Water Environment (Controlled Activities) (Scotland) Regulations 2011

LICENCE APPLICANT GUIDANCE

FORM D – ABSTRACTIONS AND IMPOUNDMENTS

SECTION 1: ABOUT THE ABSTRACTION / IMPOUNDMENT ACTIVITY

ABSTRACTION OR IMPOUNDMENT ACTIVITY TABLE

This table should be completed to cover all abstraction and/or impoundment activities being applied for as part of one licence. Please refer to the CAR Practical Guide available from SEPA's website at */www.sepa.org.uk/water/water_regulation/car_application_forms.aspx*.

1.1 Abstractions

Registration abstraction activities are abstractions greater than or equal to 10m³/day and less than 50m³/day. There is a separate form for these activities which can be accessed via *www.sepa.org.uk/water/water_regulation/car_application_forms.aspx*
Where the registration level abstraction is associated with a licensable controlled activity, an impoundment or abstraction, the registration application form should be appended to this licence application. This allows associated activities to be grouped into one licence document. Registration level activities are not included in the annual subsistence charge calculation. In the box provided please give the number of registration abstraction activities that you are applying for. For example if you are applying for two abstractions of 30m³/day put '2' in the 'No. column'.

Simple licence abstraction activities are those non-coastal or transitional abstractions greater than or equal to 50m³/day and less than 2000m³/day. The details for each simple licence abstraction activity should be completed on this form. As with registrations, please state the number of simple licence abstraction activities you are applying for in each category.

Complex licence abstraction activities are non-coastal or transitional abstractions greater than 2000m³/day. Again, the details for each complex licence abstraction activity should be applied for using this form. In the box provided please give the number of complex licence abstraction activities you are applying for as part of this application.

1.2 Mobile abstraction units used to abstract water under this application

Mobile plant may be used for the abstraction activity, rather than having fixed intake structures. This information is required to enable the application fee to be calculated. Please state here the number of mobile units you intend to use to abstract water at the locations applied for in the application.

1.3 Impoundments

Impoundments are also regulated under the Water Environment (Controlled Activities) (Scotland) Regulations 2011. There are no registration level activities with impoundments. Any impoundment will either be within the simple or complex licence category.

Simple licence impoundment activities include all existing (constructed prior to 1 April 2006) passive weirs, existing managed weirs that are less than or equal to 1 metre in height and existing raised lochs which are less than or equal to 1 metre in height. Definitions of 'height', 'managed' and 'passive' weirs and 'raised lochs' can be found in the glossary section (Form A guidance). In addition, the construction and operation of all new impoundments where the height is less than or equal to one meter and the impoundment does not affect the passage of salmon or sea trout. Please state the number of simple licence impoundment activities in the 'No. column' of the Table. For example, if you are applying for a licence for two existing managed weirs where the height of the impoundments are 0.5 metres you should write 2 in the relevant box. Details of each of these impoundment activities should be provided in this application form.

Complex licence impoundment activities include the construction and operation of all other impoundments not included in the simple licence category above. Please indicate the number of complex licence impoundment activities you are applying for and complete the relevant sections of this application form.

SECTION 2: REASONABLE NEED

Under CAR, SEPA has a duty to secure efficient and sustainable water use. SEPA also needs to understand the social and economic value of water that is abstracted or impounded for use.

All water users undertaking a controlled activity have a duty to take all reasonable steps to secure efficient and sustainable water use. SEPA is responsible for enforcing the Regulations and therefore needs to ensure that the quantities being applied for are consistent with the efficient use of the water required. To achieve this, SEPA needs to understand the components of the demand for water that you abstract and how this relates to the scale of use that it supports (e.g. the annual production capacity for an industrial abstraction). The information we seek in this section of the form is to enable you to justify the quantities that you are applying for. Where significant variations from these conditions arise, we will want to discuss these with you to seek a better understanding of any local factors contributing to the difference.

The basis of our assessments will be published data and research undertaken where available.

Applicants should complete Section 2.1 and 2.2 and also the appropriate table for their sector and/or use.

