

	CONSERVATION	1
	FARMING	3
	WOODLANDS	3
	FISHFARMING & FISHERIES	4
	MARINE	4
	POLITICS & PARLIAMENT	4
	GENERAL ENVIRONMENT	5
	ENERGY	6
	RECREATION & TOURISM	7
	NEWS OF ORGANISATIONS	8

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CONSERVATION

BEAVERS

The Scottish Government has announced measures to protect beavers ahead of any decision on the long term future of the species in Scotland.

The environment minister, Dr Aileen McLeod, confirmed that with complex issues still under careful consideration, a final decision on beavers within the context of Scottish wildlife and land management will be taken later this year.

In recognition of interim welfare concerns regarding beavers, the Scottish Government has been working closely with Scottish Natural Heritage (SNH) and senior animal health experts to provide advice to farmers and land owners impacted by the animals [Feb 16]. This includes:

- Providing information on the beaver breeding season to further address issues regarding the harm of pregnant or lactating beavers with dependent young
- The possible use of Nature Conservation Orders, where evidence emerges that welfare concerns are being ignored
- Continuing to advise on mitigation and alternatives to lethal control wherever possible
- When there are no other practicable options, making information available on the most humane methods of lethal control.

Nature Conservation Orders (NCO) are made under the Nature Conservation (Scotland) Act 2004 and can be used to prohibit specified actions, such as shooting beavers. Breach of a NCO is a criminal offence.

Jeremy Peat, chairman of the trustees of the Royal Zoological Society of Scotland, had written an open letter to Dr McLeod to express profound disappointment at the delay in a decision being made on the future of the beaver in Scotland.

Lindsay Mackinlay, of The National Trust for Scotland, said: "The conservation sector has been waiting for a decision on this issue since last year and we are disappointed it has taken so long. While we welcome this interim reassurance, a final ruling is overdue and we would urge any incoming Scottish ministers to resolve the matter, this summer at the very latest."

Harry Huyton, of OneKind Scotland, said: "This weak response further delays a decision on the future of Scotland's beavers until after the elections and will do little to protect them from continued persecution in the meantime. The revelations earlier this year that pregnant and lactating beavers were being killed and that inappropriate firearms and munitions were being used were shocking. They demanded an immediate and firm response, but instead the Scottish Government have merely offered further advice to land managers who are affected by the animals."

Duncan Orr-Ewing, of RSPB Scotland, said: "We are extremely disappointed by this further delay in ratifying the presence of Eurasian beavers in Scotland. Whilst we fully understand that safeguards need to be in place to deal with the concerns of some land managers, there is widespread experience on how beavers and humans can successfully co-exist, including on or adjacent to farmland. The Scottish Beaver Trial concluded its work almost a year ago and carried out an exemplary evaluation of the likely benefits

and costs of beavers returning to Scotland, and we see no reason why the government has delayed this important decision further. The situation of unregulated culling and an absence of coordinated management support will now continue until after the election, to the detriment of the environment, landowners and of course the beavers themselves. We encourage the new or re-appointed minister to endorse the return of this iconic species to our rivers and lochs as soon as possible after the election."

Jonny Hughes, of the Scottish Wildlife trust (SWT) said: "[SWT] knows there are proven and well established techniques for reducing any local impacts beavers may have on farmland. Such techniques are successfully deployed in lower lying areas of Europe such as Bavaria where beavers number in the thousands, rather than the dozens we have in Scotland. We cannot understand why these management issues are considered so 'complex' by the Scottish Government. Over 20 other European countries have already welcomed beavers back as a native species and manage their impacts just fine. SWT stands ready to work constructively with the Scottish Government to ensure beavers and landowners can thrive happily alongside one another in the future."

NATIONAL PARKS

A new report, *Tourism and Future National Parks in Scotland*, has been published by the Scottish Campaign for National Parks and The Association for the Protection of Rural Scotland (APRS) [Dec 15]. Written by Graham Barrow, the report argues that growing the network of Scottish National Parks would boost the number of UK and international visitors to Scotland and generate much needed additional jobs and income in rural Scotland, particularly in some of the more fragile and remote areas.

John Mayhew, of APRS, said: "Remoter communities in rural Scotland would greatly benefit from the year-round increase in visitor spending which more National Parks would bring and, importantly, bringing in more National Parks could ensure that this growth takes place without harming the precious landscapes that visitors come to see."

The report presents said that international visitors actively seek out National Parks. Many national tourism websites actively promote National Parks as a key component of their marketing offer, but they are less prominently featured on the VisitScotland website, possibly because Scotland only has two National Parks.

See: <http://bit.ly/1UIQAft>

MOUNTAIN HARES

The Sunday Herald reported that photographs taken near the Lecht, between Cock Bridge and Tomintoul in the Cairngorms National Park, showed a pick-up truck full of 'hundreds' of dead mountain hares along with 20 armed gamekeepers and more than 12 off-road vehicles.

SNH called for voluntary restraint on large culls which could jeopardise the conservation status of mountain hares [Dec 14]. A coalition of conservation groups demanded a three-year ban on all culling until proper safeguards to protect endangered hares were in place [Apr 15].

Landowners legally cull hares in the belief it helps protect grouse from louping ill disease, and ensures that there are more birds available to be shot for sport. The closed season is from 1 March to 31 July.

Tim Baynes, of the Scottish Land & Estates (SLE) moorland group, said: "We are deeply concerned that once again an ill-informed attempt is being made to discredit the legitimate culling of mountain hares." He said that culls were necessary where numbers are high.

Adam Smith, of the Game and Wildlife Conservation Trust, said that it would be wrong to conclude the call for restraint was being ignored. He said that, without knowing details, it was possible the dead hares in the photographs were 'part of a sustainable harvest.'

Rob Raynor, of SNH, said: "Until we have more accurate information on hare densities and population trends in these areas, doubts remain over the long-term sustainability of such culling." He said that it was 'questionable' that restraint was being shown. SNH aims to improve its population estimates of mountain hares by 2017, and reiterated its call for restraint on large-scale culls. It was difficult to judge whether the culls shown were excessive or not.

The Cairngorms National Park Authority (CNPA) published a statement on its website which said: "CNPA has previously set out concerns about the balance of moorland species and habitat management and the need for better data on mountain hare populations is part of this. Observation suggests there is a good population of mountain hares in the Cairngorms and the managed moorlands provide a good habitat for them. We back the current research project which is working with estates in the National Park to establish better counts. In this case, we understand the hare cull was part of a planned annual management cull. We recognise the public concern about the scale of culls and this emphasises the need for good information on populations and restraint in line with SNH's advice in the meantime. In particular we expect moorland managers to ensure any culls do not threaten the conservation status of mountain hares." See: <http:// Cairngorms.co.uk/mountain-hare-cull-statement>

Doug McAdam, of SLE, writing in *The Sunday Herald*, said that mountain hares can affect fragile habitats through grazing pressure, can spread sheep tick which also affects red grouse, and can cause the failure of tree-planting schemes. He said that mountain hare culls are to conserve the open heather habitat, and are 'properly organised and humane.' The culls don't take place every year; when they do they are proportionate, typically reducing the population by 10-20% maximum. He claimed that mountain hare culling is no different to deer culling.

• *The Sunday Herald* reported that there is an accusation that there were two additional culls of hares in February, involving three estates within the Cairngorms National Park, including Delnadamph, part of the Balmoral Estate. One cull was said to have killed 500 hares.

Ecologist, Dr Adam Watson, said that mass killings are in breach of European law because they are indiscriminate and damage the animals' conservation status.

Hamish Trench, of Cairngorm National Park, said that the balance between management for grouse and other wildlife needed to be 'reset.'

Tim Baynes, of SLE's Scottish Moorland Group, said: "Culling has indeed taken place in the Cairngorms but has been done at all times legally, in accordance with best practice and as per the agreed protocol."

