The Purbeck Section of the Dorset & East Devon World Heritage Site Carrying Capacity Evaluation Report

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The Market Research Group
Lulworth House
Bournemouth University
12 Christchurch Road
Bournemouth
BH1 3NA
info@themarketresearchgroup.co.uk
01202 963871

Prepared by The Market Research Group on behalf of the World Heritage Steering Group, the Purbeck Heritage Committee and the Dorset AONB.

Contents

1.0 Summary

1.1 The Purbeck section of the Dorset and East Devon Coast World Heritage Site (referred to as the Purbeck Jurassic Coast or PJC) is not one uniform entity but a series of 'visit areas' defined by visitors around points of interest or features in its varied landscape and supported by an infrastructure of facilities and man made attractions. These features have a variable effect upon capacity and this research suggests variable capacity limits for these visit areas. The level of demand is calibrated over ten points from 'no demand' to 'excessive demand' which exceeds capacity. Most areas along the Purbeck Jurassic Coast score midway or slightly over midway on this scale; none as yet exceed the capacity defined by current usage, visitor and community perceptions.

Other key points:

1.2 The concept of carrying capacity ultimately depends on the values, social and economic characteristics of resident and visitor populations.

1.3 Carrying capacity for the WHS designated area would lack meaning therefore the 'coastal zone' up to 10 miles inland from the coast approximately along a line defined by the A352 is the main focus of this research. Approximately 31,225 people live in this area.

1.4 There are a further 1056 second homes within this coastal zone or 8% of households. There is no evidence that WHS designation has led to a direct increase in second home ownership. However second home owners and holiday lets in this area have a higher propensity to visit the coast.

1.5 The Purbeck economy is relatively diverse without an over dependence on tourism that could potentially lead to excessive exploitation of the coastal zone and excessive disillusion among residents.

1.6 Employment in tourism related industries has dropped over a sustained period with the main areas of growth represented by manufacturing and banking and finance; these trends reinforce the lack of dependence on tourism.

1.7 Earnings are below the UK and Dorset averages. This combined with increases in house prices creates a more negative environment for tourism growth.

1.8 There is an overall positive relationship between visits to pay for entry attractions within the coastal zone and visits to the Purbeck Jurassic Coast (PJC). Increases in visits to pay for entry attractions generally reflect increases in visits to the coast aggregated over a season.

1.9 There has been a 3% increase in visits to coastal zone, pay for entry attractions 2000-2005.

1.10 The car is the principal means of transport around Purbeck for 82% of residents and 80% of visitors. Traffic counts on key routes in the coastal zone area indicate an increase of 5% average, 1999-2005.

1.11 Commuting traffic between Purbeck and the surrounding areas 1991 to 2001, indicates an increase of nearly 16%. The resident population during this period has increased by 2%.

1.12 The number of visitors in all categories (daytrips and holidays) to Purbeck has fluctuated over the period 1995 to 2003, but shows no permanent significant change. Resident perceptions of increased pressure due to tourists (probably justified during peak summer periods and bank holidays) may be affected by the impact of commuter traffic. There is evidence that a slightly higher proportion, (circa 3%) of the visitor population is visiting the coastal zone.

1.13 Over 120 indicators of capacity have been identified from residents, stakeholders and visitors in addition to the specific indicators for the individual areas along the Purbeck Jurassic Coast (PJC).

1.14 Resident feedback on tourism in the area indicates general support for the tourism and the sensitive development of tourism (73% strongly agree + agree), combined with a perception by many that traffic problems including congestion are generally caused by tourists.

1.15 While there may be scope for an increase in visitors, in the areas identified along the Purbeck Jurassic Coast, the supporting road infrastructure would be unlikely to support a comprehensive or substantial increase. Expanding or improving the capacity of the roads would probably encourage further traffic (further influx of commuters) and not reduce congestion.

1.16 Using a measure of tourism dependence, Purbeck is rated as 'Tourism Realised' and not yet 'Tourism Saturated'

1.17 Residents had a high awareness (98%) of the Purbeck coast as part of a designated World Heritage Site and appreciated the special qualities of the coast.

1.18 An analysis of the Purbeck visitor segments, using the categories identified in the Marketing Strategy (2003), indicates that in most cases the Purbeck results are similar to the Dorset average for the percentage in each category.

1.19 The World Heritage Site designation does not appear to have caused a significant increase in repeat visitors with previous visits (53%) many pre WHS designation, and information from friends and relatives (20%) representing the most influential information sources.

1.20 The Jurassic Coast competes with a number of UK 'landscape areas' some WHS designated (e.g. Giants Causeway) which appear to be equally weighted in estimation by visitors.

2.0 Aims and rationale

The aims of this research are to:

1. Assess carrying capacity in Purbeck
2. Develop as a pilot, a methodology which can be applied consistently and rigorously along the whole of the World Heritage Site and its hinterland.

