Area 4: Pembrokeshire:
LANDMAP Change Detection:
Visual & Sensory Aspect
Monitoring Report
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1.0 Introduction

- 1.1. In August 2013 Natural Resources Wales (NRW) commissioned Bronwen Thomas Landscape Architect (BTLA) to carry out stages 1, 2a and 2b of the interpretation of the LANDMAP Change Detection Packs (CDP) for the Visual & Sensory aspect covering several parts of Wales including Area 4 which includes Pembrokeshire (and Pembrokeshire Coast National Park).
- 1.2. In September 2013 BTLA was commissioned to prepare and manage the Local Authority questionnaire input into Visual & Sensory Change Detection across all of Wales.
- 1.3. In July 2014 BTLA was commissioned to carry out field visits, complete the surveys and update the Visual & Sensory data including the on-line surveys and GIS for the parts of Wales covered in the first stages, including Pembrokeshire.
- 1.4. In October 2014 BTLA was commissioned to prepare a report identifying Additional Consistency Amendments in the data in particular in relationship to Pembrokeshire, with recommendations to rectify the inconsistencies.

2.0 Methodology

2.1. 'LANDMAP Guidance for Wales: Monitoring Landscape Change' (NRW 2014) provides a full explanation of the methodology. The tasks carried out, in brief, have been:

Stage 1: Baseline of Change

- Creation of monitoring tables for each of the local authorities, listing aspect areas, sources of change detection and recommended amendments;
- Desk study of maps and resources supplied in the Change Detection Pack to identify aspect areas where significant landscape change is anticipated, relating to boundaries, classification, evaluation and descriptions;
- Population of relevant columns to form the Stage 1 tables, relating to the CDP resources, namely:
 - 1. Aspect area UID and name;
 - 2. Change indicated by OS data, aerial photographs and roads/buildings maps;
 - 3. Change indicated by complexity maps (segment density) and NDVI:
 - 4. Change indicated by Phase 1 and seasonal change maps;
 - 8. (Draft) recommended LANDMAP amendments.

Stage 1a: Local Authority questionnaire findings

- Assessment of information derived from local authority questionnaire.
- Population of relevant columns in the monitoring table:
 - 5. Change indicated by LPA questionnaire
 - 8. Adjustments to recommended LANDMAP amendments

Stage 1b: Additional desk-based information

- Assessment of further information requested and supplied by NRW and local authorities;
- Cross-check against Consistency Report to ensure inconsistencies have been rectified;

- Population of relevant columns of the monitoring table:
 - 6. Changes indicated by other resources;
 - 8. Adjustments to recommended LANDMAP amendments
- Preparation of summary report to provide information specific to Pembrokeshire and give a summary of key changes and influences, with illustrations, detected at this stage.

Stage 2: Fieldwork verification and survey completion

- Visits to aspect areas to verify significance of changes and identify additional changes;
- Population of relevant columns in the monitoring table:
 - 7. Change indicated by fieldwork
 - 8. Adjustments to recommended LANDMAP amendments
- Adjustments to monitoring table relating to feedback from LPAs and incorporation of further additional sources of information;
- Revision of summary report to take account of changes made at stage 2;
- Preliminary Quality Assurance.

Stage 3: Updating the Visual & Sensory Baseline

- Updating all aspect area surveys as recommended in the monitoring table;
- Updating aspect area boundaries in the Visual & Sensory GIS layer;
- Revision of monitoring table and summary report to take account of changes made at stage 3;
- Quality Assurance.

3.0 Monitoring Table Notes

- 3.1 The final monitoring table has been prepared in accordance with the Technical Specifications. The recommendations identified in the Additional Consistency Amendments report have been incorporated into the final table. The following general notes provide clarity and explain any modifications.
- 3.2 The final table accompanies this report.
- 3.3. Letters (**a. b.** etc.) refer to the separate changes that have been identified in each aspect area. This allows the recommended LANDMAP amendments to relate to the different changes.
- 3.4. Potential changes identified at stage 2 but not substantiated by fieldwork or other later methods have been retained in the final monitoring table for the sake of transparency.
- 3.5. Italics refer to amendments required for consistency rather than significant change.
- 3.6. Figures taken from mapping and aerial photographs show all boundary changes and illustrate some of the amendments. These are provided with the accompanying monitoring table.
- 3.7. The following notes relate to each column of the monitoring table:

Column 1: Aspect Area UID and name.

Column 2: The Mastermap road and built form change mapping, and the 2001 and 2010 aerial photographs provided the most useful data for detecting possible change. It must be noted that the aerial photographs provided in the CDP do not show the most recent changes.