2.1 Main category of use
Please indicate the sector into which your activities fall. This may be more than one, for example a farm unit may include an irrigation supply, stock watering and private household supply, in which case tables A, B and E should be completed. If 'other' is selected please state the type of activity you are applying for.

2.2.1 Total quantities of water
We need to understand fully what you expect your total requirements to be for all abstraction activities that need to be authorised by the licence. Please set these out here, per hour, day and year. There is a separate opportunity in Section 3 of the form to give more details about maximum rates at individual points of abstraction. [Note: If the application only relates to a single abstraction activity (one point or stretch), the information should be the same in both answers.]

NB: Note that when giving information about the quantities of water you intend to use we will need to know the
maximum requirement, for abstraction. It is for you to decide what quantities you wish the licence to authorise, and then for SEPA to decide whether this can be allowed or whether any conditions need to be imposed.

2.2.2 Additional information
Please set out here any supporting information that helps to explain the total quantities you have requested in the preceding question, in addition to information you will include in the relevant following table(s). This should particularly explain any unusual feature of your water usage, any local factors that we need to know about, reasons for selecting a particular depth of application of water, irrigation practice, extent of any re-use and recirculation etc.

2.2.3 Ensure efficient use
Also please set out here what measures you have or intend to put in place to ensure efficient use of water. This will inevitably vary with the nature of the use, but may include good housekeeping practices, monitoring, leakage checks, undertaking water audits etc.

Main usage sectors
The following notes support the key sectors and the information we require.

TABLE A: AGRICULTURAL IRRIGATION

SEPA uses a method of calculating the optimum irrigation need, based upon crop types and areas, soil types and agro-climatic conditions. If you want further information on this methodology please contact your local SEPA Office.

If you are applying for one licence covering a number of farming units please complete one copy of Table A for each farm unit applied for under this licence application.

A.1 Crop type and area
Please give details on crop type, areas to be irrigated and the maximum annual depth of irrigation. These figures should represent the crops that you would grow in the same season and ensure that you give a combination of crops and areas likely to give rise to the maximum irrigation demand in any season.

A.2 Soil type
Please provide details on which soil type is applicable to the farming unit you are applying for. if more than one soil type is relevant, please indicate the approximate split across the unit.

TABLE B: AGRICULTURAL WATER SUPPLY

The number of livestock supplied gives an indication of the expected volumes of water required. The Scottish Agricultural College has provided estimates of daily drinking water requirements for different classes of stock. For more information on this, refer to SEPA guidance document WAT-SG-70 at *http://www.sepa.org.uk/water/water_regulation/guidance/abstraction_and_impoundment.aspx* or contact your local SEPA Office.

B.1 Number and type of livestock
Please indicate the type of stock reared, giving the highest demand scenario in terms of likely water use (i.e. highest numbers of livestock with the greatest water demand) at any one time. The livestock diet, such as straw or silage can impact on the typical water requirements. Please use the final column to indicate any special factors such as this, along with details of any special feeds or housing requirements, influencing water consumption.

B.2 **Washing and cleaning**
Please give an indication of your requirement for cleaning, washing and dairy use etc. This can be by power hose or non-power hose. Please provide the maximum anticipated usage per day along with any comments you believe inform this value.

TABLE C: GOLF COURSE IRRIGATION

C.1 Irrigation per annum
Please indicate the areas of tees, greens, fairways and other areas irrigated (where relevant) giving information about total annual requirements.

C.2 Irrigation per day
Please indicate the areas of tees, greens, fairways and other areas irrigated (where relevant) giving information about total maximum daily requirements.

TABLE D: INDUSTRIAL USE

SEPA will assess your water usage against best practice guidance using published research where this is available. For further details on this please contact your local SEPA Office.

D.1 Process outline

Please give brief details of your main production process and water usage within this, e.g. the proportions of cooling and process water, product type, main process steps etc.

D.2 Water per unit of production and annual production
Please select which industry sector within the table is appropriate for your site. For this sector, give the known or estimated water use per unit of production, using the most appropriate unit output measure for your particular processes/usage. For example, for brewing - m^3 of water used per m^3 of beer produced, fibreglass – m^3 of water used per tonne of product, fish farm – m^3 of water used per tonne fish produced, distilleries - m^3 of water used per litres of alcohol produced, power production – m^3 of water use per Giga Watt hours etc.

