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

Licence Application Form D

Surface Water Abstractions and Impoundments

Section 1: Activities applied for

*Please use application form K for the construction of deep boreholes >200m

*Please use application form D1 for Groundwater Abstractions and Construction of boreholes <200m deep

Please indicate how many activities you are applying for under each category.	No:	National Grid Reference (10 character) of abstraction or impoundment	Name of source waterbody or impounded waters	Source type •Watercourse •Reservoir •Loch •Spring •Wetlands
1.1 Surface Water Abstractions:				
Registration: An abstraction of more than 10m^3/day and less than or equal to 50m^3/day		Attach separate application forms for registration to this application		
Simple Licence: An abstraction of more than 50m^3/day and less than or equal to 2000m^3/day		- -		
Complex Licence: An abstraction of more than 2000m^3/day	3	NH 45343 16557 & NH 45405 16614 NH 46553 16453 & NH 46554 16498 NH 46897 15317	Loch Ness Loch Kemp Allt Leachd Gowrie	Loch Loch Watercourse
1.2 Mobile abstraction units used to abstract water under this application				
Mobile Plant: Additional mobile unit abstraction location(s)		- -		
If applicable, please state how many mobile abstraction units are to be used				

	to abstract water applied for under this licence				
1.3 Impoundments:					
Simple Licence	Existing passive weir		- -		
	Existing managed weir less than or equal to 1 metre high		- -		
	Existing raised loch less than or equal to 1 metre high		- -		
	Construction of all new impoundments less than or equal to 1m high that do not affect the passage of salmon or sea trout.		- -		
	Removal or modification of an impoundment authorised under GBR1		- -		
	Removal or modification of a simple licence level impoundment		- -		
Complex Licence	Construction and operation of all	**8**	**NH 46778 16896** **NH 47794 16504**	**Dam 1 (Loch Kemp)** **Dam 2 (Loch Kemp)**	**Loch** **Loch**

	other impoundments		**NH 48059 16327** **NH 46897 15317** **NH 46570 15605** **NH 46595 15853** **NH 46531 16046** **NH 46272 16458**	**Dam 3 (Loch Kemp)** **Dam 4 (Loch Kemp/Allt Leachd Gowrie)** **Dam 5 (Loch Kemp)** **Dam 6 (Loch Kemp)** **Dam 7 (Loch Kemp** **Dam 8 (Loch Kemp)**	**Loch** **Loch/Watercourse** **Loch** **Loch** **Loch** **Loch**
	Removal or modification of a complex licence level impoundment		- -		

Section 2: Reasonable need		
2.1 Please indicate your main category or categories of use (if appropriate):		
Agricultural irrigation		Please continue to section 2.2
Agricultural water supply		Please continue to section 2.2
Golf Course irrigation		Please continue to section 2.2
Industry (other than hydropower)		Please continue to section 2.2
Private Water Supply		Please continue to section 2.2 and complete Table A
Public Water Supply		Please continue to section 2.2 and complete Table B
Other (please specify)	Hydropower	Please continue to section 2.2 and complete Table C

2.2 All users			
2.2.1 Total Quantities to be authorised Please give the total volume of usage in cubic metres to be authorised from all sources in the periods indicated	Hour (m^3) 1,638,000 (Based on maximum abstraction flow of 455m3/s)	Day (m^3) 34,074,000 (Assuming continuous station dispatch in 24 hour period)	Year (m^3) 34,074,000 (Water in Loch Ness and Loch Kemp is recycled on a daily/weekly basis)

