

SEPA – Diffuse Pollution Priority Catchment Work

Bruce McCleary Catchment Coordinator Land Unit, SEPA



Diffuse pollution in Scotland

- Scotland's water quality is generally good!
- **Rural Diffuse pollution** now the largest pollution pressure





- Individually minor, but collectively significant
 - Sources include sediment, nutrients, bacteria & pesticides
- Transported from land to burns and rivers
 - Heavily influenced by rainfall







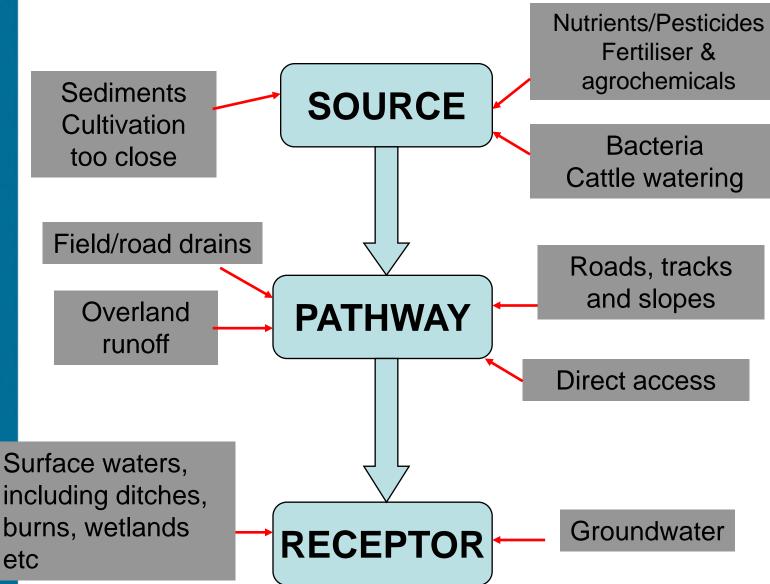


Why is diffuse pollution a problem?

- Soil/sediment -> increased turbidity & habitat smothering
- Nutrients (N and P) -> eutrophication of surface waters (algal blooms) and disruption to aquatic species. Drinking water also affected
- Bacteria -> impact on human health (bathing & shellfish waters)
- Pesticides -> severe impact on aquatic organisms. Drinking water also affected

=> Overall reduction in water quality





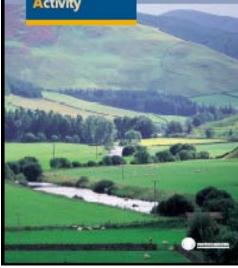


Regulations

Diffuse Pollution Gene Binding Rules Introduced A Second S







Rules focused on land and

The DP GBR's apply to all ditches, burns, rivers & lochs





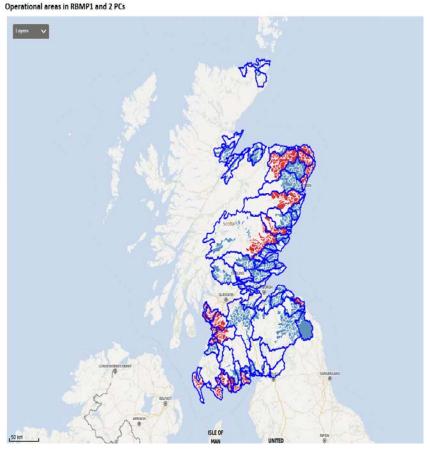
- Storage and application of fertiliser (GBR18)
- Keeping of livestock (GBR19)
- Cultivation and harvesting of crops (GBR20)
- Run-off from agricultural or forestry activities
- Construction and maintenance of water bound roads and tracks (forestry)
- The handling and use of pesticides
- Operating sheep dipping facilities

The DP GBR's apply to all ditches, burns, rivers & lochs



What and Where are Scotland's Priority Catchments?

- They are catchments that are failing to meet water quality standards specified under Water Framework Directive
- They are catchments that require a focused catchment management approach to improve water quality
- 14 catchments were selected as Scotland's first priority catchments (2009 – 2015)





First cycle approach

- Catchment-wide approach required to reduce diffuse pollution
- 3 stage approach:
 - Catchment walks Evidence base catchment walking & use of science
 - 2. Awareness Raising workshops, pod cast, leaflets, meetings, articles and press release
 - 3. 1:1 Site visits 1 farm visit / day / per officer (steading and total land owned)
- Revisits to non compliant land managers max 3 revisits prior to enforcement action being initiated, ultimately some farms may get 4 – 5 revisits.



