



Abbreviations

2D	Two dimensional
3D	Three Dimensional
AA	Appropriate Assessment
ABP	Associated British Ports
ABPmer	Associated British Ports marine environmental research
ADCP	Acoustic Doppler Current Profiler
ADMS	Atmospheric Dispersion Modelling System
AEP	Annual Exceedance Probability
AFD	Acoustic Fish Deterrents
AFDW	Ash-free Dry Weight
AIS	Automatic Identification System
ALB	All-weather Lifeboats
AMAA	Ancient Monuments and Archaeological Areas Act
AONB	Area of Outstanding Natural Beauty
APIS	Air Pollution Information System
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
ARPA	Automatic Radar Plotting Aid
ASIDOHL	Assessment of Significant Impact of Development on Historic Landscape
ATC	Automatic Traffic Counts
AtoN	Aids to Navigation
AURN	Automatic Urban and Rural Network
AWAC	Acoustic Wave and Current profiler
BAP	Biodiversity Action Plan
BAP	Best Available Practice
BBWC (M)	Breeding Birds in the Wider Countryside (Medium Alert)
BBWC (H)	Breeding Birds in the Wider Countryside (High Alert)
BC	Before Christ
BCBC	Bridgend County Borough Council
BCC (A)	Birds of Conservation Concern (Amber List)
BCC (R)	Birds of Conservation Concern (Red List)
BeC	Berne Convention
BERR/DBER	Department of Business, Enterprise and Regulatory Reform
BGS	British Geological Society
BGS	British Geological Survey

BoC	Bonn Convention
BOD	Biological Oxygen Demand
BP	Before Present
BRE	Building Research Establishment
BRES	Business Register and Employment Survey
BTO	British Trust for Ornithology
BW	Bathing Water
BWD	Bathing Water Directive
CA	Cruising Association
CBC	Common Bird Census
CBD	Convention on Biological Diversity
cBWD	current Bathing Water Directive
CCA	Copper-chrome arsenate
CCC	Carmarthenshire County Council
CCSC	City and County of Swansea Council
CCTV	Closed Circuit Television
CCW	Countryside Council for Wales
CD	Chart Datum
CEFAS	Centre for Environment, Fisheries & Aquaculture Science
CEMP	Construction Environmental Management Plan
CERC	Cambridge Environmental Research Consultants Ltd
CES	Celtic Sea
CFD	Computational Fluid Dynamics
CFMP	Catchment Flood Management Plan
cfu	Colony-forming unit
CIRIA	Construction Industry Research and Information Association
CMS	Construction Method Statement
COLREGS	International Regulations for Preventing Collisions at Sea
COSHH	Control of Substances Hazardous to Health
COWRIE	Collaborative Offshore Wind Research Into the Environment
CPA	Coast Protection Act 1949
CroW	Countryside and Rights of Way Act 2000
CRTN	Calculation of Road Traffic Noise
cS	Coarse Sand
cSAC	Candidate Special Area of Conservation
CSAR	Centre for Sustainable Aquatic Research

CSD	Cutter Suction Dredger
CSM	Conceptual Site Model
CSO	Combined Sewer Overflow
DAIN	Dissolved available inorganic nitrogen
DAS	Design and Access Statement
dB	Decibel
DCO	Development Consent Order
DCWW	Dŵr Cymru Welsh Water
DECC	Department of Energy and Climate Change
DEFRA	Department of the Environment and Rural Affairs
DfT	Department of Transport
DMRB	Design Manual for Roads and Bridges
DO	Dissolved Oxygen
DoE	Department of Environment
DQRA	Detailed Quantitative Risk Assessment
DSP	Designated Sample Point
DTM	Digital Terrain Model
1.5DWF	1.5 times Dry Weather Flow
dwt	Dry weight tonnes
DWT	Deadweight Tonnage
E	Electric Fields
EA-W	Environment Agency – Wales
EC	European Commission
EC	E Coli
EclA	Ecological Impact assessment
ED	Escape Distance
Edn	Edition
EDO	Environmental Design Optimisation
EDR	Environmental Damage Regulations
EIA	Environmental Impact Assessment
EMF	Electro-Magnetic Field
EMMP	Environmental Monitoring and Management Plan
EMP	Environmental Management Plan
EMS	European Marine Site
EOD	Explosive Ordnance Disposal
EPS	European Protected Species
EPUK	Environment Protection United Kingdom
EQS	Environmental Quality Standard
ERDF	European Regional Development Fund