2.2.2 Please set out here any other information, e.g. supporting calculations, operational practices or other reasons, in addition to that which you include in the following tables, to show how you have arrived at the quantities set out above that you are seeking to have authorised. (Please continue on a separate sheet were necessary)	• **A new pumped storage hydro scheme is being proposed, which would abstract water impounded in a new reservoir formed by raising the existing Loch Kemp by up to 28m.** • **The water would flow between the new Loch Kemp reservoir and Loch Ness in generating mode during periods of insufficient renewable power, and then during periods of excess renewable power on the grid, water would be pumped from Loch Ness up to the New Loch Kemp reservoir, to be stored as grid energy.** • **The volume of stored water would be approximately 21Mm3** • **The maximum capacity of the pumped storage hydro would be 600MW, with maximum design flow of 455m3/s from Loch Kemp to Loch Ness. The mean generating flow would be approximately 415m3/s** • **The total volume of water stored divided by the mean flow, gives around 15 hours of operation at maximum power. In a situation where the plant is dispatched continously there may be 9 hours available for further pumping or turbine operation. If dispatched continously in either pump or turbine mode the abstraction may be as high as 34.1 Mm3 from either Loch Ness or Loch Kemp.** • **During pumping mode, the maximum design flow from Loch Ness to Loch Kemp would be approximately 360m3/s.** • **A controlled outlet on the Kemp reservoir would maintain a river flow at the loch outlet at a rate to be agreed, such as to replicate natural flow patterns within Allt an t-Sluichd.** • **Stop Pumping Level - Loch Ness is controlled by an existing weir at Dochfour. Kemp will have a Stop Pumping (abstracting)Level of 15.42 mAOD which will maintain the operation of the fish pass at the weir and the operational level in the canal.** • **Stop Generating Level - Under flood conditions, the project will be required to cease generating (discharging) to avoid overloading the Loch Ness outlet (Ness Weir) and River Ness downstream. The proposed Loch Ness Stop Generating (discharging) Level is 17.44 mAOD.** • **To prevent flooding to an adjacent landowner due to increased water levels in Loch Kemp a dam [Dam 4] is required on the Allt Leachd Gowerie. There is a small catchment area upstream of the dam which will result in a small impoundment on the uphill side of the dam. Pumps or a syphon will be used, intermittently as water builds up behind Dam 4, to transfer this water to Loch Kemp. The pumps are sized at a maximum flow rate rate of 0.500 m3/s, to be confirmed in the detailed design.**
2.2.3 Please set out here what steps you have taken or intend to introduce to ensure efficient use of water (Please continue on a separate sheet if necessary)	**Pumped storage hydro (PSH) is a very efficient use of stored water, as it can be re-cycled between the lower and upper reservoirs with efficiencies of up to 89% each way, equating to round trip efficiency (RTE) in the order of 78% in storing grid scale electrical power. This is conducted with no loss of water from the system, except for evaporation from the reservoirs which is a naturally occurring process.**

Table A – Private Water Supplies – including hospitals, schools, prisons, hotels, industrial premises etc.		
A.1 Please indicate nature of supply (i.e. domestic, agriculture, hospital etc.). Include all components.		
A.2 Please give details of the numbers of people being supplied and details of any residential capacity etc.	No of domestic properties served	
	Total population supplied	
	For hospitals, schools, prisons, hotels etc. please provide the maximum number of person-days occupancy provided for in one year.	
	Other (please specify)	

Table B – Public Water Supplies		
B.1 Please indicate the nature of the abstraction (direct into treatment and supply, raw water storage, river basin transfer etc.)		
B.2 Please give details of the supply.	B.2.1 Water resource zone to be supplied	

	B.2.2 Total population supplied	
	B.2.3 Components of supply (percentage domestic, industrial, agricultural etc.)	
B.3 Please give details of relevant water resources planning and any other documents relating to this scheme. If the scheme departs from these plans, please give the reasons for this. Please include details of any other current proposals which could have a bearing on the outcome of this application.		