1:1 Site visits - Steading audit

- Walk round the steading with land manager and assess compliance with:
 - SSAFO (Silage/Slurry)
 - Oil storage Regs
 - GBR 's



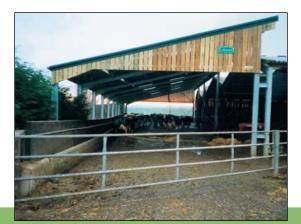


Discuss any required action or options where required.



Reducing diffuse pollution risk - steading

- Maintenance of existing structures (routine repair)
- Clean dirty water separation (repair roof gutters & downcomers)
- Roofing dirty yard areas & midden areas
- Diverting lightly contaminated drainage to a constructed farm wetland.
- Think about covers on slurry stores.
- Additional slurry storage (aiming towards 6 months, better use of nutrients).



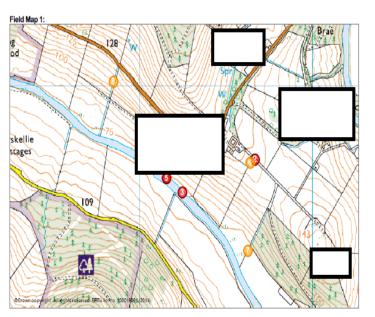




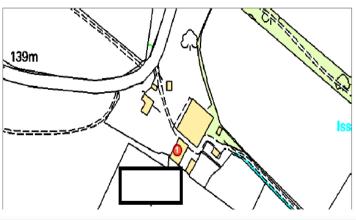
1:1 Site visits - Field audit

| Non-Compliance | | | |
|----------------|---|--|-----------|
| Map ID | What We Found | What needs to be done For information on Best Management Practices please refer to <u>www.sepa.org.uk/bmp</u> or see contact details above for SEPA. | Timescale |
| 1 | Oil storage facilities must have a bund or secondary containment system. The bund must be impermeable to oil and water and be capable of holding 110% of the capacity of the tank. Where more than one tank is being stored together, the bund should be designed to contain 110% of the largest tank capacity or 25% of the combined tank capacity, whichever volume is greater. There should be no taps/outlets for draining off rainwater (OSR). | Install a bund or similar for oil drums to be contained in. | 12 months |
| 2 | Significant poaching or erosion by livestock within 5 metres of a watercourse (GBR19). This can result in water pollution from silt, nutrients and faecal bacteria. | Move exisiting water feature (water trough) away from feild/watercourse boundary to prevent poaching impacting within 5 metres of the watercourse. An alternative drinking water source could be provide elsewhere in the field. There are many different designs for alternative, offline, access to drinking water which can reduce poaching and erosion along watercourses. As well as reducing diffuse pollution, these may also help reduce the transfer of some waterborne diseases. | 12 months |
| 3 | Significant poaching or erosion by livestock within 5 metres of a watercourse (GBR19). This can result in water pollution from silt, nutrients and faecal bacteria. | Impact as a result of livestock movements. Locations to be fenced off or livestock movements to be managed to prevent poaching from within 5 metres of the watercourse. | 12 months |
| 5 | Livestock feeders were found within 10 metres of a surface water or wetland (GBR19). These areas are a source of pollution from silt, nutrient and faecal bacteria entering the water environment, particularly during rainfall. | Significant poaching in an area close to a water trough. Maintenance and management of the site is required to prevent run-off entering nearby watercourses and ditches. | 12 months |
| Advisory | | | |

What should be done



Steading Map 1:



Examples of GBR 18 breaches

SEPAC Scottish Environment Protection Agency

<10m burn</p> Fertiliser prill <2m burn</p>

Frozen ground and

<10m from burn







Minimum distances from drinking water supplies, ditches & burns (50m, 10m & 2m) Not on snow- covered or waterlogged ground (or Slurries on frozen)

Match applications to nutrient requirements of crop





Examples of GBR 19 breaches







SEPÃ

Scottish Environment Protection Agency









Poaching Mitigation





Poaching Mitigation





Examples of GBR 20 breaches





Cultivation Mitigation











Galloway/Stewartry To Date.....

