Consultation responses to the Significant Water Management Issues Report for the Scotland RBD

The tables below detail the responses received from:

	• Individuals
	• Non-government organisations
	• Government bodies
	• The water industry
	• Other respondents

	Issue/Pressure	Comment	How SEPA has taken account of SWMI response in dRBMP
Individuals	Abstraction and flow regulation from hydropower	- Concern over pressures from current hydropower generation and environmental impacts that arise from new schemes. These impacts should be considered during the approval process.	Noted – see section 7.3 of the dRBMP
		- Concern over the impacts of hydropower on the River Garry, River Lochay and River Vagastie	Noted
		- Guidance is needed so that small scale hydro generation can occur without affecting flow and morphological characteristics	Agreed - Guidance being developed
		- Criticism of reallocation methodology	Noted

Issue/Pressure		Comment	How SEPA has taken account of SWMI response in dRBMP
Non-government organisations	Interactive map	- Interactive map is of limited use	Noted – GIS tool will be improved for dRBMP.
	Protected Areas	- Concern about lack of information on risks to and setting objectives for Protected Areas.	Noted – see section 4.3 and 5.4 of the dRBMP and Annex 5
		- Protected Areas are subject to different water quality standards and the drivers to secure measures are different	Agreed – see section 4.3 and 5.4 of the dRBMP and Annex 5
	Artificial and Heavily Modified Water Bodies	- Disappointed that a provisional designation of Artificial Water Bodies (AWB) has not been included in this SWMIs consultation.	Noted - AWBs are now considered in more detail in the dRBMP.
	Significant issues	- Prioritisation as a process is positive, but concern that this process does not reflect the level of ecological damage, but only the scale of a contribution of a particular sector (or source) to a wider water management problem.	Noted – dRBMP focuses on the environmental impact in more detail. See section 4.4 of the dRBMP.
	Measures	- It is important to note that whilst some measures may already exist, it does not necessarily mean that they will be adequate to meet WFD objectives. The effectiveness of existing measures must be assessed and where possible identify ways in which such measures can be further improved.	Accepted - this is part of effective implementation of the RBMP
		- The following strategies should be included in the dRBMP o Scottish Soils Strategy o Scottish Biodiversity Strategy and Biodiversity Action Plans o Scottish Climate Change programme and adaptation strategy	Noted – see section 13.2 of the dRBMP
		- The following key areas need revising in order to meet WFD requirements: o Forest and Water guidelines and other existing measures to bring in line with WFD requirements for both diffuse pollution and morphology;	Noted – see section 4.2 of the dRBMP

Issue/Pressure		Comment	How SEPA has taken account of SWMI response in dRBMP
		o Review the land drainage regulation to bring in line with WFD; o Review code of practice for marine fish farms; o Review the effectiveness of cross-compliance and GAEC.	
		- Partnerships to carry out restoration projects should be a key focus of the RBMP.	Accepted - this is part of effective implementation of the RBMP
	Abstraction and flow regulation	- Fish farm abstractions should be included as an abstraction pressure and need controlled through licensing;	Noted
	Abstraction and flow regulation for hydropower	- Concern over lack of data and research on hydro impact on fish populations and factors	Noted – see section 7.2 and 7.3 of dRBMP
		- Concern over determination of required flow rates; insufficient attention is being given to establishing the needs of fish and fisheries at different times of the year across the whole flow range and in different river and loch types.	Noted
		- Modernisation and the upgrading of existing infrastructure should be considered as the first option for increasing capacity in hydropower generation and should be used to address environmental impacts of the existing schemes.	Noted – see section 7.3 of the dRBMP
		- Restoration of a water body to good status should be the first option; only if it is technically unfeasible or disproportionately expensive should mitigation measures (eg. increased compensation flows) be taken.	Noted
		- The decision about the most suitable measure, or a combination of measures should be made on the basis of cost-effectiveness with any additional benefits/costs of options taken into consideration e.g. benefit of re-connecting fish spawning runs, improved amenity etc. In some cases, modification of the infrastructure or activities will be required in order to restore ecological function.	Noted
	Abstraction and flow regulation for drinking water	- Scotland should be reducing leakage rates and promoting efficient water use through Quality and Standards process.	Noted - SEPA will be working with Scottish Water to improve efficiency of water use. See section 7.4

