

Approaches to collation of environmental baseline information for water

SEA Sub-topic	Description of current state of the environment	Key Trends (past and likely future)	Key Targets, limits & thresholds	Sources of key information	Key information gaps
<p>Notes on approach:</p> <p>Ensure the scale and level of detail is appropriate to the scale, type and level of detail of the Plan and the potential for significant effects.</p>	<ul style="list-style-type: none"> Identify the type of water bodies that the Plan is likely to affect (e.g. surface water, groundwater, estuarine, coastal). Identify sensitive receptors (e.g. vulnerable groups, designated areas, nitrate vulnerable zones) which could be affected by the Plan. Identify main sectors affecting the water environment. Note whether there are any information gaps or any detailed information that may be required. 	<ul style="list-style-type: none"> Use historical monitoring data or reports to establish trends observed in waterbodies likely to be affected by the Plan. View databases sources such as BGS/GSNI Note any current or planned Plans that may be having a positive or negative impact on historical trends using appropriate timescales (e.g. last 5 – 10 years and next 10 – 15 years). Note whether there are any information gaps. 	<ul style="list-style-type: none"> Include any current and likely future targets, limits or thresholds. Consider emerging policy for future changes to targets etc. Note whether any information on targets/ limits/ thresholds for the area covered by the Plan is unavailable. 	<ul style="list-style-type: none"> National environmental agencies (i.e. SEPA, NIEA, Environment Agency -EA, EPA) Government bodies (e.g. SNH) Conservation groups and national parks Local and national governments Natural Environment Research Council (NERC) incl. BGS, GSNI & Tellus Project Meteorological Office The UK Hydrographic Office, Crown Estates Fisheries Research Services JNCC Water sports, fisheries & angling organisations Scotland's Environmental and Rural Services (SEARS) Academic institutions, professional organisations and associations Thresholds: EA Chemical Standards Database 	<p>Note whether there any information is unavailable or not available at appropriate scales for the Plan (e.g. insufficient monitoring sites, no information or trends available)</p>

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Water Quality	Rivers and Canals	<ul style="list-style-type: none"> Describe rivers and canals, including which could be affected by the Plan e.g. name, length, flow discharge parameters (e.g. mean annual flow, Q_{95}), and water quality classification Include other information on water quality, e.g. which waterways are unclassified Water bodies used for recreational use Designated drinking water areas Aquaculture activities in water bodies Sensitive ecosystems/ species 	<p>As in notes above</p> <ul style="list-style-type: none"> Describe changes in status of water bodies over time 	<p>As in notes above</p> <p>Drinking Water Standards and/ or Environmental Quality Standards, could be used if relevant.</p> <p>See River Basin Management Plan objectives</p>	<p>As in notes above and</p> <ul style="list-style-type: none"> State of the Environment Reports River Basin Management Plans Significant Water Management Issues reports Water Classification Scheme Reports/ Data British Waterways 	As in notes above
	Lakes/ lochs and other inland water bodies	<ul style="list-style-type: none"> Identify and describe lakes/ lochs and other inland water bodies which could be affected by the Plan e.g. size, location. Standing water classifications. Water bodies used for recreational use Designated drinking water areas Aquaculture activities in lakes/ lochs and other inland water bodies Sensitive ecosystems/ species 	<p>As in notes above</p> <ul style="list-style-type: none"> Describe changes in status of water bodies over time 	<p>As in notes above</p> <p>Drinking Water Standards and/ or Environmental Quality Standards, could be used if relevant.</p> <p>See River Basin Plan objectives</p>	<p>As in notes above and</p> <ul style="list-style-type: none"> State of the Environment Reports River Basin Management Plans Significant Water Management Issues reports Water Classification Scheme Reports/ Data 	As in notes above