World Heritage Site (WHS) status is an important recognition of the special qualities of a specific location, which perhaps provides a measure of protection to ensure that these qualities can be enjoyed by future generations. While WHS designation provides an effective management framework, there is a concern that the 'branding' effect of WHS may encourage increased levels of demand from visitors and threaten the very subject of the protected status.

A similar problem occurs with historic buildings and collections, where there is an imperative to encourage people to enjoy and learn from them in the knowledge that access threatens long term conservation. Unlike historic buildings and collections monitoring use and damage to the fabric of the landscape is problematic because people work and live in and around it, often making their living from it, and therefore control of access through pricing, opening times and seasons would not be desirable even if these options were available. Also where there is now a well developed database for buildings and collections so that for instance, the relationship between humidity and light levels, visitor populations and damage to paintings has been calibrated and can be monitored constantly and regulated accordingly, there is little such data available for the complex and 'uncontrolled' wider landscape environment. The varying effects of human populations, animals, plants, the weather and the marine environment, within a context of complex interactions of anthropological, social and economic behaviour make attempts to place value judgements about capacity and the evaluation of use controversial.

This research outlines a means by which the likely affect of visitors to the Dorset and East Devon Coast World Heritage Site (known as the Jurassic Coast) can be estimated and proposes an approximate capacity given the current view of local residents, visitor demand patterns and the special nature of specific locations along the Purbeck section of the Jurassic Coast. While this research is sensitive to the ecological issues of carrying capacity a detailed ecological evaluation is beyond the scope of the current study. The Purbeck Section of the Dorset and East Devon Coast World Heritage Site will be referred to as the PJC (Purbeck section of the Jurassic Coast)

3.0 Review of carrying capacity for visitor management

The concept of carrying capacity was initially developed in the fields of habitat and wildlife management, (1964[1]) and was based on the notion that an organism can survive only within a limited range of physical conditions and the capacity of an environment to accommodate different species was finite. The theory developed was used to manage stock levels of grazing animals and wildlife in a given area.

The extension and application of carrying capacity to managing conservation areas and national parks has always been controversial as values, ethics, and politics play an important and often elusive role in the management of human, populations. These ethical and social considerations have so much diversity and dissension that an exact figure, calculated to sustain a protected area, is difficult to determine.

Over the past ten years there has been substantive criticism[2] of carrying capacity models that attempt to suggest a maximum number of visitors for a given area and the environmental and aesthetic impact that they have. For instance social capacities may vary depending upon the motivations of the tourists[3]: thus a large group of bird watchers moving through a landscape will have a different impact compared to a similar sized group of school children.

More recent research into carrying capacity has suggested that a clear explanation of the objectives for designating a special area was critical in determining carrying capacity, also suggesting that for any area there may be multiple carrying capacities. Recreational carrying capacity has therefore come to be defined as 'the amount of recreational use allowable by an area's management objectives'. For instance a nature park may have a very low capacity if it is designed to provide opportunities for solitude in a pristine setting.

Further research has reinforced the following conclusions regarding the calculation of appropriate carrying capacity:

- One of the problems in establishing robust carrying capacities is that many protected area objectives are so broad or vague (e.g. 'protect the resource') that they are not precise enough to give clear direction for management nor provide a basis for estimating numerical carrying capacities.

- There is no such thing as an 'average' visitor; different visitors have different expectations and tolerance of other visitors.

- Residents living within or near designated areas of tourist interest also may vary in their perceptions of visitor levels. Some whose livelihoods depend upon visitors will be more supportive than those who may have retired to an area for some 'peace and quiet'.

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[1] For example R.F., Dasmann, Wildlife biology. (1964), N.Y., John Wiley and Sons
[2] For example D. Price 1999, *Carrying Capacity Reconsidered*, Population and Environment 21 (2), 147
[3] J.A. Wagar, *The Carrying Capacity of Wildlands For Recreation*, Forest Science Monographs 7, 1-23

- Relatively low levels of usage, or visiting leads to disproportionately large increases in impacts on the biophysical environment, which implies that for areas with already high levels of visitation, reductions in use would have to be particularly dramatic before impacts would be expected to be attenuated.

- Carrying capacity may expand if visitors are 'educated' in the use of the site, for instance keeping to designated footpaths, refraining from damage to the cliffs.

- Calculating carrying capacity should involve all key stakeholders in a designated area.

- The question that a carrying capacity model should answer is 'What are the desirable, appropriate or acceptable conditions for this region, area or tourism destination?'

Several planning frameworks have been established in recent years including Limits of Acceptable Change[4] (LAC), Visitor Experience and Resource Protection[5] , (VERP) Visitor Activity Management Planning[6], (VAMP) Tourism Optimization Management Model[7] (TOMM). For the development of the Jurassic Coast Carrying Capacity it is proposed to use a hybrid developed from these differing approaches and described in the next section.

