

Additional information for: *“Thinking about an irrigation reservoir? – a guide to planning, designing, constructing and commissioning a water storage reservoir”*



This note updates the abstraction licencing application procedures as an insert to the booklet published by the UKIA, Cranfield University, and the Environment Agency. The original booklet is available for download from the [Environment Agency](#) and the UKIA.

The Environment Agency is keen to encourage farmers to store high-flow water for irrigation but to do this, you will need an abstraction licence. However, applying for an abstraction licence can be complicated, expensive and time-consuming. You should, therefore, start the process at an early stage in your project.

## Abstraction licences

When you have worked out how much water you need and identified a suitable source of supply, you will need to apply for an abstraction licence. This gives you a 'protected right' to the water. It sets out how much you can take, where you can take it from and for what purpose. It also contains conditions required to protect the environment, such as hands-off flows, pump size, and fish screening specifications. Application forms and guidance are available online at [Apply for a water abstraction or impounding licence](#).

### How much does a licence cost?

The Environment Agency recovers its costs through licence application fees and annual subsistence charges. An application, with public notices, will cost between £4,000 and £19,000, depending on the reservoir size. Annual charges will range from about £500 to £4,000, although there is a 50% discount for winter-only abstractions, and you can arrange to pay less if you don't use your entire allocation. Detailed charging information is available at [Water resources licences: when and how you are charged](#).

### How long does it take?

You will need to plan ahead. Applying for a straightforward licence could take as little as six months, but it will take much longer if you need to collect flow data or other information. Ideally, you should allow at least 18 months to get your licence.

## Water availability -Where to start

Water for abstraction is getting increasingly scarce, even for reservoir storage, so it pays to carry out an initial water resources feasibility assessment at the outset.

The Agency's [abstraction licensing strategies](#) will give you an overview of the likelihood of there being enough water in your area to fill your reservoir. The licensing strategies include maps which show the % of days when abstraction will be available. If availability exceeds 50%, you can be reasonably confident that your catchment has enough water, but, in catchments where water availability is lower, you may have difficulties.



### Legend

#### Resource availability (% of the time)

- less than 30%
- at least 30%
- at least 50%
- at least 70%

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Figure 1 ALS example map of water resource availability.

The Strategies will also provide details of any additional abstraction restrictions you may need to know about.

## Limitations of Abstraction Licensing Strategies.

The abstraction licensing strategies only provide information about main rivers and larger tributaries. You must conduct further investigations, which in most cases will include flow monitoring, for abstraction proposals from smaller rivers and streams with limited flow-gauging data.

## Flow monitoring

If you plan to abstract water from a stream or tributary with limited flow data, the Environment Agency will expect you to collect data. This may involve a series of 'spot gauging' measurements or several month's continuous flow monitoring. Some simple collation and analysis will also be required, so that you can submit the data in a form the Environment Agency can use. The Agency's website provides more information on monitoring and analysing flows.

## [Abstract or impound water: hydrological information](#)

The Agency's '[enhanced pre-application service](#)' an ideal way to discuss and agree on what data you will need to provide and how best to present it.

## What if you don't have access to a reliable water source?

If you don't have access to a river or stream or if your initial investigations show there isn't enough water, there are other options:

**All-year abstraction.** Although high flows are more common during the winter months, some catchments yield large quantities of water following summer storms. If the winter resource looks marginal, you could consider a year-round licence. You won't benefit from the 50% annual charge discount, but being able to take high-flow summer water may make the difference between a full or empty reservoir at the start of the irrigation season.

**Multi-year storage.** You can plan your reservoir design to collect water over several years to build up enough for irrigation.

**Water Trading.** You could arrange with a neighbour to pipe water directly from their licenced supply (which doesn't require a licence variation) or agree to a licence trade where they give up some of their licence so that you can add the water to yours. [Rules and conditions for trading are available on the Agency's website.](#)

**Collaborative schemes.** Some farmers are working together to develop local water supply systems like [Felixstowe Hydrocycle Ltd - a water supply and management company](#), where a group of farmers jointly own and manage a shared abstraction point and water distribution system. Contact your local Water Abstractors Group to learn more about collaborative schemes in your area.

## Help and specialist advice

Environment Agency 'Enhanced Pre-Application Service'.

The Environment Agency recognises that getting an abstraction licence can be complicated and stressful. To help you navigate the process, the Agency has set up an '[enhanced pre-application service](#)'. The Agency will tailor this service to meet your specific needs, but typically, it includes:

- Flow estimations for your location and an assessment of the likely feasibility of your proposed licence.
- Details of any information you will need to include with your application, such as [flow monitoring](#)
- Any significant issues you may need to resolve before you apply (e.g. eel screening or impacts on existing abstractors or nearby environmental sites).

Before starting work on your enhanced pre-application advice, the Environment Agency will contact you to confirm what information they can provide and agree costs and timescales.

Understanding whether your licence application is likely to succeed and what sort of information you will need to collect means you can make an informed choice at an early stage on whether to proceed or look for other options. Getting help before you apply also gives you the best chance of success.

How much does the enhanced pre-application service cost?

The Environment Agency charges £100 an hour plus VAT. Total costs will depend on the complexity of your proposal, but typically, they are less than £1,000 per application. The Environment Agency will give you a written estimate before starting work.

Specialist Consultants

You could consider employing consultants or an agent to apply for the licence and/or collect data on your behalf. Remember, this is a highly specialised role, so ask around or talk to your local Water Abstractor Group (WAG) or the UKIA before employing an advisor. There is no reason why you can't hire a consultant and take advantage of the Environment Agency's enhanced pre-application service simultaneously.

Grant Support

Grants to cover some of your reservoir construction costs are often available, e.g. the [Water Management Grant Round 2](#). These usually have a limited application window, and you **must** have an abstraction licence and any planning permissions **before** applying.

Other permits

Reservoirs Act

It is a legal requirement for owners and operators of reservoirs, where the volume of water held 'above the surrounding land' is 25,000 m<sup>3</sup> or more, to comply with the Reservoirs Act 1975. This is to ensure reservoir safety and to prevent flooding from an uncontrolled escape of water. See the [Guide for reservoir owners and operators](#).

If you own or build a reservoir bigger than 25,000 m<sup>3</sup> you must have the correct supervision from a registered panel engineer to construct, operate, repair and decommission the reservoir. Details are available on the Agency's websites; [All reservoir panel engineers: contact details](#). You must prepare an emergency onsite flood plan and report any incidents. If a panel engineer recommends safety measures, these must be completed within statutory deadlines. As the owner of a reservoir, you should be aware that under common law, you may be held responsible for any damage or injury caused by a failure and could face criminal prosecution if you fail to ensure reservoir safety.

Looking ahead

Environmental Permitting Regulations

The abstraction licensing system will be brought into the Environmental Permitting regulations within the next year or two. If you get a licence before the changeover, it will be carried over into the new system with no substantive changes. If you apply after the changeover, the same basic considerations will apply, but you may need to supply additional information, such as how you intend to manage your abstraction, and the permit will have slightly different conditions.

Reservoir safety reform programme

The Environment Agency is currently developing the Reservoir Safety Reform Programme in response to the recommendations in the [Independent Reservoir Safety Review Report](#) led by Professor David Balmforth. The programme will be delivered in a phased way over several years by the Department for Environment, Food and Rural Affairs (Defra) and the Environment Agency (EA). Their dedicated website will provide the latest information on the programme's progress. [See Reservoir Safety Reform Programme](#).