

## 12. UNITED KINGDOM (UK)

### 12.1 Water Resources Management Policies and Actions

#### Implementation of EU Water Framework Directive

After the Water Framework Directive (2000/60/EC) (WFD) introduced by the European Council in 2000, United Kingdom, being one of the members of the Council, has set out policies to follow the Directive. Department for Environment, Food and Rural Affairs (Defra), the Scottish Executive, the Welsh Assembly Government and the Department of the Environment Northern Ireland have policy responsibility for the implementation of the WFD in the UK. Much of the implementation work will be undertaken by the Competent Authorities, which are the Environment Agency in England and Wales; the Scottish Environment Protection Agency (SEPA) in Scotland; and the Environment and Heritage Service in Northern Ireland.<sup>165</sup>

WFD applies to all water in the natural environment, i.e. all rivers, lochs, estuaries and coastal waters as well as underground water.<sup>166</sup>

The basic objectives set out in Article 4(1) of the WFD can be summarised as follows:

- prevent deterioration of the status of groundwater bodies;
- protect, enhance and restore all bodies of groundwater with the aim of achieving good groundwater status by 2015;
- prevent or limit the input of pollutants to groundwater and reverse any significant and sustained upward trend in the concentration of pollutants in groundwater;
- comply with Europe-wide measures for dangerous substances; and
- achieve compliance with any relevant standards and objectives for protected areas.

The ways in which England, Wales, Scotland and Northern Ireland to implement the Directive are summarised below.

#### (i) England and Wales

Current Government policy is set out in the strategy document "Directing the Flow – priorities for future water policy" in 2002. A new strategy is now under development and shall be published later in 2007, which plans to provide an opportunity to ensure that those commitments are realised in a way that will also aid the achievement of Defra's high level goals: mitigation and adapting to climate change, and protecting and enhancing the natural asset base. The overarching aim of the new water strategy is to improve standards of service and quality, through sustainable water management, whilst achieving a balance between environmental impacts, water quality of surface and ground waters, supply and demand, and social and economic effects. The intermediate outcomes are<sup>167</sup>:

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<sup>165</sup> Extracted from <http://www.defra.gov.uk/environment/water/wfd/index.htm>

<sup>166</sup> Extracted from "Implementation of the Water Environment and Water Services (Scotland) Act 2003", <http://www.scotland.gov.uk/Resource/Doc/172353/0048179.pdf>, page 3

<sup>167</sup> Extracted from <http://www.defra.gov.uk/environment/water/strategy/aims.htm>

- No deterioration in water quality in the environment, aiming for improvement to good ecological status by 2015, and improved biodiversity and ecology with increased value from sustainable recreation
- Climate change mitigation and adaptation
- Sustainable use of water resources with no essential supply interruptions during drought
- High levels of drinking water quality
- Fair, affordable and cost-reflective charges

The strategy covers water availability as well as water quality, through the implementation of the WFD, which has come into force in both England and Wales under “the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003” in 2004.<sup>168</sup> The strategy also addresses certain aspects of flooding, which interact with availability and quality concerns. Defra is currently taking forward a cross-government strategy for flood and coastal erosion risk management, “Making Space for Water”, which takes a holistic approach to management of risks from all forms of flooding and coastal erosion.<sup>169</sup>

#### (ii) Scotland

The WFD was successfully implemented in Scotland by the Water Environment and Water Services (Scotland) Act 2003 (WEWS). This legislation places Scotland in an excellent position in respect of the achievement of the environmental objectives. The aim of the WEWS Act is to protect and improve the water environment while also supporting the social and economic interests of those who depend on it.<sup>170</sup> As required by the WFD, WEWS stated that it is necessary for the Scottish Ministers to establish river basin districts and construct a River Basin Management Plan (RBMP) to (i) set environmental objectives in the district, and (ii) prepare a programme of measures to be applied to achieve those objectives.<sup>171</sup>

In order to co-ordinate the river basin planning process and producing river basin management plans, SEPA published a strategy, named “River Basin Planning Strategy for the Scotland River Basin District”, in 2005 outlining the different phases in the preparation of River Basin Management Plans (RBMP).<sup>172</sup>

The Strategy<sup>173</sup> describes planned actions within three key areas necessary for the development of effective river basin planning, as follows:

- establishing administrative arrangements and working principles to support RBMP productions

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<sup>168</sup> Detailed of the Act can be found at <http://www.opsi.gov.uk/si/si2003/20033242.htm>

<sup>169</sup> Extracted from <http://www.defra.gov.uk/environment/water/strategy/content.htm>

<sup>170</sup> Extracted from “Implementation of the Water Environment and Water Services (Scotland) Act 2003: Annual Report to the Scottish Parliament – 2005”, <http://www.scottishexecutive.gov.uk/Publications/2006/03/22145430/2>

<sup>171</sup> More details can be found in section 4 & 9 of the WEWS, which can be obtained at [http://www.opsi.gov.uk/legislation/scotland/acts2003/asp\\_20030003\\_en\\_2](http://www.opsi.gov.uk/legislation/scotland/acts2003/asp_20030003_en_2)

<sup>172</sup> Extracted from <http://www.scotland.gov.uk/Resource/Doc/151968/0040909.pdf>, page 18

<sup>173</sup> Full document can be obtained at [http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp\\_strategy.pdf](http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp_strategy.pdf).

