

EAST AYRSHIRE COUNCIL

DEVELOPMENT SERVICES COMMITTEE - 24 AUGUST 2004

PRESSURES AND IMPACTS ON SCOTLAND'S WATER ENVIRONMENT (SEPA) REPORT AND CONSULTATION

Report by Executive Director of Development and Property Services

1. PURPOSE OF REPORT

- 1.1 To advise the Committee of the contents of the report and consultation document 'Pressures and Impacts on Scotland's Water Environment' recently issued by SEPA and to seek the Committee's agreement to the draft response on the above consultation document set out in this report. SEPA require a formal response by 23 September 2004.

2. BACKGROUND INFORMATION

- 2.1 The Water Framework Directive came into force throughout the EC in December 2000. It establishes new and better ways of protecting, improving and using Europe's rivers, lochs, estuaries, coasts and groundwater. The Directive has been given legal status in Scotland through the Water and Environment and Water Services (Scotland) Act 2003.
- 2.2 SEPA's consultation document 'Pressures and Impacts on Scotland's Water Environment' comprises the first of a series of reports on Scotland's water environment and consists of an environmental characterisation of all Scottish Waters and an assessment of the pressures and impacts upon them. SEPA intends to finalise the report by December 2004 and submit it to the EC by early 2005.
- 2.3 The central focus of the pressure and impact analysis is its identification of water bodies that risk failing the environmental objectives set out in the Water Framework Directive (WFD). The results will inform future monitoring and future programmes of action to improve water quality.

3. DETAILED PROVISIONS OF CONSULTATION REPORT

- 3.1 The Report sets out a framework for the environmental characterisation of the different types of water bodies in Scotland. These consist of surface waters, including rivers, canals, locks, estuaries or parts of these and coastal waters, and groundwaters comprising aquifers.
- 3.2 The Report also refers to special protected areas designated as requiring special protection under other EC directives, either to protect their surface water or groundwater or conserve habitats and species dependant on those waters. The WFD requires a register of these protected areas to be included as part of the environmental characterisation.

3.3.1 The main part of the Report consists of the findings of the pressure and impact analysis referred to in Section 2 above. The analysis is based on criteria formulated by UKTAG (United Kingdom Technical Advisory Group). A list of the criteria adopted forms part of the annex to this report. There is a caveat in the risk assessment in that 'good' status has not yet been defined across Europe and therefore it is not at present possible to judge from the assessment its full implications in terms of any future action required to improve Scotland's water environment under the WFD. The Report therefore contains a simplified template for risk assessment with generalised conclusions as to what action could be appropriate to each level of risk as follows:-

Directive Reporting Category	UK Reporting Category	Action
At Risk	(1a) Water bodies at significant risk.	Consideration of appropriate measures can start as soon as practicable.
	(1b) Water bodies probably at significant risk but for which further information is needed to make sure this view is correct.	Focus for more detailed risk assessments to determine whether or not the water bodies in this category are at significant risk in time for the interim overview of significant water management issues in 2007.
Not at risk	(2a) Water bodies probably not at significant risk.	Focus on improving quality of information in time for second pressure and impact analysis report in 2013.
	(2b) Water bodies not at significant risk.	Review for next pressure and impact analysis report in 2013 to identify any significant changes in the situation.

The definition of water bodies at risk is contained within the annex to this report.

3.4 The above template is applied to those categories of water bodies referred to in paragraph 3.1 above for the following types of effect to provide an overview for Scotland as a whole,

- Point source pollution (eg. dumping of contaminants at specific places);
- Diffuse source pollution (eg. agricultural residue run-offs);
- Abstraction and flow regulation (eg. local pumping from rivers/lochs);
- Morphological alterations (eg. any changes in the river profile/flood attenuation works).

3.5 The Report also provides a series of maps of Scotland illustrating which parts of river systems, inland water bodies and estuaries/coastlines are considered at risk under the reporting categories set out in paragraph 3.3 above in terms of these and other effects. Other maps providing technical information geographically are also included.

4. FINDINGS OF CONSULTATION REPORT

Scotland

4.1 An assessment by SEPA of the pressures and impacts on the water environment of Scotland as a whole appears in tabular form in the Report and is summarised in the Appendix to this report.

4.2 SEPA has concluded that approximately 50% of Scottish rivers and lochs are at risk of failing environmental objectives. While many of the areas affected are near larger population centres some of the more remote areas of Scotland are also at risk from pressures such as acid rain and hydropower schemes.