- **>500** farm visits completed.
- >90% all had a GBR breach recorded in the field.
- 63% have had a SSAFO breach recorded on the steading.
- 35% have had less than 6 months slurry storage at the time of the first visit.
- Biggest issue GBR 19 breaches.
- >360 Revisits carried out to date:
- 1st Revisit: 60% complied 40% working towards
- 2nd Revisit: 92% complied 8% working towards
- No enforcement started



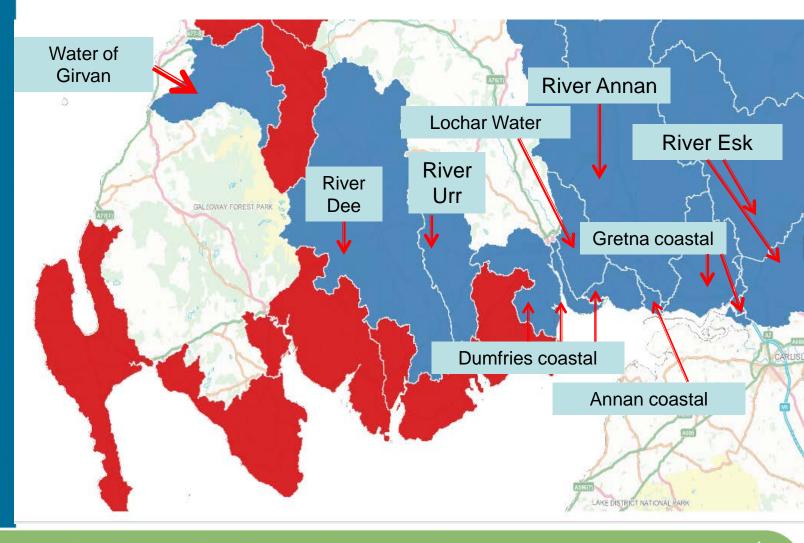
Cycle 2 Next Steps

- Complete work in initial 14 priority catchments
- Start work in cycle 2 catchments
- Continue to work with land managers to reach compliance
- Monitor effectiveness
- tackle rural sewage, targeted rules, fixed penalties.....



Cycle 2 Next Steps

RED – Cycle 1 PCs BLUE – Cycle 2 PCs





RBMP2 – revised PC approach

- NO catchment walking in any new priority catchment
- Awareness raising continues as per Cycle 1 + introduction of national awareness raising campaign
- Straight to 1 to 1 visits in targeted areas based on downgrades and knowledge of issues from first 14 – (very targeted to where risk / problems are)
- 2 farm visits per day per officer (steading and % of fields based on risk)
- Maximum of 1 follow up visit to non compliant farms to see what actions have been taken. If NO action / remedial work has been initiated then enforcement action will be taken.



Story so far.....

River Dee PC

- >90 farm visits completed.
- 55% compliant 45% non compliant
- Biggest issue GBR 19 breaches.

River Urr PC

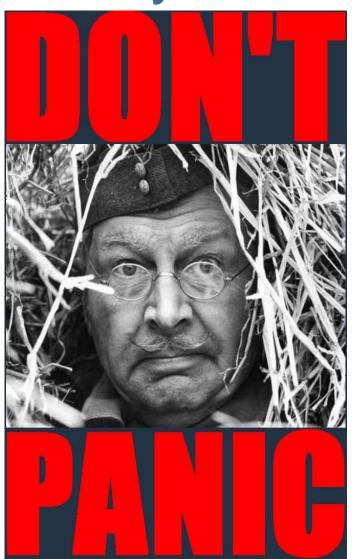
- Initial visits nearly completed.
- Good compliance
- Biggest issue GBR 19 breaches.

Dumfries Coastal PC starting 2017



What does it mean for you?

- <u>ALL</u> findings will be discussed before leaving farm
- This includes advising which mitigation measures may be suitable for the site and agreeing workable timescales
- Contact co-ordinator or NFUS if any concerns
- >500 visits carried out in Galloway/Stewartry - no major reported concerns





You are in > Home > SAC Consulting > Farming & Water Scotland

Farming & Water Scotland

Our website provides ideas, information and contacts to help you reduce diffuse pollution risks from your farm and benefit the farm business.

Reducing diffuse pollution risks can benefit your business

in a number of ways, for example making better use of nutrients in slurry and manure or an improvement in livestock health through cleaner drinking water supplies.

It can also help you to stay on the right side of the Regulations and protect farm payments, whilst protecting surrounding water quality.

Further information and links.



Farm Advisory Service



Thank You

Bruce McCleary/Jackie McColm

Diffuse Pollution Catchment Coordinators

SEPA Land Unit

bruce.mccleary@sepa.org.uk

jackie.mccolm@sepa.org.uk