Paragraphs are extracted in page 4

- delivering opportunities for participation and consultation
- integrating and coordinating the RBMP with other plans and planning

Apart from the RBMP, other planning processes are also stated in this Strategy. For instances, Catchment Management Plans (CMPs) can provide effective and innovative approaches to manage water resources at a local level. Such plans are typically issue-led and facilitate stakeholder participation in water management.<sup>174</sup>

### (iii) Northern Ireland

In 2002, “Water Resource Strategy 2002 – 2030” has been announced. The strategy proposes a twin track approach, to reduce leakage and rationalise and upgrade the existing supply by reducing the number of sources from which water is abstracted, from the current level of 50 down to 31, maximising the output from the most economic sources.<sup>175</sup>

A “Policy and Practice for the Protection of Groundwater in Northern Ireland” has been issued and has outlined the approach that the Environment and Heritage Service (EHS) will take towards the protection of both groundwater resources and groundwater quality in Northern Ireland. It represents a major step towards addressing activities which have potentials to induce impacts on water resources. This document has taken into consideration current European policy, which includes the WFD’s promotion on an integrated approach for water protection and management.<sup>176</sup> Later, the WFD has come into force in Northern Ireland under “the Water Environment (Water Framework Directive) (Northern Ireland) Regulations 2003”.<sup>177</sup>

The Policy contains four main components, including:<sup>178</sup>

- land zoning according to the classification of groundwater vulnerability to pollution, both where an effective soil cover exists for dispersed pollutants and without an effective soil cover in the case of point source discharges from soakaways and septic tanks;
- source protection by means of groundwater protection zones;
- specific policy statements on the control of groundwater quantity and quality, including groundwater abstraction, as well as waste disposal, contaminated land and other potentially polluting sources
- monitoring, databasing and analysis

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<sup>174</sup> Extracted from <http://www.scottishexecutive.gov.uk/Publications/2006/03/22145430/2>

<sup>175</sup> Extracted from <http://archive.nics.gov.uk/rd/020703k-rd.htm>

<sup>176</sup> Extracted from “Policy and Practice for the Protection of Groundwater in Northern Ireland”, full document can be obtained at

[http://www.ehsni.gov.uk/policy\\_and\\_practice\\_for\\_the\\_protection\\_of\\_groundwater\\_in\\_northern\\_ireland.pdf](http://www.ehsni.gov.uk/policy_and_practice_for_the_protection_of_groundwater_in_northern_ireland.pdf), the “Foreword” section and page iii

<sup>177</sup> Detailed of the Act can be found at <http://www.opsi.gov.uk/sr/sr2003/20030544.htm>

<sup>178</sup> Extracted from “Policy and Practice for the Protection of Groundwater in Northern Ireland”, full document can be obtained at

[http://www.ehsni.gov.uk/policy\\_and\\_practice\\_for\\_the\\_protection\\_of\\_groundwater\\_in\\_northern\\_ireland.pdf](http://www.ehsni.gov.uk/policy_and_practice_for_the_protection_of_groundwater_in_northern_ireland.pdf), page 4

### Other actions or strategies related to water resources management

*Water Quality Monitoring Strategy in Northern Ireland*<sup>179</sup>: Rivers in Northern Ireland are currently classified under separate chemical and biological General Quality Assessment (GQA) classification systems. Both systems have six classes ranging from 'Very Good' to 'Bad' quality, using nationally accepted criteria. The target set by the WFD is to maintain or improve the water quality to be at least "Good" under these classification schemes.

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<sup>179</sup> Extracted from "Policy for setting and delivering water quality targets", [http://www.ehsni.gov.uk/water\\_quality\\_targets\\_\\_web\\_.pdf](http://www.ehsni.gov.uk/water_quality_targets__web_.pdf), page 3-4

## 12.2 Environmental Evaluation/SEA in UK

### England, Wales and Northern Ireland

Since 20 July 2004, it is a **statutory** requirement for England, Wales and Northern Ireland to carry out SEA and integrate environmental considerations into the preparation and adoption of certain **plans and programmes** which are likely to have significant effects on the environment. The relevant regulations for the three countries are as follows:

- For England – “**Environmental Assessment of Plans and Programmes Regulations 2004**”<sup>180</sup>
- For Wales – “**Environmental Assessment of Plans and Programmes Regulations (Wales) 2004**”<sup>181</sup>
- For Northern Ireland – “**Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004**”<sup>182</sup>

They all implemented the EU Directive 2001/42/EC (also known as SEA Directive).<sup>183</sup>

Under section 5 of the above three regulations, the responsible authority should carry out SEA during the preparation of the plan or programme which:

- is prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use;
- sets the framework for future development consent of projects; and
- is likely to have significant environmental effects.