Table C – Other	
C.1 Please give details of the water use, purpose of abstraction etc.	**Purpose of abstraction is for pumped storage hydropower. The rated capacity of the project is 600MW. The gross head of the project can vary between 160-190m depending on the levels within the two lochs. The maximum turbine flow is estimated at 455m3/s and maximum pump flow is 360m3/s.**

C.2 Please give as much detail as possible of the operational regime intended, water storage and conservation provision etc.	**Pumped storage hydropower projects enable the storage of large volumes of electricity. They import electricity during periods of excess renewable power on the grid, where water is pumped from Loch Ness up to Loch Kemp. When additional electricity generation is required to balance grid demands, the water is then released from Loch Kemp and discharged into Loch Ness via generators which return the stored energy to the national grid. This permits a greater utilisation of renewable energy, rather than using the default for large scale dispatchable power from gas-fired thermal generating stations. PSH station dispatch will be determined according to national demand for electricity compared against available renewable generation according to prevailing weather conditions (Rainfall, Sunlight and wind speed).** **Further information on the operation of the scheme and effect on Loch Ness and Loch Kemp is available in the appended information (Chapter 7 – Water Management)**

Section 3: Applications Including Abstraction Activities

Complete this table for all activities you are applying for. If you are applying for a licence which includes more than one abstraction activity please copy, complete and reference a separate table for each licensable activity.

No. of Section 3 tables completed:	3	Table ref: (e.g.1 of 2, 2 of 2)	1 of 3 (Loch Ness)

Abstraction details:		
3.1 Abstraction Point No/Ref/Name (This should correspond to a reference on the site map in 2.4 of Form A):	Inlet/Outlet Structure (Loch Ness)	
3.2 Name of watercourse or loch (if applicable):	Loch Ness	
3.3 National Grid Reference of abstraction. Specify a single point or for mobile abstraction units specify the upstream (u/s) and downstream (d/s) limits.	Single point: **NH 45343 16557 & NH 45405 16614**	
3.4 Please provide a full description of your proposals to	Document name / reference:	Refer to Scheme Description of

Section 3: Applications Including Abstraction Activities			
construct or alter any surface water intake structure, including plans and cross sections.			Development Chapter 3 and Appendix 3.1 of appended documents. Refer to drawings Figure 3.4 Figure 3.5, drawing LKCV_FIC_PH_XX_SC_0_010318-0E-InletOutlet Structure – Loch Ness and Plate 3.6 of Chapter 3.
3.5 Please provide method statements describing the method and controls of construction or alteration for any surface water intake structure	Document name / reference:		The Outline Construction Environmental Management Plan (oCEMP is provided in the appended documents (Appendix 3.3).
3.6 Do you consider this abstraction would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet		
	Document name/ reference:		
3.7 Do you consider this abstraction would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet		
	Document name/ reference:		
3.8 What is the maximum proposed rate or volume of abstraction for this abstraction activity? Conversion: 1m^3 = 1000 litres 1m^3 = 220 gallons 1m^3/hour = 0.2778 litres/sec	litres/ second:	cubic metres/ day:	cubic metres/ year:
	455,000	34,074,000	Not applicable, water is cycled between Loch

Section 3: Applications Including Abstraction Activities			
			Kemp and Loch Ness.
3.9 Describe how you propose to monitor the volume of water abstracted?	Document name/ reference:		The station control system will maintain records of station dispatch. The volume of water abstracted will be calcluated and stored within the control system based on the power input/output, net head and pump/turbine efficiency.
3.10 Do you intend to abstract every year or only intermittently? (Intermittent means that it is predictable in which years you will abstract. If you are applying to have the capability to abstract in any year, select annual)	☒ ANNUALLY ☐ INTERMITTENTLY, if so, please provide further details on separate sheet		
	Document name/ reference:	Please refer to appended Chapter 7 – Water Management	

3.11 Please tick during which months the abstraction takes place and, if available, indicate abstraction volumes (m^3/month).