Issue/Pressure		Comment	How SEPA has taken account of SWMI response in dRBMP
	supplies		
	Abstraction and flow regulation for agriculture	- Strategies to deal water abstractions must include changes in land use and crops	Noted - This has not been proposed within the plan too early in the process. In the first plan we think that we should concentrate on water management.
	Changes to Morphology	- Better assessment of hydro-morphological impacts is required, including for transitional and coastal waters	Agreed – see section 9.1
		- In those catchments where there is a high risk of flooding, targeted re-establishment and restoration of floodplains might contribute to a sustainable approach to managing flood risk. Some level of public financial support would be required, as improved management of flood risk would clearly be of public benefit.	Noted – see section 11.1 of the dRBMP.
		- Recent initiatives to develop restoration guidance and to set up pilot project for the first RBMP are positive but more can be achieved in Scotland in the first cycle of RBMP.	Noted – see section 9
		- Restoration projects should be delivered in partnership.	
		- Existing controls do not cover damage to seabed from dredging/trawling activities, and therefore further measures are needed to resolve this issue.	Noted – this is partly a matter for Scottish Government
		- Further measures are required to address gaps in the regulation of coastal and marine areas, more ambitious targets for the restoration of the water environments.	
		- Significant damage to aquatic ecosystems by unlicensed activities continues to take place. In favour of the suggested additional measures for stronger planning constraints regarding development on flood plains.	Noted
	Invasive Non-Native Species	- WFD implementation is recognised as one of the key delivery mechanisms for the forthcoming GB Invasive Non-native Species Framework Strategy in aquatic eco-systems	Noted – see section 10 of the dRBMP

Issue/Pressure		Comment	How SEPA has taken account of SWMI response in dRBMP
		- A freshwater monitoring programme that detects the presence of new non-native species in water bodies at early stages is required to feed information to a rapid response process, as prescribed under the GB strategy, so allowing early containment, managing the spread into the wider environment,	
		- A comprehensive assessment of the impacts of non-native species needs to be carried out to enable appropriate action to address any potential problems and threats.	
		- Concerns over the development of a priority list for the identification of negative impacts of non-native species.	
		- The current list of non-native species is too restricted. Need to investigate the risks to the water environment from other non-native species, (consider the Annex list of species from DEFRA's review of non-native species policy), including those that are native in other parts of Britain but not Scotland.	Noted - We work with UKTAG on the identification of key species for control under the WFD. The information will be raised with UKTAG.
		- Additional species to be considered for inclusion include: o All non-native species of crayfish o American Cragonyx o Ruffe in Loch Lomond o Other translocated fish species including pike, perch, barbell, and grayling o Amphipod Dikegoramus , and non-native parasitic fish louse Argulus, o Additional plant species, including Eichorina crassipes, Azolla caroliniana.	
	Climate Change	- The impacts of climate change on water availability should be incorporated into RBMPs. - Changes in land use and crops may be required where water availability becomes a problem due to climate change.	Noted – see section 11 of dRBMP and the SEA
		- Climate change should be identified as a significant water management issue in the final RBMP. The impacts of climate change should be taken into	Noted – see section 11 of the dRBMP.