Appendix I contains a brief review of the frameworks mentioned above.

[4] McCool, 1994, Visitor Impact Management VIM (Graefe, Kuss et al 1995).
[5] US Department of the Interior 1997
[6] Nilsen & Grant 1998
[7] Manidis Roberts Consultants 1997

4.0 Purbeck section of the Jurassic Coast carrying capacity – Methodology

There is no single measure for carrying capacity and because the Purbeck section of the Jurassic Coast (PJC) is inextricably linked with its hinterland, where there is a large resident population, and diverse economy some of which is directly linked to the coast, (e.g. tourism, fishing, farming, extraction), the specific World Heritage Site designated area cannot be viewed in isolation.

The research will therefore seek to investigate carrying capacity at various levels; using different scales for instance, at the level of the Purbeck economy, (how dependent is the economy upon tourism and the exploitation of the PJC for economic purposes), at the level of the community, (what is the perception of tourism and the importance of the PJC) and at the level of the coast, (how many people visit specific locations and given the prevailing tourist infrastructure, e.g. car parks, visitor attractions and facilities what is the likely and approximate capacity). Carrying capacity therefore comprises of several measures not just one.

The methodology uses a modified Tourism Optimisation Management Model (TOMM) as described in Appendix I.

Note: Throughout this document 'Site' refers to the World Heritage Site as inscribed on the World Heritage List by UNESCO. 'Jurassic Coast' refers to the larger area, including the Gateway Towns etc., which surrounds the Site.

The data for this research draws upon:

- Desk research, using available data from regional and national agencies such as Dorset County Council and The Office of National Statistics (ONS).
- Data from previous research conducted along the Purbeck Coast and elsewhere in the United Kingdom by The Market Research Group for agencies such as The National Trust.
- Visitor and resident surveys conducted in Purbeck and Dorset.

5.0 The Purbeck Section of the Jurassic Coast (PJC)

5.1 Area definition

The World Heritage Site is a long narrow strip, the boundaries of which run from the top of the cliffs to the mean low water mark; i.e. the area in which the cliffs and the geology is exposed. The eastward 'dip' of the rocks creates a unique record of Triassic, Jurassic and Cretaceous periods changing eastwards along the Site from 250 million years ago (at Exmouth) to 65 million years ago at Studland.

The Purbeck section of the Jurassic Coast commences at White Nothe in the west and extends to the south west corner of Studland Bay. However for the purposes of this study Studland Beach is included in the analysis.

An assessment of carrying capacity for this narrow strip would be limited as it would ignore the critical impacts on the area running inland from the top of the cliffs and would exclude ecology, paths, roads and car parks and the ability of local communities in the surrounding towns and villages to support incremental growth in visitation.

Carrying capacity will therefore be assessed for the adjacent area accessible to the public via the South West Coast National Trail, the immediate infrastructure such as feeder roads and car parks in the immediate vicinity and communities in Purbeck most affected.

5.2 Purbeck Population

The total number of people living in Purbeck according to the 2001 census (ONS) was 44,416. Of these 62% were in employment (60% UK average) and 19% retired (14% UK average).

The resident community within the Purbeck District Council area will have a variable affect upon the Jurassic Coast and will be variably affected by it depending upon its relative proximity. The residents most relevant in this respect live within 10 miles of the coast as they will have direct experience of visitors travelling to the coast and the attractions in its hinterland. They also have the most potential to visit the coast either by walking from nearby settlements or a short (15minute) drive to an access point, usually a car park.

The following wards have therefore been used to assess carrying capacity: Castle, Creech Barrow, Langton, St Martin, Swanage North, Swanage South, Wareham, West Purbeck, Winfrith and Wool. The area represented by these communities is referred to as the 'coastal zone'.

Purbeck

Scale 1:200000

0 2 4 6 8 10 12 km

This map is drawn on the GB National Grid

Heights (if given) are in metres above Newlyn datum. The representation of a road, track or path is no evidence of a right of way. The alignment of tunnels is approximate.

Reproduced using significant survey information from Ordnance Survey basic and derived scales digital data with the permission of the controller of Her Majesty's Stationary Office.