For quarries or mines undertaking dewatering operations, those quantities need not be included in this table. Only include the quantities used for processing, washing, dust suppression etc. The quantities pumped for dewatering purposes should be separately identified in the 'other' section and appropriate details provided within Table H.

Note that where industrial premises also have their own private water supply for domestic/sanitary purposes, Table E should be completed for this element.

TABLE E: PRIVATE WATER SUPPLIES

This section is for all 'domestic' type supplies not supplied by Scottish Water.

E.1 Nature of supply
Please give the type of establishment that will be supplied with water. This may include households, estate supplies (which may supply houses and farms), small water supply schemes not provided by Scottish Water, private supplies to hotels, schools, factories, commercial premises, light industrial estates etc. For industrial premises, include in this table all non-process water use.

E.2 Details of supply
Please indicate the number of properties served and the total population i.e. the number of people within all of the properties served. Where farm dwellings are included then the element described here should only relate to the domestic property. Any livestock drinking water and wash water should be described in Table B: Agricultural water supply. Where the supply is for hotels, prisons etc then the maximum occupancy for the year should be provided. If this section includes the domestic element of a factory or industrial estate then the non-domestic water use should also be completed in the relevant table of this application form. If the private water supply does not fit into any of the categories described on this section of the form please describe your circumstances in 'other'.

TABLE F: PUBLIC WATER SUPPLIES

F.1 Nature of abstraction
Details should be provided on the nature and characteristics of the abstraction including information on where the water is being transferred to.

F.2.1 Water Resources Zone
The water resources zone should be consistent with the water resources plan submitted to SEPA

F.2.2 Population supplied
This is to give an indication of the scale of the application. If you are applying for a variation then this should reflect the additional population.

F.2.3 Components of supply
Please provide details on the activities served by the controlled activities applied for.

F.3 Water resources plan

These developments will normally only be considered where they conform to the agreed water resources development plans for the area. Please provide the details requested and in particular the reasons for any departure from the water resources plan and any other related proposals that should be taken into consideration.

TABLE G: HYDROPOWER

Although non-consumptive in use, these schemes have the potential for major impacts on the flow regime.

G.1 Head and flow of water
The head of water (H) is the maximum available vertical fall in the water, from the upstream level to the downstream level. The flow (Q) is the design flow, usually at Qmean of water through the turbine. If the design flow is not Qmean please specify.

G.2 Estimated turbine efficiency
Turbines will have a range of efficiencies dependant on the location, turbine type and production capacity. The manufacturer will be able to indicate an estimated efficiency for the site under consideration based on the hydraulic efficiency of the turbine at its design point.

G.3 Installed capacity
The installed capacity is the maximum generating capacity of the turbine at that location.

TABLE H: OTHER

H.1 Details of water use
Please provide a description of the water use and the purpose of the abstraction, such as conservation and details of what habitat type or species is being protected.

H.2 Operational regime
Please gives details of the main elements of the process such as timings, triggers for operation, management plans and agreements etc.

SECTION 3 APPLICATIONS INCLUDING ABSTRACTION ACTIVITIES

A Section 3 table should be completed for all abstraction activities that you are applying for with this form.

ABSTRACTION DETAILS

3.1 Abstraction point
If the abstraction point has a name or a reference or number (e.g. Abstraction A, Point 1) then please provide this information here. This should correspond to the site map reference on the map provided under Form A, section 2.4.

3.2 Source type
Please refer to the glossary of this guidance (Form A guidance) for definitions of the different source types. Please note that if you are abstracting from a canal the 'watercourse' option should be selected.

3.3 Name of watercourse or loch
If the river or loch from which you are abstracting is named then please provide this in the box provided on the application form. These names can often be found from the local OS map. If the loch or river does not have a name please give a description, for example tributary of the River Blue. If you are abstracting

from a canal please give the name of the canal such as Union Canal, Caledonian Canal. If you are abstracting from groundwater sources then please leave blank.