The *Raptor Persecution Scotland* blog reported that SLE claimed that hare populations are 'assessed' prior to the cull, although no population figures either pre or post-slaughter have been seen.

WILDCAT HAVEN

The *BBC News* website reported that the Wildcat Haven in the West Highlands has been extended by 300 square miles, to a total of 800 square miles [Sep 15]. The zone now covers Ardnamurchan, Sunart, Morvern and Moidart and it is hoped to extend the haven towards Fort William. The Wildcat Haven project said that the area had been expanded by being able to neuter 100 local domestic cats. Breeding with pet and feral cats is among the most serious threats to wildcats as it results in hybridisation and also exposes them to diseases.

COMMON SCOTERS

The *BBC News* website reported that common scoters, *Melanitta nigra*, breed at only a few locations in the Flow Country of Caithness and Sutherland and in lochs near Inverness. The population of the ducks has been declining rapidly: a key cause is now thought to be rising numbers of brown trout which eat freshwater insects, the ducks' main food source. RSPB Scotland is concerned that the bird could become extinct locally because of poor breeding; there are currently only around 30 breeding pairs. The last official count was in 2007, when there were 52 breeding pairs. Many scoters nest in legally-protected nature conservation sites and there appears to be plenty of suitable habitat for them.

The three-year common scoter project was supported by SNH, the Wildfowl & Wetlands Trust and The Conservation Volunteers.

SKUNK CABBAGE

The Herald reported that American skunk cabbage, *Lysichiton americanus*, a non-native invasive plant, is spreading across Scotland. It has been recorded in Dumfries-shire, on the River Tweed, in the Highlands, Argyll and the Central Belt. The ornamental plants grow vigorously in damp areas such as wetlands and ditches, and can grow up to five feet high, choking other aquatic life.

BUTTERFLIES

The annual UK butterfly monitoring, led by Butterfly Conservation and the Centre for Hydrology & Ecology, has established that three species of butterfly are in sharp decline in Scotland. Once common, the numbers of large white were down by 71%, the grayling fell by 20% and the small blue by 74% compared to 2014. The small copper butterfly's numbers also fell by almost 25% compared with 2014. Relatively poor weather in recent years has seen a decline in butterfly populations, along with widespread loss of meadow habitat.

SEABIRD INDICATOR

The latest seabird indicator for Scotland has been published by SNH. Breeding success varied among the 13 species assessed. It was higher than the long-term (1986 to 2013) average for seven species: Arctic skua; Atlantic puffin; black-legged kittiwake; common tern; herring gull; little tern; and northern gannet. Three species had lower breeding success than the long-term average: great skua; lesser black-backed gull; and Sandwich tern. Finally, three species had breeding success in 2014 around the long-term average: Arctic tern; common guillemot; and northern fulmar.

The overall numbers of seabirds are still much lower than two decades ago. Some species continue to decline and are struggling in some areas, such as kittiwakes in the Northern Isles.

From 1986 to 2014, the mean numbers of breeding seabirds has declined overall by 38%. The largest declines have been for Arctic skua, declining by 80% from 1986 levels, black-legged kittiwake (71%) and European shag (54%). Black guillemot largely remained stable over the period 1986 to 2014, with recent surveys showing that some sites even have increasing numbers.

Although the long-term declines are serious, the 2014-15 results are encouraging. On the Isle of May, the Centre for Ecology & Hydrology (CEH) found that 2015 was above average for all study species, with kittiwakes and shags having a particularly productive breeding season; the second consecutive year for kittiwakes after a number of poor years. The last few winters have seen a return to slightly cooler winter sea temperatures in the North Sea which is thought to have been beneficial for sandeels, the preferred prey of many of the seabirds.

The seabird indicator was prepared using data from the Seabird Monitoring Programme – a partnership project, led and co-ordinated by the Joint Nature Conservation Committee.

See: www.snh.gov.uk/docs/B424907.pdf

LANGHOLM PROJECT

The Langholm Moor Demonstration Project (LMDP) board of directors have confirmed that the project will continue until October 2017, with important changes to the management of the moor [Feb 15]. The directors acknowledged significant project successes in recovering heather habitats, stimulating black grouse numbers and demonstrating the role of diversionary feeding in reducing hen harrier predation on red grouse broods. The many and varied visitors to the project have illustrated the contribution of LMDP to demonstrating good moorland practice. The hard work of the keeping team was central to these results, with valuable support from the project science and volunteers.

However, the directors agreed that with no realistic chance of reaching the target grouse density necessary for driven shooting, game keeping should be wound down, ending fully by April 2016. As well as the cessation of traditional keeping activities, there will be no diversionary food provided at the harrier's nests or further novel habitat restoration. SRDP funded habitat management measures will continue through Langholm Farms.

The project will carry out another full year and half of monitoring, tracking habitat quality, numbers of moorland birds and the breeding success of the hen harriers over the 2016 and 2017 breeding seasons. This gives the project time to gather further information on the beneficial effects of moorland management, while the project scientists finalise a variety of reports.

The *Raptor Persecution Scotland* blog states that the target density for red grouse in the current Langholm project has been set at 200 birds per km², rather than the standard 60 birds per km² stated by the grouse-shooting industry as being the suitable target density required for driven grouse shooting to take place.

BIG GARDEN BIRDWATCH

The *BBC News* website reported that 626,335 birds were counted across Scotland during the 37th RSPB Big Garden Birdwatch in January. House sparrows, chaffinches and starlings were the most common birds. 34% of gardens recorded a long-tailed tit compared to 12.9% in 2015, which is being attributed to the milder winter and more insects; there were also more great tits and coal tits recorded. However, starlings and song thrushes continued to decline in numbers.



FARMING

AGRICULTURAL SURVEY

Scotland's chief statistician has published the latest results from the December Agricultural Survey. The area of winter-sown crops in December 2015 was down on last December at 191,000 hectares, with 6,400 hectares less oilseed rape, 3,000 hectares less barley and 2,400 hectares less wheat, partially offset by 900 hectares more oats.

Cattle numbers rose marginally, by 0.3%, to 1.74 million. There was a slight increase in beef cattle and a slight decrease in dairy cattle, though dairy cow numbers still increased. December sheep numbers increased by 1% to 4.96 million.

In the poultry sector, an increase in the number of layers and breeders, and a small recovery in the number of broilers resulted in a 13% increase in the total, to 13.4 million. There are now more layers in Scotland than broilers, for the first time. Pig numbers continued to rise, with a 2.7% increase to 331,000, driven by an increase in the breeding herd.

The results also show that the amount of grass and arable silage saw increases in 2015, but hay production fell. See: www.gov.scot/stats/bulletins/01205

GREENING

The Scottish Farming Leader reported that the Scottish Government has published the revised *2016 Greening Guide* and issued changes to the requirements for permanent grassland from 2016 [Dec 15]. The mandatory incorporation of Ecological Focus Area green cover has been dropped, but an additional requirement for farmers to complete annual nutrient plans on permanent grassland has been added. Permanent grassland is land used to grow grasses or other herbaceous forage, either naturally (self-seeded including rough grazing) or through cultivation (sown) which is more than five years old.

All unimproved semi-natural areas are already protected by the Environmental Impact Assessment (Agriculture) (Scotland) Regulations 2006; these grasslands cannot be improved without first determining whether an Environmental Impact Assessment (EIA) is required.

All farmers and crofters, including those farming organic land, are required to comply with EIA and cross-compliance rules regarding ploughing of permanent grassland. If the land is in a Site of Special Scientific Interest then requirements that apply to grassland habitats on the site must be observed.

From 2015, the regulations require that the ratio of total permanent grassland compared to the total agricultural area declared in Scotland must not decrease by more than 5%. The maintenance of this ratio is monitored at a national level. If there is any reduction, then the Scottish Government will take action to increase the area of permanent grassland. Farms may not convert or plough permanent grassland designated as Environmentally Sensitive Grassland (ESG) on their holding. In Scotland, ESGs have been defined as NATURA designated sites where land managers will already be bound by existing specific management agreements to ensure that they are protected and managed sympathetically.

