

# Summer advice for fishery managers

2024

## Act now to protect your fishery

Prolonged dry weather can negatively impact fish stocks and the fisheries they support. Where water levels fall and warm up faster, low dissolved oxygen levels can put fish at risk; especially during warm weather and where there's lots of aquatic plant growth. Fishery managers will likely be aware of the risks affecting their waters, but we hope this advice will serve as a useful reminder.

### Stillwater fisheries

- Think ahead and be prepared. Plan what to do in the event of an incident. Sharing your plans with colleagues, or with angling club members, will ensure they're aware and prepared to reduce the impacts of warmer weather incidents at your fishery.
- Be vigilant. Closely monitor water levels and look for any signs of fish in distress, e.g., fish gasping at the waters' surface. Visit the fishery early in the morning when dissolved oxygen levels are at their lowest – this is typically when you're likely to observe fish in distress. We recommend measuring the dissolved oxygen at regular intervals: 1). Dawn (when levels are their lowest); 2). Midday (when levels are typically their highest); and 3). Late afternoon / early evening (when levels begin to drop again).



- There's a direct relationship between temperature and dissolved oxygen: higher temperatures = lower oxygen, and lower temperatures = higher oxygen. This is because oxygen is more soluble in water at lower temperatures. Therefore, aim to record temperature alongside dissolved oxygen, where possible.
- As a rough guide, look to try and maintain minimum dissolved oxygen levels of 50% for coarse fish and 70% for trout. However, it's important to recognise that all waters are different.

To best track the dissolved oxygen 'rhythm' for your fishery, record temperature and dissolved oxygen 3x a day and make a note of the readings. Over time, you'll soon recognise what the 'good' and 'bad' levels are for your fishery. From these readings, you can then act accordingly (run aeration equipment etc.).

- If you think your fishery may be at risk of low dissolved oxygen (due to algal growth, low water levels or rising temperatures), be prepared and check that you have access to water pumps, aeration equipment and generators. You may be able to share equipment with a nearby fishery or you could make your own Venturi aerator with help from our [online step-by-step videos](#).

- Aquatic plants are often chock-full of invertebrates – natural food for your fish! If you need to remove excess plant growth, temporarily place it in small piles on the bankside, no further than 1m from the water's edge, and leave in situ for 24-48hrs – this allows any invertebrates to find their way back into the water. After this period, move the piles to another location onsite, where they can rot down



and be far enough away from the water, so any run-off doesn't pose a risk to dissolved oxygen levels. Cutting aquatic plants with a weed razor or scythe can be less problematic than dragging out plants and roots with a rake, as mobilised sediments can negatively impact dissolved oxygen levels.



- Don't remove too many plants, as their presence can push up water levels through displacement – this is an advantage during prolonged dry weather, when water levels are lower anyway. Maintaining a balance of aquatic plant growth provides essential dissolved oxygen during the longer, hotter summer months – essential for aquatic life. In some circumstances, maintaining fishable swims may be preferential to clearing vast areas.
- Floating plants such as duckweed can grow prolifically and if left unmanaged, can prevent oxygen from entering the water. Regularly net-off duckweed to allow the exchange of gases at the water's surface.

- To further help maintain water levels, repair leaking sluices or control structures. Ensure any work doesn't have unintended consequences on neighbouring watercourses.
- Consider restricting ground-bait, loose fish feed (pellets etc.) and liquid baits, to avoid a degradation in water quality. Feeding can also cause a temporary drop in dissolved oxygen levels.
- Maintain fish welfare. Minimise the use of keep-nets. If a match is planned, consider using multiple weigh-ins to avoid unnecessary stress to fish stocks.
- Avoid stocking fish during warm, dry weather. As water temperatures rise, water holds less oxygen. If stocking is necessary, consider delaying until cooler conditions are restored (when oxygen levels are higher), or stock in lower densities.
- If you need to stock your water with fish, please ensure your fishery is registered with CEFAS (Centre for Environment, Fisheries and Aquaculture Science) and that you have a site permit in place (obtained through our Fish Movements Team). Included on the site permit are conditions, which need to be complied with. This is designed to reduce the spread of fish diseases and invasive non-native fish species.
- Consider reducing your stock densities to avoid problems later. Periodically cropping prolific-breeding species such as roach, will allow improved growth rates in remaining fish (including larger, specimen fish), plus increased resilience to disease and improved water quality. Any fish that are removed should be restocked legally and without increasing the risk to the receiving water or be dispatched humanely. You may need an authorisation from us to remove fish from your water (other than by rod and line). Details of these permits can be found at <https://www.gov.uk/guidance/permission-to-move-live-fish-to-or-from-a-fishery>
- We may be able to provide aeration for affected waters. In exceptional circumstances, we may rescue vulnerable fish, if we can find somewhere safe to move them to and on the condition that the fish have been health-screened within the last six months. It may be beneficial to health-screen your stock prior to the summer season.
- Fish may be more vulnerable to fish diseases during warm weather and when they're stressed. Please report any suspected disease outbreaks to us immediately.



**Please note:**

- Please make sure you hold an abstraction licence if you are abstracting more than 20 cubic metres / day and comply with the conditions of your abstraction licence. For more information, please see <https://www.gov.uk/topic/environmental-management/water>.
- If you need to control aquatic plant growth, please remember you will need our agreement to use herbicides in or near water. You can find out more at <https://www.gov.uk/government/publications/application-to-use-herbicides-in-or-near-water>.
- **If you see any fish in distress or suspect a fish disease outbreak, please tell us immediately by calling our National Incident Hotline on 0800 80 70 60.**



**For further information**

Please contact your local fisheries team by calling 03708 506 506 (Mon-Fri, 8am - 6pm) if you'd like advice or assistance.

For the current water situation in your area, please visit our website:

<https://www.gov.uk/government/collections/water-situation-reports-for-england>

Thank you for your support in helping us minimise the impacts of the dry weather.

**Environment Agency Fisheries team**