

## Appendix 2

### Strategic Environmental Assessment (SEA) - comments and responses

Comment	Welsh Water response
<b>Cadw</b>	
<p>Page 9 - "Historic Monuments, Wales" is not a correct title. It should be "Cadw, the Welsh Assembly Government's Historic Environment Division" or simply "Cadw". Page 19 - Under the Heritage theme, the 'Environment Strategy for Wales (2006 ) is also pertinent. Page 28 and Appendix A - Strictly, the title of the World Heritage Site is "The Castles and Town Wales of King Edward in Gwynedd". Page 39, Table 4.1 - The Guide Questions for Objective 2, might be improved by greater clarity on heritage designations rather than simply stating "known sites ". The obvious comparison for consistency would be with the Guide Questions for biodiversity which list the designations. The same point would apply to Table 6.2 on page 67.</p>	<p>Thank you for your comments, specifically issues on pages 9, 19, 28 and 39 (Table 4.1). The comments are noted and will be taken into account in preparing a Revised SEA.</p>
<b>Countryside Council Council for Wales</b>	
<p>English Heritage should be referred to as Natural England.</p>	<p>All future reports will refer to Natural England correctly; however, the reference to English Heritage in the Draft SEA is correct.</p>
<p>In our scoping response, CCW made a number of recommendations regarding plans/ programmes that should be included within this SEA review. It is noted that, because of the long delay between scoping and consultation on this Environmental Report, a number of the plans and programmes considered have been replaced and/or updated. For example, the WAG Environment Strategy, the Wales Spatial Plan update 2008, Catchment Flood Management Plans and River Basin Management Plans (now at the consultation stage), United Utilities Water Resource Management Plan etc. In addition, some legislation, e.g. the Conservation Regulations 2004 has been amended.</p>	<p>The use of Plans and Programmes will be updated for the revision to the SEA. The comment stating that the Conservation Regulations 2004 have been updated is noted. All relevant legislation will be checked for relevance and updates in the revision to the SEA.</p> <p>Your comments made on the 'SEA of Revised Draft WRMP, Addendum to the SEA Scoping Report' (comments received 8th June 2009) are noted, particularly regarding the exclusion of certain Plans and Programmes from that report. We will review the Plans and Programmes in question in preparing the Revised SEA Report.</p>
<p>A number of the recommendations made by CCW in our 2007 scoping response do not appear to have been considered within this assessment process including the European Landscape Convention and the relevant Water Resource Management Plans of other water companies.</p>	<p>The recommendations made by CCW that have not been considered, from your 2007 SEA Scoping Report response, will be reviewed. Again, it is noted that your comments on the 'SEA of Revised Draft WRMP, Addendum to the SEA Scoping Report' include reference to the exclusion of the Water Resources Management Plans of other water</p>

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	companies.
Of particular concern is the apparent lack of consideration of the Review of Consents process (including relevant appropriate assessments) for rivers and other European Sites in Wales. CCW would suggest that the development of this dWRMP and the undertaking of its SEA are somewhat compromised because of the lack of consideration of the RoC process and any identified sustainability reductions.	As stated, we intend to revise the Draft Plan to include the RoC results.
Table 2.2: See comments above on Table 2.1. CCW would suggest that the key themes identified should have taken into account a number of additional plans/ programmes, reviews and updates of some plans and programmes and in particular, the RoC process and outcomes.	The Revised SEA Report will review the key themes and the exclusion of certain Plans and Programmes as noted by CCW. Regarding to the exclusion of the RoC process and outcomes, please see the response to comment 2.1 above.
Section 2.2.1: Biodiversity. Clarification is required regarding the date of production of this Environmental Report. It would appear that there has been some delay between this report's completion and its issue for consultation and it is likely that some 'data gaps' may now be filled. Consideration must be given to cSACs and pSPAs. Since there has been a long period of time between this SEAs scoping and the issue of this Environmental Report, CCW would recommend that the number and condition of 'designated' sites (and their features of interest) may require amendment. Information on the condition of SAC features is available from CCW or JNCC. At the time of writing this response, information is available with regard to the outcome of the Review of Consents process. CCW would suggest that the development of this dWRMP and the undertaking of its SEA are somewhat compromised because of the lack of consideration of the RoC process and any identified sustainability reductions.	The Draft SEA Environmental Report was prepared and submitted to the Welsh Assembly Government (WAG), Office of Water Services (Ofwat), Department of Food and Rural Affairs (Defra) and EAW in March 2008. It was a requirement of our Direction from WAG that we publish, alongside the Draft Plan, the Draft SEA Environmental Report. It is acknowledged that the delay between preparation and publication of the Draft SEA Report would probably allow 'data gaps', identified in the Draft SEA Report, to now be filled. These 'data gaps' will be identified and resolved in preparing the Revised SEA Report. The number and condition status of designated sites will be reviewed and updated in preparing the Revised SEA Report. As stated on page 1 of this letter, we intend to revise the Draft Plan to include the RoC results.
Re. Geology and Soils/ Water/ Air Quality and Climate/ Cultural Heritage/ Landscape and Material Assets section: Clarification is required regarding the date of production of this Environmental Report. It would appear that there has been some delay between this report's completion and its issue for consultation. It is likely that some 'data gaps' may now be filled.	Regarding the timing on the publication of the Draft SEA Report and associated data gaps, please see the above comment.
Section 2.3: Environmental Issues: Issues relating to population rise increase in supply demand and abstractions/ water treatment should take into account projected developments in both the Plan area and in adjacent areas e.g. the West Midlands.	Due to the submission date of the Draft Plan (and Draft SEA) to WAG in March 2008, it was not possible to fully take account of all recent projected developments as the outcomes of the spatial strategies were not, and have not yet been, finalised. Property projections from the spatial strategies were adopted for the Draft Plan, as presented at the

