

Significant Water Management Issues team
 Scottish Environment Protection Agency (SEPA)
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SEPA's Significant Water Management Issues Consultation

Please find our response to the consultation attached over the page. We also provide our contact details and consent to having our name, address and response made public in the digest of responses. Please do not hesitate to contact Bob Ferrier if you would like to discuss anything or clarify the content of this response.

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| 1. | Are you responding: (please tick one box) | | |
| | a) as an individual? | | go to Q2a/b and then Q4 |
| | b) on behalf of a group/organisation? | X | go to Q3 and then Q4 |
| On Behalf of Groups or Organisations | | | |
| | | | |
| 3. | The name and address of your organisation <i>will</i> be made available to the public. Are you also content for your response to be made available? | | |
| | X | YES | |

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| <p>Overall comments</p> | <p>SEPA should be congratulated for compiling an interesting, informative, thorough and easy to read document. It provides a useful and comprehensive audit of the main challenges facing RBMP.</p> |
| <p>Do you agree that these are the significant issues impacting the water bodies within the Scotland river basin district?</p> | <p>The document is comprehensive and has used a combination of actual data, along with risk assessment methodologies, to highlight the significant issues well. The only comments relate to the allocation of sectors: this is too generic when often the type and management regime of the sector is the important issue. The discussion on water users is quite patchy, yet this is essential to the identification of objectives. For example, p26 the socioeconomic assessment of diffuse pollution misses out tourism; and other recreational uses beyond fishing (e.g. canoeing, surfing); on p54: we would argue that recreation, amenity and biodiversity are uses of upland and so abstraction may have consequences in these areas (as suggested on p53).</p> |
| <p>Are there other significant issues at the river basin district level that have not been considered?</p> | <p>We wonder whether SEPA have considered the importance on temperature in meeting environmental objectives. The discharges from deep reservoirs into rivers and from industrial processes into coastal zone waters for example. Also the potential for radioactive particle contamination? Oil industry related scale and historical atomic power generation research are other possible gaps. We are not clear to what extent the labels given to the pressures cover issues such as rural road run off and cumulative impacts of poorly maintained septic tanks. Also, to what extent are emerging issues e.g. endocrine disruptors for pollution (diffuse and point source) being assessed? P31: hydro carbon (from transport?) and herbicides (on verges) are also found in rural areas but are not from agricultural sources – are you missing these pressures? Or are they not significant relative to the other rural pressures of agriculture and forestry? Is there an impact of road treatment (salt, urea, grit) on run off to water course through winter? The impacts of recreational boating on nutrient discharges do not appear to have been considered p34. Are septic tanks included in this discussion of sewage (p38 – 39)? We were surprised that no coast or transitional waters have SWMI from aquaculture given the preceding descriptions of the impacts from this sector and its location? How will future land use change and climate change effect abstraction for agriculture, e.g. bio-energy crops replacing grassland may be more water intensive; increased demand for horticulture may increase water demand. Regional climate change modelling suggests increased occurrence low flows in mid-late summer in East Scotland and increased agricultural abstraction pressures will also impact on recreational users, (e.g. canoeists) and presumably on private and public drinking water supplies in these areas. References to non-aquatic biodiversity appear patchy given that all pressures are likely to have an impact on biodiversity and habitat; and flora and fauna are always users of the water environment yet these are rarely mentioned. Can non-aquatic invasive species have an impact on water environment (e.g. colonisation of river banks by Himalayan Balsam followed by die back makes banks more susceptible to erosion). Flooding, which is one of the objectives of WEWS, appears to be spread across sections on the pollution</p> |



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| | <p>pressures as well as within the sections on morphological change. Thus, issues of too much rather than too little water are not focused on as a significant water management issue, but as a side effect of other pressures. This is a result of using the pressures approach that focuses on different pressures creating a change in state, rather than focusing on outcomes and then looking at why these outcomes are or are not being achieved.</p> |
| <p>Have we identified all the important existing measures that are used to address these issues? Please identify any important existing measures that we have missed.</p> | <p>All the measures are identified on the basis of one sector when the aim should be to ensure that they are synergistic, cost effective, socially acceptable, and look for “win wins”. On p27, while we support the idea of catchment officers, we are not sure that they should be SEPA employees given that SEPA is a regulator and farm advice is best coming from a neutral third party. Advice should not be seen as an alternative to regulation and economics, but a way of ensuring these are most effective and/or do not have unexpected consequences for the environment. With regards to table 7: other measures include working with, building on monitor and demonstration farms, farm discussion groups, and Best Practice Manual. Overall, PoM is not just about identifying available measures but how to spatially target them; how to help individuals find out and implement them, how to ensure they are maintained them through time with ongoing funding arrangements etc. Monitoring and evaluation should not just look at whether the environmental objectives are achieved but also of the conditions that enable or prevent full operationalisation of measures. How will you handle the implications of PoM for other policies and plans e.g. there are some more general access issues e.g. crossing of rivers or walking along rivers and lochs where modified for hydropower P52? With regard to abstraction and supply measures: - publicity campaigns to save water will be less effective when the perception is that main cause of water shortage is the failure of the utility to fix their infrastructure – positive news on what has been fixed will help encourage domestic consumers to play their part.</p> |
| <p>Are there additional new measures that you think could make an important contribution to addressing a significant issue?</p> | <p>We wonder whether there is going to be read across between these different initiatives. Are some actions designed to protect the water environment going to have negative impacts elsewhere – e.g. pollutant swapping and green house gas production? How do these measures focused on delivering the WFD sit with changes in agriculture driven by global markets? Climate change is highlighted in the summary document but not in the full report. Constantly consideration of climate change is on the impacts on water resources e.g., intensity of rainfall, changed regional patterns of rainfall, altered flows and potentially resultant floods. There is no mention of quality issues that might affect delivery of WFD objectives through adverse effects on ecology. Climate change will alter ALL biogeochemical cycles. Additionally how will the forthcoming floods bill influence patterns of management within basins? Similarly, if the Soils Directive becomes operational. All these factors must be integrated and there may be initiatives that could have a positive impact that at present are not being considered in the existing planning frameworks. It is difficult therefore to reconcile what could be achieved in 2015 given current understanding of the pressures. The consequences of those pressures will change given the changes in major drivers especially</p> |



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| | <p>climate change, land use and marine management policy. Future predictions must therefore build this uncertainty into the assessment process concurrently with the development of basin management plans.</p> |
| <p>Can you identify new or existing measures which you can help deliver?</p> | <p>The Macaulay Institute is currently developing a research proposal to assess the links between water quality and quantity (low flows and SFM) under scenarios of climate change in an agricultural land use catchment. We also have techniques for ecological assessment and river restoration. We can provide expertise in designing collective institutions and cooperative management for water quality and water resources (building on US and Australian measures). We are interested in interactions of policies and plans, particularly development control plans and RBMP. Through our environmental focus farm and other work, we can provide information on farmer attitudes to and uptake of management practices – evaluation on what works in practice. Finally, we have information to help with guidance on public and stakeholder engagement and developing strategic planning documents.</p> |