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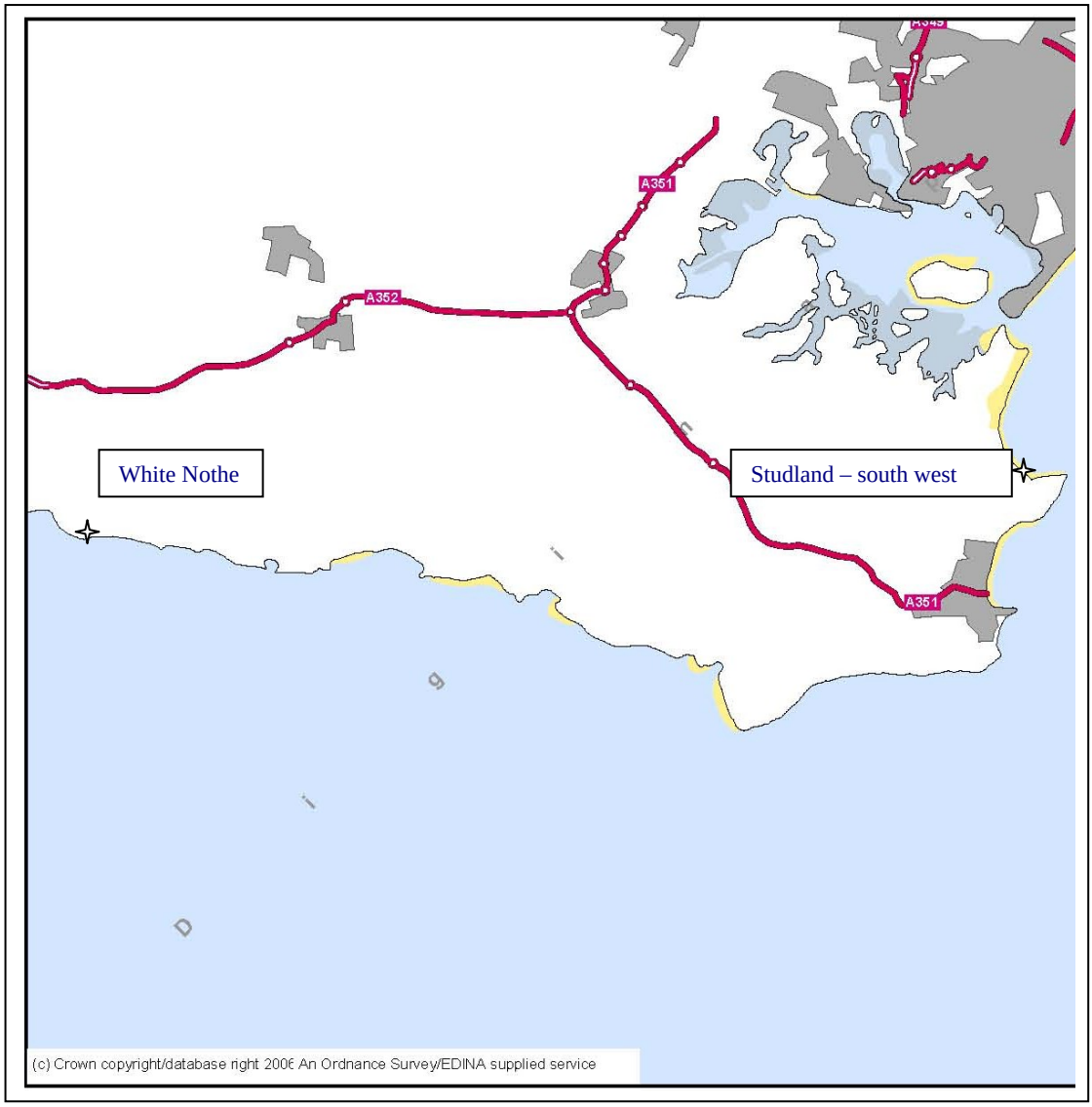


The Purbeck Section of the Jurassic Coast

Ward	Towns and Villages included	Population
Castle	Corfe Castle, Studland	1969
Creech	Arne, Church Knowle, Kimmeridge, Steeple, Tyneham	1851
Langton	Langton Matravers , Worth Matravers	1617
St Martin	Wareham St Martin	2752
Swanage North	Swanage Parish	4169
Swanage South	Swanage Parish	5955
Wareham	Wareham Town	5665
West Purbeck	Coombe Keynes, East Lulworth, East Stoke, West Lulworth	1513
Winfrith	Affpuddle, Chaldon Herring, Moreton, WinFrith Newburgh	1616
Wool	Wool	4118
TOTAL		31,225

Table 5.1 Source Census 2001 ONS

Approximately one third of this total (10,000 people) are within comfortable walking distance of the coast (2 miles or less) mainly from the settlements of Swanage, West and East Lulworth, Swanage, Worth Matravers, Kimmeridge and Studland.

5.3 Second home ownership

Second home ownership in Purbeck represents 6.9% of households or 1297 out of 18,803; most of these are located within the area defined above, thus

Ward	Towns and Villages included	Total Households	2nd Homes
Castle	Corfe Castle, Studland	842	83
Creech	Arne, Church Knowle, Kimmeridge, Steeple, *Tyneham*	784	44
Langton	Langton Matravers , Worth Matravers	685	113
St Martin	Wareham St Martin	1113	11
Swanage North	Swanage Parish	1859	190
Swanage South	Swanage Parish	2582	349
Wareham	Wareham Town	2545	26
West Purbeck	Coombe Keynes, East Lulworth, East Stoke, West Lulworth	590	45
Winfrith	Affpuddle, Chaldon Herring, Moreton, Turners Puddle, Winfrith Newburgh	685	35
Wool	Wool	1628	160
TOTAL		13313	1056

Table 5.2 Source 2001 Census ONS

For the 'coastal zone' area defined above, 7.9% of households are second homes, 634 of which are within 2 miles of the coast representing approximately 1800 people within walking distance of the coast.