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	time. We are continuing to work with local authorities to understand the precise development implications and will include all recent data in a Revised Draft Plan (and Revised Draft SEA) subject to Direction from WAG.
<p>Section 3.1: Development and Screening of Unconstrained Options: With regard to demand/ supply forecasting calculations (and therefore identification of deficit zones), CCW would welcome clarification as to whether calculations have been undertaken subject to the results of the RoC process and any required sustainability reductions and/ or adjustments. In addition, clarification would be welcomed as to whether demand/ forecasting calculations have accounted for the predicted effects of climate change and/ or the development proposals/ policies of relevant plans, e.g. the Wales Spatial Plan and the West Midlands Regional Spatial Strategy and the North West Regional Spatial Strategy.</p>	<p>As stated, the RoC process and outcomes were not included in the Draft Plan (or the SEA and HRA). We intend to revise the Draft Plan to include the RoC results. Therefore, the identified deficit zones in the Draft Plan are not subject to the RoC process. The assessment of climate change has been undertaken in compliance with Environment Agency (EA) Guidelines, which implements revisions in climate change predictions developed by the UK Climate Impact Programme (UKCIP) since the last Periodic Review. In line with the EA Guidelines, the impact of climate change is considered on both the supply and demand components of the supply-demand balance.</p> <p>Regarding development proposals from regional spatial strategies, please see the answer provided above.</p>
<p>See comments on 3.1 regarding calculation of deficit zones. Clarification is required, in the light of the RoC process, as to whether the identified deficit zones remain as per 3.1 and/ or whether any changes in deficit zones may/ will arise from the RoC and any sustainability adjustments. Given that many of the preferred options relate to or indirectly involve European sites, e.g. Bala, Alwen/ Dee, North Eryri, Vowchurch.</p>	<p>Since the Draft Plan was submitted to WAG in March 2008, Welsh Water has revised its demand forecasts to take into account more up to date information reflecting anticipated demographic changes and the changing economic circumstances and re-evaluated the climate change allowances. These revisions have resulted in four of the seven zones remaining in surplus to 2035 and not requiring any further intervention to maintain the supply demand balance. In the other three WRZ's (Tywyn Aberdyfi, South Meirionnydd and Vowchurch) a supply demand deficit still remains.</p> <p>The outcome of the current RoC process has resulted in an additional three WRZ's being identified where supply demand deficits are forecast before 2035. In these zones (Pilleth, Pembrokeshire and SEWCUS) it will be necessary to implement options that will restore the supply demand balance. Solutions for these WRZ's have been carefully engineered and optimised so as not to impact European designated sites.</p>
<p>Clarification is also required as to what is meant by 'capacity buy back'.</p>	<p>Industrial and institutional sectors have the potential to save large volumes of water through careful management of their processes and/</p>

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	<p>or changes in their applied technology. The water efficiency options, 'Non Households Audits' and 'Capacity Buy Back', in the Draft Plan have been applied to large non-household users of water i.e. industrial and institutional users. The two options work on a tiered system.</p> <p>There are two purposes of the 'Audit'. The first purpose is to identify inefficient water uses and recommend measures that do not require complex engineering solutions to rectify. The second purpose of the 'Audit' is to identify water efficiency measures that do require engineering solutions. The auditor is not expected to evaluate and design the remedial solutions - this will be left to a qualified engineer or manufacturer familiar with the problem - but rather is expected to recognise the potential for water savings and have some sense of the viability of the recommendation and is paid for by the individual user.</p> <p>Cost for the customer to implement the list of recommendations (from the 'Audit') could range from several hundred pounds to several hundred thousand pounds. Implementation must be encouraged and the upfront capital expenditure is usually the barrier. A financial incentive is offered to each user (the 'Capacity Buy Back') depending upon the amount of water actually saved rather than upon potential water savings. To qualify for the incentive, the water savings must be sustained and be the result of a change in process or equipment rather than a change in water using habits. The water savings will be verified at each site prior to the incentive being provided. An incentive of £0.40 per litre per day (£400,000 per Ml/d) savings, up to a maximum of 50% of the cost of the water efficiency measure, is incorporated in the 'Capacity Buy Back' option. For example, 'Company ABC' can save 136,986 litres per day of water by installing a cooling tower. The cooling tower has a capital cost of £80,000. Upon verification of the savings, Welsh Water calculates a potential a rebate of £54,794.40 (136,986 litres x £0.40). Since this exceeds 50% of the capital cost, a rebate of £40,000 would be provided.</p>
Reference should be made for the need for these Options to be subject to assessment under the Habitats Directive.	The options have been assessed under the Habitats Directive, as part of the Draft Habitats Regulations Assessment report. A Revised Draft SEA Report will include reference to the Habitats Regulations Assessment.

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CCW made a number of comments on proposed SEA objectives in our scoping response of 30 October 2007. It would appear that not all of these comments have not been taken into account or acknowledged in this assessment process.	The comments made by CCW (dated 30th October 2007) on the SEA Objectives in the SEA Scoping Report will be reviewed and taken into consideration, or acknowledged, in preparing a Revised SEA Report.
Table 4.1, Objective 1: CCW would suggest that guide question 1 should consider Ramsar sites, SPAs, cSACs and pSPAs as well as SACs.	The sites to be assessed under this Objective have been amended, as demonstrated in the 'SEA of Revised Draft WRMP, Addendum to the SEA Scoping Report', May 2009. Your comments on this document (dated 8th June 2009) in relation to Objectives/ Guide Questions is further noted. As detailed in the Addendum to the SEA Scoping Report there is also one candidate SAC (Dee Estuary/ Aber Dyfrdwy) and one potential SPA (Liverpool Bay) in the area impacted by Welsh Waters operations. These candidate and potential sites will also be included under the SEA Objective 1 assessment.
Table 4.1, Objective 1: Guide question 2 should include all European sites and nationally designated sites such as NNRs and SSSIs.	Guide Question 2 text has been amended to reflect your comments and include all sites designated for nature conservation interests, as shown in the Addendum to the SEA Scoping Report.
Table 4.1, Objective 1: Guide question 3 should consider all vulnerable and protected habitats (including those identified in Priority Habitats of Wales, the UK BAP, LBAPs etc) and protected species, including coastal and offshore sites. The potential impacts of the dWRMP are not confined to wetland habitats.	Guide Question 3 text has been amended to reflect your comments and to include all habitats that may be impacted, as shown in the Addendum to the SEA Scoping Report.
Table 4.1, Objective 2: Guide questions should include sites and features of cultural importance.	The Guide Question text has been amended to reflect your comments and include all sites or landscapes designated for both their historical or cultural importance, as shown in the Addendum to the SEA Scoping Report.
Table 4.1, Objective 3: Guide question 2 should include all European sites, not just SACs	Guide Question 2 text has been amended to reflect you comments and include all designated nature conservation sites. Please note that there is now only one Guide Question for Objective 3 which encompasses the purposes of Guide Question 1 -3 from the Draft SEA Report.
Table 4.1, Objective 3: Guide question 3 should consider the potential for changes in groundwater regimes to impact upon nationally and internationally designated sites, vulnerable and sensitive habitats and protected species.	Guide Question 3 text has been removed. The intent of your comment on Guide Question 3 has been included in the single Guide Question for SEA Objective 3, as detailed in the Addendum to the SEA Scoping Report.
Table 4.1, Objective 4: Any alleviation of flooding needs to be considered in terms of potential	Your comment regarding alleviation of flooding is noted and will be

