

### **Good Management Practices in Forestry**

### Reducing Diffuse Pollution from Forestry Related Activities in Galloway and Eskdalemuir Forests

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# **Project Aims**

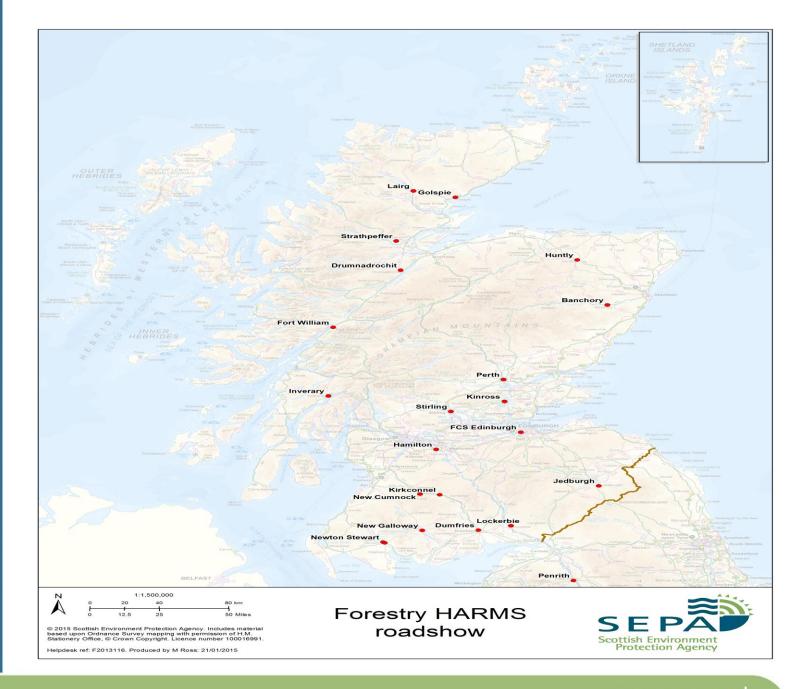
- Improve Communication links with State and private forestry – liaison meetings
- Workshops, awareness days, training & site visits, shared learning
- Site inspections –clearfelling, restocking, drainage works, road construction, quarries, pesticide/herbicide/fertilisers applications
- Help develop Best Practice Guide for forestry activities via DPMAG



# **Main Problems**

- Siltation from ground preparation, cultivation, harvesting and restocking
- Contaminated run-off from roadways
- Historical drainage systems
- Standing sales
- National disease obligations versus FWG5
- Quarry runoff
- Natural Regen
- Waste