Second home owners are included within the resident population section of this report even though they are potentially only resident for part of the year. They differ from other tourists because they make multiple visits and are likely to have a greater frequency of visitation to the coastal areas, the proximity of which is likely to be a key criterion in choosing a second home in Purbeck.

Letting second homes as holiday accommodation means that even though the owners may only use the property for part of the year, the 'local' population is maintained at the higher level with a potentially higher usage of the coastal resources.

According to research conducted by Knight Frank and Partners (2007) Purbeck is 11th in the league of second home ownership in the United Kingdom:

Local Authority	**Percentage % of second homes**
City of London	26.1
Isles of Scilly	19.5
South Hams, Devon	10.1
North Cornwall	9.7
North Norfolk	9.5
Berwick Upon Tweed	9.2
Penwith, Cornwall	8.0
Kensington & Chelsea	7.8
Westminster	7.8
South Lakeland, Cumbria	7.4
Scarborough, Yorks	6.9
Purbeck, Dorset	6.9

Table 5.3 Source Knight Frank and Partners 2007

The extent to which the Jurassic Coast status encourages second home ownership in the area, thus putting upward pressure on house prices and reducing housing stock for those working locally is difficult to estimate. Purbeck has always been a popular location for second homes and while the WHS designation is likely to enhance the trend, it is unlikely to be responsible for a large increase independent of other factors.

Purbeck's position relative to other authorities gives an indication of the level of demand for second homes and possible pressure on capacity. Arguably London authorities do not count in this respect because the market for housing in the city is unique. Removing London boroughs puts Purbeck in the top ten of areas of second home concentration and this relative position should be monitored over time to assess impact.

5.4 The Purbeck Economy

Central to any estimation of carrying capacity is an evaluation of key economic data such as employment, earnings and housing for Purbeck compared to Dorset and some national indicators. While the direct significance of the WHS is often difficult to discern in the statistics for any given year, the change over time may be significant when associated with other research such as surveys and site monitoring. Useful benchmarks are provided by the Office of National Statistics (ONS) Census data and the Dorset County Council economic and labour reports which are produced regularly.

In section seven the perception of tourism by residents is discussed and in particular the relationship between a communities' attitude to the industry and the level of dependence upon it. The study by M.D Smith [8]et al found that:

'…residents regardless of level of tourism dependence agreed that their communities should attract more tourists because this would lead to a higher quality of life. Communities with both high levels of tourism dependence and high levels of economic activity, and with low levels of tourism dependence and low levels of economic activity were the most favourable to industry expansion.'

[8] M.D. Smith & R S Krannich Tourist Dependence and Resident Attitudes, Annals of Tourism Research 1998

Although a rural area, Purbeck has a relatively diverse and successful economy with high levels of tourism demand and would seem to be in a category that would make further moderate increases in tourist demand acceptable during off peak periods.

5.5 Employment

The focus of the Purbeck economy centres on public services, distribution, hotels, restaurants and manufacturing. Together these account for 71% of employment in the district. Purbeck has a particular strength in employment in the public sector.

Main Employment Sectors	Employees	% of total employment Purbeck	% of total employment DCC area
TOTAL EMPLOYMENT	**16800**		
Public administration, education and health	**6100**	**36.5**	**27.6**
Distribution, hotels & restaurants	**3700**	**22.2**	**29**
Manufacturing	**2100**	**12.6**	**12.9**
Banking, Finance, and insurance	**2000**	**11.9**	**14.0**
Construction	**800**	**4.7**	**5.7**
Other services	**800**	**4.6**	**4.2**
Agriculture and Fishing	**500**	**2.9**	**2.2**
Energy and water	**500**	**2.7**	**0.6**
Transport and communications	**300**	**1.8**	**3.9**

Table 5.4 Source: Employment from Annual Business Enquiry (ONS) 2003

According to the data produced by Dorset County Council[9], three quarters of all employees work in the service sector (77%); much the same as the Dorset and national[10] average.

Those employed directly in tourism related businesses account for 12% of employment, just above the average of 10% in Dorset. Knowledge based industries (professional and technical) account for 17% of employment, much the same as for Dorset (16%).

Over the decade from 1993 to 2003 the number of employees in employment in Purbeck increased by just over 25%, to 34,000; the Dorset working population increased by 29% over the same period. About 60% of the increase in Purbeck was among male employees[11]. By sector the highest actual change was experienced by the public administration sector, (education and health), with an increase over the decade of 2600 jobs. Employment in agriculture and fishing declined in line with national trends and contrary to the national trend, Purbeck experienced an increase in employment in manufacturing of about 50% (700 jobs) much higher than the Dorset increase of 7%.