Under section 12 of the above three regulations, where SEA is required, the responsible authority should prepare an environmental report which includes:

- the identification, description and evaluation of the likely significant effects on the environment of implementing the plan or programme;
- reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme;
- current knowledge and methods of assessment;
- the contents and level of detail in the plan or programme;
- the stage of the plan or programme in the decision-making process; and
- the extent to which certain matters are more appropriately assessed at different

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<sup>180</sup> More information about the regulations can be found at the link,  
<http://www.opsi.gov.uk/si/si2004/20041633.htm>.

<sup>181</sup> More information about the regulations can be found at the link,  
<http://www.opsi.gov.uk/legislation/wales/wsi2004/20041656e.htm>

<sup>182</sup> More information about the regulations can be found at the link,  
<http://www.opsi.gov.uk/sr/sr2004/20040280.htm>

<sup>183</sup> Referenced to Strategic Environmental Assessment at the Policy Level: Recent Progress, Current Status and Future Prospects, Barry Sadler,  
[http://www.iaia.org/Non\\_Members/Conference/SEA%20Prague/SEA%20at%20the%20Policy%20Level.pdf](http://www.iaia.org/Non_Members/Conference/SEA%20Prague/SEA%20at%20the%20Policy%20Level.pdf)

levels in that process in order to avoid duplication of the assessment.

The main stages for SEA in England, Wales and Northern Ireland are listed below and illustrated in **Exhibit UK-1**:

- Stage A* Setting the context and objectives, establishing the baseline and deciding on the scope
- Stage B* Developing and refining alternatives and assessing effects
- Stage C* Preparing the Environmental Report
- Stage D* Consultation on the draft plan and the Environmental Report
- Stage E* Monitoring the significant effects of implementing the plan on the environment<sup>184</sup>

While the above three regulations apply to only plans and programmes but not policies, **non-statutory** SEA-type processes for **policy appraisal** were continuously adopted in **England, Wales and Northern Ireland**. These processes operate independently from and are not affected by the regulations that give effect to the SEA Directive. The processes demonstrate the multi-faceted regime that is in place at the policy level, where environmental appraisal within central government has been merged into the two larger frameworks including:

- Integrated Policy Appraisal (IPA) – methodology established as part of the White Paper on Modernizing Government
- Regulatory Impact Assessment (RIA) – more formalized procedure which applied to major proposals as well as legislation.<sup>185</sup>

Guidance on environmental appraisal of policies is based on frameworks of IPA and RIA.

IPA framework sets out methodologies for policy appraisal in support of sustainable development covering impacts on business, the environment, health and the needs of particular groups. IPA as a useful tool applies at an early stage of the policy process and carries out as an iterative process proportional to the likely impact of a proposal.

RIA framework mainly applies to:

- all forms of regulatory proposal – laws, rules, codes of practices, etc
- the full range of potential benefits and costs – economic, social and environmental
- the distribution of impacts – whether they affect the public, civic and private sectors<sup>186</sup>

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<sup>184</sup> Extracted from the “A Practical Guide to the Strategic Environmental Assessment Directive”, [http://www.ehnsi.gov.uk/bm\\_sea\\_practicalguide.pdf](http://www.ehnsi.gov.uk/bm_sea_practicalguide.pdf), page 24

<sup>185</sup> Strategic Environmental Assessment at the Policy Level: Recent Progress, Current Status and Future Prospects, Barry Sadler, [http://www.iaia.org/Non\\_Members/Conference/SEA%20Prague/SEA%20at%20the%20Policy%20Level.pdf](http://www.iaia.org/Non_Members/Conference/SEA%20Prague/SEA%20at%20the%20Policy%20Level.pdf), pages 97-99, 109-110

<sup>186</sup> Strategic Environmental Assessment at the Policy Level: Recent Progress, Current Status and Future Prospects, Barry Sadler,

## Scotland

Since 20 July 2004, it is a **statutory** requirement under the “Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004”, which introduced by the Scottish Executive and implemented the SEA Directive, to carry out SEA and integrate environmental considerations into the preparation and adoption of certain plans and programmes which are likely to have significant effects on the environment.

Afterwards, this regulation was replaced by the “**Environmental Assessment Act (Scotland) 2005**”<sup>187</sup>, which came into force on 20 February 2006, to conduct SEA for the **plans and programmes, including strategies**.<sup>188</sup>

After screening, if the responsible authority is of the opinion that the proposed strategy, plan or programme will have (a) no effect, or (b) minimal effect, in relation to the environment, SEA is then not required to conduct.<sup>189</sup>

The process of assessing environmental impacts should be fully integrated with the development of the proposal and should therefore be applied at the strategic level, during option formulation and appraisal, and at the detailed project level. Early consideration of environmental issues should result in the development of proposals that avoid environmental constraints, or result in a reduced environmental impact and a lesser need for mitigation measures and their associated costs. It should also inform the consideration of alternatives and the choice between them.<sup>190</sup>

Stages of SEA process in Scotland are listed as follows:

- Screening – to determine whether the proposed plan/programme is likely to have significant environmental effects and whether an SEA is required.
- Scoping – this enables the coverage and level of detail of the Environmental Report to be determined in conjunction with the statutory consultees: the Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Scottish Ministers (Historic Scotland (HS))
- Environmental Report – it details the anticipated environmental impacts of the plan/programme and any proposed amendments to the plan/programme; and the proposals for monitoring the environmental impacts of the plan/programme
- Monitoring – a stage being undertaken during implementation of the plan/programme and serves to identify the level of monitoring required and, should adverse impacts be identified, any remediation proposals.<sup>191</sup>

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[http://www.iaia.org/Non\\_Members/Conference/SEA%20Prague/SEA%20at%20the%20Policy%20Level.pdf](http://www.iaia.org/Non_Members/Conference/SEA%20Prague/SEA%20at%20the%20Policy%20Level.pdf), pages 100, 104

<sup>187</sup> More information about the Environmental Assessment Act (Scotland) 2005 can be found at the link,

<http://www.opsi.gov.uk/legislation/scotland/acts2005/20050015.htm>

<sup>188</sup> Refer section 4 of the Environmental Assessment Act (Scotland) 2005

<sup>189</sup> More information about the Act (Section 7) can be found in the link,

<http://www.opsi.gov.uk/legislation/scotland/acts2005/20050015.htm>, originated from the web site of the Office of Public Sector Information

<sup>190</sup> Referenced to the “Scottish Transport Appraisal Guidance (STAG)”, Chapter 6 Environment,

<http://www.transportscotland.gov.uk/defaultpage1221cde0.aspx?pageID=255&ChptId=236#61>

<sup>191</sup> Referenced to the “Scotland Rural Development Programme 2007-2013: Strategic Environmental Assessment –

Under sections 1 and 5 of the Act, it applies only for those qualified policies, plans and programmes which:

- is prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use;
- sets the framework for future development consent of projects listed in schedule 1 of the Act.<sup>192</sup>

According to section 7 of the Act, if the responsible authority is of the opinion that the policy, plan or programme will have (a) no effect, (b) minimal effect, in relation to the environment, then it can be exempted from this Act provided that:

- the responsible authority has considered and applied the criteria specified in schedule 2 of the Act - Criteria for determining the likely significance of effects on the Environment
- the consultation authorities (including the Scottish Ministers, the Scottish Environment Protection Agency and Scottish Natural Heritage) and the public were notified

“Environmental assessment” under this Act defines SEA which includes the preparation of an environmental report, the carrying out of consultations, and the taking into account of the environmental report and the result of the consultations in decision-making.<sup>193</sup>



Source: “Implementation of the WEWS 2003”<sup>194</sup>



Source: “River Basin Planning Strategy for the Scotland River Basin District”<sup>195</sup>

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Environmental Report” by Scottish Executive, <http://www.scotland.gov.uk/Publications/2006/05/17102624/3>

<sup>192</sup> Originated from the web site of the Office of Public Sector Information, <http://www.opsi.gov.uk/legislation/scotland/acts2005/20050015.htm>

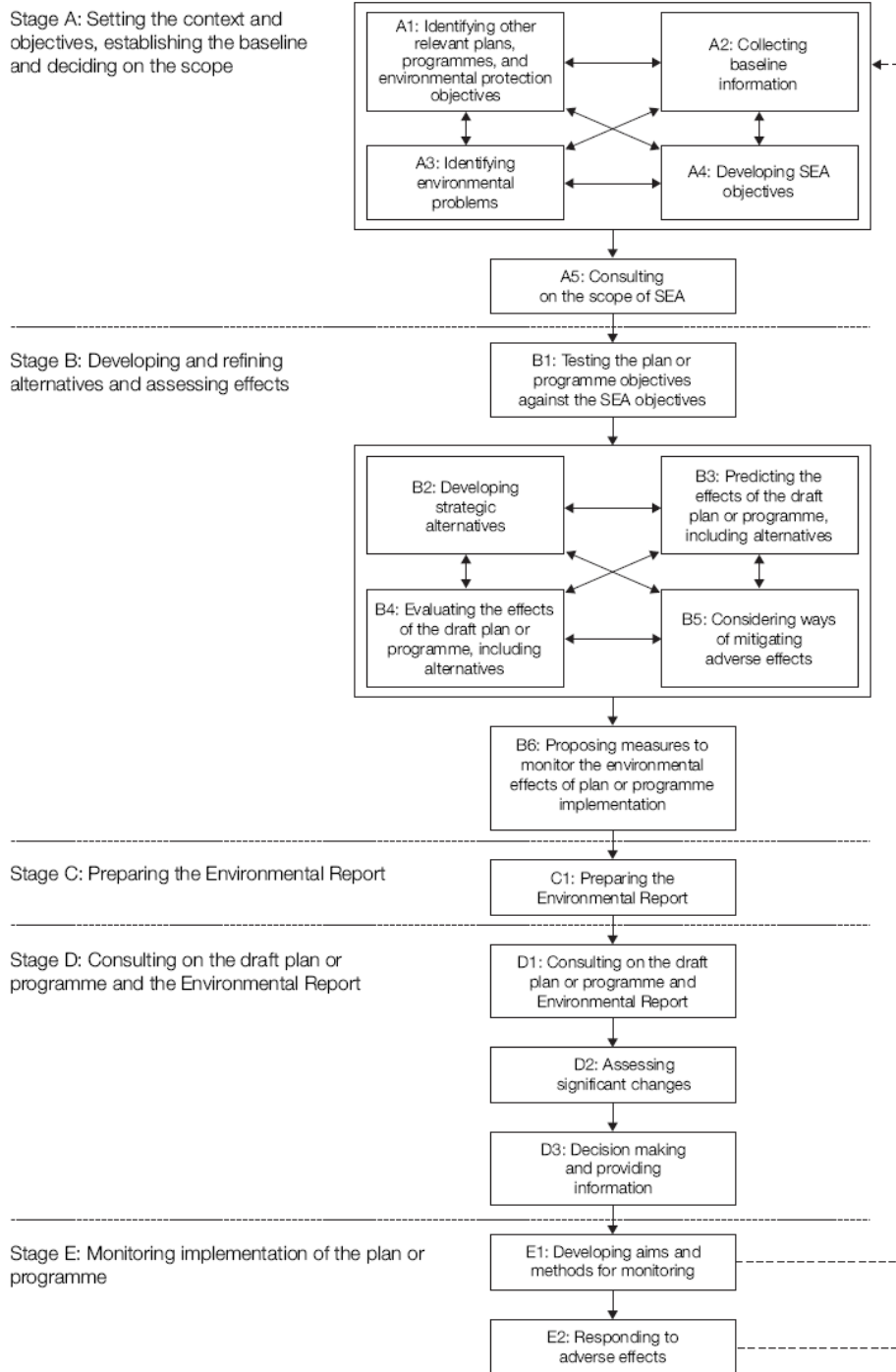
<sup>193</sup> Refer section 1 of the Act