Column 3: The complexity maps and NDVI mapping identified some possible vegetation changes. In Pembrokeshire these have assisted in verifying change.

Column 4: Phase 1 habitat mapping has not been supplied. Seasonal change has not provided any further information relating to significant Visual & Sensory change.

Column 5: The LPA and PCNPA both responded to the questionnaire.

Column 6: Other resources used for Pembrokeshire:

- Forestry mapping showing conversion from conifer to broadleaf woodland
- Windfarm mapping showing windfarm developments in Pembrokeshire.
- Pembrokeshire wind turbine mapping
- Pembrokeshire Seascapes.

Column 7: It must be noted that the fieldwork was carried out in summer 2014, approximately six months after the stage 1 monitoring table was completed, and several years after the aerial photographs were taken. Care was taken, therefore, to ensure that developments and other potential changes that appeared to be in progress at earlier stages were checked on site. Fieldwork has verified most of the changes identified.

Column 8: In summary, the following amendments are recommended:

- Fourteen aspect areas require boundary changes. Two of these changes relate to inconsistencies.
- Twenty aspect areas require checking and/or amendments to survey data relating to descriptions.
- There are no recommended changes to classifications or evaluations.
- There are two new aspect areas recommended.
- There are numerous recommendations relating to inconsistencies. These are discussed in a separate report Additional Consistency Amendments and have been added to this column.

4.0. General Approach to Recommended Amendments Relating to All-Wales Landscape Change

4.1. The following notes provide an overview of the recommended amendments that have been applied to all areas of Wales being monitored by Bronwen Thomas Landscape Architect. Only notes that may be relevant to Pembrokeshire are included.

Forestry conversion to broadleaf woodland

4.2. Source: All Wales GIS mapping supplied by NRW. This maps areas of former conifer plantation that have been replanted with broadleaves since 2001 in NRW-managed forests.

4.3. Where there are considerable areas of broadleaf conversion shown on the mapping within an aspect area this is noted in column 6. However, all these areas which have been checked during fieldwork are not having any significant visual & sensory impact yet. Therefore the broadleaf conversion is noted as a trend with recommendation to continue conversions to broadleaf, and referred to in the amended summary only, especially in relation to prominent areas such as valley sides overlooking settlements (e.g. Crynant) or main transport/tourist routes (e.g. north of Rosebush in Preselis), or recreational areas (e.g. Afan Forest Park). This only applies to aspect areas which are significantly wooded, not where woodland/forestry is not a key characteristic.

Phytophthora felling

4.4. Source: Comprehensive coverage of actual felling has not been made available therefore this has not been able to be included as change, except where noted as significant during fieldwork.

Windfarms

- 4.5. Source: All Wales GIS mapping, August 2013. This maps all consented and operational windfarms, giving name, number and heights of turbines.
- 4.6. Some windfarms have already been included in the Visual & Sensory data, however these surveys will be checked and may be amended, with cumulative effects being considered. Operational windfarms are included as a landscape change within the aspect area, with amendments relating to detractive views within, change to sense of place, trend, condition, recommendations. Windfarms are also considered to be making significant change to views from other aspect areas within 5km, with detractive views out. If these aspect areas are primarily forestry, or valleys without views, or facing away from the windfarm, views from these have not changed significantly. The impact of all the operational and consented windfarms have been verified by fieldwork. Where windfarms are consented but not built, amendments relate to trend and recommendations. In order to provide consistent descriptions, the landscape types identified in 'Guidance on cumulative impact of wind turbines on landscape & visual amenity: Pembrokeshire and Carmarthenshire' (White Consultants 2012) will be used. These are: wind turbine landscape; windfarm.

Single wind turbines

- 4.7. Sources: LPA questionnaire. No comprehensive mapping has been available, therefore change detection has relied on LPA observations, personal knowledge and fieldwork observations. A GIS map of all turbines (operational, approved and in planning) for Pembrokeshire only has been supplied, dated March 2014.
- 4.8. There are many more (and larger) single or pairs of wind turbines now than at the time of the original Visual & Sensory surveys. Where there are a considerable number within an aspect area the cumulative effect may make a change to views within (detractive), trend, recommendations (e.g. parts of Pembrokeshire plateau and around Milford Haven). Where turbines are sparcely scattered and not prominent, no significant change is detected. The landscape types identified in 'Guidance on cumulative impact of wind turbines on landscape & visual amenity: Pembrokeshire and Carmarthenshire' (White

Consultants 2012) will be used. These are: area with no turbines; area with occasional turbines; area with turbines.