Issue/Pressure		Comment	How SEPA has taken account of SWMI response in dRBMP
		consideration, and measures should aim to provide flexible means of managing any potential future problems. Adapting to these changes through making land use management practices (principally agriculture and forestry) more sustainable should be an important part of the RBMP.	
	Pollution	- Addressing water quality at the 'end of pipe' is proving increasingly costly and is not a sustainable option in the long-term. Climate change will put further stress on our water and sewerage infrastructure. Need to develop catchment scale solutions that will reduce the input of pollutants in the first place, improve raw water quality and reduce the need for expensive end of pipe treatment	Agreed – see section 8.6 of the dRBMP
	Diffuse pollution from agriculture	- There must be clear and unequivocal evidence that it is farming that is the cause. Farmers will need advice in relation to the new GBRs and further best practice, including guidance on simple steps that will have little or no adverse impact on the financial position of farm businesses.	Noted - SEPA considers that there is clear evidence demonstrating the impact of diffuse pollution in Scotland supported by equivalent studies across Europe. See section 8.3 of the dRBMP.
		- General Binding Rules (GBRs) have an important role to play in preventing further deterioration of the aquatic environments, but addressing diffuse pollution requires new and a more proactive approach including effective regulation, review of cross-compliance and GAEC to bring them in line with WFD, educate farmers of diffuse pollution problems, catchment officers and establishment of a diffuse pollution implementation group	Agreed – see section 8.3 and 13.1 of the dRBMP and Annex 8.
		- The provision of one-to-one advice via a network of 'catchment may make an extremely effective contribution to addressing diffuse pollution.	
		- Recommend non-regulatory approach to diffuse pollution control and that SEPA work with wider range of local stakeholders	Noted – this is part of effective implementation of the RBMP. See Annex 8.
		- While the document considers eutrophication issues it does not consider acidification issues.	Noted - Classification data signifies not a widespread

Issue/Pressure		Comment	How SEPA has taken account of SWMI response in dRBMP
			issue across Scotland, but important in the Solway Tweed RBD.
	Pollution from forestry	- It is vital that Forest and Water Guidelines become more widely adopted in the private sector and should be a mandatory component of any grant process involving public funding. - The UK Forestry Standard must be applied to all woodlands, not just those in receipt of an FC grant/felling licence or the state forest. UK Forestry Standard should also become part of cross-compliance requirements.	Noted – SEPA to discuss with the Forestry Commission.
	Diffuse pollution from urban development	- There should be specific reference to a range of 'greening' measures that could help regulate water flow in urban environments including strategic green networks (along watercourses), protection of areas of semi-natural vegetation and other biodiversity hotspots, restoration of the natural pathways of urban watercourses, living/green roofs, street trees urban woodlands.	Noted
	Pollution from aquaculture	- The impact of aquaculture on freshwater ecosystems is not limited to those pressures listed in the document. Escapees affect the genetic integrity of native stocks and the loss of fish from farms should be regarded therefore as a form of pollution in the future. The removal of farms from migratory fish routes should be a priority (as has happened in most other salmon producing countries). Land based aquaculture units should become the only permitted method of fish production within a realistic timescale. - Further development of the current Code of Practice is required. This issue is particularly relevant to north Scotland, Orkney and Shetland.	Noted – see section 8.8 of the dRBMP.
	Flood Risk Management	- FRMPs, CFMPs and land drainage policies should be brought in line with WFD principles. There are overlaps between FRMPs and dRBMP.	Agreed – see section 13 and Annex 8.

	Issue/Pressure	Comment	How SEPA has taken account of SWMI response in dRBMP
Government bodies	General	- When referring to planning matters the term 'planning authority' should be used. This may not always be the Local Authority	Noted
	Individual water bodies	- Concern over the number of water bodies in Renfrewshire that have been designated heavily modified and whether this will diminish the priority given to improving such water bodies. This is particularly important given that many of these water bodies lie adjacent or in proximity to the Council's priority areas for regeneration.	Noted – HMWB designation should not restrict restoration. This is part of effective implementation of the RBMP.
		- Loch Lubnaig (wb id 100258) - has a SAC associated with it.	Noted - This is recorded on the SEPA system and will show on the GIS for the dRBMP.
		- Loch Eck (wb id 100272) - has a SSSI associated with it.	Noted – the SEPA database only records sites listed on the Protected Areas register associated with that water body. SSSIs are not part of the Protected Areas Register and therefore not recorded against the water body on the GIS.
		- Lake of Menteith (wb id 100271) - has a SSSI associated with it.	
	Interactive map	- Difficulties using the interactive map and size of printed maps, which means it is not possible to comment on individual water bodies.	Noted – GIS tool will be improved for dRBMP.
	Measures	- More information on meeting GBRs required for land managers	Agreed – see section 8.3 of dRBMP.
		- Clear information and guidance required on identifying Drinking Water Zones for local authorities/National Parks	Noted – part of effective implementation of the RBMP. See Annex 8.
		- SEPA to continue to work with local authorities and National Parks on land-use policy to prevent impacts on water quality.	

