Llywodraeth Cynulliad Cymru
Welsh Assembly Government

www.cymru.gov.uk

Marine Renewable Energy Strategic Framework

Technical Addendum

Report by RPS to the Welsh Assembly Government

March 2011

Table 7.1: Summary of Approaches Taken by Projects using Multiple Data Layers

Country	Website	Plan Type	Purpose	Cumulative Data Layers	Example of Cumulative Data Layer Mapping
Australia	www.environment.gov.au/coasts/index.html	Marine Bioregional Planning	Undertaken on a geographic zone basis. Involved collating baseline environmental information (human and natural environment), with GIS mapping for each area.	No information sourced on bringing the data together to develop a plan or how cumulative data layers were managed.	None sourced
Australia	www.gbrmpa.gov.au/corp_site/management/zoning/zoning_maps.html	Zoning on the Great Barrier Reef	To create zones where different activities are permitted.	Uses processing methods in GIS to map areas for individual zones, therefore no cumulative data layers presented.	None sourced
Belgium	www.mumm.ac.be/EN/Management/index.php	A Master Plan for the North Sea	Used as an ongoing management tool to assess interaction between existing and planned activities, enabling management of impacts on the environment in an integrated manner.	Uses baseline data in GIS and spatial analyst. Data layers are shown as overlapping and areas of potential conflict mapped.	

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Germany	www.bsh.de/en/Marine_uses/Spatial_Planning_in_the_German_EEZ/index.jsp	Spatial planning for the German North Sea and Baltic Sea	Spatial planning for the German Exclusive Economic Zone (EEZ) in the North Sea and Baltic Sea for economic and scientific use, with regard to safety and efficiency of maritime traffic as well as protection of the marine environment.	Have identified target areas and priority areas for specific activities e.g. shipping, with the potential environmental impact of each area assessed.	 
Germany	www.unesco-ioc-marinesp.be/msp_practice/germany_mecklenburg	Spatial planning for the German coastal state waters of Mecklenburg-Vorpommern	Aimed at integrating economic and social activities. Included identifying suitable areas for defined uses, areas reserved for defined uses and priority areas for defined uses.	None shown	None sourced

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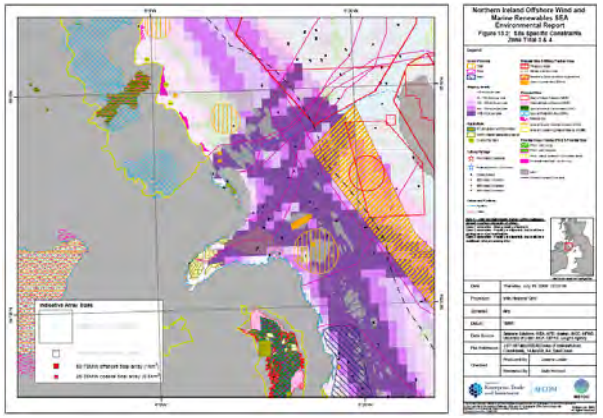
Northern Ireland	www.offshoreenergyni.co.uk/	Development of a Strategic Action Plan for offshore wind and marine renewable energy	Understanding the potential offshore wind, wave and tidal resource in the context of potential environmental impacts.	Mapped areas of potential resource and various aspects of the existing environment (human and natural) separately, with final figures depicting areas of potential resource overlaid by existing environment features.	
Norway	www.regjeringen.no/en/dep/md/Selected-topics/hav--og-vannforvaltning/integrated-management-of-the-barents-sea.html?id=87148	Sectoral management plan.	Set up in a staged process. The first established the existing environment, the second identified associated impacts up to 2020, the third assessed overall pressure and impacts and the fourth generated a management plan.	Mapped baseline environment and assessed potential impact of economic/social activities on natural environment. Established descriptive (i.e. not GIS) plans for minimising environmental impact while permitting activities.	None sourced