The Scottish Government has decided to go beyond the EU standard greening requirements for permanent grassland to help mitigate climate change. Farmers and crofters will be required to maintain an annual record of their applications of inorganic nitrogen fertiliser and lime for fields of permanent grassland and open grazed woodland, providing that the parcel does not contain areas of arable and/or rough grazing.

NFU Scotland is still pressing for further changes to the greening rules, such as the problems caused by the prohibition of normal methods of weed control including potato ground keepers, and to conduct drainage on land during the fallow period. See: <http://bit.ly/1SXNTJD>

BIRD FLU

An investigation into an outbreak of bird flu, which broke out on a Fife poultry farm, has reported that the most likely cause was indirect contact with wild birds [Jan 16]. No other cases have been reported. Scotland's chief veterinary officer, Sheila Voas, said that the outbreak was mild, and tests found it to be a different strain of H5N1 to those previously seen on the continent. Infections like this constantly circulate in wild bird populations at a very low level, and therefore remain a constant, low-level threat to poultry.

PESTICIDES

The Sunday Herald reported that the European Commission is considering tougher measures on pesticides which are suspected by the World Health Organisation to be 'endocrine-disrupting.' However, Scottish farmers fear that up to 40 pesticides could be withdrawn. An email from officials to Scottish Government minister, Richard Lochhead, released under freedom of information laws to *The Sunday Herald*, said: "Industry is concerned by Europe using hazard rather than risk-based assessments since this will remove many pesticides currently in use in Scotland. Removing of these pesticides would be most significant for horticulture." They asked that no pesticides be removed from approval before conducting a full impact assessment.

However, NFU Scotland said: "This is a hugely important and complex issue, and it is essential that current deliberations at an EU-level are given the time and space to come to the most robust and balanced outcome. Any calls for unilateral action here in Scotland would be highly irresponsible."

• Research by Penelope Whitehorn of Stirling University, published in the *Journal of Insect Behaviour*, shows that how bees feed is more complex than previously thought and has added to concerns about the impact of neonicotinoid pesticides [Feb 16].

LEWIS & HARRIS GEESE

Scottish Natural Heritage (SNH) has extended the licensed shooting of greylag geese on Lewis and Harris until 16 April; it was due to finish on 31 March. The pilot extension will help volunteer hunters to meet the Lewis & Harris goose management pilot's agreed cull target for 2016.

The pilot aims to reduce agricultural damage crofters and farmers experience by reducing the size of the greylag goose population in a controlled and co-ordinated manner. Licences may also be issued to anyone who is interested in undertaking egg oiling as part of the scheme.

The management pilot, now in its second year, has been developed by a local goose management group with support from SNH and the Scottish Government's Rural Inspections & Payments Department.

FUTURE OF SCOTTISH AGRICULTURE

The public consultation on the Scottish Government's paper, *The Future of Scottish Agriculture* has ended.

The Scottish Crofting Federation (SCF) said: "The lack of reference to crofting in the document is glaring and quite shameful. Crofting is regarded by other nations as a model for sustainable land use, satisfying many international objectives for food production, land use, rural community development and nature conservation, yet the

Scottish Government 'vision' barely mentions crofting in passing. SCF does not share the Scottish Government support for an outdated, profit-oriented, unsustainable model of industrial agriculture. It is time for change. In the next draft of the *Future of Scottish Agriculture* we therefore hope to see far more reference to crofting, small-scale food production, shared land use, High Nature Value farming and delivery of public goods. The government vision is hung-up on profit; it is mentioned fourteen times in the document. There appears to be little understanding of the wider picture. Agriculture is about land-based culture, not just about making profit."

Fiona Mandeville, chair of SCF, said: "Despite successive ministers for crofting giving assurances that the Scottish Government is very supportive of crofting this doesn't seem to be shared by those who make agricultural policy. Crofting is mentioned in only one of the nine outcomes in the consultation. Crofting plays a vital role in the supply of high quality replacement stock and store animals, in maintaining High Nature Value landscape and in retaining vibrant rural populations. But despite the huge contribution crofting makes, it is hardly recognised in this top-level document."



WOODLANDS

NATIONAL FOREST ESTATE

A Forest Enterprise (FE) Scotland report, *The economic contribution of Scotland's National Forest Estate*, has been published. The first comprehensive economic assessment shows that the forest estate generates £395m every year for the Scottish economy; forestry and timber processing accounts for £285m and tourism and recreation £109.6m. 11,015 jobs are also supported through activity on the estate; forestry and timber processing provide 7,225 jobs and recreation/tourism 3,790. Around nine million visits are made to the estate each year, generating nearly £110m for the visitor economy.

The estate now covers 650,000 hectares (9% of Scotland's land area) and is managed by FE Scotland on behalf of Scottish ministers. FE Scotland generates around 80% of its income through activities on the estate, mainly through timber supplies but also through renewables development, venison and property sales.

See: <http://scotland.forestry.gov.uk/nfe-economic-contribution>

WOODFUEL

Forestry Commission (FC) Scotland commissioned a report on *Woodfuel Demand and Usage in Scotland*. The total of woodfuel used in 2014 rose to 1.1 million oven dry tonnes (odt) – an increase of 361,000 odt since 2012, largely due to the introduction of six large schemes. However there is also an increase in smaller-scale boilers. The cut in CO₂ emissions was 1.3 million tonnes.

The success of the Renewable Heat Incentive and its impact on local woodfuel supply is monitored, and an insight given into likely future levels of demand for timber. The data is also used to inform policy around the management of Scotland's forests.

Woodfuel accounted for over 90% of the total renewable heat output in 2013 & 2014 in Scotland, with an estimated contribution to the Scottish Government's renewable heat targets of 2,036k megawatt hours [MWh] (2013) and 2,744k MWh (2014). See: <http://bit.ly/1Mr3B04>

TIMBER TRANSPORT

An additional £2.85m for the Strategic Timber Transport Fund for 2016/17 has been announced by the Scottish Government, continuing the work of this scheme over the past ten years. The fund aims

to help develop projects that offer environmental and community benefit by taking timber lorries off public roads. Every year, around 600,000 lorry movements transport 7.5 million tonnes of sustainable timber from Scotland's forests to market. The fund supports projects that create in-forest roads, by-pass routes and additionally funds improvements to minor public roads, the development of rail freight and Timberlink ships.



FISHFARMING & FISHERIES

SOLWAY HAAF NETTING

Richard Lochhead, the environment secretary, told Holyrood's rural affairs committee that Marine Scotland would work with Solway haaf-netters on a scientific project that would still allow them to take some salmon [Feb 16]. The netters would count the number of fish and so improve the knowledge of conservation issues. Mr Lochhead said that he was looking to widen the science focus to include more specific work on the impact on 'cultural activities.' Details will be revealed before the haaf-netting season opens later this year.

The Herald reported that proposed new Scottish Government regulations on the killing of wild salmon would have ended the Viking method of haaf-netting in the Solway [Feb 16]. Annan fishermen wade into the firth with homemade nets before dispatching fish with a mallet. The killing of salmon is to be banned through a blanket catch-and-release policy. The exemption for the haaf fishermen is on historic and cultural grounds. English agencies allow exemptions to netters on the other side of the Solway.

There is no mortality rate for fish caught then released through haaf-netting, while 10 to 20% of fish die after being caught with a hook then set free. The traditional fishermen argued that they should be able to keep the same number of fish which anglers inadvertently kill in catch-and-release. A government spokeswoman said: "Under the Conservation of Salmon (Scotland) Regulations 2016, the River Annan has been assessed as a having a poor conservation status. It is, however, a category three area and the haaf-netting activity can continue under catch-and-release."