Solar farms

- 4.9. Sources: LPA questionnaire. No comprehensive mapping has been available, therefore change detection has relied on LPA observations, personal knowledge and fieldwork observations.
- 4.10. Solar farms tend to be thinly spread at present and not considered to be making significant visual & sensory change yet (e.g. western part of Vale of Glamorgan, eastern parts of Pembrokeshire plateau). Fieldwork has shown that these are not prominent features from many viewpoints. These are noted and amendments will be made to trend and recommendations.

Settlement expansion

- 4.11. Sources: GIS Mastermap road and building change mapping, aerial photographs (2001 and 2010), plus Google Earth 2013 photography where applicable. The impacts of most of the areas of expansion have been verified by fieldwork.
- 4.12. As well as boundary changes around settlement aspect areas there is also encroachment on gaps between settlements which is significant in the 'busy' parts of the country such as M4 corridor and tourist areas such as Pembrokeshire and Ceredigion coast. As well as physical encroachment, there is encroachment on views with some prominent edges of settlements impacting on the adjacent rural aspect areas. Where this is significant in the rural aspect areas amendments are recommended to detractive views and trend/recommendation relating to encroachment.

Coastal erosion

- 4.13. Source: The Welsh Coastal Storms, December 2013 & January 2014 an assessment of environmental change, NRW Evidence Report 33. This report became available in September 2014, after most fieldwork had been completed. LPA feedback has identified some specific areas of change which have all been verified by fieldwork.
- 4.14. The acceleration of coastal erosion, in terms of Visual & Sensory landscape change, is having a significant effect on some dunes systems (e.g. Newborough on Anglesey) or necessitating new sea defences (e.g. Borth in Ceredigion) but elsewhere is less significant. Amendment recommendations to aspect areas which have had specific erosion relate to trends and recommendations. Pembrokeshire Sea scapes provides additional information.

5.0 Summary of Key Changes and Influences in Pembrokeshire

Expansion of settlements:

Most of the towns and larger villages have had some expansion and/or infill development, mainly housing development.

Milford Haven:

Changes to the large-scale industrial complexes, including demolition, re-building, new jetties, wind turbines and increases in port traffic have all created significant change around the Haven.

Withybush:

Expansion of industrial and other developments, plus more activity relating to the airfield and the showground means that there have been significant changes in this area.

New road schemes:

The Robeston Wathen bypass (A40) passes through previously open countryside and has changed the views, tranquillity and activity of the aspect areas it passes through. Likewise, the A477 has been re-aligned with larger junctions, and the previously-built Sageston bypass has matured. Therefore views and tranquillity have changed.

Wind turbines:

- 5.5. Although there are no large windfarms in Pembrokeshire, there have been numerous single and small groups of turbines built (and more going through the planning process). Those around Milford Haven add to the visual 'clutter' of the area. Those on the central plateau farmland are starting to have cumulative effects.
- 5.6. Solar arrays are also being built in south Pembrokeshire.

Quarries:

There has been expansion of several quarries in the south of the county, notably around Johnstone and near Templeton. This has brought increases in traffic and noise and dust as well as visual impacts.

Large local tourist developments:

Recent developments at Bluestone and Folly Farm have added to the activity in the 5.8. south east of the county, as well as having significant visual impacts.

Coastal erosion:

- The cumulative effects of winter storms and continuing extreme weather are likely to continue. No significant landscape changes relating to sea defences and erosion, however, have been detected.
- 5.10. The Pembrokeshire Seascapes Study identifies some forces for change and recent changes which are relevant to LANDMAP change. These are summarised on the table

below. Some of these changes reinforce those identified from CDP information, others are additional to the change detection table.