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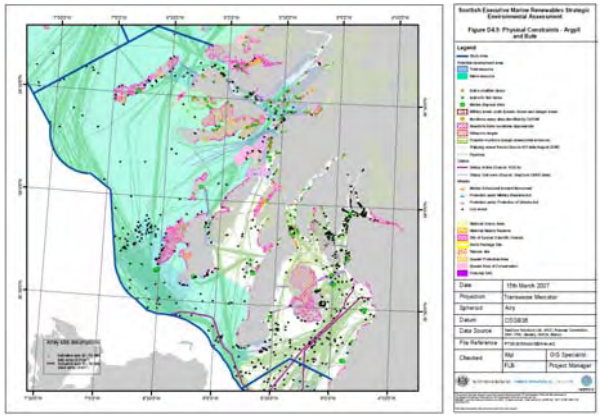
Scotland	www.seaenergyscotland.net	SEA for wave and tidal energy	To examine the environmental effects from the development of wave and tidal power and to inform the preparation and delivery of a strategy for the development of marine energy.	Mapped individual potential constraints (i.e. existing natural and human environment) and areas of potential resource separately.	
Scotland	www.scotland.gov.uk/Publications/2010/05/14155353/17	SEA for offshore wind	The Draft Plan considers the potential for offshore wind energy development within 12 nautical miles of the coast and proposes options for the short, medium and long term.	Maps in GIS the potential wind resource areas with individual constraints, to compare proximity/overlap.	Figures not applicable for cumulative data layer management
Sweden	www.sweden.gov.se/sb/d/2023/a/107951	To improve management and environmental status of Swedish maritime waters.	Plan based, to include fixed zones for protection and use. Very legislative driven.	Mapped the existing environment (human/natural) and discussed potential areas of conflict.	None sourced

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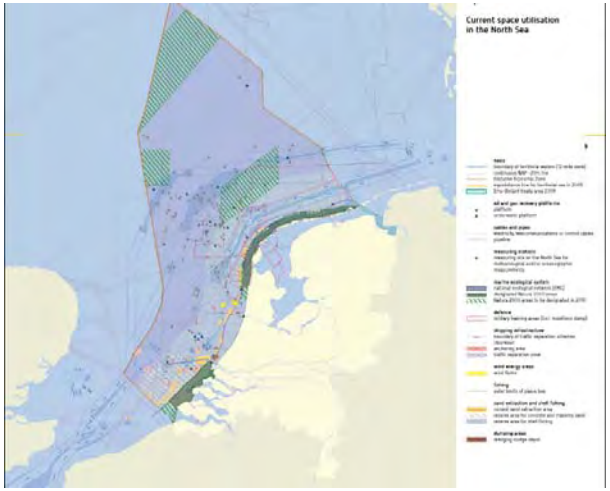
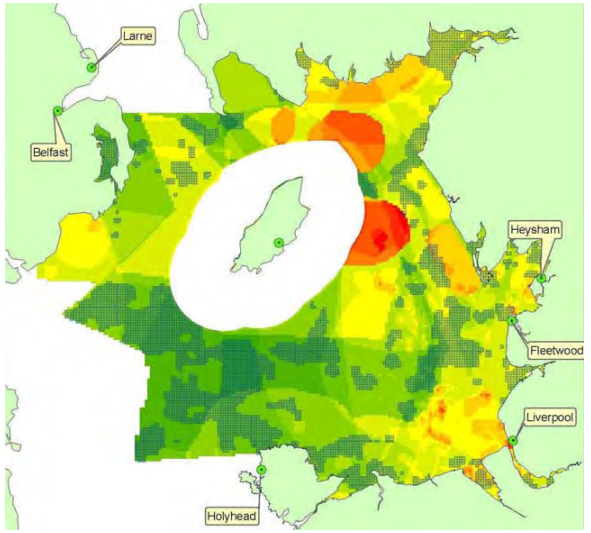
The Netherlands	www.verkeerenwaterstaat.nl/english/topics/water/water_and_the_future/delta_committee/thedeltacommittee.aspx	Integrated Management Plan for the North Sea 2015.	Involves mapping existing interests followed by discussion on each interest, taking into consideration potential interaction (beneficial and in conflict) with other interests.	Cumulative layers mapped but potential conflicts/constraint issues resolved through written discussion. Includes a discussion on how much area is required for the wind energy capacity desired together with how this may interact with existing users. The result was a number of potential wind farm search areas.	
UK	www.defra.gov.uk/environment/marine/legislation/mcaa/index.htm	Marine Spatial Planning	A number of strands are involved in the UKs marine spatial planning, with a general approach of planning and managing the seas in a more joined up manner. The Pilot (www.abpmer.net/mspp/docs/finals/MSPFinal_report.pdf) looked at a better understanding of spatial planning and its applicability to UK waters, being aimed at testing its feasibility and practicality	Emphasis on the planning and management process. Used GIS analysis of data layers to assess degree of conflict between different users for three scenarios	