ES	Environmental Statement
ESRP	Emergency Spill Response Plan
EU	European Union
FAD	Fish Attraction Device
FC/fc	Faecal coliforms
FCA	Flood Consequence Assessment
FEPA	Food and Environment Protection Act 1985
FFT	Full Flow to Treatment
FIO	Faecal Indicator Organisms
FS/fs	Faecal streptococci
fS	Fine Sand
FTE	Full Time Equivalent
FTU	Formazin Turbidity Units
G	Gravel
GAC	Generic Assessment Criteria
GES	Good Environmental Status
GGAT	Glamorgan Gwent Archaeological Trust
GI	Ground Investigation
GIS	Geographical Information System
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GMMP	Gower Marine Mammal Project
GOMMMS	Guidance on the Methodology for Multi-Modal Studies
GOS	Gower Ornithology Society
GQRA	Generic Quantitative Risk Assessment
GT	Gross Tonnage
GWR	Great Western Railway
H _s	Wave height
HAB	Harmful Algal Blooms
HAP	Habitat Action Plan
HD	Hydrodynamic
HER	Historic Environment Record
HER	Historic Environment Report
HGV	Heavy Goods Vehicle
HMCG	HM Coastguard
HRA	Habitats Regulation Assessment
HW; HW+1	High Water; High water plus 1 hour, etc.
IALA	International Association for Marine Aids to Navigation and Lighthouse Authorities
IAQM	Institute for Air Quality Management
IBM	Individual Based Modelling
ICES	International Council for the Exploration of the Seas

IE	I Enterococci
IEEM	Institute of Ecology and Environmental Management
IEMA	Institute of Environmental Management and Assessment
IFA	Institute of Field Archaeologists
IFUSNW	Inshore Fisheries Units for South and North Wales
IH	Inner Herbrides
ILB	Inshore Lifeboats
IMADP	Interim Marine Aggregates Dredging Policy
IMO	International Maritime Organisation
INNS	Invasive Non-Native Species
IOA	Institute of Acoustics
IOS	Institute of Oceanographic Services
IPC	Infrastructure Planning Commission
IROPI	Imperative Reasons of Overriding Public Interest
IS	Irish Sea
ISQG	Interim Marine Sediment Quality Guidelines
IUCN	International Union for Conservation of Nature
JNAPC	Joint Nautical Archaeology Policy Committee
JNCC	Joint Nature Conservation Committee
JPA	Joint Probability Analysis
JSA	Job Seekers Allowance
km	Kilometre
Kv	Kilovolts
kW	Kilowatt
LAQM	Local Air Quality Management
LAT	Lowest Astronomical Tide
LCA	Landscape Character Areas
LCRI	Low Carbon Research Institute
LBAP	Local Biodiversity Action Plan
LDP	Local Development Plan
LIDAR	Light Detection and Ranging
LNR	Local Nature Reserve
LoSHI	Landscape of Special Historic Interest
LSE	Likely Significant Effect
LSO	Long Sea Outfall
LSU	Local Seascape Units
LT	Long Term