<sup>194</sup> Extracted from “Implementation of the Water Environment and Water Services (Scotland) Act 2003”, <http://www.scotland.gov.uk/Resource/Doc/172353/0048179.pdf>, page 1

<sup>195</sup> Extracted from “River Basin Planning Strategy for the Scotland River Basin District”, [http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp\\_strategy.pdf](http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp_strategy.pdf) page 26



**Exhibit UK-1 Integrated stages for SEA in England, Wales and Northern Ireland** <sup>196</sup>



<sup>196</sup> Extracted from the "A Practical Guide to the Strategic Environmental Assessment Directive", <http://www.scotland.gov.uk/Resource/Doc/921/0018361.pdf>, page 25

### 12.3 Environmental Evaluation/SEA on Water Resources Management in UK

Plans or programmes related to water resources management in England, Wales and North Ireland follow the requirements of the *Environmental Assessment of Plans and Programmes Regulations 2004*, the *Environmental Assessment of Plans and Programmes Regulations (Wales) 2004* and the *Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004* respectively, as such SEA should be carried out to integrate environmental considerations into the preparation and adoption of certain policy, plan or programme which is likely to have significant effects on the environment. This can be verified from Section 5 of the three regulations which states that the Act applies for those qualified plans and programmes which are prepared for water management sector.

For those policies related to water resources management in England, Wales and North Ireland, the implementation of SEA is non-statutorily required, where environmental appraisal is governed by two frameworks: IPA and RIA.

A summary table for both the water resources management policies and actions and SEA status in England, Wales and Northern Ireland is presented in **Exhibit UK-2**:

<b>Exhibit UK-2 Summary of Water Resources Management (WRM) Policies and Actions and SEA status in UK</b>	
<b>(1) England</b>	
<b>(a) WRM Policies and Actions</b>	
<b>WRM Policies and Actions</b>	Policies: <ul style="list-style-type: none"> <li>● Directing the Flow – priorities for future water policy</li> <li>● Implementation of EU Water Resources Directive</li> </ul> Actions: <ul style="list-style-type: none"> <li>● N/A</li> </ul>
<b>Guidance/Legislations for WRM</b>	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003
<b>(b) Environmental Evaluations / SEA Status in WRM Policies and Actions</b>	
<b>Type of Assessment</b>	<ul style="list-style-type: none"> <li>● Integrated Policy Appraisal and Regulatory Impact Assessment for policies</li> <li>● Strategic Environmental Assessment for plans and programmes</li> </ul>
<b>Requirement Mechanisms</b>	<ul style="list-style-type: none"> <li>● Administrative for policies</li> <li>● Statutory for plans and programmes</li> </ul>
<b>Legislation for Environmental Evaluation / SEA</b>	Under Environmental Assessment of Plans and Programmes Regulations 2004 for plans and programmes
<b>Applications</b>	Plans and Programmes
<b>(2) Wales</b>	
<b>(a) WRM Policies and Actions</b>	
<b>WRM Policies and Actions</b>	Policies: <ul style="list-style-type: none"> <li>● Directing the Flow – priorities for future water policy</li> <li>● Implementation of EU Water Resources Directive</li> </ul> Actions: <ul style="list-style-type: none"> <li>● N/A</li> </ul>
<b>Guidance/Legislations for WRM</b>	The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003