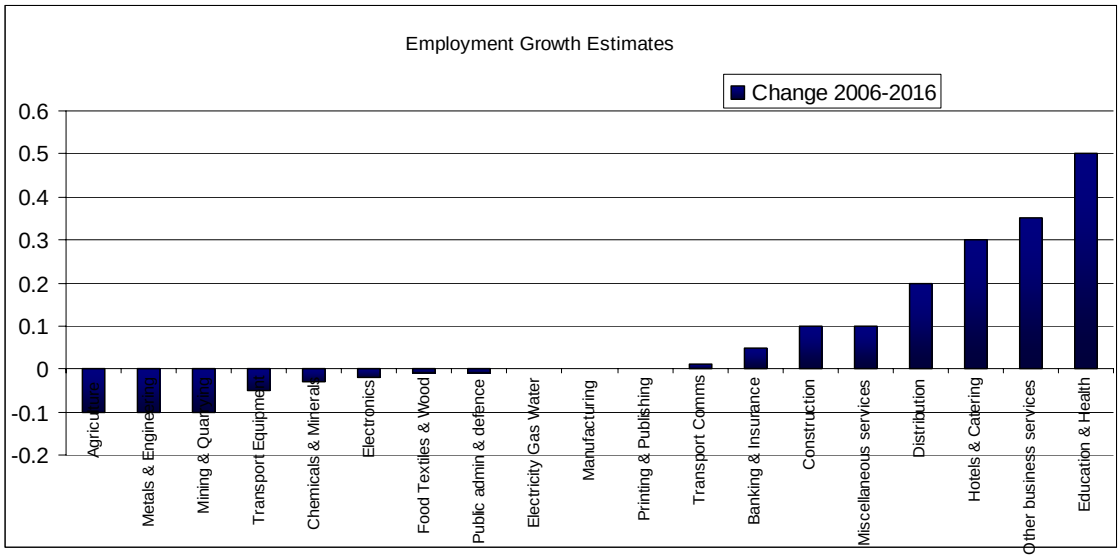
[9] *Purbeck; Economy and Labour Market Profile Nov. 2005*
[10] *ONS, News Release, 14th May 2007*
[11] *Purbeck Economy and Labour Profile DCC Nov. 2005.*

From June 2003 to May 2007 total employment dropped by 1.3% overall with a reduction of employment levels in public administration, education and health (-8%) distribution, hotels and restaurants (-1%) and significant increases in manufacturing (3%), banking finance and insurance (8%).

5.6 Employment Growth

Over the decade from 2006 to 2016, Purbeck is projected to see growth of around 0.6% per annum in the number of employed and self employed jobs (approximately 1000 jobs). These figures have a caveat applied by the authors, Cambridge Econometrics[12], as the projections for this small geographical area should be treated with extreme caution.

According to Cambridge Econometrics growth is likely to be led by the service sector especially health and education. Other business services, hotels and catering, distribution, employment in manufacturing and agriculture is expected to decline. If these trends become reality then the balance of dependence on tourism will become more evident but still not significant (increase of 6000 jobs over ten years).



5.5 Source: Cambridge Econometrics

[12] *Local Economy Forecasting Model, Cambridge Econometrics 2005*

5.7 Earnings and house prices

Earnings provide another indication of social and community wellbeing. An overdependence on tourism may result in low earnings and community disaffection with the industry. The economic data implies that there is no apparent over dependence on the tourism industry as a whole and a possible capacity to expand over the forecast estimates. However despite the economic diversity of the region, workplace (pay levels in the Purbeck area) and residence (pay of people living in the area but working elsewhere) based earnings are low compared to Dorset as a whole and the UK average, and an expanding tourism industry with its relatively low pay rates would not address this imbalance.

Average gross weekly pay for full time employees		
	Live & Work in area £	Live in area, work elsewhere £
UK	447	447
England & Wales	450	450
South West	417	424
South East	470	489
London	572	541
Bournemouth	382	396
Poole	433	448
Dorset	402	416
Christchurch	425	380
East Dorset	414	435
North Dorset	369	419
Purbeck	**397**	**405**
West Dorset	408	427
Weymouth & Portland	358	393

5.6 Source: Annual Survey of Earnings 2006, ONS

Over dependence on the service and public sector as a whole may be the cause of these lower than average earnings levels but the tourism sector cannot be identified as a major single causal factor.

The lower earnings levels apparent in Purbeck and the increase in house prices (+4.8%, annual increase 2005-2006) gives rise to a particularly high house price to income ratio when compared to Dorset and the UK as a whole.

Looking at the earnings of younger people aged 20-39 years, and assuming that the households have dual incomes, the household to income ratio for two/three bedroom houses in Purbeck is 5.77, above the regional and national averages.