Issue/Pressure	Comment	How SEPA has taken account of SWMI response in dRBMP
	- Catchment officers dealing with diffuse pollution is not mentioned for the Scotland RBD	Noted – see section 8.3 of dRBMP.
Objective setting	- There is concern about how the test of disproportionate expense will be applied. Deferring action until future cycles on these grounds will mean that certain activities will continue to adversely impact on the environment.	Noted
Artificial and Heavily Modified Water Bodies	- Potentially 91% of Scotland's water bodies will be identified as "heavily modified" and thus not able to meet good ecological status. The use of a percentage in this case would seem appropriate as a useful baseline indicator for the state of Scotland's water environment.	Noted - SEPA had 317 water bodies in the Scotland RBD identified as provisionally heavily modified and 91% of these are definitely heavily modified. This is approximately 7% of all water bodies in Scotland RBD (3081 water bodies in Scotland RBD)
SWMIs	- Flood prevention should be a SWMI - likely to affect larger waterbodies/catchments in the future, possibly within first cycle WFD.	Noted – see Annex 8.
Morphology	- Local FRMPs may provide opportunity for restoration including floodplain restoration and culvert removal. There is a need to integrate these with dRBMP.	
	- Potential measure to address morphological impacts - an initiative led by Scottish and Southern Energy (along with SNH, SEPA, MLURI, FRS and others) to change sediment management practices around selected impoundments with the aim of improving the morphology at those sites.	Noted
	- A new funding framework to enable much more restoration work is required.	Noted – see section 9.2 of the dRBMP.
	- A review of FEPA is required to bring it in line with WFD.	This is a Scottish Government Issue

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Impacts from Forestry	- Many upland lochs will not have been characterised due to their small size, and therefore the extent to which this pressure impacts lochs in Scotland may be under-estimated by Table 8.	Noted
	- One clear set of standards of good practice is required for forestry (GBRs, Forest and Water Guidelines. GAEC etc.)	This is a Scottish Government issue, but may be helped by SEARS.
	- A further measure could be that the redesign of some forests be given priority if the waterbody is at risk from this pressure so that past poor management can be changed more rapidly and good status objectives attained in a shorter timescale.	Noted – see section 8.5 of the dRBMP.
	- The UK Woodlands Assurance Standard should be added to the advice section.	Noted
	- Better integration of forestry across all land use sectors has the potential to make significant contribution to sustainable water resource management.	Noted – see section 8 of dRBMP
Diffuse pollution from urban development	- Has any consideration been given to the accumulation of diffuse pollutants within these mitigation measures?	Noted – measures do not address accumulation.
	- Any regulation with regard to the retrofitting of SUDS for roads drainage would have to be supported by the provision of appropriate levels of funding from the Scottish Government and improved advice.	Noted – this is a regulatory issue.
	- There is overlap with the local FRMPs which should provide significant benefits to RBMP	Agreed – see section 13 and Annex 8.
Abstraction and flow regulation	- Opening up of rivers naturally inaccessible to fish might not be good for nature conservation, where seeking to conserve the genetic diversity of isolated populations of fish.	Noted - We have not suggested in the RBMP that naturally inaccessible river should be opened up.
	- The social/recreational benefits of reservoirs need to be taken into consideration and early consultation with users is required to ensure the ecological/educational and recreational potential of such residual sites can be	Noted