<b>(b) Environmental Evaluations / SEA Status in WRM Policies and Actions</b>	
<b>Type of Assessment</b>	<ul style="list-style-type: none"> <li>• Integrated Policy Appraisal and Regulatory Impact Assessment for policies</li> <li>• Strategic Environmental Assessment for plans and programmes</li> </ul>
<b>Requirement Mechanisms</b>	<ul style="list-style-type: none"> <li>• Administrative for policies</li> <li>• Statutory for plans and programmes</li> </ul>
<b>Legislation for Environmental Evaluation / SEA</b>	Environmental Assessment of Plans and Programmes Regulations (Wales) 2004
<b>Applications</b>	Plans and Programmes
<b>(c) Northern Ireland</b>	
<b>(a) WRM Policies and Actions</b>	
<b>WRM Policies and Actions</b>	Policies: <ul style="list-style-type: none"> <li>• Water Resource Strategy 2002 – 2030</li> <li>• Implementation of EU Water Resources Directive</li> </ul> Actions: <ul style="list-style-type: none"> <li>• Water Quality Monitoring Strategy in Northern Ireland</li> </ul>
<b>Guidance/Legislations for WRM</b>	The Water Environment (Water Framework Directive) (Northern Ireland) Regulations 2003
<b>(b) Environmental Evaluations / SEA Status in WRM Policies and Actions</b>	
<b>Type of Assessment</b>	<ul style="list-style-type: none"> <li>• Integrated Policy Appraisal and Regulatory Impact Assessment for policies</li> <li>• Strategic Environmental Assessment for plans and programmes</li> </ul>
<b>Requirement Mechanisms</b>	<ul style="list-style-type: none"> <li>• Administrative for policies</li> <li>• Statutory for plans and programmes</li> </ul>
<b>Legislation for Environmental Evaluation / SEA</b>	Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004
<b>Applications</b>	Plans and Programmes

Policy, plan or programme related to water resources management in Scotland follows the requirements of *Environmental Assessment Act (Scotland) 2005* as such SEA should be carried out to integrate environmental considerations into the preparation and adoption of certain policy, plan or programme which is likely to have significant effects on the environment. This can be verified from Section 1 and 5 of the Act which states that the Act applies for those qualified policies, plans and programmes which are prepared for water management sector. For instance, when constructing the River Basin Plan, the requirement of SEA has been considered.<sup>197</sup>

All details of process and requirements on SEA can be referred to the Section 12.2.

A summary table for both the water resources management policies and actions and SEA status in Scotland is presented in **Exhibit UK-3**:

<sup>197</sup> Extracted from [http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp\\_strategy.pdf](http://www.sepa.org.uk/pdf/wfd/rbmp/strategy/rbmp_strategy.pdf), page 6

<b>Exhibit UK-3 Summary of Water Resources Management (WRM) Policies and Actions and SEA status in Scotland</b>	
<b>(a) WRM Policies and Actions</b>	
<b>WRM Policies and Actions</b>	Policies: <ul style="list-style-type: none"> <li>• Implementation of EU Water Resources Directive</li> </ul> Actions: <ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Guidance/Legislations for WRM</b>	The Water Environment and Water Services (Scotland) Act 2003
<b>(b) Environmental Evaluations / SEA Status in WRM Policies and Actions</b>	
<b>Type of Assessment</b>	Strategic Environmental Assessment
<b>Requirement Mechanisms</b>	Statutory
<b>Legislation for Environmental Evaluation / SEA</b>	Environmental Assessment Act (Scotland) 2005
<b>Applications</b>	Polices, Plans and Programmes

## 12.4 Analysis and Conclusions

### *WRM Policies*

For the WRM policies in United Kingdom, at present the primary objective of UK water management is the practical implementation of the *EU Water Framework Directive*.

In England and Wales, the “Directing the Flow – priorities for future water policy” aims to improve standards of service and quality through sustainable water management, and at the same time achieving a balance between environmental impacts, water quality of surface and ground waters, supply and demand, and social and economic effects. Another water strategy, the “Water Environment (Water Framework Directive) (England and Wales) Regulations 2003”, covers both water availability and water quality. The strategy also addresses certain aspects of flooding, which interact with availability and quality concerns. The strategy “Making Space for Water” by Defra takes a comprehensive approach to management of risks from all forms of flooding and coastal erosion.

In Scotland, the Water Environment and Water Services (Scotland) Act 2003 targets to protect and improve the water environment whilst supporting the social and economic interests of those who depend on it. The “River Basin Planning Strategy for the Scotland River Basin District” implemented by SEPA, planned actions for the development of effective river basin planning, e.g. establishing administrative arrangements and working principles to support RBMP productions. Other plans such as Catchment Management Plans provide effective approaches to manage water resources at a local level.

In Northern Ireland, “Water Resource Strategy 2002 – 2030” is the strategy proposes to reduce leakage and rationalise and upgrade the existing water supply. “Policy and Practice for the Protection of Groundwater in Northern Ireland” is responsible for the protection of both groundwater resources and groundwater quality in Northern Ireland. Other strategies related to water resources management in Northern Ireland include the “Water Quality Monitoring Strategy”. Its target is to maintain or improve the water quality to be at least “Good” under these classification schemes.