SPEY DAM

The Scottish Environment Protection Agency (SEPA) has re-classified the Spey Dam as a 'barrier to fish passage' in the River Basin Management Plan for Scotland; both the structure and the area above the dam were classified as 'poor.' This designation places an obligation on SEPA to find a solution to the long-standing problems caused by the obstacle to salmon migration. The dam and reservoir are ten miles southwest of Newtonmore at the upper-most part of the Lochaber Hydro-Electric Power scheme, owned and operated by Alcan. The Spey Fishery Board said that since the dam was built 70 years ago, it has severely curtailed access by salmon to the extensive spawning above.

LUCE BAY

The Sunday Herald reported that Scottish Environment LINK wrote to Marine Scotland concerning a decision to permit scallop dredging in the Luce Bay & Sands Special Area of Conservation (SAC) on the edge of the Solway Firth in Galloway [Jun 15]. The bay designated as an SAC because of its endangered purple-pink maerl beds, brittlestars and hundreds of other marine species. Dredging is to be allowed in three

zones, covering almost a third of Luce Bay for four months from November each year.

The letter claimed that fisheries management measures for Luce Bay will expose areas of the seabed to potential damage by scallop dredging at certain times of year and questioned whether the government's scientific evidence was sufficient to ensure that no damage would occur. There was also evidence of an underwater reef, a rich habitat for marine wildlife, to the west of the bay that could be at risk. Dredging should be totally prohibited in all the conservation area as it could damage sugar kelp, red seaweeds and numerous molluscs.

LINK raised concerns that allowing dredging in part of Luce Bay risked the site failing to meet its conservation aims. Calum Duncan, of LINK's marine group, said: "The overall integrity of Luce Bay SAC – the degree to which the complex mosaic of habitats are suitably protected and provide mutual resilience to change – remains at risk, particularly where scallop dredging is still allowed over sensitive habitats."

Bertie Armstrong, of the Scottish Fishermen's Federation, said: "These management measures in Luce Bay are the agreed end-result of a much discussed and lengthy consultation process involving all stakeholders, including environmentalists. They meet the statutory requirements of protecting valuable marine features whilst at the same time supporting sustainable economic activity. Scottish fishermen support marine protected areas provided they are designated on an evidential basis. Zonal management, as applied in the case of Luce Bay, will ensure both the protection of the marine environment and of fishermen's livelihoods." He said that the new arrangements were a 'satisfactory compromise.'



MARINE

HUMPBACK WHALE

The BBC News website reported that a dead humpback whale was washed up on the Isle of Barra in the Western Isles. The 7.9 metre juvenile male was discovered at Traigh Hamara. A Scottish Marine Animal Stranding Scheme spokeswoman said that the whale's body showed signs of having been entangled in fishing ropes.

MARINE LITTER

The Marine Conservation Society held its Great British Beach Clean last September. The results show that Scotland had the fourth highest litter density and the second highest ever recorded, and follows the UK trend from 2014. A total of 45,815 litter items were collected from 75 surveyed beaches. An average of 2,999.3 litter items/km was recorded compared to 1,803.3 in 2014, representing a 66% increase in litter levels. Sewage related debris was notably high, particularly at Cramond near Edinburgh where high levels of are consistently found on the beach.

ORKNEY SEALS

The Sea Mammal Research Unit at the University of St Andrews is conducting a three-year study into the population decline in common (harbour) seals. Telemetry tags will gather data on a seal's location, dive behaviour and its oceanic environment, which will help to assess the causes of decline, management and mitigation options and prioritise future research directions. The study is being carried out at the request of the Scottish Government and Scottish Natural Heritage. Common seals have declined in numbers by up to 90% since 2000 in some areas on the north and east coast of Scotland, including Orkney.



POLITICS & PARLIAMENT

LAND REFORM

The Scottish Parliament has passed stage three of the Land Reform (Scotland) Bill [Jan 16]. More than 100 amendments were discussed during a lengthy debate at Holyrood. The minister for Land Reform, Dr Aileen McLeod, said that the bill had been 'significantly strengthened' by the numerous amendments following discussions with the parliament and the public.

The new legislation will allow ministers to create a public register of those with a controlling interest in land and increase the transparency around land ownership; encourage and support responsible, diverse land ownership; address issues of fairness, equality and social justice connected to the ownership of, access to and use of land in Scotland and introduce a new process to sell or assign farm tenancies, creating a secure route out of farming for those without a successor. The bill will also remove the existing exemption of business rates for shooting estates and deer forests. *The Herald* reported that the amount of land which one person can own will not be limited and 'secretive' firms in offshore tax havens will not be restricted from owning land.

Andy Wightman, of the Scottish Greens, highlighted the lack of action on derelict land in the bill. He said: "With a government majority it's baffling that the SNP, whose own membership has been agitating for radical measures, have passed up the opportunity to deliver real reforms."

Scottish Land & Estates (SLE) said that landowners were being cast as 'whipping boys in an increasingly hostile debate' and that the bill is an 'ideologically driven class war' on the countryside and landowners, and would cost rural jobs.

- *The Sunday Herald* reported that a campaign group said that the 1919 Land Resettlement (Scotland) Act, a law passed to give land to Scottish soldiers returning from the First World War, could be re-purposed to reverse 'the 'most inequitable land ownership in the western world.' More than half of Scotland is owned by fewer than 500 people or businesses. Under the 1919 Act the government can buy land – even forcibly, subject to judicial review – and rent it back to new tenants under very long leases. Councils or the Scottish Government could modernise the 1919 powers to do the same for all sorts of potential tenants across Scotland.

Brian Wilson, the former MP, said: "It's an interesting idea which should be pursued if the legislation is still on the statute book ... We also shouldn't lose sight of the Act's original purpose which was to acquire land in order to break it up into crofts or small holdings. There must be a few run-down estates which could be acquired for that purpose at modest cost. That could give rise to a very interesting experiment in rural regeneration."

- Keose Glebe Estate Ltd has completed a £85,000 community buyout of 1,200 acres of a peninsula and seven small islands between Loch Erisort and Leurbost on Lewis.

SCOTTISH LAND FUND

The new Scottish Land Fund will open on April 1 with £10m available to help community buy-outs; the fund will continue until 2020 [Feb 16]. The new Scottish Land Fund committee will be chaired by John Watt and has six members whose appointments will run until March 2017. See: <https://biglotteryfund.org.uk/slf>

COMMUNITY RIGHT TO BUY

A consultation on the new community right to buy abandoned, neglected or detrimental land has been launched and seeks views on matters which ministers will consider when deciding whether land

is eligible land, as well as questions on tenancies, ballots, and prohibitions relating to this right to buy. A second consultation, on the refreshed crofting community right to buy, seeks views on a number of practical measures.

See: <http://bit.ly/1VumFBS>; <http://bit.ly/25feqqf>



GENERAL ENVIRONMENT

WINTER WEATHER

The *BBC News* website reported that 2015/16 was the wettest recorded in Scotland since records began in 1910. Met Office statistics show that an average of 760 mm (2.5 feet) of rain fell across the country in December, January and February. February's rainfall total of 147.2 mm (6 inches) was 13% up on normal. January's figure of 257.5 mm (10 inches) showed a rise of 45% of the average for the month while December's 351.4 mm (14 inches) was more than double the amount usually experienced that month. Argyll was the wettest area with 1,055.7 mm (3.5 feet) of rain over the three months. Flooding occurred in the Scottish Borders, Tayside and Perthshire.

Scotland's two wettest winters have happened in the last three years. The rainfall total exceeded the previous record for winter 2013/14 of 744 mm (2 feet).

The Met Office spokeswoman said: "While the three-month period was remarkable for its rainfall, it must be remembered that it followed on from a very wet November as well. Winter also brought less sunshine in each of the three months we call winter. In January, Scotland got just 63% of the sunshine hours it would normally expect."

The coldest temperature of winter was minus 14.1°C, recorded at Braemar, Aberdeenshire on the morning of 14 February.

- The Scottish Government has made up to £2m available for the Agricultural Floodbank Repair Grant Scheme to help farmers in nine local authority areas affected storms during December and early January.

