

# GALLOWAY HYDROS PUBLIC SAFETY FACTSHEET

## Overview

The Galloway Hydros has been generating green electricity for the grid since 1935. Its six power stations are fuelled by the energy from fast flowing water.

While people enjoy walks and leisure activities around the rivers, lochs and reservoirs that surround our power stations, our key concern is public safety. Electrical equipment and water can both be very dangerous, so it is important to act responsibly when you are near them. Always obey any warning notices – they are there to protect you from harm.



## Be Aware of the Dangers of Playing Near Water

The Galloway hydro-electric scheme is surrounded by rivers, lochs and reservoirs. These are lovely to look at but they are not safe areas – especially for children who are unaccompanied by an adult.

Sadly, drowning remains a major cause of accidental death. The latest available UK figures, compiled by the Royal Society for the Prevention of Accidents (RoSPA) and the Royal Life Saving Society, show that around 405 deaths in 2009 could be attributed to accidental drowning, with 59 fatalities among the under 19s. Some 53% of accidental drownings occurred at inland water sites, such as rivers and reservoirs. Tempting though it may be to cool off on a hot day with a swim or row on the river, the waters around hydro-electric power schemes can be dangerous. For example, a river may look safe, but when the turbines in the power station start up, or sluice gates open, the calm, slowly-moving stream can turn in to roaring white water within seconds, putting anyone downstream in danger.

Likewise, shallow water can become deep, very quickly and without warning. When water is released from a power station, or into a spillway from a dam, the fast-flowing water creates turbulence and strong currents that could very quickly pull a person – or a pet – under water.

The power stations and dams at Galloway are controlled remotely by operators at Glenlee Power Station, which may be many kilometres away from other stations in the scheme.

Depending on the amount of water available, and the demand for electricity, sluice gates on weirs or dams are opened and closed and power station generators are turned on and off – causing water to gush suddenly and fiercely, resulting in a rapid change in water levels.

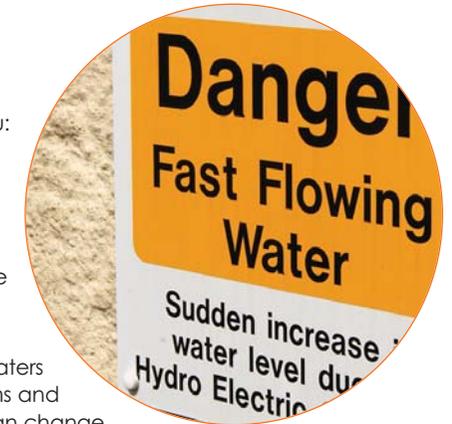
Even long-term storage reservoirs, where the water levels are relatively stable, can be dangerous to swim in. It can be difficult to estimate the depth of the water and the very cold water can reduce your stamina and strength. In addition, the bed of the loch and the banks can be very slippery, making it difficult to get out of the water.

If you are outside, near water – be aware of the dangers. Look for warning notices, power stations and dams. Don't put yourself in a risky situation. Children should never play near water without adult supervision.

## Tips to Stay Safe

To stay safe near a hydro-electric power station or dam, make sure you:

- Abide by all warning notices and do not cross fences and barriers – they are there to protect your safety
- Never interfere with safety equipment such as lifebelts – they are there for your own safety and that of others
- Stay well back from the edge of waters above and below hydroelectric dams and power stations, as the water levels can change suddenly. Anglers should not use these areas – and should certainly not wade
- Never stand or use a boat in water below a dam or power station. Even fairly dry river beds can change quickly into rapidly flowing torrents
- Adults should always supervise children near water and tell them where they can and cannot go
- Take care of dogs around water – remember, they can be swept away by strong currents too.



From top: Pullaugh Burn intake, Kendoon Station (where Water of Deuch meets Water of Ken),

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## Don't Mess with Electricity

Electricity is essential for modern day life. But it is also a very powerful force that can kill if you do not treat it with respect.

Each year many people suffer tragic accidents involving electricity from overhead lines and substations.

Electricity can jump large distances from exposed highvoltage electricity wires or conductors – so stay safe and keep your distance.

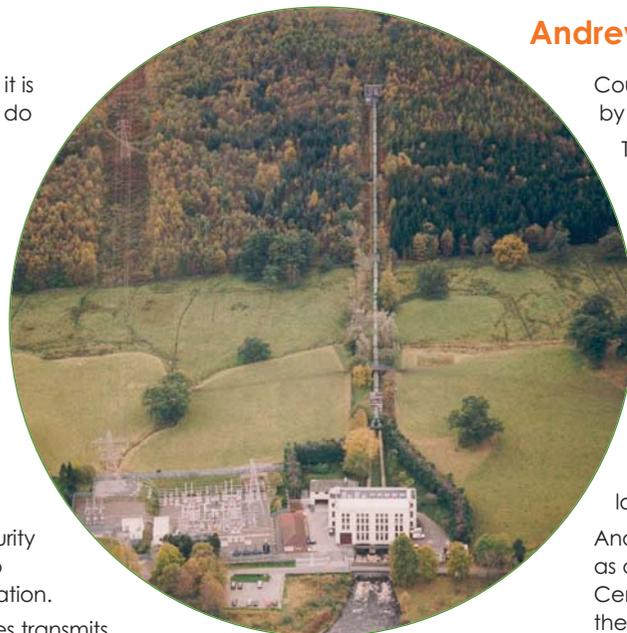
The Galloway hydro-electric scheme is served by electricity substations at Tongland, Glenlee, Kendoon, Earlstoun and Carsfad that step up the electricity output from the power stations to 132,000 volts.

