surface wa As measured from the toe								
PART 2 – please complete	for BRIDGES							
9. Number of in-			imum length	Left				
channel supports (if none, please enter '0')		of abutments bank (m)	along each	Right				
11. Total maximum area of all in-channel		12. Minimum	distance et back from	Left				
supports (m²)		each bank to		Right				
13. Minimum distance abu from bank top on each ba	nk (m)	Left		Right				
PART 3 – please complete								
14. Maximum length of cu	Ivert along bed (m)		15. Diameter / dir	mensions of culvert	(m)			
16. Type of culvert (please tick)	x	Pipe		Arch				
17. Is culvert to be laid be	17. Is culvert to be laid below natural bed level Yes No							
PART 4 – please complete for FORDS & CAUSEWAYS								
18. Maximum length of bed affected (m²) (m) (measured parallel to bank/shore)								
PART 5 – please complete for PIPELINE/CABLE CROSSINGS								
20. Diameter of pipeline/cable (m) 21. Number of in-channel supports (if none, please enter '0')								
22. Position of pipeline/cable (please tick	22. Position of Below On bed Above							
23. If set below bed level please stipulate minimum depth buried below bed (m)								

SHEET E4: IN-STREAM OR IN-LOCH STRUCTURES

Please complete Sheet E4 for in-stream and loch structures. A separate sheet should be used for each individual activity.

cacif individual activity.										
PART 1 – please complete for	all in-stream a	ınd loch stru	ctures							
1. Type of activity (please tick)	Jetties, platf marinas	orms,			Croys	, groyn	es, flov	/ defle	ctors]
	Boat slips			Bed reinforcement						
	Boulder place	cements				٠.	ase als		ate]
2. Type of licence (please tick)	Simple licen	ce			Comp	lex lice	nce]
	Dependent a	activity								
3. Type of surface water affected (please tick)	River				Loch					
	Wetland				Canal	/Lade]
4. Name of Surface Water										
5. National grid reference of activity (MIDPOINT) (10 characters e.g. XY 1234 5678)										
If length of activity greater that	ın 50m please	also comple	te 6 & 1	7 belo	w					
6. National grid reference of activity (UPSTREAM EXTENT) (10 characters e.g. XY 1234 5678)										
7. National grid reference of activity (DOWNSTREAM EXTENT) (10 characters e.g. XY 1234 5678)										
8. Width of the surface water (• •			_		r)				
As measured from the toe of o										
9. Does the activity qualify as	an environme	ntal service?	' (pleas	se tick) Y	'ES			NO	
10. If Yes, please provide justification on separate shee	Documer t name/ref									
PART 2 – please complete for	JETTIES, PLA	TFORMS, M	ARINA	S AND	BOAT	SLIPS	i			
11.Total maximum length of bank/shore affected (m)			into		e wate	gth ext er from	ending the			
13. Total maximum area of Loch/Wetland affected (m²)		14. Type o		cture	So	lid			Stilted	
PART 3 – please complete for	BOULDER PL	ACEMENTS								
15. Total maximum length of reach affected (m)					naximu ected (n	m area n²)	ı			
PART 4 – please complete for	CROYS, GRO	YNES, FLOW	/ DEFL	ECTO.	RS					
17. Maximum length of bank affected (m)			into		e wate	gth ext er from	ending the			
19. Total maximum area of be	d affected (m²)									
PART 5 – please complete for	BED REINFOR	RCEMENT								
20. Maximum length of bed re (measured parallel to banks) (otal ma		n area c	of		
22. Position of bed reinforcem	ement (please tick)			w bed				On	bed	
23. If set below bed level pleas depth bed reinforcement burie										

SHEET E5: CHANNEL MODIFICATIONS

Please complete Sheet E5 for all channel modification activities. A separate sheet should be used for each individual activity.

PART 1 – Please complete for all channel modifications														
1. Type of Activity (please tick)	Str	aighter ectioni	ning,			Remo	val of la	nd ga	iin cul	vert]		
	Rea	Realignment				Flood	Flood by-pass channel]			
	Cul	lverting	g for land	d gain										
2. Type of licence (please tick)	Sin	nple lic	ence			Comp	lex licen	nce]		
u · · · · · · ·	Dep	pender	nt activity	у										
3. Type of surface water affected	Riv	er				Loch								
(please tick)	We	tland				Canal	/Lade]		
4. Name of surface wat	er	Allt C	Coire Pitri	dh, Allt L	_och a' Meal	l Ardruigh	е							
5. National grid referen of activity (MIDPOINT) (10 characters e.g. XY 1234 5678)	ce	N	N	4	5	8	0	8		1	0	7		
If length of activity gre		han 50ı	m please	also co	mplete 6 &	7 below								
6. National grid referen of activity (UPSTREAM EXTENT) (10 character e.g. XY 1234 5678)	1	N	N	4	6	2	5	8		1	0	7		
7. National grid referen of activity (DOWNSTREAM EXTENT) (10 character e.g. XY 1234 5678)		N	N	4	6	2	5	8		1	0	7		
8. Width of the surface As measured from the							occur)					channel is m wide at the		
9. Does the activity quatick)	alify a	ıs an eı	nvironm	ental sei	rvice? (plea	se YE	S		NC)				
10. If Yes, please provi		eet	De	ocumen	t name/refe	rence:	Pleas	se ref	er to C	AR Lic	ence R	eport		
PART 2 – please comp			AIGHTE	NING, RI	ESECTIONI	NG AND	REALIG	NME	ΝT					
11. Maximum length of original channel affects) 30)0m		12. If relevent channel (m	,	mum len	ngth c	of new		150 channo (720m			
channel (m) 1.	omina 0m at nanne	base (of new chan from bank t			No	minall	y 1000	mm der	oth		
PART 3 – please comp	PART 3 – please complete for CULVERTING FOR LAND GAIN (Refer to SEPA Position Statement WAT-PS-06-02)													
15. Maximum length of culvert along bed (m) 16. Diameter/dimensions of culvert (m)														
17. Type of culvert (please tick)	I DOX I I I I I I I I I I I I I I I I I I I													
18. Is culvert to be laid below natural bed level Yes No														
19. If set below bed level please stipulate minimum depth buried below surface (m)														
PART 4 – please comp	lete fo	or FLO	OD BY-F	ASS CH	IANNELS									
20. Minimum length of by-pass channel (m)					aximum lenç al channel a		m)							
22. Operational return period					catchment ted? (please		YES			NO		\boxtimes		