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effects on the natural heritage as well as human and material assets.	taken into account when assessing the options.
Table 4.1, Objective 5: Clarification is required as to what is meant by ‘appropriate’ use of land.	The ‘appropriate’ use of land essentially refers to whether the option will make use of greenfield or brownfield sites and whether the intended use of that land (through the option) can be better served by other means.
See comments on Section 3.1 regarding selection of options.	Please see the responses made for the comments on section 3.1.
CCW notes the linkage of the BAG methodology with the SEA process and the grouping of ‘impact categories’. It should be noted that the SEA process requires consideration of both positive and negative effects whereas the term ‘impact’ has negative connotations. Clarification is required as to whether the linkage between BAG and the SEA process enables consideration of both positive and negative effects.	The terminology applied through the Benefits Assessment Guidance (BAG) i.e. impact (a negative connotation) can be adapted to suit the situation, providing that the methodology is clearly explained in the associated documentation. The text describing the BAG methodology will be revised. However, to confirm, the categories assessed under the BAG methodology can indeed be used to describe both positive and negative influences.
In addition, the SEA process requires consideration of a plan/ programme’s effect on a number of environmental topics. In using BAG impact categories in conjunction with this SEA process, care should have been taken to ensure that all the environmental topics identified in the SEA Regulations and Directive were adequately and appropriately addressed.	It is considered that all environmental topics under the SEA Directive have been covered through the use of BAG. However, your comment is noted and the BAG assessment procedure will be checked to ensure that your concerns are resolved.
CCW would consider the application of monetary techniques (BAG) is inappropriate in terms of the natural heritage and cultural heritage and should not be used in the SEA process.	Although BAG allows the estimation of monetary values, these values have not been used in the SEA process, as detailed in Section 4.3.1 of the Draft SEA Report.
In addition, since BAG is not applicable to groundwater, CCW would suggest that its use and value in consideration of a Water Resource Management Plan is limited.	We have used BAG as this is the recommended methodology in the Environment Agency’s Water Resource Planning guidelines. We have in some instances had to modify the application of BAG to ensure it best reflects the assessment of some options. However, we still consider that the application of this methodology should be considered for review by our regulators.
With regard to the assessment of option categories, feasible options and preferred options clarification is required, in the light of the RoC process, as to whether the identified deficit zones and options have been identified in the light of the findings of the RoC process and any recommended/ required sustainability adjustments. Whilst CCW supports the principle of the SEA assessment process used, there seems little merit in pursuing assessment of options (based on deficit zones) that may be compromised by, altered by or rendered unfeasible by the RoC and/ or	Please see the responses made above.

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and the implications of those plans and programmes that this SEA (and the dWRMP itself) have not been able to take into account.	
Clarification is required regarding the ‘assumption’ that ‘options within the options assessment have similar impacts’	The comment refers to the assessment of options at the generic stage (the ‘unconstrained’ options). The purpose of the generic assessment was to identify at an early stage any potential, significant environmental effects, thereby guiding the assessment of the ‘constrained’ options. The constrained options were assessed, in effect, to much greater detail. The assumption that options within each of the option categories had similar impacts may have been overly simplistic but was considered acceptable given the level of detail of the generic assessment stage and the preparation timescales of the Draft SEA Report. The assessment methodology has been amended for the Revised SEA Report.
Notwithstanding our earlier comments and concerns (3.1) regarding ‘categories’ CCW would suggest that where an option falls in one or more categories, then the option should be assessed/ considered in all the relevant categories.	Regarding an option corresponding to more than one category, the comment has been noted and will be taken into account in preparing the Revised SEA Report.
Clarification is required as to what is meant by the ‘legal and technical constraints of the WRMP process’, in the context of this SEA. The SEA Directive requires that the findings of the assessment process should be taken into account in the plan/ programme under scrutiny.	The term ‘legal and technical constraints’ related to the statutory timescales of the Draft Plan which necessitated the preparation of the Draft SEA Report without fully allowing the inclusion of the findings within the Draft Plan. This situation will be, and is in the process of being, unconditionally resolved through the Revised SEA Report and the Revised Draft Plan.
CCW agrees in principle with the premise that wastewater recovery options would be unlikely to have direct adverse effects on biodiversity. Wastewater recovery impacts on climate change also need to be considered in the context of indirect effects on the natural heritage.	The comment regarding the impacts of climate change indirectly on natural heritage is noted and will be taken into account in preparing the Revised SEA Report.
CCW would largely agree with the premise that the environmental effects of WTW upgrade would be largely dependent on the location, scale and nature of the upgrade. When considering such impacts, consideration should be given to potential environmental effects of construction, transport and operation.	As mentioned, we have used BAG to assess the environmental and social costs of the intervention options as this is the recommended methodology in the Environment Agency’s Water Resource Planning guidelines. For non- water related impacts, the assessment estimated monetary values for key impact categories based on the type and extent of construction works and likelihood of visual impacts and disruption, as well as operational aspects (e.g. energy use).