LW	Low Water
m	Metre
M	Mud
m ²	Metre squared
M&E	Mechanical and Electrical
MarLIN	Marine Life Information Network
MAGIC	Multi-Agency Geographic Information for the Countryside
MAIB	Marine Accident Investigation Branch
mAOD	Metres above Ordnance Datum
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act
MCCIP	Marine Climate Change Impact Partnership
MCS	Marine Conservation Society
MCU	Marine Consents Unit
MCZ	Marine Conservation Zone
MDL	Minimum Detection Level
Mg/l	Milligram per litre
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MLT	Marine Licensing Team
MLW	Mean Low Water
MLWN	Mean Low Water Neap
MLWS	Mean Low Water Spring
MMO	Marine Management Organisation
MMO	Marine Mammal Observer
MNCR	Marine Nature Conservation Review
MNR	Marine Nature Reserve
MoD	Ministry of Defence
MODIS	Moderate Resolution Imaging Spectroradiometer
mODN	Metres relative to Ordnance Datum Newlyn
MPA	Marine Protected Area
MPCP	Marine Pollution Contingency Plan
MPN	Most Probable Number
MPS	Marine Policy Statement
MRCC	Maritime Rescue Co-ordination Centre
MREI	Marine Renewable Energy Installations
MRESF	Marine Renewable Energy Strategic Framework
MRSC	Maritime Rescue Sub-Centre
mS	Medium Sand

MSA	Merchant Shipping Act
MSFD	Marine Strategy Framework Directive
m/s	Metre per second
MW	Mega Watt
MWh	Mega Watt hours
N/A	Not Applicable
NASCO	North Atlantic Salmon Conservation Organisation
NATA	New Approach to Transport Appraisal
NBN	National Biodiversity Network
n/c	No Classification
NCN	National Cycle Network
NENS	North Eastern North Sea
NERC	Natural Environment and Rural Communities Act 2006
NETS	National Electricity Transmission System
NF	North France
NG	National Grid
NGB	National Governing Body
NGR	National Grid Reference
NM	Nautical Miles
Nm ⁻²	Newtons per square metre
NO	Nitrogen Oxide
NHC	Neath Harbour Commissioner
NPS	National Policy Statement
NPTCBC	Neath Port Talbot County Borough Council
NRA	Navigational Risk Assessment
NRW	Natural Resources Wales
NS	North Sea
NSIP	Nationally Significant Infrastructure Project
NtoM	Notice to Mariners
NTS	Non-Technical Summary
NNR	National Nature Reserve
NUC	Not Under Command
NVQ	National Vocational Qualification
O&M	Operation and Maintenance
OBS	Optical Back Scatter
OD	Ordnance Datum
OH	Outer Herbrides
ONS	Office for National Statistics
ORED	Offshore Renewable Energy Deployment
OREI	Offshore Renewable Energy Installations
ORR	Outside Response Range

OS	Ordnance Survey
OSGB36	Ordnance Survey Great Britain 1936
OSPAR	Oslo-Paris Convention
P	Pebbles
PAH	Polycyclic Aromatic Hydrocarbons
PAM	Passive Acoustic Monitoring
PAS	Portable Antiquities Scheme
PCB	Polychlorinated Biphenyls
PEIR	Preliminary Environmental Information Report
Pers. Comms	Personal communication
PID	Photoionisation Detector
PINS	Planning Inspectorate
PM	Particle Matter
PMRA	Protection of Military Remains Act
PLN	Port Letter Number
PPG	Pollution Prevention Guidelines
ppt	Parts per thousand
PPW	Planning Policy Wales
PRA	Preliminary Risk Assessment
PROW	Permitted Right Of Way
pSAC	Proposed Special Area of Conservation
PSA	Particle Size Analysis
PSD	Particle Size Distribution
PSoBW (A)	Populations Status of Birds in Wales (Amber)
PSoBW (R)	Populations Status of Birds in Wales (Red)
pSPA	Proposed Special Protection Area
PTS	Permanent Threshold Shift
PWA	Protection of Wrecks Act
R	Rock
RBD	River Basin District
RBMP	River Basin Management Plan
rBWD	revised Bathing Water Directive
RCAHMW	Royal Commission for Ancient and Historic Monuments in Wales
RDP	Rural Development Programme
RES	Renewable Energy Strategy
REZ	Renewable Energy Zone
rMCZ	Recommended Marine Conservation Zone
RNLI	Royal National Lifeboat Institution
Ro-Ro	Roll on Roll off ferry
RoW	Receiver of Wreck

