REF.	ACTIONS	PARTNERS (lead partners in bold)
8.1	**Monitor the use of organic fertilisers to ensure compliance with regulations and codes of practice.** *SEPA will only have the power to fulfil this action when informed that application is taking place*	**SEPA** / Waste producers / NFUS / SAC / SGRPID / AC / ACC / Contractors
8.2	**Monitor registrations of exempt activities under waste management licensing regulations to ensure "Relevant Objectives" are met.**	**SEPA** / SAC / Waste producers
8.3	**Ensure the storage and spreading of sewage sludge to land complies with the regulations Statutory code of Practice and with the provisions of the Safe Sludge Matrix and Hazards analysis and Critical Control Points.**	**SW** and PFI Contractors / **SEPA** / SGRPID
8.4	**Raise awareness of the relevant legislation and guidance.**	**NFUS** / **SGRPID** / **SAC** / **FWAG**
8.5	**Take enforcement action where necessary.**	**SEPA**

Acronyms are listed in the centre of this Action Card



use of organic fertilisers

8

WATER QUALITY

OBJECTIVE 8. Control the storage and application of organic fertilisers to avoid direct & indirect water pollution.

BACKGROUND

Organic fertilisers (livestock manures and slurries non-agricultural organic waste such as sewage sludge) are routinely applied to agricultural land in the Dee catchment. They have benefits both as fertilisers and as soil conditioners. However if stored or applied inappropriately they can be harmful to the water and soil environments.

ISSUES

- Livestock slurries and manures can contaminate watercourses if spread too close to water margins on steeply sloping fields when the soil is waterlogged when there is a flooding risk when heavy rain is forecast or when the ground is frozen. Contamination may also result from effluent escaping from middens slurry stores byres buildings hard standings or roads used by livestock.
- Watercourse contamination can result in very rapid and severe oxygen depletion of the water leading to fish and invertebrate mortalities for many miles downstream. Even when the losses from individual farms are fairly minor the overall effect throughout a catchment can be significant.
- Manure and slurry can be associated with the microbiological contamination of inland and coastal waters and groundwater potentially affecting compliance with environmental quality standards specified in EC directives.
- Sewage sludges contain elevated concentrations of potentially toxic metals (PTM) compared with average background concentrations in the soil. The repeated surface application of sewage sludge to grassland can lead to elevated concentrations of PTM at the soil surface; the impact of these on the environment is unknown.
- Despite regulations there is a danger that PTM may be ingested together with soil and herbage by grazing ruminants. Although the risk to the human food chain is considered to be low there may be reluctance among some buyers to purchase crops and livestock from holdings where sewage sludge has been applied to land.

EXISTING / RECENT INITIATIVES

- Sludge must only be applied to land where the soil has been tested according to the sludge regulations including tests to ensure that the limit on concentration of metals in the soil will not be exceeded by application of the material.
- There are a range of other rules which must be followed (in relation to application to crops or land used by grazing animals) which are laid out in the Sludge Regulations. There may be reluctance among some buyers to purchase crops and livestock from holdings where sewage sludge has been applied to land. This commercial consideration has been highlighted to farmers by the National Farmers' Union Scotland (NFUS).
- Farmers within a Nitrate Vulnerable Zone (NVZ) must keep and retain records of all applications of nitrogen to their land and comply with certain limits and with closed periods. These records must include records of nitrogen from all organic sources including sludge applications.
- Under cross compliance rules in order to receive the Single Farm Payment farmers must comply with Sludge (Use in Agriculture) Regulations 1989 and with NVZ regulations.
- Farmers participating in a range of agri–environment schemes must comply with General Environmental Conditions and Standards of Good Farming Practice which include compliance with Environmental and Control of Pollution legislation and should also follow the recommendations of the Prevention of Environmental Pollution from Agricultural Activity (PEPFAA) Code.
- Scottish Environment Protection Agency (SEPA) audit of annual sludge registers.
- Scottish Water internal audit system.

WHO IS INVOLVED?