	Average house price divided by average income
Great Britain	4.36
England	4.43
South East	4.76
South West	4.88
Bournemouth UA	6.09
Poole UA	5.31
Christchurch	5.61
East Dorset	5.31
North Dorset	5.43
Purbeck	**5.77**
West Dorset	4.75
Weymouth & Portland	4.98

5.7 Source: Joseph Rowntree Foundation, 'The geography of affordable and unaffordable housing and the ability of younger households to become home owners' 2006

There is currently no evidence that the tourism industry is responsible for this trend though it could be argued that there is a further incentive to buy a second home (thus placing upward pressure on prices) in Purbeck because of the area's special qualities and the potential income from holiday lets; this incentive may be enhanced by WHS status and publicity.

5.8 Visitor Attractions in Purbeck

Tourist and visitor levels at Purbeck attractions are important indicators for demand levels generally in the area and the coastal zone specifically.

Changes in visitor numbers to key attractions in Purbeck bear a relationship to the number and type of visitors to this section of the Jurassic Coast. While there may be little in the way of immediate transferability (visitors to a 'pay for entry' attraction also visiting the coast on the same day), because the visitors to both are a broadly similar profile, the choice of visit is likely to be a preference on that day and they may equally choose a trip to the coast on another day for a different type of visit.

The Lulworth Estate provides a very good example where visitors to the Castle generally will not then visit the Cove in large numbers on the same day (though because of marketing and the connection between the two, there is likely to be a higher than average degree of transferability).

There are exclusive markets for both types of visit: committed coast and countryside (open site) visitors who rarely visit 'pay for entry' properties and *vice versa.* However from research conducted at Corfe Castle and sections of the Purbeck coast over a period of 16 months (Coast & Countryside Counts, Wessex, The Market Research Group 2006) it was apparent that changes in visitor numbers to Corfe Castle reflected similar changes in 'open site' visitation; the demographic and socio economic profile being very similar in both markets with a similar propensity for leisure and recreation.

Average car counts, car park occupancy, coastal visitor counts, and paid visitors to Corfe Castle were monitored on a monthly basis in order to create a regression model in which changes in visitor numbers at the coast were analysed against changes in car park occupancy and visitor numbers at the Castle. A more robust result was obtained by aggregating a number of attractions in the area. Variations caused by the weather tend to offset one another, thus on hot days visitors will tend to prefer the beach to a 'pay for entry attraction' and the reverse during periods of inclement weather. This balance may change as weather patterns make outdoor pursuits more desirable, but it is likely that 'pay for entry' properties will respond to these challenges with product modification and marketing.

The majority of visitors, (70%-80%)[13] to 'pay for entry' attractions are tourists visiting the area from further away, though these attractions will maintain a proportion of visitors from the local area (20-30% average within 10miles), revisiting the attraction perhaps with friends and relatives, or using the retail and catering facilities. The visitor profile for 'pay for entry' attractions and 'open sites' is similar, though pay for entry attractions will receive a slightly larger proportion of families and older (70+) age groups.

Cost considerations may also skew comparisons slightly though not significantly. There is an obvious cost differential comparing a day out at a 'pay for entry' property and an open site, but the price of petrol, refreshments and special equipment for walking or climbing plus car park charges where applicable means that open sites are not 'free'. Also while there is a difference in attitudinal and behavioural characteristics between sections of the two visitor groups, both are broadly described by the ABC1 profile of the Market Research Society algorithm (professional, managerial, supervisory or skilled).

[13] Heritage Visits Research, The Market Research Group, 1991-2006)

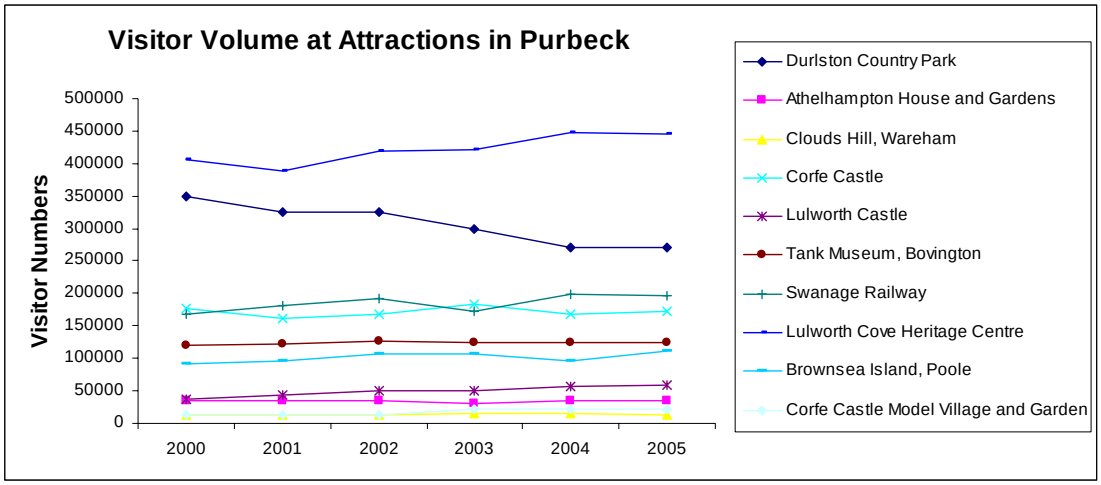
Socio economic group				
	Dorset		Purbeck	
Base: All	Count	Percent	Count	Percent
A	36	7.1	20	14.1
B	176	34.9	53	37.3
C1	149	29.5	38	26.8
C2	78	15.4	20	14.1
D	62	12.3	10	7.0
E	4	0.8	1	0.7
Total (Valid: Single Code)	505	**100.0**	142	**100.0**
(0) Missing Values	22	N/A	8	N/A
Total (Base)	527	**N/A**	150	**N/A**