3.4 National Grid Reference (NGR)
Please provide an 8-figure grid reference for the proposed point of abstraction. If a mobile abstraction unit is used along a stretch of a watercourse please provide the grid reference at the upstream and downstream limits of this abstraction. A stretch is a length of watercourse where the water resource is broadly consistent along the identified length, and therefore only one environmental impact will be required. This means that there should be no significant changes in ecological sensitivity along the stretch or significant discharges, incoming tributaries or further abstractions.

See 2.3 of Form A guidance for advice on how to give a grid reference.

3.5 Description of intake structure proposals
The design of any fixed intake structures are to be included in the licence to ensure that the integrity of the riparian bank is not compromised and it will not result in excessive erosion in the vicinity of the structure. Please enclose with your application drawings, plans and cross sections of the intake design clearly indicating the dimensions of the width and height of the structure and the size of any associated pipe work. Please note that any future extension of this intake requires an application to vary the licence.

3.6 Method statements during the construction phase
A method statement sets out your operational controls once the environmental risk assessment of an operation has been undertaken. The method statement is used to control the works to ensure that all operators are aware of the environmental risks and issues associated with the work. It sets out the precautions, mitigation methods or specific actions to be taken to reduce or prevent ecological harm and details areas of work such as the boundaries of the working area, plant and equipment requirements etc. The level of detail within the method statement is dependant on the scale of the works being carried out. All river engineering works should adhere to the principles in PPG05 - Works in near or liable to affect watercourses and PPG06 - Working at construction and demolition sites

3.7 Look up table – purpose categories
Abstracted water can be used for a number of purposes, for example irrigating potatoes or food processing. We need this information to determine if the volume is appropriate for that purpose. Select from the table below the description or descriptions that most accurately reflect the use of that water. Where the water abstracted is used for more than one purpose please list both the primary purpose and the secondary purpose.

Description - Abstraction
Agriculture (other than irrigation)
Agriculture (irrigation – mobile plant)
Agriculture (irrigation- fixed intake)
Drinking water supply (public)
Drinking water supply (private)
Environmental Service
Fish production
Golf course
Hydropower
Industrial or commercial: process water
Industrial or commercial: evaporative cooling
Industrial or commercial: non-evaporative cooling
Navigation (including canals)
Mining and Quarrying

3.8 Environmental service

'Environmental service' means the carrying out, operation or maintenance of any activity which is, in the view of SEPA, solely for the benefit of the environment, not being for commercial purposes or in implementation of a statutory duty. *SEPA Guidance, updated from time to time, is available via the website or on request.*

Such activities will be exempt from application and subsistence charges. An environmental service should not be confused with mitigation measures which are intended to reduce the impact of a controlled activity. For example the following activity would not be considered as an environmental service:

1. A reservoir which maintains flows in a downstream river to compensate for upstream abstractions.

SEPA will regard the following types of activity as providing an environmental service and hence exempt from application and subsistence charges:

1. Abstractions associated with the control of historic causes of pollution, for example
   - Abstraction from mines that are no longer operational and where the abstraction is intended solely to control the breakout of polluted groundwater
   - Abstraction of groundwater associated with contaminated land solely for the purpose of the remediation of that contaminated land.

2. Structures and abstractions to maintain or improve the existing water environment, for example
   - An ex-water supply reservoir that is no longer intended as a drinking water source and is maintained solely to support the ecology which has developed within the reservoir.
   - A canal that is no longer used for navigation and is maintained solely to support the ecology which has developed within the canal.
   - A wetland or pond, fed by an abstraction, which is intended solely to maintain or enhance the biodiversity of the water environment.

3. Habitat restoration

   This is activities intended solely to restore the environment to a more natural state or to enhance the biodiversity of the water environment or wider environment. It covers:
   - The restoration of a canalised or culverted watercourse to a more natural profile;
   - The removal of flood defences in order to restore a flood plain;
   - The creation of wetlands and ponds to enhance biodiversity.

   This definition does not include fishery improvement work that modifies a natural river in order to improve fishing.

If you are unsure if your activity would qualify for environmental service please contact your local SEPA Office for advice.

3.9 Activities incurring abated charges

Certain controlled activities may be subject to abated charges which are not classed as environmental service. These activities will still be regulated in the same way as other activities.