Pembrokeshire Seascapes summary

Locations/Seascapes Character Areas	Main LANDMAP V&S Aspect Areas (coastal) affected	Main LANDMAP V&S Aspect Areas (inland) affected	Summary of relevant forces for change/recent developments
North and west coasts: SCA2 SCA3 SCA4 SCA5 SCA6 SCA7 SCA10 SCA11 SCA13 SCA15 SCA15 SCA16 SCA17 SCA24 SCA25	PMBRKVS017 PMBRKVS019 PMBRKVS022 PMBRKVS025 PMBRKVS027 PMBRKVS032 PMBRKVS032 PMBRKVS073 PMBRKVS074 PMBRKVS075	PMBRKVS010 PMBRKVS018 PMBRKVS024 PMBRKVS028 PMBRKVS069 PMBRKVS072 PMBRKVS108 PMBRKVS109 PMBRKVS110 PMBRKVS111 PMBRKVS111	Pressure of coastal path use Increases in holiday homes, caravans, camping Visitor pressure at coastal towns/villages – parking, traffic, litter Intensification of recreational uses at sea – sailing, canoeing, boat trips, coasteering, power boats Bracken encroachment on clifftops Fishguard – marina & accommodation being built In western parts – deterioration of industrial heritage features – coastal erosion & visitor pressure. Ramsey Sound - Possible tidal energy & infrastructure
Milford Haven: SCA31 SCA32 SCA33	PMBRKVS077 PMBRKVS117 PMBRKVS074	PMBRKVS065 PMBRKVS068 PMBRKVS090 PMBRKVS098	Increases in port traffic LNG site plus infrastructure Wind turbines Increase in recreational boating/sailing Dune erosion by storms and
Pembrokeshire coast: SCA34 SCA35 SCA37 SCA39 SCA40	PMBRKVS080 PMBRKVS081 PMBRKVS082 PMBRKVS083 PMBRKVS084 PMBRKVS088	PMBRKVS055 PMBRKVS056 PMBRKVS059 PMBRKVS061 PMBRKVS063 PMBRKVS065 PMBRKVS118	visitor pressure Future Atlantic Array off-shore windfarm Intensification of tourism, Tenby eastward

6.0. Monitoring Table and Figures

Consistency amendments are shown in italics: see Extra Consistency report for details and reasons

1 Aspect Area UID & name	Change indicated by: OS data, Aerial photographs & Roads/Building s	3 Complexity maps (segment density) & NDVI	4 Phase 1 & seasonal change	5 LPA questionnaire	6 Other resources	7 Fieldwork	8 Recommended LANDMAP amendment
PMBRKVS003 Mynydd Crogwy	a.Crymych expanding into this aa b.May be bracken c. Development in progress in road/railway loop, north of Crymych - roads, may be new mart site.	b.More productive vegetation in west				b. Not noticeable c. Industrial & business development (Parc Brynfryn) including new mart. Tucked away and not highly visible, but now forms extension of Crymych	GIS: Boundary change with 006 to exclude school/housing (a.) and industry/mart (c.) Survey: Amend summary to note exclusion of outskirts of Crymych (a. & c.)
PMBRKVS004 Mynydd Preseli tops	Much felling north of Rosebush	Some less productive in forestry.				Upper parts of forestry appear to be left unplanted, softer edges, less dominant that previously. Now mainly in VS102	GIS:Southern boundary changes with VS102 to exclude lower slopes Survey: Amend summary, descriptions, views, recommendations to reflect reduced impact of forestry. Note boundary changes
PMBRKVS006 Crymych	a.New school in south east, plus housing opposite,			a.Expansion of the settlement b.new sheep mart site &		b. Mart & industry to north in road/rail loop, now forming extension of	GIS: Boundary change with 003 to include school & housing to south east and

	beyond boundary c. not on aerial		industrial unit expansion. c.Re- development of former mart site as residential home.		Crymych. c. Former mart now large buildings.	industry/mart to north. Survey: Amend summary, trend/recommendations to reflect expansion of settlement.
PMBRKVS009 St. Dogmaels	Various small areas of new development, including on parts of CRDGNVS339 Housing to south east not in aa			Several aa around st. Dogmael's have CRDGN uids		GIS: Boundary change with CRDGNVS339 (to be changed to CRDGNVS525) Survey: note boundary change
PMBRKVS010 Foel Goch						GIS: Mismatched polygon - exclude northern polygon. Survey:Amend description related to changes
PMBRKVS020 Cwm Gwaun						GIS:Northern boundary changes with Carningli southern slopes Survey:note boundary changes
PMBRKVS021 Fishguard			Fishguard bypass for the ferry traffic travelling to Goodwick was completed in 2000. This aspect area has been evaluated as having Low value, which		Boundaries between Fishguard/Old Fishguard do not reflect settlement character	Boundary changes with VS031 to exclude Goodwick Moor and valley sides, with VS108 to better define historic core. Survey: Amend Related changes to description

			needs to be reconsidered given the		
			maritime aspect, historic buildings and		
			nature reserves present?		
PMBRKVS024 St Nicholas			present?		GIS:Boundary changes to include St Nicholas areas. Mismatched polygon with VS109 Re-name St Nicholas and Trefin coastal hinterland Survey: amend to relate to area
PMBRKV025 St.David's Head	not apparent on aerials		Abereiddy Car Park. Coastal erosion has claimed a significant amount of land leading to additional defences along part of car park (south). Managed realignment on Northern side.= The erosion and new defences provide a different landscape/seas cape	Considerable sea damage = less attractive. But small part of overall aa, with limited visual impact	Survey: Amend summary, trend/recommendations to reflect continuing/increasing erosion by sea