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	<p>In addition, in the preparation for the Revised Draft Plan, we have undertaken a full re-costing of the embedded and operational carbon emissions of each resource, production and customer management option on the 'constrained' list. This is in line with the carbon costing of Welsh Water's PR09 submission to ensure full consistency between the Plan and the Final Business Plan.</p> <p>The embedded carbon emissions are defined as the direct and indirect emissions resulting from the construction, maintenance and disposal of an asset. They include the extraction and processing of raw materials, manufacture of products and associated transport to site, on site construction and the removal of any construction generated waste.</p>
<p>CCW would agree with this SEA's finding that Bulk Transfer options are likely to create conflict with SEA options i.e. adverse environmental effects. CCW also have concerns that conjunctive use options also have the potential to have adverse effects on the natural heritage.</p>	<p>The comment regarding the potential impact of conjunctive use options on the natural heritage is noted and will be taken into account in preparing the Revised SEA Report.</p>
<p>CCW notes this SEA's findings that direct river and/ or groundwater abstraction is likely to have negative effects on biodiversity, water quantity, water quality and the sustainable use of water resources. Consideration should also be given to the potential effects of abstraction on material assets and soils.</p>	<p>The comment regarding the potential impact of abstraction on material assets and soils is noted and will be taken into account in preparing the Revised SEA Report.</p>
<p>In principle, CCW agrees with this assessment's findings regarding the potential effects of distribution management options (leakage control) however, with regard to potential effects on biodiversity (both habitats and protected species) and the landscape, the potential effects of repair and replacement of pipelines would be dependent on the nature, scale, location and timing of works.</p>	<p>Comment noted.</p>
<p>CCW would expect that leakage management measures would be subject to assessment at the individual project level to ascertain local and time dependent impacts e.g. on protected species, vulnerable and sensitive habitats etc.</p>	<p>The comments regarding the potential impact of 'leakage' options is noted and will be taken into account in preparing the Revised SEA Report. Leakage management measures will be subject to assessment at the individual project level.</p>
<p>The fact that works are temporary and localised does not preclude the potential for significant and adverse environmental effects on Wales' natural and cultural heritage.</p>	<p>Comment noted.</p>
<p>See comments on 4.3.1.</p>	<p>Please see the responses made for the comments on section 4.3.1.</p>
<p>North Eryri Ynys Mon: CCW notes the recognition of significant detrimental environmental effects for this option, notably in respect of potential adverse impacts on the Eryri SSSI and SAC in terms of</p>	<p>The comments made regarding the options are noted. However, as stated in answering the comments on Section 3.2, since the Draft Plan</p>

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<p>water abstraction, land use (pipeline construction within an SAC and SSSI) and in terms of effects on climatic factors. As regards the option for Active Leakage Control, CCW acknowledges the potential for longer term benefits for protected sites and species however the nature, scale, location and timing of operations would be crucial to the assessment of effects on the natural heritage. Project proposals would therefore need to be subject to assessment on a case by case basis at the project level unless an integrated 'whole' was made available for more strategic assessment.</p>	<p>was submitted to WAG in March 2008, Welsh Water has revised its demand forecasts and re-evaluated the climate change allowances. These revisions have resulted in four of the seven zones remaining in surplus to 2035 and not requiring any further intervention to maintain the supply demand balance. The NEYM WRZ is one such zone which is now not predicted to be in deficit during the planning period.</p>
<p>North Eryri Ynys Mon: Clarification is required regarding the statement that 'large areas of the WRZ are within the floodplain'. Given the nature of the WRZ, CCW would welcome explanation of which floodplain is being considered in this context.</p>	<p>The option (Active Leakage Control) may mitigate against flooding by potentially reducing water reaching the river corridor when coincidental with naturally high flows in the river system. All watercourses have natural flood areas, or floodplains, whereby higher than 'normal' flows spill out of the defined river channel. There are numerous rivers in the NEYM WRZ and so the comment was referring to the potential to reduce the contribution to flooding in all the rivers in the zone.</p>
<p>Clwyd Coastal: Given the potential implications of the impacts of climate change in this area, clarification is required as to whether rise in sea level/storm surge/ infiltration of salt water issues have been taken into account in this option and its assessment. As regards the option for Active Leakage Control, CCW acknowledges the potential for longer term benefits for protected sites and species however the nature, scale, location and timing of operations would be crucial to the assessment of effects on the natural heritage. Project proposals would therefore need to be subject to assessment on a case by case basis at the project level unless an integrated 'whole' was made available for more strategic assessment.</p>	<p>The comments made regarding the option (Active Leakage Control) are noted. However, as stated in answering the comments on Section 5.3.1, since the Draft Plan was submitted to WAG in March 2008, Welsh Water has revised its demand forecasts and re-evaluated the climate change allowances. These revisions have resulted in the Clwyd Coastal WRZ not requiring any further intervention to maintain the supply demand balance.</p>
<p>Alwen Dee: Reference should be made to the Dee's status as an SAC. Reference and consideration should also be given to the Dee Estuary SPA, cSAC and Ramsar site. Given the potential implications of the impacts of climate change in this area, clarification is required as to whether rise in sea level/storm surge/infiltration of salt water issues have been taken into account in this option and its assessment. As regards the option for Active Leakage Control, CCW acknowledges the potential for longer term benefits for protected sites and species however the nature, scale, location and timing of operations would be crucial to the assessment of effects on the natural heritage. Project proposals would therefore need to be subject to assessment on a case by case basis at the project level unless an integrated 'whole' was made available for more strategic assessment.</p>	<p>The comments made regarding the option (Active Leakage Control) and the status of the River Dee and Dee Estuary are noted. However, as stated in answering the comments on Section 5.3.1, since the Draft Plan was submitted to WAG in March 2008, Welsh Water has revised its demand forecasts and re-evaluated the climate change allowances. These revisions have resulted in the Alwen Dee WRZ not requiring any further intervention to maintain the supply demand balance.</p>
<p>Bala: Reference should be made to the status of Bala Lake and the River Dee as an SAC. Given the potential implications of the impacts of climate change in this area, clarification is required as to whether rise in sea level/storm surge/infiltration of salt water issues have been taken into account</p>	<p>The comments made regarding the option (Active Leakage Control) and the status of Bala Lake and the River Dee are noted. However, as stated in answering the comments on Section 5.3.1, since the Draft Plan was</p>