The abstraction and impoundment activities which may be subject to abated charges are under the following categories;

- Lades
- Sustainable energy generation
  - Hydropower
  - Geothermal heat pumps
- Groundwater abstraction licences. Please note that only a time limited licence to allow drilling and test pumping is likely to be issued if adverse environmental impacts are thought to be possible.

Should further information suggest that adverse environmental impacts are not likely then a variation to the time limited licence can be applied for at the appropriate licence technical variation fee.

- Flood defence
- Impoundments
    - Dams less than a metre
    - Offline impoundments and isolated ponds
    - Abstractions from offline impoundments and isolated ponds
    - Commercial/amenity use reservoirs
- Outfalls and abstraction points

Further details of these activities can be found in the current Charging Scheme available at *www.sepa.org.uk/water/water_regulation/charging_scheme.aspx* or from your local SEPA Office.

3.10 Maximum rate of abstraction
Please state the maximum amount of water that you are applying to abstract. This information should be entered in each of the three boxes provided (i.e. in litres per second (l/s), cubic metres per day (m^3/day) and cubic metres per year (m^3/year)). A conversion factor for UK gallons and litres is provided for your convenience on the application form.

The volumes you enter should reflect the volumes you intend to abstract. It may be that the daily volume is not a direct multiple of the litres per second rate or it may be that the annual volume a direct multiple of the daily volume.

3.11 Means of demonstrating volume abstracted
Please describe how you intend to measure the volume of water abstracted. This could be through, for example, using a water meter, or based on the intake design capacity, pipe or pump capacity and duration of abstraction. Depending on the sensitivity of the location and your operation, you may be required to carry out environmental monitoring as well as monitoring of the volumes abstracted. If necessary, this will be discussed with you during the determination of your application.

3.12 Annual or Intermittent abstraction
If you carry out an activity that requires abstraction, or could require abstraction, every year then select the annual box. Please note that annual abstraction would include irrigation if the operator wants to have the capability to abstract water every year from the same location. Intermittent should be selected where it is known that the abstraction in that location shall not take place in particular years (for example, abstraction for irrigation that is known to take place once every six years and that year is predictable). If you select intermittent, provide additional information in a separate sheet about the intermittent schedule of water use (i.e. years that intend to abstract). If you abstract water intermittently then your subsistence charge will reflect this. Please note that the years in which you may abstract will be specified within the licence and the subsistence charge calculated accordingly.

3.13 Months of year when abstraction takes place
The time of year when you abstract water will influence the level of environmental impact. You may abstract water all year around, if so please select all the boxes, alternatively you may only abstract during the summer or only during the winter months. Where you are applying to abstract in particular seasons rather than throughout the year the subsistence charges may be influenced. Therefore, if you are applying to abstract predominantly in the summer months (April to October inclusive) or only over the winter months (November to March inclusive) then you will have to specify which months you intend to abstract here, and where known the volumes abstracted in each month.

3.14 Discharge of abstracted water
The location of any discharged water associated with the abstraction will affect the environmental impact of the abstraction activity. SEPA are interested in discharges associated with the abstraction activity only, such as the return of cooling water, other discharge activities are not to be included here. If you do discharge abstracted water please give the 8 figure grid reference of where the abstracted water is

returned to the water environment. See Section 2.3 of the Form A guidance for advice on how to give a grid reference. Please do not include any discharges to a public sewerage system.

Please note that providing details here does not remove the requirement to apply for authorisation to discharge potentially polluting substances into the water environment. For details on discharges which require authorisation please see the CAR Practical guide document available at

www.sepa.org.uk/water/water_regulation/car_application_forms.aspx or contact your local SEPA office.

3.15 Percentage of abstracted water returned

Where you return a proportion of the abstracted water please give the percentage of the abstracted water which is returned to the water environment at that National Grid Reference. This may be an estimate where the actual percentage returned is not known.

3.16 Operating regime

Any details of the proposed operating regime should be included. This could be with respect to maintained or hands off flow requirements as agreed with other stakeholders, and how any maintained or hands off flows are measured and/or guaranteed etc.