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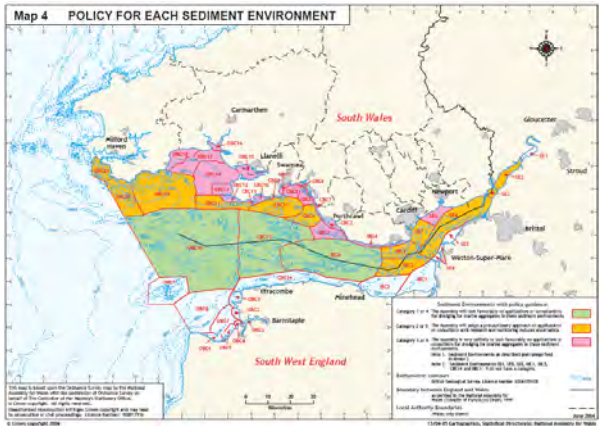
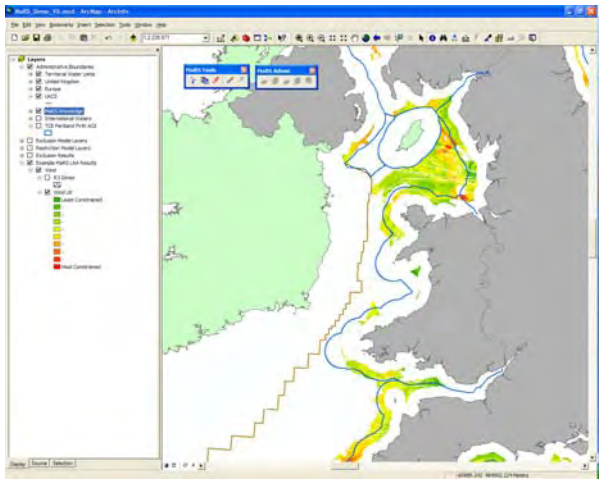
Wales		Marine Aggregate Dredging Policy	Produced as part of an integrated strategy for fine aggregates in south Wales.	Assessed how favourably applications for aggregate extraction would be received for different areas within the Severn and Bristol Channel, taking account of issues such as acceptability, need for aggregates and existing use (including nature conservation and coastal areas). Information presented as a description per area, with the overall areas mapped.	
UK	www.thecrownestate.co.uk/mars	Marine spatial planning system	To facilitate the better understanding and sustainable planning of the marine estate	The MaRS database uses multi-criteria analysis to investigate areas with the most development potential and least risk	
UK	https://lra.le.ac.uk/bitstream/23	The FASTTRAC Project	Development of a toolkit for combining aggregate resource	Looked at methods of overlaying different types of	Figures not applicable for cumulative data layer management

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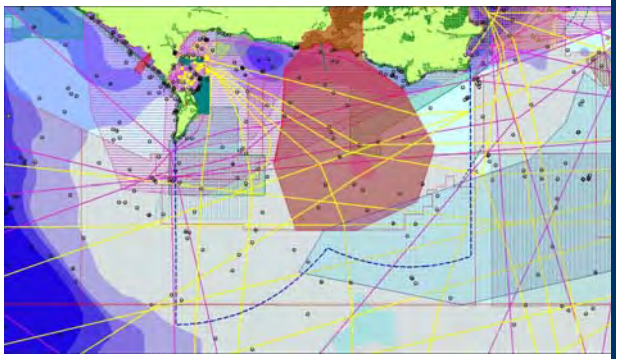
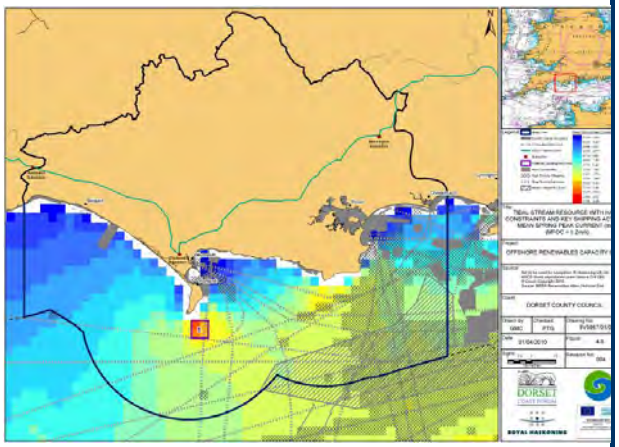
	81/3996/1/TheFASTRACProjectMaster.doc.pdf		and archaeological assessment	data (e.g. airborne or ground collected)	
UK	www.coastms.co.uk/conferences/436	Marine Spatial Planning Conference	To share experience of updates in marine spatial planning	Mapping displayed tended towards overlaying multiple data layers	 
UK	www.abpmer.net/marine-planning/	Spatial planning tool	Website aimed to highlighting research into marine planning practice and learning from relevant experiences	Includes case studies and reference to existing plans	For information