(e.g. 1 in 5 years)				
24. If Yes to Q23, provide details	Document Ref :			

SHEET E6: OTHER ENGINEERING ACTIVITIES

Please complete Sheet E6 for other engineering activities (not defined above). A separate sheet should be used for each individual activity. Before completing this application, please check with your local SEPA office that an application is required. SEPA would normally only require an application for activities not defined elsewhere in the CAR practical guide, if a significant adverse impact was likely.

	· · · · · · · · · · · · · · · · · · ·	ai guide, ii a sigriilicant adverse impact was ii	itory.
PART 1 – please complete for	all activities		
Type of activity (please provide full details of the type of activity being applied for).			
Continue on separate sheet if necessary	Document name/reference:		
2. Type of licence	Simple licence	Dependent activity	
3. Type of surface water affected (please tick)	River	Loch	
	Wetland	Canal/Lade	
4. Name of surface water			
5. National grid reference of activity (10 characters e.g. XY 1234 5678)			
6. Width of the surface water (m)? (at the point where the activity is to occur) As measured from the toe of one bank to the toe of the opposite bank			
7. Does the activity qualify as an environmental service? (please tick)	YES	NO	
8. If Yes, please provide justification on separate sheet.	Document name/reference:		

3: ADDITIONAL INFORMATION

In addition to completing the relevant sections above, the following information MUST be clearly referenced and submitted with this application.

Please provide the following	for all activities:					
1. Accurate SCALE DRAWINGS of any design structures or proposed modifications For further information on Large infrastructure design drawings please see SEPA guidance 'Principles of Engineering Drawings: Infrastructure Projects'	Document name(s)/reference(s):	Figure 2.22 Shuas Aqueduct - Plan and long section. Figure 2.22.1 Shuas Aqueduct - GA of Intake Weir and Headwall				
2. PHOTOGRAPHS of area where activity is to be carried out	Document name(s)/reference(s):	Photographs are included within within the CAR Licence Report, App D Hydromorphology Technical Appendix				
3. METHOD STATEMENT detailing how each activity is to be carried out, any temporary construction works associated with controlled activities, details of any machinery to be used and a biosecurity plan to prevent the spread of invasive non-native species as a result of the activity ¹ . Please note that it is compulsory to submit this with the application if activities are within screening distance of a protected area	Document name(s)/reference(s):	This Shuas aqueduct construction will be a front end tas and will be done at the same time as the Pitridh aqueduct and prior to the construction of Shuas dam. The culvert and outlet will be constructed first and the once the Pitridh aqueduct becomes operational the inleand short channel will be constructed completing the aqueduct works. Whilst the Shuas aqueduct is crucial for the successful operation of the scheme it will also assist in managin water during the construction of the Shuas dam.				
4. Details of any other existing or past ENGINEERING WORKS, STRUCTURES OR OTHER MODIFICATIONS located within 250m upstream and downstream of the proposed works	Document name(s)/reference(s):					
5. Any other information (if appropriate please provide detail of any other information submitted in support of the application e.g hydromorphology/ ecology reports)	Document name(s)/reference(s):	Please refer to the CAR Licence Report,				

Please note, in particular circumstances SEPA may require further information on the justification for your proposals, their environmental impact and necessary mitigation measures. To avoid delays in processing your application, please discuss with your local SEPA office if your activity is likely to require these assessments.

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¹ For example the check, clean, dry procedure as outlined in the GB non-native species secretariat website (http://www.nonnativespecies.org/checkcleandry/biosecurity-for-everyone.cfm) and guidance set out in GPP5 (http://www.netregs.org.uk/media/1418/gpp-5-works-and-maintenance-in-or-near-water.pdf?utm_source=website&utm_medium=social&utm_campaign=GPP5%2027112017)

Biosecurity and management of invasive non-native species for construction sites and Controlled Activities (https://www.sepa.org.uk/media/163480/biosecurity-and-management-of-invasive-non-native-species-construction-sites.pdf)