3.17 Management agreement

Where a water user has entered into a non statutory agreement with a landowner, District Salmon Fishery Board or other third party, or where a group of water users are reliant on the same source they may have come to some agreement as to how they each use the water to ensure they are all able to meet their requirements. While these agreements are non statutory in that they are not set in regulation, they form an important part of managing the operations. For example, a group of industrial users on a stretch of river may have an agreement as to how much each of them abstracts to enable downstream users to guarantee their water supply. If your abstraction or impoundment activity is part of such a non statutory agreement then please provide information as outlined in the table below and attach a copy of any written agreement.

Activity	Location		Parties in agreement	Agreement details
	NGR	Affected watercourse		
example: Abstractions	*XY 1111 2222*	*River Blue*	*White Paper Mill Green Turf Co.*	During low flows, the Green Turf company will use their borehole and stop abstracting from the River Blue when flows in the river reach 15m3/sec to enable the White Paper Mill to continue production.

3.18 Inter-relationships between abstraction points

A number of abstraction points may be operated for the same purpose or in conjunction with each other. Where this is the case such inter-relationships should be described. This could include a series of 4 boreholes which together will provide 100m^3/day but individually could provide 50m^3/day, or an operational intake and an emergency/standby intake which is only used when the operational intake is not functioning. The licence may enable the abstraction from any of the abstraction points applied for, but the total water abstracted for the overall site would not be a simple addition of all the maximum abstraction rates given in Section 3.

This total volume represents the impact on the environment and is the basis for the calculation of the annual subsistence charge.

3.19 Rights to water

SEPA has a duty to have regard to all controlled activities being carried on or likely to be carried on in the area which the application relates. Therefore, please provide details of any legal rights and/or access to the water which you intend to abstract. Where you do not hold the water rights, please describe any

agreements with the holder of the rights or access. Please indicate where these are currently under negotiation.

3.20 Commencement of abstraction
Please give an indication of date on which the abstraction is to commence. Where this cannot be defined, such as for irrigation where the date is weather dependant, please give the season and the year of expected commencement of the abstraction.

3.21 Construction works
Where you are applying to construct any intake structures, please give an indication of the date when construction of the intake will start.

ADDITIONAL INFORMATION FOR GROUNDWATER ABSTRACTIONS ONLY

3.22 Dimensions of borehole/well
For the dimensions of the borehole or well, where possible, please report to 2 decimal places expressed in metres. A conversion factor for inches/ feet is provided for your convenience on the application form. Please note that if you extend the depth or diameter of the borehole/well in the future then you will have to apply to vary your licence.

3.23 Water Feature Survey
If you are applying to abstract greater than 50m^3/day then you will need to carry out and submit a water feature survey. This identifies other water users and water dependant features which may be impacted by your proposal. The water feature survey ensures the assessment of your application considers the relevant aspects. There is a separate guidance note (An applicants guide to water supply boreholes) which should be referred to, detailing the method of carrying out a water feature survey. This guidance is available from our website at
www.sepa.org.uk/water/water_regulation/guidance/abstraction_and_impoundment.aspx
or from your local SEPA Office.

3.24 Rock type
If known, please indicate by selecting the appropriate box the type of rock from which you are abstracting. In unconsolidated rock the individual particles that make up the rock are not stuck together (not cemented). For example river gravels or glacial drift. Solid rock is cemented or crystalline, examples are sandstone or granite.

SECTION 4: APPLICATIONS INCLUDING IMPOUNDMENT ACTIVITIES

IMPOUNDMENT DETAILS

4.1 Impoundment No./Ref/Name
The impoundment number or reference should correspond to the site map reference on the map provided under section 2.4 of Form A.

4.2 Type of original waterbody impounded
The type of waterbody to be impounded is the original river or loch across which the impoundment is to be constructed. See definitions of watercourse and loch in the glossary in the Form A guidance section. If the impoundment is to be constructed on land where there was no pre-existing watercourse or loch then select None.

4.3 Name of watercourse or loch impounded
The waterbody name is often given on OS maps or may have a local name. Where there is no known waterbody name, please give a description, for example, tributary of River Blue.