rpm	Revolutions per minute
RSL	Relative Sea Level
RSPB	Royal Society Protection of Birds
RSU	Regional Seascape Units
RTP	Regional Transport Plan
RYA	Royal Yachting Association
S	Sand
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SAE	Sado Estuary (Portugal)
SAHFOS	Sir Alistair Hardy Foundation for Ocean Science
SAM	Scheduled Ancient Monument
SAMS	Scottish Association for Marine Science
SAR	Search and Rescue
SAP	Species Action Plan
SCOS	Special Committee on Seals
SE	Southern England
SEA	Strategic Environmental Assessment
SEL	Sound Exposure Level
SEWBRcC	South East Wales Biodiversity Records Centre
SFCA	Strategic Flood Consequence Assessment
SGA	Southern Galicia
Sh	Shells
SHE	Shannon Estuary
SL	Source Level
SLVIA	Seascape and Landscape Visual Impact Assessment
SMP	Shoreline Management Plan
SMR	Sites and Monuments Records
SMRU	Sea Mammal Research Unit
SNH	Scottish Natural Heritage
SoCC	Statement of Community Consultation
SofS	Secretary of State
soM	Soft Mud
SPA	Special Protection Area
SPG	Supplementary Planning Guidance
SPL	Sound Pressure Level
SPV	Special Purpose Vehicle
SPZ	Source Protection Zone
SSAC	Site Specific Assessment Criteria
SSC	Suspended Sediment Concentrations
SSSI	Site of Special Scientific Interest

St	Stones
SU	Seascape Units
SUBC	Swansea University Bay Campus
SUDS	Sustainable Drainage Systems
SuRF	Sustainable Remediation Forum
SW	Shellfish Water
SWD	Shellfish Water Directive
SWEAR	Storm Water Eradication and Removal
SWF	Sea Watch Foundation
SWNS	South Western North Sea
SWSF	South Wales Sea Fishery
SWWFC	South West Wales Fisheries Community
SWWITCH	South West Wales Integrated Transport Consortium
SWWRP	South West Wales Regional Planning Guidance
SYASAC	Swansea Yacht and Sub Aqua Club
T _z	Wave Periods
TAN	Technical Advice Note
TAG	Transport Assessment Guideline
TCPA	Town and Country Planning Act 1990
TCE	The Crown Estate
TEL	Tidal Electric Ltd
TFRM	Tideway Fish Risk Model
TGVA	Tourism Gross Value Added
THLS	Trinity House Lighthouse Service
TLSB	Tidal Lagoon Swansea Bay plc
TPH	Total Petroleum Hydrocarbons
TRICS	Trip Rate Information Computer System
TSA	Tourism Satellite Account
TSHD	Trailing Suction Hopper Dredger
TSS	Total Suspended Solids
TTWA	Travel to Work Area
TWh	Terra watt hours
UDP	Unitary Development Plan
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UK	United Kingdom
UKBAP	UK Biodiversity Action Plan
UKCIP	UK Climate Impacts Projection
UKCP09	UK Climate Projections 2009
UKHO	United Kingdom Hydrographic Office
UKTAG	UK Technical Advisory Group

UUSL	United Utilities Scarweather Sands Ltd
UV	Ultraviolet
UXO	Unexploded Ordinance
VER	Valued Ecological Receptors
VOC	Volatile Organic Compound
VP	Viewpoints
WACA	Wildlife and Countryside Act 1981
WAP	Waterbody Action Plan
WCA1	Schedule 1 of Wildlife and Countryside Act 1981
WDCS	Whale and Dolphin Conservation Society
WeBS	Wetlands Bird Survey
WEI	Western Ireland
WFD	Water Framework Directive
WG	Welsh Government
WHO	World Health Organisation
WSI	Written Scheme of Investigation
WSP	Wales Spatial Plan
WTD	Water Framework Directive
WTR	Wildlife Trust Reserve
WPD	Western Power Distribution
WwTW	Waste Water Treatment Works
YC	Yacht Club
ZTV	Zone of Theoretical Visibility