CLIMATE CHANGE

The UK Committee on Climate Change provides expert, independent advice to the Scottish Government. Its latest publication has recommended emissions reductions of just over 60% by 2030. The report said that Scotland has made good progress in reducing its emissions to date.

In 2013, emissions had fallen by 38% on 1990 base levels and were on track to exceed the target of 42% by 2020 set out in the Climate Change (Scotland) Act. The committee said that its recommended emissions targets for 2028-2032 continued along that 'ambitious trajectory' putting Scotland on track for a reduction of at least 80% in 2050.

However, the report said that strong action was needed, including afforestation involving 16,000 hectares per year of new forest planting.

- Climate Ready Clyde, a project to help one third of Scotland's population cope with climate change, has been awarded £100,000 by the Scottish Government. The new partnership will bring together business and community organisations to develop a shared understanding of climate change risks and opportunities across the Glasgow and Clyde Valley region. This will enable the project to take action on climate adaptation measures such as flood defences, coping with transport and infrastructure disruption, reducing pollution and increasing resilience to climate change.

See: <http://bit.ly/1RAJ2CV>

AIR POLLUTION

The *Air Quality in Scotland* website reported that a combination of dry, settled weather, and air flows from the east bringing over already polluted air from the European mainland, caused prime air pollution conditions midmonth. Ratings of ten on the air pollution scale, the highest level, were recorded at locations in Fife. North Berwick in East Lothian recorded a nine, whilst pollution levels in Buckhaven, on the Firth of Forth, reached an eight.

SHETLAND WILDFIRE

Firefighters tackled a wildfire covering 70 acres of grass and heather near Mousaword Loch, Sandness. A high pressure system dominated weather midmonth and historically has been linked to increased wildfire risk in March.

CAIRNGORM MUSIC FESTIVAL

The *Sunday Herald* reported that the Groove Cairngorm music festival was planned at Badaguish in Glenmore Forest. Scottish Natural Heritage (SNH) and the Forestry Commission (FC) Scotland had concerns that the event could prevent capercaillie breeding unless major measures are taken to protect them. SNH advised Highland Council that the noise should be kept below 75 decibels, and that sound barriers would be required around the concert site; concert-goers should be prevented from leaving the site, and no lights should be shone into the woods.

FC Scotland said that the event was planned near capercaillie leks. A licence had not yet been issued for the concert and an environmental impact assessment was still to be carried out.

PLANT HEALTH STRATEGY

The first Scottish Plant Health Strategy has been published. The new strategy sets out how best to protect agriculture, horticulture, forestry and the wider environment in Scotland. It also outlines the appointment of a Scottish chief Plant Health Officer and the establishment of a Centre of Expertise for Plant Health. See: www.gov.scot/Publications/2016/03/7136

LICHENS & CLIMATE CHANGE

A report, *Woodland composition, climate change and the long-term resilience of lichen epiphytes at Glasdrum NNR*, has been produced for SNH by the Royal Botanic Garden Edinburgh.

The report presents a method, using detailed climate change predictions and detailed knowledge of the individual species, to predict whether the changing climate is likely to help or hinder the species' growth in future. It also allows woodland managers to explore what might happen if a disease, such as ash dieback, wiped out one or more species of tree or if management promoted the regeneration or planting of other species.

Of the range of scenarios tested, promotion of oak regeneration would be most likely to help the majority of Glasdrum's priority epiphyte species. This would create resilience in the lichen flora against the potential loss of ash. The report cautions against a single strategy because it is impossible to predict all future events. See: <http://bit.ly/1UqJLSa>

BRIDGE OF ALLAN HOUSING

Plans for a major housing development at Airthrey Kerse in Bridge of Allan, on greenbelt land, have been rejected by Stirling Council [Mar 15]. Officials had recommended approval. Graham's The Family Dairy submitted an application which included plans for 600 homes and a new primary school; the development would have financed plans for a new dairy at Hill of Drip.

NORTH KELVIN MEADOW

Plans to develop a green space in Glasgow's west end has been called in by the Scottish Government [Jan 16]. Ministers will now make the final decision on whether or not to allow the development of 90 flats on North Kelvin Meadow and Children's Wood, because of the proposal's potential impact on the loss of valued open/green space and possible conflict with planning policies. Local campaigners said that they will be asking for a public inquiry. The land supports a community-led initiative that brings 22 schools and nurseries, as well as playgroups, onto the land each week, trains teachers and local people in outdoor learning and is a resource for special needs groups, asylum seekers and the elderly. It hosts regular events, food growing and has over 200 volunteers. It has achieved charitable status, won national awards, and is successfully seeking grant funding.

Glasgow City Council have previously described the housing development as 'much-needed' and pointed to the 'substantial receipt for the public purse in a time of unprecedented financial constraints for local government.'

PARK OF KEIR

Park of Keir Partnership has lodged an appeal with the Scottish Government. The developer planned a £37.5m sports and housing development, between Dunblane and Bridge of Allan. Stirling Council rejected the application, on greenbelt land [Dec 15]. A Scottish Government spokesman said: "Scottish ministers will make the final decision on the Park of Keir planning appeal as the proposed development's potential economic, tourism and sporting benefits are considered to be of sufficient national importance to merit further scrutiny."

RAPTOR PERSECUTION

The Partnership for Action against Wildlife Crime (PAW Scotland) has published the 2015 raptor persecution data, including annual persecution hotspot maps.

20 crimes against birds of prey were recorded in 2015 which included six poisoning incidents, five shootings, five disturbance incidents, three trapping or attempted trapping offences and one case of chick theft. The victims included red kite, peregrine, buzzard, goshawk, osprey and hen harrier. Further details of five crimes are currently withheld for police operational reasons.

See: <http://bit.ly/1LwzPMo>; <http://bit.ly/1VmiTab>

- RSPB Scotland reported that a young, satellite tagged hen harrier was found dead on moorland in the Cairngorms National Park. He fledged in 2015, and was tagged as part of the RSPB's Life+Hen Harrier Project. He was tracked until early September, when he is thought to have been shot 'near Newtonmore.'

SNARING CASE

The *RaptorPersecution* Scotland blog reported that the Crown Office is not proceeding with the case against gamekeeper William Curr, who was charged last year with alleged snaring offences on Glenogil Estate in the Angus Glens [Aug 15]. The case was due to have been heard in May.

SWAN DEATHS

A male swan has been found dead and another with an arrow embedded under its wing after being shot at Wemyss Estate, Kirkcaldy in Fife. The Scottish SPCA is caring for the surviving female swan; the pair has been returning to the estate for several years.

- A male and a female swan were found shot dead on a beach at St Combs in Fraserburgh, near the Loch of Strathbeg nature reserve. It is thought that the swans came from the loch, and were either dumped on the beach or washed ashore.

FOX HUNTING

Retired judge, Lord Bonomy, is carrying out a review of the law on hunting in Scotland and written evidence has now been submitted. In 2002, the Scottish Parliament passed legislation that banned hunting with dogs; packs of hounds can still legally be used [Aug 02]. The law allows hunts to use hounds to drive foxes from cover and towards waiting gunmen.

Robbie Marsland, of League Against Cruel Sports, said: "We think there are some quite small changes that can be made to the legislation which would stop it being possible to take a pack of hounds out into the countryside and chase and kill wild mammals. The parliament wouldn't have to worry about it anymore and the Scottish people would know and be secure in the knowledge that fox hunting was really banned in Scotland."

Jamie Stewart, of the Scottish Countryside Alliance, said: "We would hope very much that Lord Bonomy will review and recognise that the act is enforceable and indeed enforced. There's been 210 cases since 2002. It's got a 57% conviction rate, so the general public should feel confident that the police are able to identify areas where there is criminal activity and prosecute those who're responsible. The protocols within the mounted packs is such that there has not been a successful prosecution against them simply because there's been no evidence of any illegal action."