Aberdeenshire Council

Aberdeen City Council

Contractors

Farming & Wildlife Advisory Group

National Farmers' Union Scotland

Private Finance Initiative contractors

Scottish Agricultural College

Scottish Environment Protection Agency

Scottish Government Rural Payments & Inspections Directorate

Scottish Water

Waste Producers

Further copies can be downloaded at www.theriverdee.org. For further information contact the Dee Catchment Officer
c/o The Macaulay Institute, Craigiebuckler, Aberdeen AB15 8QH Telephone: 01224 498200 email: info@theriverdee.org

deecatchment partnership

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- Scottish Water National Sludge Strategy to 2025.

ACTIONS REQUIRED

- Monitor the use of organic fertilisers to ensure compliance with regulations and codes of practice. Take enforcement action where necessary.
- Monitor registrations of exempt activities under waste management licensing regulations to ensure "Relevant Objectives" are met.
- Ensure the storage and spreading of sewage sludge to land complies with the regulations Statutory Code of Practice and with the provisions of the Safe Sludge Matrix and Hazards analysis and Critical Control Points.
- Promote 'good housekeeping' practices.

LEGISLATION

See Action Pack Annex for information sources

- Manure and slurry can be spread on land on condition that it is used to deliver agricultural benefit
- Allowing effluent to escape is an offence under the Control of Pollution Act (1974) as amended.
- Control of Pollution (silage slurry and agricultural fuel oil) (Scotland) Regulations 2003.
- The use of non-agricultural organic waste is subject to compliance with the Waste Management Licensing regulations (1994) as amended.
- Sewage sludge may be spread on agricultural land subject to compliance with the Sludge (Use in Agriculture) Regulations 1989 which have been designed to protect the environment and human and animal health.
- There are a range of other rules which must be followed in relation to harvesting crops and grazing animals; these are laid out in the Sludge Regulations.
- Sludge must not be applied to land unless it is tested according to the sludge regulations. It must only be applied to fields on which the soil has been tested including tests to ensure that the limit on concentration of metals in the soil will not be exceeded by application of the material.
- Environmental Protection Act 1990.
- Nitrate Vulnerable Zones (Scotland) Regulations 2003.
- Farmers within NVZs must keep and retain records of all applications of Nitrogen to their land and comply with certain limits and with closed periods. These records must include records of Nitrogen from all organic sources including sludge applications.

GUIDANCE AND INFORMATION

See Action Pack Annex for information sources

- SEPA Net Regs.
- Guidelines for Farmers in Nitrate Vulnerable Zones
- Under the Prevention of Environmental Pollution from Agricultural Activities (PEPFAA) code manure and slurry should only be spread on land if being used to deliver agricultural benefit (PEPFAA Code of Good Practice 2005)
- PEPFAA DOs and DON'Ts guide
- The 4 Point Plan.
- Waste Management Licensing Regulations guidance.
- Cross Compliance Notes for Guidance.
- Standard of Good Farming Practice and General Environmental Conditions.
- 3-Dee Vision rainfall questionnaire for farmers.
- 3-Dee Vision woodland/forestry questionnaire.

BENEFITS TO PROTECTED SPECIES

The following specially protected species will benefit from the Actions:

- Grass wrack pond weed *Potamogeton compressus*
- Pillwort *Pilularia globulifera*
- Freshwater pearl mussel *Margaritifera margaritifera*
- Common frog *Rana temporaria*
- Palmate newt *Triturus helveticus*
- Northern blue damselfly *Coenagrion hastulatum*
- Stiletto-fly *Cliorisimia rustic*
- Stone fly *Brachyptera putata*
- Atlantic salmon *Salmo salar*
- Brook lamprey *Lampetra planeri*
- River lamprey *Lampetra fluviatilis*
- Sea lamprey *Petromyzon marinus*
- Daubenton's bat *Myotis daubentonii*
- Otter *Lutra lutra*
- Water vole *Arvicola terrestris*
- Goldeneye *Bucephala clangula*
- Osprey *Pandion haliaetus*

RELATED ACTION CARDS

1. Diffuse agricultural pollution
12. Aberdeen beach
26. Atlantic salmon
27. Freshwater pearl mussel
34. Tarland burn catchment
35. Loch Davan catchment
36. Loch of Skene catchment