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
X	X	X	X	X	X	X	X	X	X	X	X

Section 3: Applications Including Abstraction Activities

3.12 Is any abstracted water to be discharged back into the water environment? If yes, enter the National Grid Reference (NGR) of the discharge point(s). Please note this discharge may require authorisation as a point source discharge See the CAR Practical Guide for further details.	☐ No ☒ Yes NGR: 1) **NH 46553 16453 & NH 46554 16498** All water abstracted will be discharged back into the water environment	
3.13 Where you have selected 'yes' above specify the water returned as a percentage of take at the above grid reference(s)	NGR: 1) 100 % of abstracted water returned	
3.14 If appropriate, provide information on the proposed operating regime (e.g. abstraction limits, hands off flow etc)	Document name/ reference:	Please refer to appended Chapter 7 – Water Management
3.15 Where a management agreement is in place which influences the abstraction, please provide details.	Document name/ reference:	N/A
3.16 If appropriate, provide information on any inter-relationships between abstraction points applied for as part of this application (see section 3 of the guidance)	Document name/ reference:	Please refer to appended Chapter 7 – Water Management
3.17 Please provide for mobile spray irrigation abstractions and water transfers a method statement detailing how each activity is to be	Document name/ reference:	N/A

carried out to prevent the spread of invasive non-native species[1].		

Section 3: Applications Including Abstraction Activities

Complete this table for all activities you are applying for. If you are applying for a licence which includes more than one abstraction activity please copy, complete and reference a separate table for each licensable activity.

No. of Section 3 tables completed:	3	Table ref: (e.g.1 of 2, 2 of 2)	2 of 3 (Loch Kemp)

Abstraction details:		
3.1 Abstraction Point No/Ref/Name (This should correspond to a reference on the site map in 2.4 of Form A):	Inlet/Outlet Structure (Loch Kemp)	
3.2 Name of watercourse or loch (if applicable):	Loch Kemp	
3.3 National Grid Reference of abstraction. Specify a single point or for mobile abstraction units specify the upstream (u/s) and downstream (d/s) limits.	Single point: **NH 46553 16453 & NH 46554 16498**	
3.4 Please provide a full description of your proposals to construct or alter any surface water intake structure, including plans and cross sections.	Document name / reference:	Refer to Scheme Description of Development Chapter 3 and Appendix 3.1 of appended documents. Refer to drawing LKCV_FIC_IT_US_M2_O

[1] For information see 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)

Section 3: Applications Including Abstraction Activities			
			_010290-0B-InletOutlet Structure-Loch Kemp
3.5 Please provide method statements describing the method and controls of construction or alteration for any surface water intake structure	Document name / reference:		The Outline Construction Management Plan (oCEMP) is provided in the appended documents (Appendix 3.3).
3.6 Do you consider this abstraction would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet		
	Document name/ reference:		
3.7 Do you consider this abstraction would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet		
	Document name/ reference:		Hydropower
3.8 What is the maximum proposed rate or volume of abstraction for this abstraction activity? Conversion: 1m^3 = 1000 litres 1m^3 = 220 gallons 1m^3/hour = 0.2778 litres/sec	litres/ second:	cubic metres/ day:	cubic metres/ year:
	455,000	34,074,000	Not applicable, water cycled between Loch Kemp and Loch Ness.
3.9 Describe how you propose to monitor the volume of water abstracted?	Document name/ reference:		The station control system will maintain records of station dispatch. The volume of water abstracted will be

Section 3: Applications Including Abstraction Activities		
		calcluated and stored within the control system based on the power input/output, net head and pump/turbine efficiency.
3.10 Do you intend to abstract every year or only intermittently? (Intermittent means that it is predictable in which years you will abstract. If you are applying to have the capability to abstract in any year, select annual)	☒ ANNUALLY ☐ INTERMITTENTLY, if so, please provide further details on separate sheet	
	Document name/ reference:	Please refer to appended Chapter 7 – Water Management

3.11 Please tick during which months the abstraction takes place and, if available, indicate abstraction volumes (m^3/month).