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<p>in this option and its assessment. As regards the option for Active Leakage Control, CCW acknowledges the potential for longer term benefits for protected sites and species however the nature, scale, location and timing of operations would be crucial to the assessment of effects on the natural heritage. Project proposals would therefore need to be subject to assessment on a case by case basis at the project level unless an integrated 'whole' was made available for more strategic assessment.</p>	<p>submitted to WAG in March 2008, Welsh Water has revised its demand forecasts and re-evaluated the climate change allowances. These revisions have resulted in the Bala WRZ not requiring any further intervention to maintain the supply demand balance.</p>
<p>Tywyn/Aberdyfi: See comments above on Leakage Control for Bala, Alwen/Dee and Clwyd Coastal Zone.</p>	<p>The comments made regarding the option (Active Leakage Control) are noted.</p>
<p>Section 5.3.5, CCW notes this assessment's findings regarding the potential for adverse environmental effects of this option. Clarification is required regarding the nature and extent of the groundwater resource in this area given that adjacent International sites of nature conservation interest are groundwater dependent.</p>	<p>Since the publication of the Draft Plan in March 2008 this option has been reassessed, in conjunction with the EAW. The option has since been discounted from the Feasible list as it is unlikely that the solid geology or superficial deposits in the area would yield sufficient supplies whilst not been in direct hydraulic continuity with surface water bodies.</p>
<p>South Meirionydd: See comments above on Leakage Control for Bala, Alwen/Dee and Clwyd Coastal Zones etc.</p>	<p>The comments made regarding the option (Active Leakage Control) are noted.</p>
<p>Vowchurch: See comments on 4.3.1 regarding selection of options in the absence of consideration of the RoC and other relevant plans and programmes.</p>	<p>Regarding the comments on the selection of options in the absence of the RoC, please see the answers provided on Section 3.1 above.</p>
<p>Section 5.3.7, CCW has some concerns regarding the proposal to increase abstraction from the River Wye SAC and would suggest that this option should only be considered in the context of the RoC appropriate assessment and in respect of any sustainability reductions/ amendments required as a result of the RoC process.</p>	<p>The preferred solution for the Vowchurch WRZ (Option No. 8110.7, Upsize Trunk Main from Hereford) would be operated within existing abstraction licensed quantities. Even under the maximum licensed scenario, the RoC process identified no issues with our abstraction from the River Wye at Broomy Hill. The exception to this being a seasonal reduction in Spring as a new clause to the licence, only if no regulation of the Wye occurs. Welsh Water does not intend not to operate regulation as this prevents our ability to supply water in the downstream part of the Wye.</p> <p>Therefore, even under RoC, there is a Spring licence modification only. The proposed scheme at Vowchurch is to meet peak week late summer demands only. As such this option was selected, as the Preferred option, as it will have no impact on the RoC outcome for the Wye.</p>
<p>Section 5.3.7, Any abstraction from the Wye must also take into account the development proposals contained in relevant LDPs and LDFs in both England and Wales and relevant Spatial</p>	<p>The comments made regarding 'development proposals', are noted. Please see our response above regarding in the adoption of property</p>

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Strategies (eg West Midlands RSS and the Wales Spatial Plan.	projections.
Section 5.3.7, CCW could not endorse any proposal that had an adverse effect on European sites (alone or in combination with other plans and projects).	The comments made regarding adverse effects on European sites are noted.
Section 5.4, Upgrade of Mynydd Llandegai WTW: Notwithstanding our concerns that the dWRMP options have been developed in the absence of consideration of the RoC process (and its findings) and consideration of other relevant plans/ projects in terms of potential in combination significant effects, CCW has major concerns regarding the concept of monitoring adverse effects after implementation of this option.	The essence of the comments regarding monitoring of adverse effects after implementation and the methodology to assess the option are noted and will be considered in preparing the Revised Draft SEA. However, , as stated in answering the comments on Section 5.3.1, since the Draft Plan was submitted to WAG in March 2008, Welsh Water has revised its demand forecasts and re-evaluated the climate change allowances. These revisions have resulted in the NEYM WRZ not requiring any further intervention to maintain the supply demand balance.
See comments on 5.3.1 above. CCW would suggest that it is not appropriate to pursue or implement policy options assessed to have 'significant detrimental environmental effects' and that alternatives, avoidance or mitigation of detrimental effects should be considered in the first instance.	
Section 5.4, The outcomes from the Habitats Regulations Assessment (HRA) for Eryri SAC should be fully taken into account when considering potential avoidance and mitigation measures. If there is not a high degree of confidence that the potential negative effects of these proposals can be avoided or mitigated for in the detailed design phase then this option should not be promoted. While we accept that it may not be possible to provide detail of any proposed works (either for the increase in abstraction or the associated infrastructure works, for example, the construction of a pipeline through the SAC) a clear indication on how the possible adverse effects could be avoided should be included both in the HRA and within the Environmental Report. We are particularly concerned by the lack of clarity in statements such as "the option would not increase the abstraction beyond what is currently licensed, [but] would allow the abstraction to be increased (by increasing pipe diameter)" despite the CAMs score indicating "no water available/catchment over-licensed". The SEA process should at least identify which of these is the case for the CAMs assessment and whether, therefore, a lack of deterioration in the CAMs score is a reasonable justification for selecting this option over and above the alternatives, or, if the other options have greater potentially adverse impacts, whether further alternatives should be investigated. Note that it is not acceptable to suggest monitoring of the abstraction as adequate mitigation if there is an indication that significant adverse effects could occur.	
Section 5.4, New groundwater abstraction to feed Pen y Bont. Detail of the potential impacts (particularly the possible impacts on protected sites and if likely Significant Effects on the Afon Eden or Dyfi SAC/ SPA) should be modelled prior to scheme progression and if necessary mitigation/	The essence of the comment on modelling of the option prior to implementation is noted. However, please see the answer provided to the comment on Section 5.3.5 regarding discounting of the option.