Compared to United Kingdom, Hong Kong is not within the EU Directive regime and the scope of water resources need to be managed is restrained to the two main sources of water – rainfall from natural catchment and supply from Guangdong. It is Water Supplies Department’s (WSD) scope of work to cover the whole process from the collection of natural yield from rainfall, the reception of raw water from Guangdong to the provision of a supply with a quality of accepted international standards to the users’ taps. WSD also supplies sea water for flushing purposes to over 80% of the population. For protection against flooding, sewage collection, treatment and disposal, it is under Drainage Services Department’s (DSD) jurisdiction.

For the sustainable development of Hong Kong, WSD has initiated a *Total Water Management programme* comprising key elements of new water resources, water reclamation, water conservation and water resources protection and management was initiated for better utilization of the different water resources.

## *EE/SEA*

As an EU Member State, the United Kingdom is obliged to adopt the requirements of the EU Directive 2001/42/EC by bringing into force the laws, regulations and administrative provisions necessary to comply with the Directive. In this connection, individual laws have been passed for England, Wales and Northern Ireland, and SEA has become a statutory requirement for WRM plans and programmes. Scotland, on the other hand, extends the statutory requirement to strategies level as well.

In England, Wales and Northern Ireland, an administrative SEA-like system is adopted for policy level decision making. Environmental appraisal within central government has been merged into the two larger frameworks including: Integrated Policy Appraisal (IPA) - methodology established as part of the White Paper on Modernizing Government and Regulatory Impact Assessment (RIA) - more formalised procedure which applied to major proposals as well as legislation.

Hong Kong is not an EU Member. Hong Kong's SEA/EE is under Environmental Protection Department's (EPD) jurisdiction. Similar to the EU Member counterparts, there are both statutory and administrative systems for PPP projects in Hong Kong. While the statutory requirements govern primarily large scale development projects (i.e. over 20 ha of area or population over 100,000), the administrative counterpart has been applied to land use planning, transportation and sectoral PPP.

In most EU Member States' practices, a statutory system is put in operation for WRM related plans and programmes. Hong Kong may adopt a similar approach by expanding the scope of the current statutory system to cover other sectors such as WRM.

Also, the SEA Directive sets out the requirements for undertaking environmental assessments for plans and programmes in various sectors, namely, agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use, etc. A similar scope or categorisation of sectors is recommended for setting up within Hong Kong's next generation SEA management framework.

## 12.5 Examples of Water Resources Management Policies / Actions or their Environmental Evaluation/SEA

<b>Example UK-1 England: Draft East Devon Catchment Flood Management Plan (CFMP) and Environmental Report<sup>198</sup></b>	
<b>Description of Study</b>	<p>The East Devon CFMP contains policies and guidance that help parties deciding the best ways to manage future flood risk. The main aim of the CFMP is to develop policies for flood risk management within the catchment, now and in the future, to reach social, economic and environmental objectives.</p> <ul style="list-style-type: none"> <li>• Social objectives: (i) Reduce flood risk on grounds of public health and safety</li> <li>• Economic objectives: (i) Reduce the economic impacts of flooding to property in urban areas (ii) make sure that critical infrastructure such as major roads can still be used during floods (iii) reduce the economic effect of flooding from rivers and muddy floods outside the main urban areas</li> <li>• Environmental objectives: (i) improve internationally and nationally important wildlife sites and protected habitats and species in the wider countryside (ii) protect and improve the historic environment and features of cultural heritage (iii) protect and improve the special landscape qualities and distinctiveness of East Devon (iv) maintain and restore natural river processes and links with the floodplain (v) protect and improve the quality of the water.</li> </ul>
<b>Summary of Alternatives</b>	<p>Six alternative policies have been considered:</p> <ul style="list-style-type: none"> <li>• P1: No active intervention</li> <li>• P2: Reduce existing flood risk management actions</li> <li>• P3: Continue existing or alternative actions</li> <li>• P4: Take further action to sustain the current scale of flood risk</li> <li>• P5: Take further action to reduce flood risk</li> <li>• P6: Take action to increase the frequency of flooding</li> </ul>
<b>Scope of Assessment/ Study</b>	No scopes of assessment were mentioned in this study.
<b>Environmental Measures</b>	No environmental measures for the impacts were mentioned in the study.
<b>Outcome of Study</b>	<p>Option 5 “take further action to reduce flood risk” has been chosen in both Seaton and Budleigh Salterton as the level of flood risk is currently very high. Actions can include improving flood risk management and reducing, or even removing, development in the floodplain. Option 6 “take action to increase the frequency of flooding” has been chosen in the Otter and Axe estuaries and the whole of the upper catchment, since the level of risk is low there. This option is applied to the upper catchment where there is an opportunity to restore the floodplain or there are environmental benefits such as habitat creation. Through storing water, this policy can reduce risk downstream.</p>