• The *BBC News* website reported two men have been charged with wildlife offences following the Jedforest Hunt in the Scottish Borders. The League Against Cruel Sports said that covert surveillance appears to show a fox being pursued by a pack of hounds on two occasions.

NATIONAL PERFORMANCE

The Scottish Government has updated the National Performance Framework indicators, key to measuring government performance against quality of life and the state of the natural environment as well as economic indicators, and tracking progress towards sustainable development. Indicators are included to measure the state of Scotland's natural capital and ecosystems as well as accessibility to green spaces.

Dr Deborah Long, of Plantlife, said: "However, to ensure that environment indicators such as the Natural Capital Index are a valuable addition to the NPF indicator suite, further investment is needed to measure the status of biodiversity at the base of ecosystems, such as flowering plants and pollinators." See: www.gov.scot/About/Performance/scotPerforms

LAND USE STRATEGY

Scotland's second Land Use Strategy, *Getting the Best from Our Land*, has been published which sets out policies and proposals to achieve the potential for effective, economic and environmentally sustainable use over the next five years and beyond [Nov 15]. The revised strategy sets out the importance of:

- Management of natural resources with an ecosystems approach to land use
- Partnership activity to bring a range of interests together to consider land use at a local level in both rural and urban areas
- Developing and implementing activities to promote climate friendly farming and crofting
- The relationship between ownership, use and management of land
- Continuing to explore the potential of catchment based approaches for managing land

The public consultation highlighted the importance of establishing a strategic vision for

Scotland's uplands and setting up an urban pilot project for the first time to explore community engagement with land use. See: www.gov.scot/Publications/2016/03/5773

WESTER ROSS BIOSPHERE RESERVE

The *Press & Journal* reported that Wester Ross has been awarded biosphere reserve status by UNESCO. The newly-designated area extends from the tip of Knoydart northwards to Achiltibuie and the Summer Isles, and inland eastwards to Garve, including Kyle of Lochalsh, Lochcarron, Gairloch and Ullapool.



ENERGY

SCOTLAND'S RENEWABLES

Figures from the UK Department of Energy & Climate Change showed that 57.7% of Scottish electricity consumption came from renewables in 2015; the target was 50%.

The *BBC News* website reported that Renewable energy in Scotland generated 26.4% of the UK's green electricity, an increase of more than 15%. Electricity production by Scottish solar photovoltaic cells increased by over 33% to 193 GWh. Output from wind turbines in and around Scotland was up by 21%, partly due to more wind during last year than in 2014, and also because of a 5% increase in installed capacity. Output reached 30% of potential capacity for installed onshore wind turbines totalling 14,100 GWh.

ISLAND RENEWABLES

A report, which was commissioned by the Scottish Government and published by Baringa, states that Scotland's island economies could benefit from up to £725m over the next 25 years from renewables. The Western Isles, Orkney and Shetland have the potential to supply up to 5% of total electricity demand in the GB market by 2030.

The report states that, with appropriate investment in grid infrastructure and generating assets, renewable energy deployment on the islands could grow rapidly by the early 2020s. The alleviation of grid constraints in the Orkney Islands alone could increase income to existing wind developments by around £2.7m annually.

Energy minister, Fergus Ewing, said that he, together with the Island Council leaders, has written to Amber Rudd, the UK Secretary of State, urging the government to progress the necessary EU permissions for a viable package of support for grid connections to the three island groups. See: <http://bit.ly/1VPZLoJ>

SUBSEA TRANSMISSION LINK

A 100 mile subsea cable is being installed between Spittal in Caithness and Blackhillock in Moray, which could add up to 1.2 gigawatts of new renewable energy capacity to the grid. It is being built by Scottish Hydro Electricity Transmission, and is due for completion in 2018. The company said that the project is the largest investment in electricity network in the north of Scotland since the hydro development era of the 1950s.

COMMUNITY ENERGY

The Scottish Government has awarded over £10m through the Local Energy Challenge Fund to support nine innovative large-scale low carbon local energy projects across Scotland [Jul 15].

- The Montrose Local Energy Project will develop a new fuel source from the agricultural sector, feeding into local heat demand and potentially also local electricity demand. The new fuel is to be created through the processing and drying of used animal bedding
- River Tay Heat Pump District Heating project

aims to demonstrate that it is possible to safely use water heat pumps to capture renewable energy from an ecologically sensitive river such as the Tay without damaging wildlife

• 350 homes in Glasgow Housing Association multi-storey blocks located at Newlands/Auldburn in Glasgow will benefit from clean energy produced by a large scale air source heat pump. Air source heat pumps have until now been only small or used in single properties

• The Fintry Development Trust smart meter project will deliver a low-cost, local renewable energy tariff to alleviate fuel poverty among residents of Fintry in Stirlingshire through the 'virtual' linkage of their electricity consumption with supply from a nearby Anaerobic Digestion plant

• The Rousay, Egilsay & Wyre Development Trust in Orkney will pilot a smart control system that will link the renewable energy generation from community owned wind turbines with the heating systems in local residents' homes. The project will use excess electricity that can't feed into the grid and divert it to electric flow boilers or stand-alone electric heaters and hot water immersion heaters in domestic properties

• The Energis Galashiels Hydro project seeks to demonstrate the significant hydro potential of rivers which to date have not been captured successfully because of their relatively low head height. This project proposes to use an innovative hydro generation technology, the Water Engine, which once proven could be applied to many other waterways

• The Outer Hebrides Local Energy Hub project aims to deliver a fully integrated local energy economy through using the high calorific waste value from the Scottish Salmon company

• The Algal Solutions for Local Energy Economy scheme aims to use renewable electricity to produce high value products from algae by converting low-value, surplus electricity into a high value/ low volume products from algal bio-manufacturing

The fund is part of the Scottish Government's CARES programme, managed by Local Energy Scotland, a consortium led by the Energy Saving Trust and comprising of Changeworks, The Energy Agency, SCARF and The Wise Group, with support from Ricardo-AEA.

WINDFARM UPDATES

Caithness: Wind Harvest Ltd has proposed a three turbine windfarm for land at Hill of Lychrobbie, near Dunbeath. The Ministry of Defence (MoD) has objected because the turbines could interfere with radar at RAF Lossiemouth in Moray. Highland planning officers have recommended refusal of planning permission.

Dumfries & Galloway: The Scottish Government had rejected Burcote Wind's planning application for 30 turbines at Sandy Knowe near Kirkconnel [Feb 15]. A revised application for 24 turbines has now been made, and planning officers have said it would still have a significant adverse impact on the area and recommended refusal. However, councillors voted to allow the project to proceed with conditions.

Sutherland: The *BBC News* website reported that Glenmorie Wind Farm Limited lost an appeal at the Court of Session in Edinburgh against the Scottish Government's refusal of planning permission for a 34 turbine windfarm near Bonar Bridge [Dec 14]. Lawyers for the firm argued that energy minister, Fergus Ewing, acted incorrectly. Mr Ewing had agreed with the findings of a public inquiry reporter who concluded the proposal would cause 'unacceptable landscape and visual impacts.' Judge Lady Wise said that the company had failed in its challenges to the minister's decision. Opponents of the windfarm included Highland Council, the

Mountaineering Council of Scotland and the John Muir Trust.

• An open letter from the International Mire Conservation Group (IMCG) has been sent to the Scottish Government, calling for the 39 turbine Strathy South windfarm in the heart of the Flow Country to be refused [Apr 15]. The letter was signed by the Secretary-General of the IMCG, Professor Dr Hans Joosten, and highlights the global importance of the peatlands of the Flow Country for biodiversity, carbon storage and their unique landscape value. The area is being considered as a UNESCO World Heritage Site.

The letter states that the group learnt with 'dismay' about the proposals, as it 'risks repeating many of the acknowledged mistakes made during the era of forestry expansion into the Flow Country.' The letter raised concerns that the development could have a 'significantly negative impact' on any consideration of World Heritage Status for the Flows.