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avoidance measures identified and put forward.	
<p>Section 5.4, While an increase of 0.48 Ml/d from the Broomy Hill WTW may appear “insignificant” in relation to a licensed maximum of 52 Ml/d, it is wholly inappropriate to assume that this is the case without a more detailed assessment, with particular emphasis on the any “in-combination” affects that this change would have. This should be carried out with reference to both existing licensed abstractions, but also considering proposed changes likely to occur as a result of the Review of Consents process and currently “unlicensed” abstractions such as agricultural “trickle” irrigation. This is clearly important, as if the Broomy Hill licence is likely to be reduced as a result of the Review process, then there may no longer be “spare” capacity, or 0.48 Ml/d may no longer be considered an “insignificant” amount.</p>	<p>Regarding the assessment of the option under RoC, please see the answer provided above, for the comment on Section 5.3.7.</p>
<p>Section 5.4, This must be fully addressed and evaluated within the Habitats Regulations Assessment before it is taken forward as a proposed option. It may be that control/ amendment to current “unlicensed” abstractions, when considered as part of the over-all capacity issue, or the exploration of limited, short-term, off-line storage in the vicinity of the Vowchurch groundwater abstraction to ease the identified “Peak week” low flow impacts on the River Dore, would be more appropriate and sustainable alternatives. Until such time as our concerns regarding the RoC, sustainability adjustments and cumulative effects (e.g. with other plans and programmes) have been addressed, CCW must retain strong reservations regarding this proposal. Justification as to why this option is deemed as the ‘preference’ must be provided. CCW would suggest that it is not appropriate to pursue or implement policy options likely to incur adverse environmental effects without robust justification and that alternatives, avoidance or mitigation of detrimental effects should be considered in the first instance</p>	<p>The option was selected as the Preferred option on environmental, social, engineering and financial grounds. We provided information relating to the selection of the Preferred options in our technical supporting reports to the Draft Plan which was provided to EAW. In the revision to the Draft Plan we are endeavouring to include as much information as possible in the public domain, subject to the Direction from WAG.</p>
<p>Section 5.4, Clarification is required as to why the Vowchurch groundwater/ River Dore area appears to be subject to water deficits given the low local populations.</p>	<p>The Vowchurch WRZ does indeed have a relatively low population (at approximately 5,600). However, as you are aware, any abstraction and distribution of water in the zone has to be considered against the high environmental status of the area (there is condition on the Vowchurch abstraction licence which limits the volume that can be abstracted to protect low flows in the River Dore), the rural character of the zone and the dispersed nature of the population. This has historically always been the case. Consequently, maintaining supplies within the zone and having due regard for the environment has always been delicately balanced.</p>
<p>Section 5.4, Clarification is required regarding the role of agricultural abstractions in respect of</p>	<p>Regarding the role of agricultural abstractions in respect of any water</p>

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perceived/ actual water deficits.	deficits, the EAW are better placed to comment on this issue, particularly through the RoC process.
Section 5.5, See CCW HRA response dated 18 February 2009.	The comments will be addressed through the answers provided on the HRA comments (Appendix 3).
<p>Section 6, CCW welcomes the connection of the monitoring plan with existing baseline data collection and monitoring regimes, particularly the themes contained in the Wales Environment Strategy (WES). It is important that where existing data is being collected, and monitoring carried out, that this is utilised and integrated into the plan monitoring and evaluation process. However, where this is the case, every effort must be made to ensure that the monitoring required to ensure the effective implementation of both the plan itself and the recommendations of the SEA process, as set out in the Environmental Report, is adequately covered by these concurrent schemes. Where this is not the case, additional monitoring must be proposed to ensure that the plan is adequately covered. In addition, there must be sufficient confidence that this other monitoring schemes will be implemented and the data collected both made available and be of satisfactory quality. It is not clear how the monitoring elements contained in the WES are directly relevant to the indicators contained in the plan. It should also be noted that the WES has recently undergone a review and a significantly revised Action Plan produced.</p>	<p>The comments related to monitoring, the Wales Environment Strategy, the Water Framework Directive and Site Management Plans are noted and will be taken into account in preparing the Revised SEA. Regarding the comment on taking account of the RoC in deriving the monitoring framework, please see the answers provided on Section 3.1 above.</p>
<p>This is of less a concern when looking at the monitoring indicators proposed for the Water UK sustainability indicators and the various Environment Agency monitoring programmes which should be more directly relevant to the Water Resource Management Plan. Of particular relevance will be how the plan will relate to the achievement/maintenance of “Good Ecological Status” as defined by the Water Framework Directive.</p>	
<p>Another key data source which is referred to in the proposed monitoring framework (table 6.2) is the condition assessments for protected sites, particularly international and European sites. We strongly recommend that you reference the various site Management Plans for those sites affected in this section particularly the relevant performance indicators contained in the conservation objectives (more specific comments are contained below). We would also recommend that monitoring framework take full account of the Review of Consents process, as carried out by the Environment Agency, to ensure that changes to indicators, the baseline information and, particularly any benchmarking, is both relevant and appropriate to the requirements of the designated features.</p>	
<p>Table 6.2, Objective 1 Indicators: We welcome that the plan will be assessed against condition of features on protected sites. However, the actual elements of the conservation objectives that</p>	
	Indicators: the comment is noted will be taken into account in preparing