<sup>198</sup> Document can be obtained at

[http://www.environment-agency.gov.uk/commondata/acrobat/e\\_devon\\_draft\\_cfmp\\_1767762.pdf?lang=\\_e](http://www.environment-agency.gov.uk/commondata/acrobat/e_devon_draft_cfmp_1767762.pdf?lang=_e), page 2, 7, 9, 10

<b>Example UK-2 Scotland: Strategic Environmental Assessment of the Draft National Sludge Strategy<sup>199</sup></b>	
<b>Type of Study</b>	SEA (Required statutorily under Environmental Assessment of Plans and Programmes Regulations (Scotland) 2004)
<b>Description of Study</b>	This draft provides a long-term overall strategy for the management of sludge in Scotland up to 2025. It establishes a framework for investment and operational planning decisions with the objective to ensure that sludge is managed in a cost effective and efficient manner without endangering human health or harming the environment. It considers the quantities of sludge which could be produced as a consequence of the wastewater treatment and water treatment processes up to 2025.
<b>Summary of Alternatives</b>	The outlet options considered in the study include: <ul style="list-style-type: none"> <li>● Recycling to land</li> <li>● Energy from waste</li> <li>● Co-incineration of wastewater sludge with other wastes</li> <li>● Gasification and pyrolysis</li> <li>● Co-firing (consist of co-firing in a power station; and in a cement kiln)</li> <li>● Use as construction material</li> <li>● Landfill</li> </ul>
<b>Scope of Assessment/ Study</b>	The evaluation parameters considered in the study include: <ul style="list-style-type: none"> <li>● Air</li> <li>● Water</li> <li>● Landscape &amp; soil</li> <li>● Biodiversity (Fauna &amp; Flora)</li> <li>● Climatic factors</li> <li>● Cultural heritage</li> <li>● Human health</li> <li>● Population</li> </ul>
<b>Environmental Measures</b>	No environmental measures were considered in the study.
<b>Outcome of Study</b>	It is recognised that landfill should be considered as a last solution and that land recycling or energy recovery from waste are preferable options for the management of sludge. It recommends that disposal to landfill will be only necessary in certain circumstances.

<sup>199</sup> The Document would be attached in the Annex document. Paragraphs were extracted from page 29, 61, 71



<b>Example UK-3 England and Wales: A Framework for River Basin Planning in England and Wales - Summary<sup>200</sup></b>	
<b>Description of Study</b>	<p>The Environment Agency's Framework for River Basin Planning in England and Wales outlines the river basin planning process and the mechanisms to engage and work with others. It aims to achieve: (i) joint ownership of River Basin Management Plans (RBMPs); (ii) the commitment of those responsible for undertaking actions. To develop a more integrated approach to river basin management, it should be based on several principles:</p> <ul style="list-style-type: none"> <li>● Integrate and streamline plans and processes</li> <li>● Set out a clear, transparent and accessible process of analysis and decision-making</li> <li>● Focus at the river basin district level</li> <li>● Work in partnership with other regulators</li> <li>● Encourage active involvement of a broad cross-section of stakeholders</li> <li>● Make use of the alternative objectives to deliver sustainable development</li> <li>● Use better regulation principles and consider the cost-effectiveness of the full range of possible measures</li> <li>● Seek to be even handed across different sectors of society and sectors of industry</li> <li>● Seek to be even handed and transparent in the management of uncertainty</li> <li>● Develop methodologies and refine analyses as more information becomes available</li> </ul>
<b>Steps for the Study</b>	<p>Six stages are to be undertaken, they are: At the River Basin District (RBD), stage 1 and 2 will mainly be concerned with:</p> <ul style="list-style-type: none"> <li>● establishing RBD Liaison Panels</li> <li>● producing a work programme to inform interested parties of the RBMP process and how and when they will be involved</li> <li>● producing a Summary of Significant Water Management Issues (SWMI)</li> </ul> <p>For stage 3 and 4, publication of RBMPs will be the main focus.</p> <ul style="list-style-type: none"> <li>● Each draft RBMP will set out a number of scenarios for implementing the WFD in its River Basin District.</li> <li>● It will explain the reasons for the objectives proposed, including the consideration given to the use of alternative objectives.</li> <li>● For each scenario, the draft RBMP will need to describe: (i) the likely economic, social and environmental costs and benefits (including administrative and implementation costs); (ii) which sectors and groups are likely to be affected by these costs and benefits</li> <li>● There will be a six-month consultation period, before submitting the revised RBMP for approval.</li> </ul> <p>The final two stages (stage 5 and 6) will concentrate on implementation of the Programmes of Measures and will start as soon as the RBMPs are approved.</p>
<b>Outcome for the Study</b>	<p>This Framework shows the implementation plan of EU Water Framework Directive in England and Wales. Detailed outcomes of conducting this framework shall be ready in 2015.</p>

<sup>200</sup> Document can be obtained at

[http://publications.environment-agency.gov.uk/pdf/GEHO1205BJWO-e-e.pdf?lang=\\_e](http://publications.environment-agency.gov.uk/pdf/GEHO1205BJWO-e-e.pdf?lang=_e), page2, 3, 10-11