A public inquiry into planning proposals for Strathy South windfarm concluded in June 2015, and is awaiting a decision by Scottish ministers.

LEWIS WAVES

The *West Highland Free Press* reported that the Marine Energy Centre in Stornoway is to install a wave monitoring device near the Butt of Lewis to assess the power and behaviour of the sea. Aquamarine's plans for a 40 MW wave array off the north coast of Lewis have now collapsed after the company went into administration [Mar 15].

TIDAL POWER

Shetland: *Holyrood.com* reported that the first of three 100 kW turbines at the Shetland Tidal Array project, in Bluemell Sound between Yell and Unst, is now exporting power to the Shetland grid; the other two will be producing electricity by the end of this year [May 14]. Nova Innovation's fourth and fifth turbines are expected to be deployed by 2018. The £3.75m project is one of the world's first in-sea tidal arrays.

Skye: The BBC News website reported that renewable energy developer, Atlantis, has dropped its plan to develop a tidal project near Kylerhea [May 13]. The company said it had returned an agreement for lease for an area of seabed to the Crown Estate following a review of its portfolio and is now to focus on its 'most developed' sites.

ABERDEEN OFFSHORE WIND

The *BBC News* website reported that geological site investigations for the European Offshore Wind Deployment Centre windfarm in Aberdeen Bay have begun [Dec 15]. Full offshore construction of the 11 turbine demonstrator site is scheduled to start in late 2017.

HYDRO SCHEMES

Scottish Renewables said that Scotland currently has 27 hydro projects with planning permission, with a total of 58.5 MW. 14 schemes, due to generate 26.8 MW, are under construction. Hannah Smith, of Scottish Renewables, said: "[The 37% cut in feed-in tariff for hydro] has already caused a contraction in the number of schemes being developed and, it seems, a geographical withdrawal to hydro's traditional heartland. Developers are now looking for innovation to make projects financially viable ..." Scottish Renewables said that hydro power had very low environmental impacts; properly maintained turbines could produce power for more than 80 years.

• Two run-of-river hydro schemes in the Highlands are planned by Albion Community Power for Liatre Burn, on the Glen Cannich Estate, and Abhainn Bruachaig near Kinlochewe.

WATER SOURCE HEAT

Three heating projects, in Shetland, Clydebank and Glasgow, have been awarded £1.75m by the Scottish Government. The schemes will use water source heat pump technology to extract heat from water to supply low carbon heat efficiently:

• A £1.6m loan has been made for a large scale sea-water source heat pump scheme in Lerwick, to allow 225 more households to join the existing heat network.

• Funding of £75,000 has been awarded for the Queens Quay Development on the site of the former John Brown Shipyard, to develop an investment prospectus for a district heating network using a water source heat pump in the River Clyde basin.

• Funding of £75,000 has been given to the University of Glasgow Western Campus to develop an investment grade proposal to install a water source heat pump in the River Kelvin to ensure the existing district heating network can service new buildings planned for the site of the former Western Infirmary hospital.

SCOTTISH WATER

1,000 solar panels have been installed at Marchbank Water Treatment Works near Balerno, West Lothian. Over the past two years, Scottish Water has doubled the amount of renewable energy which can be generated at treatment works and in water mains to over 50 GWh. There are now 27 hydro turbines which use the flow of water through pipes to produce electricity, as well as several wind and photovoltaic schemes. Several of Scottish Water's treatment works can now generate all, and in some cases more, of the energy they need to operate.

UCG

Five Quarter, a company which had been granted exploratory underground coal gasification (UCG) licences for two areas in the Firth of Forth and one in the Solway Firth, has gone out of business [Dec 15]. A company statement said: "This is because global market conditions have changed, North Sea activities are in rapid decline, and there is considerable uncertainty about the direction of government strategy for energy."

Dr Harry Bradbury, of Five Quarter, said that the government had failed to give sufficient backing for foreign investment of more than £1 billion. He said: "The aim had been to create a full carbon capture and decarbonising gas processing plant and related infrastructure to the highest global standards of excellence in environmental management. Five Quarter did not participate in underground coal gasification, nor so-called fracking, but had developed 'deep gas winning' an advanced engineering process for gas extraction without any form of environmental impact."

John Delaney, of the Coal Authority, said: "An insolvency practitioner for the company may approach the authority with a request to assign the licences to another company. In this case the authority will only consent if the new company can satisfy the authority's criteria for holding a licence."

Lang Banks, of WWF Scotland, said that the UK government's Coal Authority, which grants UCG licences, should not be allowed to re-allocate Five Quarter's permits to other companies.

GRANGEMOUTH HEAT-&-POWER

BP has been given planning permission by Scottish ministers to build a new gas-fired combined heat-and-power plant at the Kinneil oil terminal in Grangemouth. The terminal processes crude oil sent from North Sea platforms via the Forties Pipeline System, and requires steam for heat

energy to drive oil separation processes. The output is expected to be 159 MWe (megawatts electric).

LONGANNET

Longannet Power Station in Fife, Scotland's largest power station and the only remaining coal-fired electricity generator, was switched off after almost 50 years service [Aug 15]. ScottishPower blamed the high cost of connecting to the National Grid for the shutdown, and said that it was no longer economical to keep the Longannet plant running.

Dr Richard Dixon, of Friends of the Earth Scotland, said: "For the first time in at least 115 years, there will be no coal being burnt to make electricity anywhere in Scotland."

Lang Banks, of WWF Scotland, said: "The closure of Longannet marks an historic and inevitable step in our energy transition, as Scotland becomes one of the first nations to end its use of coal for power."

ABERDEEN GEOTHERMAL

A Scottish Government-funded report, by Professor Iain Stewart, of Plymouth University, recommends drilling a demonstration deep geothermal well below Aberdeen to heat local homes and businesses [Mar 15]. But rather than import from Iceland, the new report said Scotland should tap into its own geothermal sources as part of a national push for more renewable energy.

Professor Stewart said that installing a deep geothermal single well (DGSW) at the Aberdeen Exhibition and Conference Centre would cost £1.5m-£2.5m and would supply the venue and nearby homes with low-carbon heat. The 1.2 mile vertical well is drilled and cased with standard oil and gas equipment. Hot water is drawn through a pipe from the bottom and heat is extracted from the water via a heat exchanger, with enough to heat around 200 homes.

He said: "If we are to make deep geothermal happen in Scotland and across the UK, we need to attract potential investors. I consider that the low-risk, low-cost DGSW provides that commercial investment platform and opportunity. This is a great chance to move to decarbonised heat supply from the earth from academic speculation to commercial reality."

Aberdeen is one of five areas where geothermal feasibility studies have been backed by the Scottish Government, with the others at Guardbridge in Fife, Polkemmet in West Lothian, Hartwood in North Lanarkshire and Hill of Banchory in Aberdeenshire.

DOUNREAY PARTICLES

The Scottish Environment Protection Agency has published a report by the Particles Retrieval Advisory Group into the effectiveness of the retrieval programme for radioactive particles offshore from the Dounreay nuclear plant in Caithness [Dec 14]. The report follows an extensive research and monitoring programme in 2012.

The report concluded that any noticeable change in the rate, or radioactive content of fuel fragments arriving on Sandside Bay, the nearest public beach, will take a number of years to assess. In the interim, the beach continues to be monitored on a monthly basis by the operators of Dounreay and any particles which are found will be removed. See: <http://bit.ly/1q4QCg8>

 **TOURISM & RECREATION**

DALKEITH COUNTRY PARK

The Herald reported that the gates to the Duke of Buccleuch's Dalkeith Country Park will be shut overnight with access restricted to those who have

paid the annual fee for a pass [Jul 15]. There will also be a one-off fee for visitors. The estate said that the move was 'to improve safety and security' after a spate of antisocial behaviour and petty vandalism.