	Issue/Pressure	Comment	How SEPA has taken account of SWMI response in dRBMP
		fully realised.	
		- The impacts of agricultural abstractions on wetlands and river water bodies and potentially on statutory and non-statutory nature conservation sites should be considered.	Noted – see section 7.5 of the dRBMP.
		- The impact of compensation flow releases from drinking water reservoirs should be considered and flow regimes are needed to improve ecological conditions and permit fish migration.	Noted
	Point source pollution from aquaculture	- Area Management Agreements (AMAs) has reduced the risk to wild salmonids from farmed fish. It is essential that financial support is continued so that the AMA groups can continue this important work, including long-term funding of Fisheries Tursts.	This is a Scottish government issue
	Point source pollution from sewage treatment	- Incremental improvements to the combined wastewater system are feasible – this could include schemes to provide increased capacity to reduce the incidence of overflow into the water environment.	Noted – see sections 8.4 and 8.6 of the dRBMP.
		- There is a need for clear planning direction for urban drainage to ensure integrated investment, concurrent and supporting investment from both new development and redevelopment. There may be a need to address the Housing Act to better manage significant areas of social housing drainage.	Noted
	Point source pollution from mining and quarrying	- Potential through the review of old mineral permissions procedures to bring operations with extant grants of permission into conformity with current standards.	Noted
	Diffuse pollution from agriculture	- Both the proposal for advice (from catchment officers and others) and improved regulation and incentives are supported.	Agreed – see section 8.3 of the dRBMP.
	Diffuse pollution from sea and coastal water transport	- There is very little regarding marine litter included in Table 13 to tackle the problems. The River Basin Plan would be a good framework within which to draw together the actions that are currently being carried out on, mostly, a voluntary basis to address marine litter problems.	This is a difficult issue as it is not a WFD quality element, but is very important for the public.
	Invasive Non	- More risk assessments required on invasive non-native species not yet in	Noted – see section 10 of the

Issue/Pressure	Comment	How SEPA has taken account of SWMI response in dRBMP
Native Species	Scotland and finding out more about species currently in Scotland but with unknown impacts.	dRBMP.
	- Mechanisms to deal with invasive non native species must consider more than the top ten priority list. Local alien species fora may be able to coordinate catchment level work.	Noted - We work with UKTAG on the identification of key species for control under the WFD. The information will be raised with UKTAG. See section 10 of the dRBMP.
	- The number of water bodies affected by alien species in table 41 is small. It is important to note that all water bodies are 'at risk' from alien species.	Noted
	- Proposed new measure: consideration of stronger controls on movements of shellfish in the aquaculture industry to reduce possibility of spread of invasive species.	Noted
Climate change	- Monitoring of implementation of SUDS required and increased specifications for SUDs may be required to reduce diffuse pollution dependent on impacts of climate change.	Noted – to be considered further within climate change for the final RBMP

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Water Industry	General	- There is inconsistency in the use of terms between public body publications.	Noted
		- The approach that Area Management Plans (AMPs), linked to GIS, hold the detail of pressures and measures in water bodies is supported.	Noted
		- Sustainable land use planning is an important measure particularly in respect of flooding. It is important to have good links between river basin plans and local development plans and not just for SUDS but for all land use.	Noted – see section 13 of the dRBMP and annex 8.
	Pressures	- The document does not make it clear that the tables for the different pressure types are not cumulative, nor that some water bodies may have multiple pressures.	Noted
	Protected areas	- The report does not disaggregate Protected Areas (as defined by WFD) from the overall set of information, so it is unclear whether / to what extent Protected Areas are affected by pressures.	Noted – see sections 4.3 and 5.4 of the dRBMP
	Drinking Water	- Insufficient importance is placed on protecting Drinking Water Protected Areas, which should be given a high profile as the requirement to treat water prior to supply is in contravention of the WFD.	Agree this is a priority. This is part of effective implementation of the RBMP.
		- The RBMP should include appropriate links to Drinking Water Safety Plans and must align with SW's Strategic Capacity report and forthcoming Water Resources Plan 2008	Agreed – see Annex 5
	Artificial and Heavily Modified Water Bodies	- The water industry is not aware of any heavily modified water bodies that require site-specific assessments with regard to drinking water storage. These assessments may be time-consuming and unlikely to be completed before the publication of the RBMP.	Noted - Site-specific assessments refer to SEPA work plans – approximately 80% have been carried out in time for the dRBMP. See section 4 of the dRBMP.
		- Clarity is required on the term 'cause' of HMWB designation.	Noted - All water users and pressures on HMWBs have been identified.
	Measures	- SEPA and SW need to agree a process/protocol for entering SW's measures into the measures database	This is part of effective implementation of the RBMP.