The substations are protected by a high security fence to keep out people. Never attempt to retrieve an item, such as a ball, from a substation.

Meanwhile, a system of overhead power lines transmits power across the region. Most electricity lines are uninsulated and if contact – or even near contact –

is made it can result in a serious shock. So always look around before starting any activity – such as fishing, sailing or erecting tents – and move away if there is a danger of accidental contact. For more information on electrical safety, including posters and a link to ScottishPower's

Powerwise site for kids, visit: [www.powerwise.org.uk](http://www.powerwise.org.uk)



Glenlee Power Station

## Andrew Helps to Keep Visitors Safe at Loch Ken

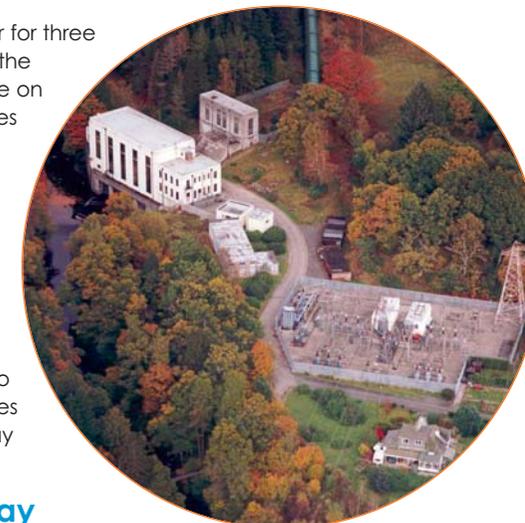
Countryside Ranger Andrew Blunsum helps ensure the safety of visitors to Loch Ken in a role funded by Dumfries and Galloway Council.

The loch, part of the hydro-electric scheme, is a popular venue for water sports with four marinas and activity centres offering sailing, boating, wind surfing, water skiing and kayaking.

Loch Ken is also one of southwest Scotland's most popular coarse fishing waters, attracting many anglers.

Andrew, who has been the Loch Ken Ranger for three years, said: 'There's always some activity on the waters. "My main duty is to help keep people on the loch safe and ensure they stick to the rules set out by the Loch Ken Advisory Management Committee. 'It's an active role and involves getting out there, talking to people and trying to manage issues on the loch so that everyone has fun but stays safe.'

Andrew is a familiar face to many schoolchildren as a leader at the refurbished Tongland Visitor Centre. He presents a safety briefing that covers the risks of playing near water, especially near hydro structures. Also as part of his duties Andrew manages the Ken Salmon Hatchery on behalf of the Galloway Fisheries Trust.



Kendoon Power Station

## More Advice on Safety at Galloway

Hydro Power is important to you – and your safety is very important to us. For more information about water safety, including factsheets giving rescue techniques, visit RoSPA's website at: [www.rospa.com/leisure\\_safety/water/index.htm](http://www.rospa.com/leisure_safety/water/index.htm)

The Galloway Hydros has produced a DVD that focuses on public safety at its sites as part of a Schools Education Initiative. The disc has been distributed to many schools in Dumfries and Galloway, East Ayrshire and Lanark. The DVD is available to other schools and youth groups free of charge. To request a copy, email us at: [visit.hydros@scottishpower.com](mailto:visit.hydros@scottishpower.com)

The Galloway Hydros also reinforces public safety messages to schoolchildren through the Tongland Tour. For many years, pupils from 21 schools in Dumfries and Galloway area have been shown around Tongland Power Station and given information on issues such as energy production, environment and the dangers posed by water and electricity.

Other groups can apply to visit Tongland Visitor Centre by emailing us at the address above.

## An Active Working Site

Six stations, eight dams, plus tunnels, aqueducts and pipelines make up the Galloway Hydros.

Members of the public are reminded that these are part of an active working power station with inherent risks such as heavy plant movements. No-one should enter a station compound or dam structure without permission. Station staff can advise on access issues, as necessary.



Tongland Power Station

## Do's and Don'ts

DO keep away from overhead power lines and substations

DON'T climb electricity pylons, electricity poles or trees near power lines

DO obey warning notices on electrical equipment

DON'T enter a substation – even to retrieve a ball

DO inform ScottishPower if electrical equipment looks damaged

DON'T fly kites or use fishing rods close to power lines

DO a visual safety check for overhead lines before starting any activity

DON'T throw things at electrical wires or equipment