4.3 About 40% of Scotland's groundwaters are at risk of failing the environmental objectives the main areas are situated around Scotland's population centres and more intensively farmed areas.

4.4 Coastal areas have the lowest proportion – 20% by area – of water bodies considered at risk of failing environmental objectives. However, 85% of the area of estuaries are held to be at such risk with the Firth of Forth, Solway Firth and Clyde Estuary, including the majority of the Ayrshire coast fall within this category.

East Ayrshire

4.5 While there is no tabulated information in the Report for local areas the maps appended to it give some indication of the principal water bodies considered at risk within East Ayrshire.

4.6 The maps show that most of the principal watercourses within East Ayrshire, including parts of the River Ayr, River Irvine, Kilmarnock/Fenwick Waters, Black Water and Water of Coyle are considered at risk to some degree from all those pressure types specified in Section 3 above.

4.7 The maps also show that groundwaters in East Ayrshire are at risk from all pressure types.

4.8 As regards abstraction of drinking water in East Ayrshire the maps indicate that most of this is currently obtained from the tributaries of the River Irvine.

4.9 It is also clear from the Report that risk from morphological pressures ie effects on river profiles, banking, geometry exists within certain parts of the surface water system.

5. PLANNING IMPLICATIONS

- 5.1 The information provided by the Report may have significant implications in terms of the Council's review of the East Ayrshire Local Plan and the progression of the Long Term Development Strategy because of the need to reconcile the requirement for SEPA to achieve the long term targets for water quality set by the Water Framework Directive with providing an adequate water supply for anticipated demand from potential future development.
- 5.2 It is essential that River Basin Management Plans proceed in tandem with the review of the above Local Plan and Long Term Development Strategy and the SEPA Report assists in identifying areas of concern in relation to the water resource which would inform these plans/strategy. It is considered that SEPA should have a statutory duty to consider as part of the River Basin Management Plan the requirements of the Development Plan. It is also considered essential that sufficient resources are made available by the Scottish Executive to overcome any quality issue and that the future development of East Ayrshire is in no way compromised.
- 5.3 Scottish Water has already produced a draft version of its programme for 2006-2014, known as Q & S III. It is considered that while the findings of SEPA's Report provide a factual background for informing Q & S III a decision will need to be made regarding what is regarded as good water quality as referred to in Section 3 above for Scottish Water to finalise its Q & S III submission to the Scottish Executive.
- 5.4 The Council responded to the consultation by the Scottish Executive on the Water Environment (Controlled Activities)(Scotland) Regulations 2004 in terms of the report of the Executive Director of Development and Property Services to the Development Services Committee: 29 June 2004. This report referred to the fact that it was not possible to determine how the above regulations would extend the number of Combined Storm Outflows (CSOs) that are considered unsatisfactory. Clearly the nature of CSOs will have a bearing on the degree to which both point and diffuse source pollution affect the quality of the local surface water system and ultimately the groundwater resource. Such effects will have implications for the quality of water abstracted from local watercourses and for the SPAs and SACs within East Ayrshire which are indicated in the report as groundwater dependent terrestrial ecosystems.
- 5.5 As regards morphological pressures it is clear that this may also be an issue in East Ayrshire particularly in relation to the existing flood attenuation works along the River Irvine, increased run-off from de-forestation and other riparian commercial activities.

6. LEGAL AND FINANCIAL IMPLICATIONS

- 6.1 None.

7. CONCLUSIONS

- 7.1 It is concluded that although the Report provides important data on the current risks posed to water bodies within East Ayrshire there is still no objective standard for good water quality that can be adopted as a criteria for judging the state of the local water bodies under the Water Framework Directive and consequently it is not possible to say what potential action might be required under River Basin Management Plans or to make an assessment of the effects of, or provision for, any future development allocations that might be made in the Local Plan review or the emerging Long Term Development Strategy.

8. RECOMMENDATIONS

- 8.1 It is recommended the Committee:

- i) agree that the Head of Planning, Development and Building Standards respond to SEPA and the Scottish Executive regarding the Report Pressures and Impacts on Scotland's Water Environment in the terms set out in Sections 5 and 7 of this report.

James Lavery
Executive Director of Development and Property Services
4 August 2004
FV(JT/MMM)

LIST OF BACKGROUND PAPERS

1. Pressures and Impacts on Scotland's Water Environment – report and consultation (SEPA, July 2004).
2. Report to Development Services Committee: 29 July 2004 on Consultation Paper: The Water environment (Controlled Activities)(Scotland) Regulations 1994.

