



Our Commitment

We will engage actively with SEPA and other relevant authorities in the development of Scotland's River Basin Management Plans to ensure that a sustainable and good quality water supply, on which the industry critically depends, is maintained.

Water Stewardship

Distillers take stewardship of the water environment seriously. We need pristine water supplies to make whisky. Our focus is on consistent supply of good quality water, obtained without detriment to other users. Used water must be safely returned to the environment.

SEPA controls water abstractions and discharges and the industry is committed to full compliance with the conditions of its licenses. We are taking an active role in the delivery of the Water Framework Directive through the National Advisory Group and area advisory groups.

Working closely with SEPA, regular awareness raising visits are organised and water management issues discussed. Through our participation in Scotland's River Basin Management Plan, a programme of measures is being developed, including improved water efficiency, treatment, and improvements to habitats and morphology.

Distilleries have water monitoring plans, with many installing equipment to monitor abstraction impacts. Several distilleries participated in a pilot to assist SEPA in developing its policy on abstraction regulation. Groundwater might be better managed, for example, by matching actual abstracted volumes to process demand. This will reduce the amount taken, and pressure on groundwater resources.

Area Manager - West Area North, Andy Rosie, said that SEPA was very pleased with the Industry's commitment to working in harmony with the high quality environment in which they operate, and to work in partnership with the environmental regulator on a range of initiatives to build a strong understanding of each others concerns and requirements.

Water Efficiency

Water is a valuable resource. We are committed to using it efficiently.

Diageo's Leven packaging plant has picked up a prestigious Business Environment Partnership award for innovative work on the efficient use of water. Potential reductions of 222,000 litres of water per annum were identified through more efficient 'Clean in Place' (CIP) procedures for vessels and pipes between bottling runs. Since 2006, the Leven plant has reduced its water consumption by 12%.

The water recovery plant at Diageo's new Roseisle distillery will meet 95% of the distillery's demand.

At Chivas' bottling, blending and warehousing site at Dumbarton, a commercial vehicle washing plant has been installed to ensure efficient use of recycled water. Sustainable drainage systems can also help manage surface water, for example from storage areas.



Roseisle's pond

Managing Effluents Responsibly

Copper stills are essential to whisky, uniquely influencing the spirit's character. Above certain levels, however, copper may be harmful to aquatic animals and plants. The industry works hard to minimise copper presence in discharges and it is essential to maintain that commitment.

Working with Living Water, Wm Grant's Glenfiddich distillery in Dufftown has installed a natural, gravity-fed ecological treatment system. The plant achieves overall biological removal efficiencies in excess of 95%. The effluent has residual copper levels of less than 0.5 parts per million. As a Special Area of Conservation designated by Scottish Ministers, such actions are vital to protect the River Fiddich.

The ecological system is planted with 16 native species of wetland plants and willow trees, which bind copper onto their roots, rhizomes or woody material, thus preventing its release into the environment. Deer, ducks, foxes and red-legged partridges have all been spotted in the area. Similar wetlands have been developed at Benrinnes (Diageo) and Glenallachie (Chivas Brothers) distilleries.

The Edrington Group's The Macallan distillery has installed an alternative technological solution to the same issue. Its ion exchange system - the result of a local industry demonstration project - removes copper from discharges. Spent lees from the stills are settled, passed through sand filters and two resin ion exchange columns. Copper ions from solution are exchanged for similarly charged ions attached to the immobile solid resin in the columns. The dissolved copper



concentration in the spent lees is reduced to just a fraction of its original concentration at 0.2 parts per million. Recovered copper is used as a preservative for fence posts, whilst the resin can also be re-used.

The collaboration demonstrated what can be achieved when companies work together to achieve economies of scale but also that the technology is only viable where effluent volume is sufficient. The challenge is now to develop the technology cost effectively for smaller single distillery volumes.