		appearance			
PMBRKVS031 Skyfog	No turbines apparent on aerials	Proliferation of small to medium scale wind turbines = The cumulative impact of these individual turbines is beginning to create a 'visual belt' of turbine development along the National Park boundary (outside of National Park).	Wind turbines - 3 medium built, 4 small built, 8 small approved	Several turbines appear scattered throughout, not dominating.	GIS:Boundary changes with VS021 to include unbuilt valley at Fishguard/Goodwick Survey: Amend summary, views, trend/recommendations to reflect this is now 'landscape with occasional turbines'.
PMBRKVS033 St. Davids	New development at eastern approach			All within aa	No amendments required – no significant change.
PMBRKVS041 Letterston	a.Housing expansion at Letterston and Scleddau b.Fishguard expansion alongside main road approach c.not apparent on aerials	c.E of Hendrefach Nr Scleddau Ground clearance Scrub, hedgerows removed b.Fishguard has expanded since the last V&S survey – housing at Maesgwyn		 a. confirmed, plus other developments alongside A40 highly visible. b. confirmed c. Not significant impact. 	GIS: Boundary change with 108 (b.) Survey: Amend summary, descriptions, views, recommendations to reflect increase in development at settlements and elsewhere.
PMBRKVS042 Clarbeston	a. Expansion of Withybush	a. Withybush Airfield	h. 2no. medium wind turbines	a.& f. Considerable developments in	GIS: New aa for Withybush developments

						change
PMBRKVS044 New Inn	Much felling	Less productive in forestry at Rosebush			Mostly appears to have been replanted with conifers – no significant change	No amendments required – no significant change
PMBRKVS046 Eastern Cleddau	Robeston Wathen bypass Junctions and new alignment under construction on 2010 aerial.		Bypass for Robeston Wathen village was completed in early 2011.		Significant change to views within and how aa is experienced from main road	Survey: Amend summary, descriptions, views to reflect impact of bypass across valley.
PMBRKVS047 Templeton	a.expansion of Narberth into this aa b.Robeston Wathen bypass Junctions and new alignment under construction on 2010 aerial. c.Major recent leisure development at Oakwood/Bluest one d.quarry much larger e.Various expansions of small villages, eg. Templeton, Princes Gate, Cold Blow, g.transport depot (?) between Templeton &	d.Much less productive land at Blaencilgoed quarry. h.Blocks of more productive vegetation in Canaston & Minwear Woods	b.bypass for Robeston Wathen village was completed in early 2011. c.This aspect area also covers Oakwood Leisure Park and Bluestone Holiday Village. Although the previous review acknowledges these the holiday village was not complete until 2008. d.Blaencilgoed/ Gellihalog Quarries have been merged and a tip has been added.	h.Blocks of broadleaf conversion in Canaston & Minwear Woods, correlating with more productive land. Not significant for overall aa	a. Confirmed b. significant change to views within and how aa is experienced from main road c. Bluestones and Oakwood have significant impact on immediate area and road through. d. Not highly visible g. Not significant overall. h. general increase in prominent tourism developments.	GIS: Boundary change with 048 in 2 places (a.) Survey: Amend summary, descriptions, views, trend, recommendations to reflect increase in prominent tourism developments.

PMBRKVS048 Narberth	Narberth – prominent? h.Folly Farm expanded into this aa Expansion to north and west Industry on main approach, may be conspicuous	The town has expanded, with more houses and light industrial units along Redstone Road.		Not particularly conspicuous	GIS: Boundary changes with 047 to include expansion. Survey: Amend summary, trend, recommendations to reflect expansion
PMBRKVS050 Martletwy	Not on aerial	Installation of a solar photovoltaic farm (16ha) northwest of Cosheston		Solar farm in fields, not highly visible, seen only from approach to village and Myett's Hill both in 061	No amendments required – no significant change
PMBRKVS052 Sageston	a. Folly Farm expansion across road into 047 b.not on aerial c.planting maturing	a. Folly Farm has expanded since the last survey. b.Installation of a solar farm (12.1ha) west of St Florence c.Sageston Bypass was completed in 2000.		a. Bit more conspicuous tourist development b. Not conspicuous c. Bypass now well integrated	No amendments required – no significant change
PMBRKVS058 The Ridgeway	Not on aerial		4no.small wind turbines approved on ridge	Not seen	No amendments required – no significant change
PMBRKVS061 Castlemartin	a.Expansion of Pembroke into this aa to east & south of town b. A477	b.Pennybridge & Glenside NE Pembroke Road re- alignment		b. Locally conspicuous and more views c. Not conspicuous overall	GIS: Boundary changes with 066 in 2 places Survey: Amend summary, trend to reflect expansion of Pembroke