Anyone wishing further information should contact Alan Neish on 01563 – 576767.

Implementation Officer: Alan Neish

APPENDIX 1

PERCENTAGE BY AREA AND TYPE OF WATER BODIES CONSIDERED AT RISK IN SCOTLAND

Type of Pressure/Impact	River	Lake	Groundwater	Estuaries/Lagoons etc	Coastal
Point Source Pollution	16.8%	18.2%	21.0%	83.1%	13.7%
Diffuse Source Pollution	25.3%	27.9%	25.0%	73.2%	8.0%
Abstraction and Flow Regulation	25.9%	46.1%	14.5%	0.2%	NIL
Morphological Alterations	33.5%	45.2%	NIL	60.9%	7.4%
All Pressures	47.2%	61.5%	43.2%	83.7%	16.2%

APPENDIX 2

LIST OF PRINCIPAL RIVERS/WATER BODIES IN EAST AYRSHIRE BY DEGREES OF RISK AND TYPE OF PRESSURE (SEPA)

Key: (1) SEPA risk Ratings are referred to in Section 3 of the above report

(2) Abbreviations for Pressure Types in Table

PSP – Point Source Pollution

DSP – Diffuse source Pollution

MA – Morphological Alterations

A – Abstraction

FR – Flow Regulation

<u>River</u>	<u>Catchment Area</u>	<u>Pressure Types</u>	<u>Overall SEPA Risk Rating</u>
R Nith	River Nith	DSP	2a
Lane Burn	“ “	No pressures identified	2b
Afton Water	“ “	FR/A	1b
R Doon	River Doon	MA/DSP/FR	1b
Muck Water	“ “	DSP/FR	1b
Dalcairnie Burn	“ “	DSP	2a
Gala Lane	“ “	DSP	1b
Whitespout Lane	“ “	MA/DSP/FR	1b
Loch Doon	“ “	MA/PSP/DSP/A/FR	
Loch Finlas	“ “	MA	1b
R Ayr (downstream from Greenock Water)	“ “	PSP/DSP/A	1b
R Ayr (upstream from Greenock Water)	“ “	PSP/DSP/FR/MA	1b
Water of Coyle (downstream from Taiglum Burn)	“ “	PSP/DSP/FR/MA	1b
Water of Coyle (upstream from Taiglum Burn)	“ “	DSP	2a
Taiglum Burn	“ “	DSP/MA	1a
Glenstang	“ “	PSP/DSP	1b
Burn/Trabboch Burn	“ “		
Water of Fail	“ “	PSP/DSP/MA	1a

<u>River</u>	<u>Catchment Area</u>	<u>Pressure Types</u>	<u>Overall SEPA Risk Rating</u>
Lugar Water	“ “	PSP/DSP/MA/FR	1a
Glenmuir Water	“ “	MA	2b
Glaisnock Water	“ “	PSP/DSP/MA/FR	1b
Guelt Water/ Clocklowie Burn	“ “	No pressures identified	2b
Bellow Water/ Gass Water	“ “	DSP	2a
Burnock Water	River Ayr	MA/FR/DSP	1b
Dippol Burn	“ “	DSP	1a
Burn O'Need	“ “	DSP/FR	2a
Garpel Water	“ “	PSP	2a
Greenock Water	“ “	DSP	2a
Whitehaugh Water/ Polbeith Burn	“ “	DSP/FR	1b
River Irvine (west of confluence with Cessnock Water)	“ “	PSP/DSP/MA/A	1b
River Irvine (between confluences with Cessnock Water and Glen Burn)	“ “	DSP/MA	1b
River Irvine (upstream from Glen Burn)	“ “	DSP	2a
Annick Water	“ “	PSP/DSP/FR MA/A	1a
Glazert Burn	“ “	PSP/DSP/FR/A	1a
Garrier Burn	“ “	No pressures identified	2b
Carmel Water	“ “	PSP/DSP/FR	1a
Kingswell Burn/ Fenwick Water	“ “	DSP/MA	1a
Craufurdland Water (Fenwick Water to Hareshawmuir Water)	“ “	DSP/MA	2b
Craufurdland Water/ Dunton Water (upstream from Hareshawmuir Water)	“ “	DSP/A	1b
Hareshawmuir Water	“ “	MA	2a
Cessnock Water	“ “	DSP/MA	1b
Logan Burn	“ “	No pressures identified	2b
Glen Water	“ “	MA	2b
Lochgoin Reservoir	“ “	DSP/MA/A/FR	1a