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Groundwater	- Recharge of groundwater resources should be encouraged by more use of permeable areas and attenuation of flows after flooding.	Noted
Objectives	- Unclear how objective setting and applying exemptions will be carried out - needs to be transparent. More evidence on costs and consequences must be obtained before significant investment is made.	Noted – see section 5 of dRBMP and annex 3.
	- The first RBMP should be looking to investigate measures that might be implemented in the second cycle of RBMP.	Noted - included in objective setting process, hence some water bodies still not at good status in 2015. See section 5 and annex 6. This is part of effective implementation of the RBMP.
	- A clear approach to the 'no deterioration' objective is required in the RBMP.	Noted – see section see section 5 of dRBMP and annex 3.
	- The exemption on 'technical infeasibility' should be used in relation to controls for non-biodegradable substances at sewage treatment works.	Noted – see annex 3.
SWMIs	- A change in approach from "sectors causing pressure types" (as in SWMI), to actual issues (e.g. phosphorus) and associated measures that effectively address the issue in a water body.	Agreed – the dRBMP focuses on environmental issues. See section 4.4 of the dRBMP.
	- RBMP should also consider the impacts of climate change, drought and flooding. These issues are not fully addressed in this report.	Noted – see Annex 8
Diffuse pollution	- The use of targeted controls for areas where GBRs are not addressing the problems are considered appropriate and necessary.	Noted
	- The water industry would like to see greater emphasis on source control for	Ageed - see section 12 of the

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	pollution. This applies both to non-biodegradable substances discharged into sewers by industry and households and to diffuse losses from farmland and urban areas.	dRBMP.
	- Where there is a need to address pollutants that derive from multiple sources, such as phosphorus, measures should initially be targeted on source control (e.g. phosphate in detergent or from land run off) before assessing the requirement of energy-hungry end of pipe technology.	Agreed – see sections 8.4 and 8.6 of the dRBMP
Pollution	- Measures should be assessed in a holistic way, not just the benefits to the water environment but also the level of emissions and other environmental impacts and in particular those resulting from end-of-pipe treatments.	
	- The water industry would benefit from better control of highway and road drainage and related charges are vital especially with the ongoing threat of climate change and the recognition that SUDS are not for flood defence.	Noted – see section 8.6 of the dRBMP
Climate Change	- The carbon impact of measures needs to be considered.	Noted – see SEA
Invasive Non Native Species	- It is important that the RBMP process engages with agencies tasked with the control of other invasive non-native (INN) species to ensure that control methods do not impact on the water environment.	Noted – see section 10 of the dRBMP
	- Control methods should be monitored for effectiveness and guidance reviewed appropriately.	
	- With regard to additional measures, a ban on the sale of certain species listed on an order under Section 14A of the Wildlife & Countryside Act would be beneficial to the water industry.	
Annex D	- Figure D1 (UKTAG) on p116 seems is incorrect – the middle table should state technically infeasible, as opposed to technically feasible.	Noted – table to be amended if used in any future publications.

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Other	Interactive map	- This tool is insufficient as it is not possible to drill down into the supporting data.	Noted - GIS tool will be improved for dRBMP.
	Measures	- The approach taken to address diffuse pollution from agriculture through GBRs and the provision of information and advice should be considered for other sectors. - Regulatory enforcement should be focused on those where non-compliance poses the greatest environmental risk.	This is a regulatory issue
	Point source pollution from aquaculture.	- Heavy regulatory burden and negative reporting is impacting on investment in fish farms.	Noted – see section 8.8 of the dRBMP