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
X	X	X	X	X	X	X	X	X	X	X	X

3.12 Is any abstracted water to be discharged back into the water environment? If yes, enter the National Grid Reference (NGR) of the discharge point(s). Please note this discharge may require authorisation as a point	☐ No ☒ Yes NGR: 1) **NH 46553 16453 & NH 46554 16498** All water abstracted will be discharged back into the water environment

source discharge See the CAR Practical Guide for further details.		
3.13 Where you have selected 'yes' above specify the water returned as a percentage of take at the above grid reference(s)	NGR: 1) 100 % of abstracted water returned	
3.14 If appropriate, provide information on the proposed operating regime (e.g. abstraction limits, hands off flow etc)	Document name/ reference:	Please refer to appended Chapter 7 – Water Management
3.15 Where a management agreement is in place which influences the abstraction, please provide details.	Document name/ reference:	N/A
3.16 If appropriate, provide information on any inter-relationships between abstraction points applied for as part of this application (see section 3 of the guidance)	Document name/ reference:	Please refer to appended Chapter 7 – Water Management
3.17 Please provide for mobile spray irrigation abstractions and water transfers a method statement detailing how each activity is to be carried out to prevent the spread of invasive non-native species[2].	Document name/ reference:	N/A

Section 3: Applications Including Abstraction Activities
Complete this table for all activities you are applying for. If you are applying for a licence which includes more than one abstraction activity please copy, complete and reference a separate table for each licensable activity.

[2] For information see 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)

Section 3: Applications Including Abstraction Activities			
No. of Section 3 tables completed:	3	Table ref: (e.g.1 of 2, 2 of 2)	3 of 3 (Allt Leachd Gowrie)
Abstraction details:			
3.1 Abstraction Point No/Ref/Name (This should correspond to a reference on the site map in 2.4 of Form A):	Dam 4		
3.2 Name of watercourse or loch (if applicable):	Allt Leachd Gowerie		
3.3 National Grid Reference of abstraction. Specify a single point or for mobile abstraction units specify the upstream (u/s) and downstream (d/s) limits.	Single point: NH 46897 15317		
3.4 Please provide a full description of your proposals to construct or alter any surface water intake structure, including plans and cross sections.	Document name / reference:	Refer to Scheme Description of Development Chapter 3 and Appendix 3.1 of appended documents. Refer to drawing LKCV_FIC_RD_D4_SC_O_010241-0A-DAM 4 and Figure 3.4 and Figure 3.5.	
3.5 Please provide method statements describing the method and controls of construction or alteration for any surface water intake structure	Document name / reference:	The Outline Construction Management Plan (oCEMP is provided in the appended documents (Appendix 3.3).	

Section 3: Applications Including Abstraction Activities			
3.6 Do you consider this abstraction would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet		
	Document name/ reference:		
3.7 Do you consider this abstraction would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet		
	Document name/ reference:	Hydropower	
3.8 What is the maximum proposed rate or volume of abstraction for this abstraction activity? Conversion: 1m^3 = 1000 litres 1m^3 = 220 gallons 1m^3/hour = 0.2778 litres/sec	litres/ second:	cubic metres/ day:	cubic metres/ year:
	500 (subject to detail design)	100,500 (subject to detail design)	Not applicable, water is transferred from upstream of Dam 4 into Loch Kemp
3.9 Describe how you propose to monitor the volume of water abstracted?	Document name/ reference:		The station control system will maintain records of the volume transferred. This may be either through syphon or pumping (to be determined in detailled design).
3.10 Do you intend to abstract every year or only intermittently? (Intermittent means that it is predictable in which years you	☒ ANNUALLY ☐ INTERMITTENTLY, if so, please provide further details on separate sheet		

Section 3: Applications Including Abstraction Activities		
will abstract. If you are applying to have the capability to abstract in any year, select annual)	Document name/ reference:	Water impounded on the upstream side of Dam 4 will be transferred when necessary to avoid the impounded level approaching the land ownership boundary with the neighbouring estate.

3.11 Please tick during which months the abstraction takes place and, if available, indicate abstraction volumes (m^3/month).