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contribute to this assessment may also be as relevant, if not more so, than the assessment itself and should be specified where appropriate.	the Revised SEA.
Table 6.2, Objective 1 Targets: The Habitats Directive, and indeed the Water Framework Directive, require the restoration of all sites water dependant features to favourable conservation status. Therefore, we question whether the target of “no decline” is appropriate to monitor the effectiveness of the plan against and would suggest “achieve favourable condition on all features where water resources are a factor” might be more appropriate.	Targets: The comments is noted and appreciated and will be taken into account in preparing the Revised SEA. However, it should be noted that there may be designated sites sensitive to water management that are in an unfavourable condition not related to the activities of Welsh Water. Welsh Water should not be held responsible for the achievement of favourable condition of these sites.
Table 6.2, Objective 2 Sources: CCW or Cadw do not monitor developments which may impact on landscapes historic importance. We do comment on ASIDHOL assessments and the monitoring indicator should be linked to this process.	Sources: the comment is noted will be taken into account in preparing the Revised SEA.
Table 6.2, Objective 3: As outlined above, this objective needs to be related to the potentially affected protected sites’ conservation objectives and to take full account of the Review of Consents process. It should also be noted that this relates strongly to the commitment to achieve good ecological status and favourable conservation status set out in the Water Framework Directive and now expressed in the draft River-basin Management Plans.	The comment is noted will be taken into account in preparing the Revised SEA.
Table 6.2, Objective 4: This objective needs to be linked to Catchment Flood-risk Management Plans.	The comment is noted will be taken into account in preparing the Revised SEA.
Table 6.2, Objective 5: The target of “Reduction in the number of [facilities] adversely affecting designated sites” may need further clarification as a “reduction” may not be appropriate when considering European and international designations where a target of “none” might be more suitable.	The comment is noted will be taken into account in preparing the Revised SEA.
Table 6.2, Objective 6: Indicators – There may be significant sustainability issues associated with some of the potential options contained in the plan, such as the possible use of de-salination plants, which would require specific monitoring indicators. In addition, while the objective itself states “adapting to climate change” there are no indicators for this important element of the plan. Examples of possible indicators might include “additional head room within CSOs to accommodate additional extreme events”, or “Number of days where emergency drought orders were in force”.	Indicators: The comment is noted will be taken into account in preparing the Revised SEA.
<b>English Heritage</b>	
Section 2.2.1, With respect to the SEA our main comment relates to the Cultural Heritage section on page 28. Under data gaps it should be corrected that for England data on the condition of certain	Cultural Heritage, page 28: Your comments on data availability are gratefully received and will be taken into account in preparing the

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<p>designated assets is available via English Heritage’s Heritage at Risk programme. This was launched in 2008 and over coming years will be expanded to cover the full range of designated assets. To current edition of the National Heritage at Risk Register includes data on Listed Buildings (Grade 1 and II*), Registered Battlefields. In 2009 Conservation Areas at risk and Registered Parks and Gardens will be added. Regional surveys of Scheduled Monuments at Risk are also completed and the initial data sets held by the county Historic Environment Records. Further information can be obtained via the following website: <a href="http://www.english-heritage.org.uk/risk">www.english-heritage.org.uk/risk</a>.</p>	<p>Revised SEA.</p>
<p><b>Environment Agency Wales</b></p>	
<p>We acknowledge the inclusion of many of our SEA scoping comments in the Environmental Report (Ref: scoping report consultation letter sent 30 October 2007).</p> <p>We welcome the stronger links that you have made between the review of plans, programmes and policies; baseline information; identification of key issues and subsequent development of the SEA objectives. We note however that a number of our comments have not been addressed. These are set out in the attached Annex A. We would like these to be considered in the SEA Environmental Report accompanying your final Water Resources Management Plan.</p>	<p>Regarding that some of your comments, from the Scoping Report stage, may not have been into considered when preparing the Draft SEA Report. We note your concerns and we will review the comments made at the scoping stage when we prepare the Revised Draft SEA.</p>
<p><b>Natural England</b></p>	
<p>Pg 21 – We do not specifically undertake separate condition monitoring for SAC features, this is done through our condition assessment for SSSIs, which is readily available and can be obtained from our website:</p>	<p>Pg 21: The comment regarding separate condition monitoring for SAC features is noted and will be taken into account in preparing the Revised Draft SEA.</p>
<p>Appendix table 1.3 – The targets that are cited are only those that apply to CCW. The Government (in Westminster) has set a PSA target for 95% of SSSIs to be in a favourable or recovering condition by 2010 and this will apply to the sites in Herefordshire part of Welsh Waters area.</p>	<p>A.1.3: The comment regarding the Central Government PSA target is noted and will be taken into account in preparing the Revised Draft SEA.</p>
<p>The SEA should not score and come up with one overall score for each option as this can disguise the detail and give a wrong picture of the negative and positive effects that may be very different for the different objectives.</p> <p>The SEA should document whether there is a negative or positive effect and how significant it is for each of the objectives, for each of the options/ alternatives being considered. I do however like the way that you have grouped the options together that apply to each WRZ, so you can see which are the alternatives within each WRZ.</p>	<p>As discussed in preparation of the Revised Draft SEA, the assessment process has been slightly amended to provide greater clarity to the process and the outputs. We will continue to discuss with you how the assessment is undertaken to resolve any issues.</p>
<p>Although the HRA and SEA can be done together the HRA conclusions should be separate (even if still within the SEA document) to the SEA conclusions. The HRA document indicates that the</p>	<p>Comment noted and agreed. Due to the preparation and submission date of the Draft SEA it was not possible to include the findings of the</p>