	upgraded to Pembroke Dock, junctions conspicuous. c.not apparent on aerial		off-line road improvements. c.Kingsfold Junction S Pembroke Road realignment off-line road improvements	Ha turi ten	Views across aven to new rbines and rminals from rthern half of this	and upgraded roads, to views to reflect impact of turbines and terminals
PMBRKVS063 Merrion Ranges	a.Lots of renewed tracks a.some tracks now becoming overgrown b.not apparent on aerials	b. More productive land in north			& b. No scernable change	No amendment required – no significant change
PMBRKVS065 Angle				to i	ews across Haven new turbines and minals from orthern half of this	Survey: Amend summary and views to reflect views to turbines and terminals.
PMBRKVS066 Pembroke	Housing extensions to east into 061in 2 places		The town of Pembroke has expanded since the last V&S survey – housing along Lamphey Road.			GIS: Boundary changes with 061 Survey: Amend summary, trend/recommendations to reflect expansion of settlement
PMBRKVS067 Pembroke Dock	a.Various new building at Pembroke Dock, including at Pennar Pointand Bugess Park.		b.Pembroke Dock / Neyland Consider splitting this aspect area Consider splitting this aspect area? With			GIS: New aspect area for Neyland (no boundary change)(PMBRKVS120) Survey: New aspect area for Neyland to reflect different character. Amend 067 summary, descriptions, to reflect

			acknowledgem ent of the Port at Pembroke Dock which is more industrial			separation of Neyland.
			that the waterfront of Neyland			
PMBRKVS068 Hill Mountain	a.Milford Haven expanding into this aa b.Johnstone expanded c.confirmed d.confirmed e.turbines east of Roberston West oil refinery		a.The town of Milford Haven has expanded since the last V&S survey – both in terms of housing (Hubberston & Steynton) and employment use (Thornton). b.Acknowledge the impact of Johnston in this aspect area. C.Also Bolton Hill Quarry extension & Lawrence Landfill site. d.Milford Haven Waterway (North side). Large scale wind turbine development close to National Park boundary.= Greater	d.Castle Pill Farm windfarm operational 4no. 76ht to east of Milford Haven town e.windturbines in aa= 8 large built/allowed, 4 medium built f.Wear Point windfarm consented 4no. 105ht on coast opposite Pembroke Dock f.4no. medium turbines built/allowed – not on aerial	a. confirmed – conspicuous edge growth b. Considerable development at Johnstone c. Quarry has major impact locally – visual, dust, traffic. d. Turbines now competing with chimneys, conspicuous on skyline and across haven to south.	GIS: Boundary changes with 092 (a.) Survey: Amend summary, descriptions, views, trends, recommendations to reflect increases in industry/turbines/quarry disturbances.

PMBRKVS070 Haverfordwest	Expansion to south west into 071	industrial clutter along the skyline from certain viewpoints within the National Park to the North, West and South. Haverfordwest / Merlins Bridge / Withybush Haverfordwest has expanded since the last V&S survey — both in terms of housing, retail, hospital site and employment use.		New developments at Withybush conspicuous	GIS: Boundary changes with 071 & 042. Survey: Amend summary, trend, recommendations to reflect expansion of settlement.
PMBRKVS071 Simpsons Cross	a.Haverfordwest expanded into this aa in south b.More housing at Keeston (e. of Simpson's Cross) c.not apparent on aerial d.not turbines apparent on aerial	c.Slade Hall Quarry site.(not apparent on mapping)	d.windturbines= 4 medium Built/allowed, 11 small built/allowed	d. Not highly visible.	GIS: Boundary change with 070 (a.) Survey: Amend summary, trend, recommendations to reflect addition of turbines – 'landscape with very occasional turbines'.
PMBRKVS072 Druidston	a.Broadhaven expanded b.Blockett Farm holiday camp(?)				No amendments required – no significant change

	demolished			
PMBRKVS077	a.no expansion	a.LNG terminal	a. & b. Some	Survey: Amend
Great Castle	of terminals	This aspect	increase in visual	summary, views out, and
Head	apparent	area may need	intrusion to some	trend to reflect increase
		updating as the	parts of this aa.	in industrial visual
		LNG terminals	·	intrusions
		(permitted		
		2008) protrude		
		out into the		
		Haven &		
		impact upon		
		the coastal		
		cliffs.		
		b. Milford		
		Haven		
		Waterway		
		(North side).		
		Large scale		
		wind turbine		
		development		
		close to		
		National Park		
		boundary.=		
		Greater		
		industrial clutter		
		along the skyline from		
		certain		
		viewpoints		
		within the		
		National Park		
		to the North,		
		West and		
		South.		
PMBRKVS078		a.Milford Haven	Bay tucked away –	GIS: and Survey:Change
Angle Bay		Waterway	turbines behind main	name to Gelliswick Bay.
(Gelliswick		(North side).	view	Related description
Bay)		Large scale		changes
		wind turbine		