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Estuaries	Identify and describe estuaries which could be affected by the Plan, including; <ul style="list-style-type: none"> • Classification • Tidal information • Areas used for recreational use (incl. designated Bathing Waters) • Designated Shellfish Waters 	As in notes above <ul style="list-style-type: none"> • Describe changes in status of water bodies over time 	As in notes above <p>Drinking Water Standards, Environmental Quality Standards, Bathing Water Standards, and/ or Shellfish Water Standards could be used if relevant.</p>	As in notes above and <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • Water Classification Scheme Reports/ Data 	As in notes above
Coastal	Identify and describe coastal areas which could be affected by the Plan, including; <ul style="list-style-type: none"> • Classification • Tidal information • Areas used for recreational use (incl. designated Bathing Waters) • Designated Shellfish Waters 	As in notes above <ul style="list-style-type: none"> • Describe changes in status of water bodies over time 	As in notes above <p>Drinking Water Standards, Environmental Quality Standards, Bathing Water Standards, and/ or Shellfish Water Standards could be used if relevant.</p>	As in notes above and <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • Estuarine and Coastal Classification Scheme Reports • British Oceanographic Data Centre • National Oceanography Centre • OSPAR 2004 Quality Status Report 2000 for the North-East Atlantic • UK National Marine Monitoring Programme (NMMP) 	As in notes above

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Marine waters	Identify any marine waters which could be affected by the Plan and describe marine water quality in these areas.	As in notes above	As in notes above	As in notes above and <ul style="list-style-type: none"> State of the Environment Reports British Oceanographic Data Centre National Oceanography Centre OSPAR 2004 Quality Status Report 2000 for the North-East Atlantic UK National Marine Monitoring Programme (NMMP). 	As in notes above
Groundwater	Identify and describe groundwater; including: <ul style="list-style-type: none"> Regional hydrogeological regime (incl. main aquifers, aquifer productivity, storativity and natural water quality, groundwater recharge areas, groundwater vulnerability) Designated drinking water areas Nitrate Vulnerable Zones Nitrate concentrations Land use Contaminated land sites 	As in notes above <ul style="list-style-type: none"> Describe changes in status of water bodies over time Trends in concentration of contaminants. 	As in notes above Drinking Water Standards and/ or Environmental Quality Standards, could be used if relevant.	As in notes above and <ul style="list-style-type: none"> State of the Environment Reports River Basin Management Plans Significant Water Management Issues reports Geology maps Hydrogeological maps Groundwater vulnerability maps Nitrate Vulnerable Zones reports Meteorological Office UK Groundwater Forum 	As in notes above Large gaps in groundwater quality monitoring data. Monitoring network is not as extensive as that of surface water.

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Water Pollution	Point source	<p>The following types of information may be useful:</p> <ul style="list-style-type: none"> • Key levels of point source discharges (e.g. from industry, sewage, fisheries, marine designated disposal sites) • Levels of non-compliance with regulation of permitted discharges • Number/ type of pollution incidents 	<p>As in notes above</p> <p>Changes in predominant emissions/ pollutants from point sources</p>	<p>As in notes above</p> <p>See PPC Regulations</p> <p>In Scotland see CAR regulations for information on general binding rules and licensing of discharges.</p>	<p>As in notes above and</p> <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Pollutant Release Inventory • Discharge consents • Water companies 	As in notes above
	Diffuse	<p>The following types of information may be useful:</p> <ul style="list-style-type: none"> • Atmospheric pollution e.g. SO₂ and NO_x affecting water bodies • Rural areas: fertiliser/ pesticides pollution • Urban areas: surface runoff affecting water bodies, failures of drainage network causing diffuse pollution (e.g. pipe leakage, overflow) • Marine waters: influx of marine water (i.e. marine currents) potentially affecting marine water quality 	<p>As in notes above</p> <p>Changes in predominant emissions/ pollutants from point sources</p>	As in notes above	<p>As in notes above and</p> <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • UK Groundwater Forum • Nitrate Vulnerable Zones reports • National Atmospheric Emissions Inventory 	As in notes above