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
X	X	X	X	X	X	X	X	X	X	X	X

3.12 Is any abstracted water to be discharged back into the water environment? If yes, enter the National Grid Reference (NGR) of the discharge point(s). Please note this discharge may require authorisation as a point source discharge See the CAR Practical Guide for further details.	☐ No ☒ Yes NGR: 1) NH 46897 15317 All water abstracted will be discharged back into the water environment on the downstream side of Dam 4.	
3.13 Where you have selected 'yes' above specify the water returned as a percentage of take at the above grid reference(s)	NGR: 1) 100 % of abstracted water returned	
3.14 If appropriate, provide information on the proposed	Document name/ reference:	Water impounded on the upstream side of Dam 4 will be transferred when

operating regime (e.g. abstraction limits, hands off flow etc)		necessary to avoid the impounded level approaching the land ownership boundary with the neighbouring estate.
3.15 Where a management agreement is in place which influences the abstraction, please provide details.	Document name/ reference:	N/A
3.16 If appropriate, provide information on any inter-relationships between abstraction points applied for as part of this application (see section 3 of the guidance)	Document name/ reference:	N/A
3.17 Please provide for mobile spray irrigation abstractions and water transfers a method statement detailing how each activity is to be carried out to prevent the spread of invasive non-native species[3].	Document name/ reference:	N/A

[3] For information see 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)

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	1 of 8 (Dam 1)
IMPOUNDMENT DETAILS:			
4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 1		
4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None		
4.3 Name of watercourse or loch impounded:	Loch Kemp		
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 46778 16896**		
4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.	Primary purpose: Hydropower Secondary purpose:		

4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower
4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration	Document name / reference:	2026

or removal works for the impoundment?		
4.12 Height of impoundment structure:	34m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	205m (to overflow), 206.5m to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	
4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	The bottom outlet will include a drawdown function to comply with reservoir safety requirements and an environmental compensation release. The drawdown function will require testing at intervals as required by Supervising Engineer. The environmental release will be in continous use to pass the agreed compensation flow.
4.17 Please provide details of any sediment management plan	Document name / reference:	Appended Chapter 14 provides details on

associated with this impoundment (see guidance in section 4.17)		sediment management which is generally expected to be minor due to small catchment and large loch volume.
4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody	Volume of impounded water: 21,000,000 m3

(where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Total volume of waterbody: Approximately 22,500,000 m3	
4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes	
4.23.1 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number? RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	2 of 8 (Dam 2)

IMPOUNDMENT DETAILS:	
4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 2
4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None
4.3 Name of watercourse or loch impounded:	Loch Kemp
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 47794 16504**
4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.	Primary purpose: Hydropower Secondary purpose:
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet
	Document name/ reference:
	☐ No ☒ Yes, provide details on separate sheet

4.7 Do you consider this impoundment would qualify for abated charges?	Document name/ reference:	Hydropower
4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	8m	
4.13 Please give the level of the overflow or crest of the dam (metres	206.5 to crest, wave deflector height subject to detail design.	

AOD) if this is different to the height of the impoundment structure		
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	
4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to pump-turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally expected to be minor due to small catchment and large loch volume.
4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.

4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3	
4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e.	☐ No ☒ Yes	

can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:			
4.23.2 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number?	RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register	

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	3 of 8 (Dam 3)
IMPOUNDMENT DETAILS:			
4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 3		
4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None		
4.3 Name of watercourse or loch impounded:	Loch Kemp		
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 48059 16327**		

4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.	Primary purpose: Hydropower Secondary purpose:	
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower
4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.

4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	28m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	206.5 to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	
4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to pump-turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally

		expected to be minor due to small catchment and large loch volume.
4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres):	Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3

(N.B. this information is not mandatory for schemes less than 25000m^3)			
4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.	
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes		
4.23.3 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number?	RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register	

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	4 of 8 (Dam 4)
IMPOUNDMENT DETAILS:			

4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 4	
4.2 Type of original waterbody impounded:	☒ Watercourse ☒ Loch ☐ None	
4.3 Name of watercourse or loch impounded:	Watercourse: Allt Leachd Gowrie Loch: Loch Kemp	
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 46897 15317**	
4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.	Primary purpose: Hydropower Secondary purpose:	
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower

4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	16.5m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	206.5 to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	Loch Kemp: **NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)** Allt Leachd Gowrie:	

	NH 46897 15317 (Dam 4 outlet for drainage of upstream side)	
4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		Loch Kemp: 177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to pump-turbine availability) or via the bottom outlet of Dam 1. Allt Leachd Gowrie: 191mAOD via the syphon or pumped transfer from upstream side of the dam to Loch Kemp. Levels subject to detail design.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Water would be drained from the upstream side of Dam 4 to prevent innundation across the land ownership boundary. If levels in Loch Kemp permit this would be by syphon, alternatively a pumped flow would be used when levels require. Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally expected to be minor due to small catchment and large loch volume.