			development close to National Park boundary.= Greater industrial clutter along the skyline from certain viewpoints within the National Park to the North, West and South.		
PMBRKVS090 Industry Milford Haven	a.Oil refinery, south side – new roads and buildings in all areas including new tanks (circular). Roads extensions beyond into 061 in south area. b.Pembroke Power Station in south not all included? Demolished, including chimneys. c.Waterston Oil refinery, north – 2 new tanks, d.Herbrandston oil refinery new tanks –	d.Less productive land at Herbrandston and area to north – new developments		Various changes throughout the separate areas – some new buildings, chimneys, tanks, plus some demolition. So equals out in terms of visual intrusion	GIS: Boundary change with 061 at Rhoscrowther Survey: Amend summary, views, recommendations, trends to reflect further building/demolition.

	demolished before, now re- built on smaller scale e.confirmed				
PMBRKVS092 Milford Haven (town)	New housing extensions into 068 at 3 places, including link of developed land to industrial estate in north at Thornton			On hillside – conspicuous	GIS: Boundary changes with 068 Survey: Amend summary, trend, recommendations to reflect expansion of settlement
PMBRKVS099 Carningli north western slopes					GIS: Mismatched polygon. Southern boundary change to better define Mynydd Carningli Survey: amend to relate to boundary changes
PMBRKVS100 Poppit Sands to Newport coastal hinterland					GIS:Mismatched polygon with VS010. Name change to Poppit Sands to Moylegrove coastal hinterland Survey: note amendment
PMBRKVS102 Mynydd Presili southern slopes				Upper parts of forestry appear to be left unplanted, softer edges, less dominant that previously.	GIS: Boundary changes to better define slope. Survey: changes to relate to revised area
PMBRKVS103 Mynydd Castlebythe, etc.(Mynydd	Felled block of forestry	Less productive forestry		No apparent changes	No amendments required – no significant changes GIS:Mismatched

Dinas to Carningli)					polygons on GIS. Add 106 polygon Survey: note changes
PMBRKVS106 (Mynydd Cilciffeth)	May be bracken	Less productive on top open land		No descernable change in vegetation	GIS: Polygon to be part of VS103 Survey: Aspect area survey deleted.
PMBRKVS108 Old Fishguard	Housing expanding out along main road		Fishguard has expanded since the last V&S survey – housing at Maesgwyn		GIS: Boundary change with 041 Boundary change with VS021 to better define historic core. Survey: Related description changes
PMBRKVS109 St Nicholas - west					GIS: Boundary change to exclude southern part (VS024). Survey:Name change to Strumble Head hinterland. Amend description, evaluations to match area
PMBRKVS115 Marloes Coast			Wind turbines permitted along the Haven – 10 in total, including 4 x 70m to hub, (Wear Head)visible on the North shore from St Anne's Head. Not all visible from everywhere, but there are glimpses of	Not much increase in impacts	Survey: amend description, views to wind turbines

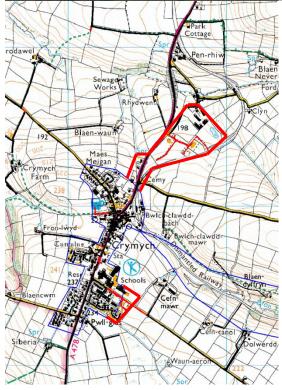
			turbines along various vantage points along the Haven.			
PMBRKVS117 Angle Bay east					Views across Haven to new turbines and terminals	Survey: Amend summary and views to reflect impact of turbines and terminals
PMBRKVS119 Withybush					Considerable developments in airfield/industrial area, warrants separate new aa.	GIS: new polygon Survey: new record
PMBRKVS120 Neyland			Pembroke Dock / Neyland Consider splitting this aspect area Consider splitting this aspect area?			GIS: new UID, no polygon changes Survey: new record
PMBRKVS121 Mynydd Carningli				Mismatch and poor boundaries		GIS: new polygon Survey: new record
PMBRKVS122 Mynydd Carningli southern fringes				Mismatch and poor boundaries		GIS: new polygon Survey: new record
CRDGN VS339 Teifi Estuary dunes & saltmarsh	Considerable parts of St. Dogmaels included in this aa. Surrounding areas should be 525					GIS: Exclude southern separate part, change to 009 & 525 Survey: note changes
CRDGN	inconsistency					GIS:Boundary change to