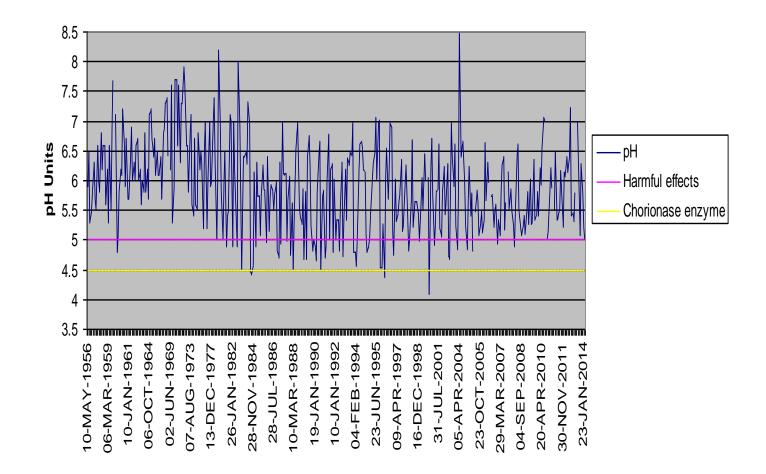




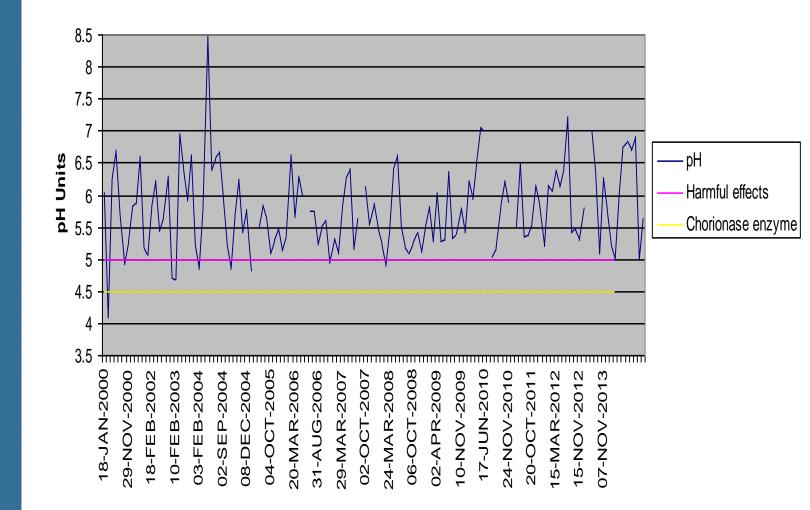


# What is Diffuse Pollution

**River Cree at Bargrennan** 







#### **River Cree at Bargrennan**



### Forwarder brash track decomp





# **Timber Stack near Burn**





# **Forestry Inspections**

Summary – February 2015

Total Inspections	216
Compliant	159 [74%]
Non Compliant	57 [26%]
Pollution Incidents	48
GBR20	32
GBR21	46
GBR22	6



# Breaking the Source/Pathway/Receptor



# DRAINAGE, DRAINAGE, DRAINAGE !!







### **CHRONOLOGICAL DRAINAGE REVIEW**

- **FWG2, 1991 [23 Years ago]** prevent roadside drains discharging direct to watercourses; where unavoidable provide silt traps and maintain them regularly.
- **FWG3, 1993 [21 Years ago]** Roadside drains carry high sediment load must not be allowed to directly connect to watercourses, re-direct to buffer areas
- **FWG4, 2003 [12 Years ago]** Old drain clearing presents high risk of pollution, drains should be realigned to ensure volume flows onto vegetated ground and NOT into watercourses. Existing drains should not drain directly into watercourses
- **FWG5, 2011 [3 Years ago]** Realign existing drains, avoid watercourse connections, redirect to buffer zones





# Historical roadside ditches - Disconnect





# **Solution – Sump and Natural filter**





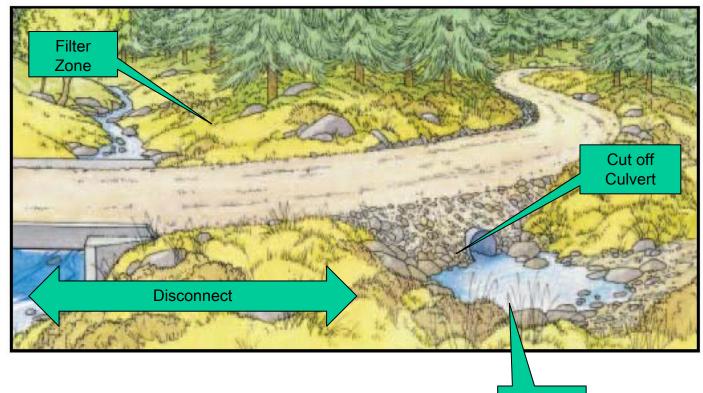
# **Receptor protected**





### **Disconnection**

### FC Operations Note 25 - Roadside drain



Silt Trap



# Communication





# Poor Communication & Site Responsibilities





# **Poor Crossing Point**





# **Culvert Blocked**





# **New Grip Drain for spring water**





# **Dry Crossing Point**





# Contractor Competency Dalwhat Burn





# Dalwhat Burn 1Km D/Stream





# Dalwhat Burn 4Km d/stream





# **Galloway Flailing**





# What & Why





# Working Quarries High Pollution Risks





### **Poor Rock Quality & Gross Pollution**





# Iron & Unknown Leachate





# **Quarry Runoff**





# **Roadside Ditch Sump**





# **Grass Swale Soakaway**





# Irish pipe bridges





### **Polbae IPB Before**





# **Polbae IPB After**











## Contractor Waste Dumped in Woods





#### **Contractor Waste behind Caravan**





#### **Good & Bad Forestry 1**





### **Good & Bad Forestry 2**





#### **Good & Bad Forestry 3**





#### **Terram Trials**





#### **Terram in RSD**





## SUMMARY

- A Good Management Practice "Champion"
- Competency attainment for contractors
- Contracts Duties & Responsibilities
- Urgent need for Do's and Don't's Guide
- Good Quality Site Pre-Planning, Work Plans-Pull out flow chart of key decisions & tick list

#### • Themes:

- [1] Clear lines of communication
- [2] Improved site management
- [3] Pollution prevention NOT remediation
- [4] Guidelines are'nt seasonal
- [5] Carrot and Stick
- [6] Scotland's wet, Plan for it



# "The bitterness of poor Quality is remembered long after the sweet taste of low price has faded from memory"

#### Aldo Gucci



## "Quality is doing it right when no-one is looking"

Henry T Ford



## Thank you

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