4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Loch Kemp: Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3 Allt Leachd Gowrie (subject to detailed design): Volume of impounded water: 10,000 m3

	Total volume of waterbody: 10,000 m3		
4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.	
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes		
4.23.4 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number?	RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register	

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	5 of 8 (Dam 5)
IMPOUNDMENT DETAILS:			

4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 5	
4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None	
4.3 Name of watercourse or loch impounded:	Loch Kemp	
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 46570 15605**	
4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.	Primary purpose: Hydropower Secondary purpose:	
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower

4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	16.5m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	206.5 to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	

4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to pump-turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally expected to be minor due to small catchment and large loch volume.
4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	

	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3	
4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes	

4.23.5 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number?	RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register	

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	6 of 8 (Dam 6)
IMPOUNDMENT DETAILS:			
4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 6		
4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None		
4.3 Name of watercourse or loch impounded:	Loch Kemp		
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 46595 15853**		
4.5 Using the look up table in Section 4 of the guidance specify the	Primary purpose: Hydropower Secondary purpose:		

Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.		
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower
4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided

and controls of construction/alteration/removal works		in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	9m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	206.5 to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	
4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to pump-turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally expected to be minor due to small catchment and large loch volume.

4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3

4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes	
4.23.6 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number? RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	7 of 8 (Dam 7)
IMPOUNDMENT DETAILS:			
4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 7		

4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None	
4.3 Name of watercourse or loch impounded:	Loch Kemp	
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 46531 16046**	
4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water. Continue on separate sheet if necessary.	Primary purpose: Hydropower Secondary purpose:	
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower
4.8 Where a management agreement is in place which influences the	Document name / reference:	A management agreement will be

operation of the impoundment, please provide details.		produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents
4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	5m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	206.5 to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	
4.15 Where there is a means of drawing the impounded water down,		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness

what is the minimum draw-off level (metres AOD)?		(subject to pump-turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally expected to be minor due to small catchment and large loch volume.
4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as

		described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3		
4.22 Provide details on any interconnections with other impoundments, abstractions or catchments.	Document name / reference:	This is one of eight dams required to increase the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.	
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes		
	☐ Yes	Confirm reference number?	RES/R/…….

4.23.7 Have you already registered your reservoir with SEPA under the 2011 Act?	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register

Section 4: Applications Including Impoundment Activities			
Complete this table for all impoundments that you are applying for. If you are applying for a licence which includes more than one impoundment structure please copy, complete and reference a separate table for each activity			
No. of Section 4 tables completed:	8	Table ref: (e.g.1 of 2, 2 of 2)	8 of 8 (Dam 8)
IMPOUNDMENT DETAILS:			
4.1 Impoundment No/Ref/Name: (This should correspond to the reference on the site map)	Dam 8		
4.2 Type of original waterbody impounded:	☐ Watercourse ☒ Loch ☐ None		
4.3 Name of watercourse or loch impounded:	Loch Kemp		
4.4 National Grid Reference of impoundment (from mid-point of impounding structure):	**NH 46272 16458**		
4.5 Using the look up table in Section 4 of the guidance specify the Purpose Category/Categories for the use of the impounded water.	Primary purpose: Hydropower Secondary purpose:		