4.4 Grid reference.
Please provide an 8-figure grid reference for the mid point of the impounding structure (i.e. the dam or weir). See 2.3 of Form A guidance for advice on how to give a grid reference.

4.5 Look up table – purpose categories
Impounded water can be used for a number of purposes, for example flood prevention or fish production. We need this information to determine if the volume is appropriate for that purpose. Select from the table below the description or descriptions that most accurately reflect the use of that water. Where the water impounded is used for more than one purpose please list both the primary purpose and the secondary purpose.

Description - Impoundment
Agriculture
Drinking water supply (public)
Drinking water supply (private)
Environmental Service
Flood defence
Fish production
Golf course
Hydropower
All other industrial or commercial
Navigation (including canals)

4.6 Environmental service
Please refer to 3.8 above and the Charging Scheme guidance at *www.sepa.org.uk/water/water_regulation/charging_scheme.aspx*

4.7 Activities incurring abated charges
Please refer to guidance in 3.9 above and the Charging Scheme guidance at *www.sepa.org.uk/water/water_regulation/charging_scheme.aspx*

4.8 Management agreements
Please refer to guidance in section 3.17 above.

4.9 Plans and cross sections of the impoundment
Please provide detailed plans and cross sections of the impoundment structure. The agreed design of the impoundment will be referred to in the licence and it is recommended that you discuss the design of the impoundment with your local SEPA Office prior to submitting and application. Please note that should you extend or alter the impoundment in the future you will be required to apply for a variation of your licence.

SEPA will assess the impoundment in terms of its potential impact on the water environment. SEPA nor any licence issued by SEPA in any way approves the structure in terms of structural integrity or safety.

4.10 Method statements during the construction phase
A method statement sets out your operational controls once the environmental risk assessment of an operation has been undertaken. The method statement is used to control the works to ensure that all operators are aware of the environmental risks and issues associated with the work. It sets out the precautions, mitigation methods or specific actions to be taken to reduce or prevent ecological harm.

Whether by plans, drawings or text, the method statement should cover the following details:

- the boundaries of the working area,
- type and volume of materials being used,
- plant and equipment requirements,
- detailed, annotated and referenced maps, designs and plans for the works, and the dimensions of structures involved

- the timing of works, and expected start and finish dates for individual parcels of work and the project as a whole (including the period of use of any diversions or over pumping).
- mitigation measures to prevent ecological damage from engineering and pollution
- incident reporting and communication routes,
- Sequence of activities to be undertaken, and working methods (e.g. working procedures)
- Checklists and monitoring inspection sheets for relevant staff
- Listed quality requirements for a piece of work, reminding engineers what is required and that designs are checked before being signed off.
- Reinstatement/restoration methods, designs and procedures

All river engineering works should adhere to the principles in PPG05 - Works in near or liable to affect watercourses and PPG06 - Working at construction and demolition sites

4.11 Commencement of operations
Please give an indication of date on which the construction work is to commence.

4.12 Height of structure
For the purposes of this licence application please provide the height of the proposed structure. The height is defined as the height as measured from the downstream toe of the impoundment structure to the crest, or top of the spillway**.**

4.13 Level of overflow
The level of the overflow or crest of the dam (by reference to Ordnance Datum) is the height of the dam above which water will overtop the structure and spill into the downstream watercourse.

4.14 NGR – outflow point
Please provide an 8-figure grid reference for the outflow point where any compensation flow enters the watercourse downstream from the impoundment. Where there is to be no compensation flow or no outflow, please indicate that this is the case. See 2.1 for guidance on how to give a grid reference.

4.15 Draw off level
The minimum draw off level is the water level (by reference to Ordnance Datum) at which water maybe abstracted (i.e. fully drawn down). If the impoundment is not used for abstraction and so does not have a draw off structure then please enter n/a.

4.16 On-going maintenance
Give details of any ongoing maintenance, describing the frequency and extent of maintenance activities. This would include the operation of scour valves, debris clearance operations fish pass maintenance or any other maintenance that could have a negative impact on the water environment.