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<p>screening has been done by the SEA.</p> <p>Having looked again at the appendices to the SEA, there is no specific section on the HRA conclusions and it is not clear therefore what the HRA screening conclusion actually are. I would suggest that an additional table should be included within the SEA or HRA outlining the conclusions for the HRA screening.</p>	<p>HRA within the SEA. Within the Revised Draft SEA the processes and findings from the Revised Draft HRA will be fully acknowledged.</p>
<b>Wye and Usk Foundation</b>	
<p>We believe that the current unfavourable status of salmon and other migratory fish in both the Wye and Usk, as recognized by Habitats Directive assessments, is due in part to over-abstraction. Therefore we welcome any reduction in abstraction.</p>	<p>It is acknowledged that the unfavourable status of migratory fish in both the rivers Usk and Wye (as assumed through the RoC process) is partly due to over-abstraction across all sectors, not just public water supply. We are working closely with the EAW, and will continue to do so, to reach a favourable outcome for both the environment and Welsh Water customers.</p>
<p>Noting that the WRMP currently shows a surplus of about 75 MI/d in the SEWCUS zone, the proposed loss of 101 MI/d of deployable output implies a reduction in abstraction of only 26 MI/d below current levels. Noting the current unfavourable status of salmon and other migratory fish in both rivers, we do not believe that the proposed 26 MI/d reduction in abstraction is sufficient to re-establish a flow regime acceptable under the Habitats Directive, bearing in mind that the total abstraction from the two rivers is about 500 MI/d.</p>	<p>Since the publication of the WRMP and the baseline supply-demand balances, further work has been undertaken investigating the impact of the RoC licence amendments. Not least of all is the inclusion of the effects of climate change on deployable output and Target Headroom (this is the calculated allowance for uncertainties that are outside the control of the water company).</p> <p>Modelling has demonstrated uncertainty around climate change would be significantly higher with the proposed RoC options in place. This would indeed result in an actual loss of deployable output of 101 MI/d for the SEWCUS WRZ.</p>
<p>We are extremely disappointed that the work on the Habitats Directive Review of Consents has been carried out without consultation with the Wye &amp; Usk Foundation and that we have not seen EA's report on the work. Although we appreciate that consultation on this matter is not a statutory requirement, we believe that our detailed local knowledge and technical expertise should have been used to comment on the methodology of the review and its outcomes.</p>	<p>Welsh Water concurs that it is essential that the EAW consult all stakeholders on the RoC process with the aim, as a minimum, to amass all relevant information and knowledge. As the jurisdiction to consult on the RoC process rests solely with the EAW, I have copied this letter to the EAW for comment.</p>
<p>The reductions in abstraction and schemes to replace them should be subject to a separate Strategic Environmental Assessment and associated consultation, with full details made available for review.</p>	<p>As stated previously we intend to revise the Draft reports (HRA, SEA and WRMP) to include the RoC results. We will then take Direction from the Welsh Assembly Government on the statutory timescales and processes, thereafter.</p>
<p>We note that the proposed solution to the Vowchurch zone deficit will require increased</p>	<p>In answer to your final points on pages 2 and 3 of your comment</p>

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<p>abstraction from the River Wye. This is justified on the grounds that “the volumes involved are small and within the existing abstraction licence”. In our opinion, the existing levels of abstraction from the Wye are contributory factor in the present unfavourable status of salmon and other migratory fish, as recognized in Welsh Water’s draft Habitats Regulations Assessment of the WRMP. We have further commented on this in our separate response to Welsh Water’s consultation on their draft Habitats Regulations Assessment of the WRMP. Therefore, we think that the SEA should have concluded that the proposed Vowchurch solution is unacceptable. An alternative solution should be found involving no additional abstraction from the Wye.</p>	<p>document (‘Responses to specific questions’): As you correctly point out, the preferred solution for the Vowchurch WRZ (Option No. 8110.7, Upsize Trunk Main from Hereford) would be operated within existing abstraction licensed quantities.</p> <p>Even under the maximum licensed scenario, the RoC process identified no issues with our abstraction from the River Wye at Broomy Hill. The exception to this being a seasonal reduction in Spring as a new clause to the licence, only if no regulation of the Wye occurs. Welsh Water does not intend not to operate regulation as this prevents our ability to supply water in the downstream part of the Wye.</p> <p>Therefore, even under RoC, there is a Spring licence modification only. The proposed scheme at Vowchurch is to meet peak week late summer demands only. As such this option was identified, as the preferred option, as it will have no impact on the RoC outcome for the Wye.</p>
<p>In respect of the various abstractions on the river Usk, we are concerned that the amount taken by the Brecon and Monmouthshire Canal is subject, in part to an informal agreement with the Environment Agency Wales. We understand this to be 25 Ml/day. However this amount refers solely to that taken at Brecon: Additional amounts are taken from Afon Crawnon and elsewhere downstream. Environmentally, abstractions this far upriver are more harmful than those taken downstream.</p>	<p>Regarding the comments on the Monmouthshire &amp; Brecon Canal abstractions from the River Usk. We are aware that the unlicensed abstraction at Brecon by the Monmouthshire &amp; Brecon Canal is being investigated under the RoC process.</p> <p>However, we are not aware that other abstractions by Monmouthshire &amp; Brecon Canal (such as that on the Afon Crawnon) have been included in the RoC process. We have copied this letter to the EAW and ask that they respond to both of us on this matter.</p>
<p>We believe these amounts are substantially more than enough to provide for lockage and it is probable that the current level of abstraction is closely linked to the amount of leakage that this canal is famously known for. Since these abstractions have yet to be included within the regulatory and legislative frameworks (the canal has enjoyed an abstraction of right) and that the agreement with the Environment Agency Wales is not properly monitored, there should be plans to abstract less water from the Sewcus system when the canal is drawing its full or even above agreed level of abstraction.</p>	<p>Welsh Water are currently licensed, at Brecon, to abstract from boreholes adjacent to the River Usk and from the River Usk (with an aggregated daily quantity for the two licences of 5.77 Ml/d). As you correctly note in your comments the Monmouthshire &amp; Brecon Canal abstraction at Brecon is currently unlicensed with a daily abstraction significantly in excess of the licensed Welsh Water abstractions at Brecon.</p> <p>We therefore unreservedly disagree that Welsh Water should cut back their abstraction at Brecon (or elsewhere in the SEWCUS WRZ) when the Monmouthshire &amp; Brecon Canal is abstracting at or above their ‘agreed’ quantities. This would be contradictory to the abstraction</p>

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	licence legislative framework and, indeed, the objectives of the Habitats Directive.
<p>We have no comments on this at present. However, when the proposed solutions to water supply deficits arising from the Habitats Directive Review of Consents are put forward, we anticipate that there will be additional monitoring requirements and we would like the opportunity to review these arrangements before the WRMP is finalised.</p>	<p>Regarding 'likely' additional monitoring requirements following inclusion of the RoC findings; as stated previously, we intend to revise the Draft reports (HRA, SEA and Plan) to include the RoC results. We will then take Direction from the Welsh Assembly Government on the statutory timescales and processes, thereafter. This will include any Direction on mitigation.</p>