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Water Resources	Abstraction	<p>The following types of information may be useful:</p> <ul style="list-style-type: none"> • Volume of water being abstracted • Activities with water abstraction licences • Groundwater dependent ecosystems 	<p>As in notes above</p> <p>Trends in groundwater levels</p> <p>Trends in groundwater recharge</p>	<p>As in notes above</p> <p>In Scotland see CAR regulations for information on general binding rules and licensing of abstractions.</p> <p>In Northern Ireland see the Abstraction and Impoundment Regulations</p>	<p>As in notes above and</p> <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • UK Groundwater Forum • Abstraction licences • Private Water Supply registers • Water companies 	<p>Gaps in data will be resolved as abstraction licensing comes into force. Gaps can be bridged if suitable hydrometric data is available.</p>
	Flow Regulation	<p>The following types of information may be useful:</p> <ul style="list-style-type: none"> • River flow data • Quantity and dynamics of flow • Runoff and aquifer recharge patterns • Catchment characteristics • Ecological flow requirements 	<p>As in notes above</p> <p>Trends in flow rates</p>	<p>As in notes above</p> <p>In Scotland see CAR regulations for information on general binding rules and licensing of impoundments.</p> <p>In Northern Ireland see the Abstraction and Impoundment Regulations</p>	<p>As in notes above and</p> <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • National Flow Archive • Centre for Ecology and Hydrology (CEH) • Meteorological Office • The UK Hydrographic Office • Water Companies • UK Groundwater Forum • Abstraction licences 	<p>As in notes above</p>

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Hydromorphology	Engineering Works	Identify and describe engineering works adjacent to or near surface waters (e.g. culverts, weirs, piers, bridges, flood defences, harbours).	As in notes above	Information gap See the Water Framework Directive In Scotland see CAR regulations for information on general binding rules and licensing of impoundments.	As in notes above and <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • UK Groundwater Forum • Local Council Development Plans and planning offices • Water Classification Scheme Reports • Historical Mapping 	As in notes above
	Sedimentation	Include description of water sedimentation, including water body type, water quality data and identified causes of sedimentation.	As in notes above	As in notes above See the Water Framework Directive. In Scotland see CAR regulations for information on general binding rules and licensing of impoundments.	As in notes above and <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • Historical mapping 	As in notes above

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	Riparian Zone	Include description of the disturbances of the riparian zone (e.g. removal of vegetation, engineering structures).	As in notes above	Information gap See the Water Framework Directive In Scotland see CAR regulations for information on general binding rules and licensing of impoundments.	As in notes above and <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • Water Classification Scheme Reports 	As in notes above
Flooding	Coastal	Identify coastal flood risk areas characterise flood risk (e.g. levels, area, frequency). Identify any flood defence infrastructure and other flood management measures put in place.	As in notes above Trends in flooding (spatial/ frequencies)	As in notes above In Scotland: See Scottish Planning Policy (SPP) 7. In Northern Ireland: See Policy Planning Statement (PPS) 15.	As in notes above and <ul style="list-style-type: none"> • State of the Environment Reports • River Basin Management Plans • Significant Water Management Issues reports • Flood reports • Meteorological Office • CEH • Topographic Data • Indicative Flood Maps 	As in notes above

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Fluvial	Identify fluvial flood risk areas characterise flood risk (e.g. levels, area, frequency). Identify any flood defence infrastructure and other flood management measures put in place.	As in notes above Trends in flooding (spatial/ frequencies)	As in notes above In Scotland: See Scottish Planning Policy (SPP) 7. In Northern Ireland: See Policy Planning Statement (PPS) 15.	<ul style="list-style-type: none"> • State of the Environment Reports • Flood reports • Meteorological Office • CEH • Topographic Data • Indicative Flood Maps 	As in notes above
	Identify pluvial flood risk areas including areas of poor drainage, location of Sustainable Urban Drainage Systems (SUDS), areas under development (potential flood risk), and characterise flood risk (e.g. levels, area, frequency).	As in notes above Trends in flooding (spatial/ frequencies)	As in notes above	<ul style="list-style-type: none"> • As in notes above and • River Basin Management Plans • Significant Water Management Issues reports • Meteorological Office • The UK Hydrographic Office • Topographic Data • Water companies 	As in notes above
	Identify areas that are potentially susceptible to groundwater flooding and characterise flood risk (e.g. levels, area, and frequency).	As in notes above Trends in flooding (spatial/ frequencies)	As in notes above	<ul style="list-style-type: none"> • As in notes above and • River Basin Management Plans • Significant Water Management Issues reports • Meteorological Office • Topographic Data • The Coal Authority 	As in notes above