4.17 Sediment Management
If there is to be no sediment management associated with the impoundment please indicate this. Any sediment management plan should describe the location of any sediment removal from the waters associated with the impoundment. This includes the dredging of material to maintain the capacity behind the impoundment. In the sediment management plan you should detail the National Grid Reference (NGR) of the sediment removal. If this is to take place along a stretch of watercourse please give the upstream and downstream NGR points. In addition please provide information on estimated quantities to be removed and the frequencies of sediment removal, for example annual, once every five years etc. The timings of sediment removal can impact on fish spawning or other ecologically sensitive features. Therefore, please indicate what times of year the sediment removal operations are typically undertaken. If sediment is to be re-introduced into the water environment this can also be described here, although it is advised to discuss any such proposal with your local SEPA Officer before submitting an application.

4.18 Provision of fish passage
If the impoundment is to have a fish pass please provide details of the type of fish pass and any monitoring that takes place, such as fish counters. If it is not proposed to include a fish pass provide a

justification. This should state why a fish pass is not required at this location or the reasons a fish pass cannot be provided.

4.19 Provision of fish screens
If the impoundment has any screens to stop fry, smolts or adult fish being drawn into channels, turbines, pumps or other hazards then please provide details (e.g. size of screens, sonic screens, etc).

4.20 Operating regime
If there is any additional information please supply this here. Any details of the proposed operating regime should be included. This could be with respect to compensation flow volumes, how the compensation flow is to be delivered, for example through a fish pass or pipe and what level within the reservoir the compensation water is sourced from e.g. the bottom or surface of the reservoir. Details of freshet volumes and times of release along with the location of the freshet discharge. Any draw down regime should be described with rates of draw down and frequency of water level fluctuation where known or any control rules.

4.21 Total volume of impounded water/waterbody
Enter the volume of water to be impounded as a result of the structure. Where the water level of a smaller, pre-existing loch will be raised by an impoundment then it is the additional storage volume that is created which should be provided. If known, the total volume of water held within the whole loch should also be provided in the second box. This information is not mandatory for schemes less than 25,000 m^3 but please supply it if available.

4.22 Inter-relationships between impoundments
Where the application relates to a scheme with a number of abstraction or impoundment locations or the waterbody is to be used for a number of reasons, please provide details of how the scheme as a whole will operate. This may be a description of inter-catchment transfers, relationships between impoundments or relationships with other sites, companies or individuals.

4.23 Additional information for large reservoirs
The Reservoirs Act 1975 provides the legal framework to ensure the safety of UK reservoirs that hold at least 25,000m^3 of water above natural ground level. If the volume of water held behind the impoundment is greater than 25,000m^3 then it should be registered with the local authority.

4.23.1 Please provide the name of the local authority with which the reservoir is registered and the registration number.

4.23.2 Please provide details of any proposed monitoring. This could consist of water level monitoring at the impoundment or flows that are being released for compensation, freshet or as overflows. Where such monitoring is proposed, please provide details of the location and form of monitoring equipment.

SECTION 5: ADDITIONAL INFORMATION

5.1 Cumulative chargeable abstraction value
If you are applying for authorisation for multiple abstraction points please specify the maximum daily and annual rate of abstraction from all of the abstraction points for which a subsistence charge will apply. This figure should exclude any abstraction volumes which are registration level activities, which you consider are exempt from charging or are for environmental service.

For example you may have two boreholes which are operated as a duty and standby or which have a maximum individual abstraction rate of 100m^3/day when used on different days, but if these are both in use simultaneously they might only supply at a rate of 170m^3/day. The maximum combined rate would

then be 170m^3/day. A conversion factor for UK gallons and litres is provided for your convenience on the application form. The fees and charges for abstraction activities can be found in the latest Charging Scheme seen at *www.sepa.org.uk/water/water_regulation/charging_scheme.aspx*

5.2 Additional information submitted

Where additional information is to be submitted as separate documents in support of your application and have not already been referred to in the application form, please provide the name and any reference number of the documents in the box provided. Please also mark the document(s) clearly with this reference number. This will ensure documents that are associated to this application are considered as part of the application.

If you are submitting more than four additional documents please refer to a continuation sheet. Provide a reference to a continuation sheet on the application form and make sure the continuation sheet is clearly marked with the same reference number.