VS525 Cardigan Bay Coastal Plateau				include parts of 339 around St. Dogmaels Survey: note changes

Pembrokeshire: Change Detection Figures

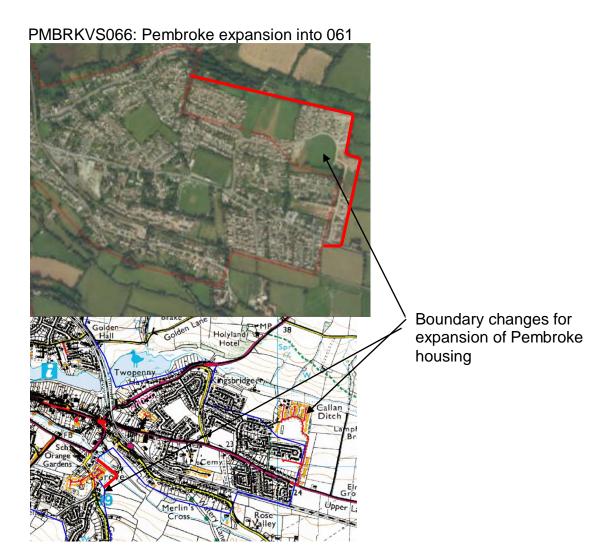
PMBRKVS003/006: Crymych's new mart site and Parc Brynfryn business park being built 2010

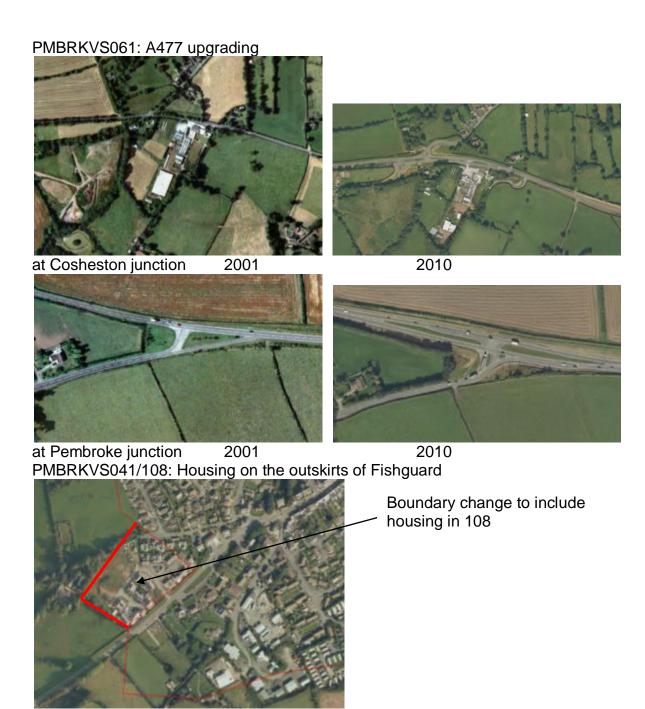




Boundary changes to include industry/mart/business to north and school/housing to south







PMBRKVS047:



built 2010



PMBRKVS046: Roberston Watham bypass under construction





2001 2010

PMBRKVS048/047: Narberth expansion





2001 2010 – boundary change

PMBRKVS070/071



Haverfordwest housing expansion – boundary changes

PMBRKVS090: Boundary changes on south side of Haven







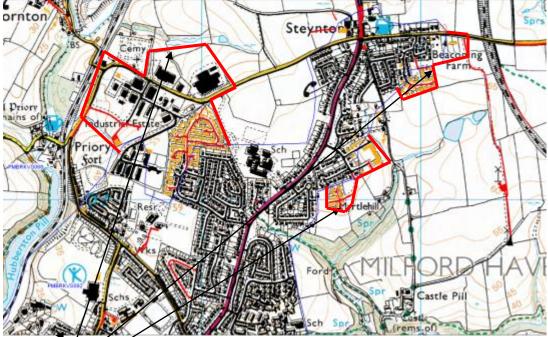
2010

PMBRKVS068/092North Milford Haven housing and industry expansion





2001 2010



Boundary changes

PMBRKVS052: Folly Farm expanded into 047





PMBRKVS042: Clarbeston Rd landfill/quarry – Withybush





2001 2010

PMBRKVS068: Boltonhill quarry, Johnston - expansion





2001 2010



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