Continue on separate sheet if necessary.		
4.6 Do you consider this impoundment would qualify as an environmental service?	☒ No ☐ Yes, provide details on separate sheet	
	Document name/ reference:	
4.7 Do you consider this impoundment would qualify for abated charges?	☐ No ☒ Yes, provide details on separate sheet	
	Document name/ reference:	Hydropower
4.8 Where a management agreement is in place which influences the operation of the impoundment, please provide details.	Document name / reference:	A management agreement will be produced by the operator during detailed design.
4.9 Please provide a full description of your proposals to construct, alter or remove the impoundment, including plans and cross sections.	Document name / reference:	Refer to appended scheme description Chapter 3. Typical plan and section drawing provided in appended Figure 3.3.
4.10 Please provide method statements describing the method and controls of construction/alteration/removal works	Document name / reference:	The Outline Construction Management Plan (oCEMP) is provided in the appended documents

4.11 If applicable, what date do you intend to start construction, alteration or removal works for the impoundment?	Document name / reference:	2026
4.12 Height of impoundment structure:	4m	
4.13 Please give the level of the overflow or crest of the dam (metres AOD) if this is different to the height of the impoundment structure	206.5 to crest, wave deflector height subject to detail design.	
4.14 National Grid Reference of outflow point from impounded waterbody	**NH 45343 16557 & NH 45405 16614 (Loch Ness)** **NH 46778 16896 (Dam 1 bottom outlet)**	
4.15 Where there is a means of drawing the impounded water down, what is the minimum draw-off level (metres AOD)?		177mAOD (Existing Loch Kemp Level) either by the waterways to Loch Ness (subject to pump-turbine availability) or via the bottom outlet of Dam 1.
4.16 Provide details of ongoing maintenance of this impoundment structure e.g. debris clearance, scour valve operation, fish pass maintenance etc.	Document name / reference:	Dam would be subject to routine inspection by operations team and Supervising Engineer.
4.17 Please provide details of any sediment management plan associated with this impoundment (see guidance in section 4.17)	Document name / reference:	Appended Chapter 14 provides details on sediment management which is generally expected to be minor due to small catchment and large loch volume.
4.18 Is there to be provision for fish passage?	☒ No, please provide a justification for this on a separate sheet	

	☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	The Allt an t Sluichd which drains Loch Kemp into Loch Ness is impassible to fish due to the gradient and waterfalls.
4.19 Are there to be fish screens or other fish protection measures?	☒ No, please provide a justification for this on a separate sheet ☐ Yes, if so, please design details on separate sheet	
	Document name / reference:	Abstraction is from a separate inlet/outlet structure for which fish screening is provided as described in the relevent abstraction table.
4.20 Provide information of the proposed operating regime (e.g. compensation release, freshets, drawdown)	Document name / reference:	Please refer to the appended Chapter 7: Water Management.

4.21 For reservoirs, the total volume of water to be impounded and, if different total volume of waterbody (where known) (litres or cubic metres): (N.B. this information is not mandatory for schemes less than 25000m^3)	Volume of impounded water: 21,000,000 m3 Total volume of waterbody: Approximately 22,500,000 m3	
4.22 Provide details on any interconnections with other	Document name / reference:	This is one of eight dams required to increase

impoundments, abstractions or catchments.			the level of Loch Kemp. New underground waterways will link Lock Kemp to Loch Ness via the Loch Kemp Powerhouse.
4.23 Is registration required under the Reservoirs (Scotland) Act 2011? (i.e. can the reservoir hold 25,000m^3 or more above the surrounding land?) If yes, answer the following question:	☐ No ☒ Yes		
4.23.8 Have you already registered your reservoir with SEPA under the 2011 Act?	☐ Yes	Confirm reference number?	RES/R/…….
	☒ No	Contact SEPA's Reservoir Regulatory Unit at Reservoirs@sepa.org.uk to register	

Section 5: Additional information	
5.1 Cumulative Chargeable Abstraction Value	
Please specify the combined maximum volume of abstraction from all abstraction points subject to a subsistence charge? (Please see guidance for more details) Conversion: 1m^3 = 1000 litres 1m^3 = 220 gallons	N/A

5.2 Additional information submitted		
Please reference additional supporting documents	Document name: Document reference:	

submitted as part of this application	Document name: Document reference:	
	Document name: Document reference:	
	Document name: Document reference:	