The Land Reform Act (Scotland) 2003 states that a landowner cannot take action to prevent or deter someone exercising access rights. Midlothian Council said that it is believed the Duke is complying with the law as the estate previously charged for daytime access in the summer; a landowner is allowed to charge for entry if they had already been charging for 90 days each year before the act came into force; Dalkeith Country Park had been doing this.

Ed Morris, of Buccleuch Estates, said: "It is a requirement of the Land Reform Act 2003 that we continue to levy a small charge for access in order to close the park gates at night. The park is still accessible 24 hours, all year round, by use of the pass card."

Helen Todd, of Ramblers Scotland, said that the charge went against the spirit of legislation.

THE STORR

Staffin Community Trust has conducted a resident's survey and has now declared its interest in purchasing Highland Council-owned land at the Old Man of Storr on Skye [Nov 15]. An options appraisal is being undertaken to determine the size of the 82 hectare site to be purchased.

JOHN MUIR TRAIL

A Scottish Natural Heritage (SNH) report stated that more than 60,000 people used John Muir Way in 2015. The long distance footpath goes 134 miles from Helensburgh in Argyll to Dunbar in East Lothian [Apr 14]. It was designed to be used for day trips as well as an end-to-end trail.

SNH said there were more than 60,000 visits specifically to walk or cycle a stretch of the way, with 6,000 people reported to have completed the whole route over consecutive days. A further 200,000 also made use of a section for routine dog walking, commuting or other purposes. A third of those interviewed for the survey were people who 'seldom' visited the outdoors.

SNH is now working with the Central Scotland Green Network Trust and other partners to encourage even more people to journey on the route, which will benefit communities and businesses throughout the central belt.

• A new, 10 km upland circular route on the National Forest Estate has been opened, which links to the John Muir Way at the Kilpatrick Hills. The £500,000 route, an alternative to the West Highland Way part of the trail, was funded by Forestry Commission Scotland, sportScotland and SNH and is part of the Central Scotland Green Network project. See: <http://bit.ly/1SVlhrc>

KINCARDINESHIRE GOLF

An 18 hole, £80m golf course is planned at Ury Estate near Stonehaven. Aberdeenshire. Council officers recommended refusal of planning permission; a major factor was the 'significant loss' of trees classed as Ancient Woodland on a plantation dating back 140 years. Stephen Archer, of the council, said: "This is a large and rare example of this class of woodland and its permanent loss cannot be adequately mitigated or compensated. The wider public benefits of the development do not outweigh this loss, and no mitigation or compensatory planting could justify the permanent loss of this volume of Ancient Woodland." However, councillors approved planning permission; the decision was regarded as being of 'regional significance.'

Forestry Commission Scotland described

the area as the 'second highest category of Ancient Woodland' and that its loss would be irreplaceable. It said: "Whilst the applicant has offered mitigation in the form of soil relocation and compensatory planting, this is not sufficient to offset the loss of woodland."

Jonathon Milne, of FM Group, said that the developers would be planting five or six times more trees than they would take down and that the areas would 'gain Ancient Woodland.' The project would include a 90 home development; half of the homes and three holes would affect the woodland. He said: "What is there are birch trees that are 30 or 40 years old that were self-seeded. You wouldn't even chop them down to burn them. They are not of great merit in my opinion. It is called Ancient Woodland because of what is in the soil, not the trees."

DARK SKIES

Moffat, in the Scottish Borders, has received international recognition of its Dark Sky Community status. The project received £240,000 of Scottish Government funding in 2013 which was used to convert lighting to become 'dark sky friendly.' Other Dark Sky communities include the island of Coll.

MARINE TOURISM

The Scottish Marine Recreation & Tourism Survey has been published, which estimates that marine recreation and tourism expenditure in Scotland is estimated to amount to £3.7 billion per year [Jul 15]. £1.3 billion of expenditure comes from specialist marine activities including wildlife watching, sailing, kayaking, coastal rowing and angling with expenditure on general recreation and tourism like beach combing, short walks and coastal cycling amounting to £2.4 billion.

This survey covers 23 different recreation and tourism activities undertaken at sea or around the Scottish coastline. General marine and coastal recreation, including beach activities was found to be the most popular activity.

The survey was developed by the Scottish Government, the Firth of Clyde Forum, the Scottish Coastal Forum and the Crown Estate together with support from members of the Scottish Parliament Cross Party Group on Recreational Boating & Marine Tourism. It was managed by Firth of Clyde Forum and undertaken by Land Use Consultants during 2015. It contributes to filling in the gaps in data relating to marine recreational activities that were highlighted during the development of the Scottish National Marine Plan.

See: <http://bit.ly/1o62n4b> Maps from the survey are available on National Marine Plan interactive website: <http://bit.ly/1RfXe5f>

GROUSE SHOOTING

A petition, started by Mark Avery, called on the UK government to ban driven grouse shooting; it has now gathered over 11,000 signatures, enough to ensure that the government must respond. The petition describes driven grouse shooting as 'economically, ecologically and socially unnecessary.'

Mr Avery, formerly of RSPB, said: "People want to see the end of industrial-scale killing. We need sustainable management of the Scottish Highlands not intensive management for the 'sport' of grouse shooting."

Tim Baynes, of the Scottish Land & Estates Moorland Group, said: "This Westminster petition is not relevant in Scotland as these matters are devolved to the Scottish Government and its agencies that regulate the sector. Driven grouse shooting is a vital part of the rural economy and

culture in Scotland. It brings in significant tourism income and investment, it supports many jobs and local services in remote areas and it underpins a massive amount of conservation work. This is clearly recognised by government, agencies and conservation bodies. Our campaign, The Gift Of Grouse [Aug 15], has attracted widespread support across Scotland for demonstrating the multitude of benefits that driven grouse shooting provides."

Patrick Stirling-Aird, of the Scottish Raptor Study Group, said: "A grouse moor licensing system would help to remove the criminal practices that are associated with much driven grouse shooting."

Mark Ruskell, of the Scottish Green Party, said: "Unless governments and landowners can resolve all of these problems through regulation and reform the case for banning intensive driven grouse shooting will become compelling."



NEWS OF ORGANISATIONS

CSGN

The Scottish Government has made an additional £438,000 available for 18 projects to be supported by the Central Scotland Green Network (CSGN) Development Fund in 2016/17. £5.8m has already been allocated to over 150 projects by CSGN, Europe's largest greenspace initiative, over the past six years. The fund supports woodlands and green infrastructure, encourages community growing and promotes active travel to help transform the quality of life for people living and working in the area.

The CSGN Development Fund is administered by the CSGN Trust and supported by the Scottish Government, Transport Scotland, Forestry Commission Scotland and Scottish Natural Heritage (SNH).

See: www.centralscotlandgreennetwork.org

NTS

The National Trust for Scotland (NTS) is trialling a new approach to commenting on public policy issues. The Heritage Observatory scheme publishes briefing reports on current heritage issues as a way of inputting the trust's expertise into public debates. The first published papers include rewilding and green space.

SCRA

The Scottish Countryside Rangers' Association (SCRA) has launched the Junior Ranger programme which allows 11 to 18 year olds to get involved with the work of their local ranger service. Some young people on the scheme will have the chance to go on exchanges with other Junior Rangers, including camps which are regularly organised by the EUROPARC Federation's Junior Ranger Network. SNH funded the Junior Rangers project.

See: <http://scra-online.co.uk>

TREES FOR LIFE

Trees for Life's Rewilding the Highlands initiative has won the Alpine category of the 2016 European Outdoor Conservation Association Conservation online vote. More than £20,000 of funding from the awards will allow Trees for Life to extend substantially the native woodland around Glenmoriston with the planting of 50,000 trees at the Dundreggan Conservation Estate.

The charity's work in growing rare montane tree species will be increased and a local community project supported at Invergarry, to enhance biodiversity at its newly acquired Glengarry Community Woodland.

See: www.treesforlife.org.uk; www.outdoorconservation.eu