5.8 Source: Purbeck Visitor Survey 2006

The attractions most relevant to this research are those located south of a line defined by the A352 from Wool to Wareham. These attractions are within 5 miles of the coast and there is therefore a resonance between visitor numbers at attractions and the coastal area.

While the visitor numbers for each attraction are important, especially Durlston Country Park and Lulworth Cove near the extremities of the Purbeck section of the Jurassic Coast, the aggregate of the visitor numbers is more important as it mitigates the effect of marketing effort by individual attractions and short term preferences of consumers.

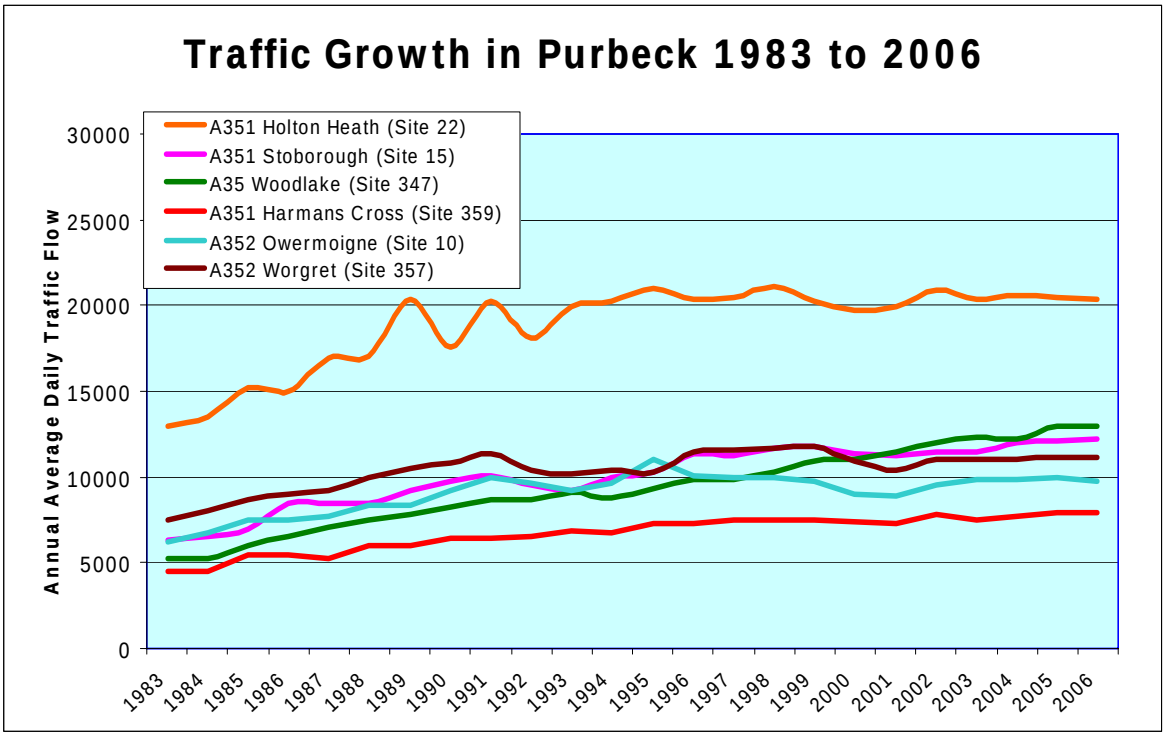
Over the period 2000-2005, visitors to attractions in the coastal zone area increased by 3% with the implication that the PJC received a similar increase in visitors.



5.9 Source Dorset County Council 2007

5.9 Transport

The car is the principal means of transport around Purbeck both for residents (82%) and visitors (80%). Average annual traffic counts (Dorset County Council) increased significantly from 1983 until the mid 1990's after which growth has slowed despite increase in commuter traffic. This may mean that the roads in the sample area, which are the main access routes to and around Purbeck, have reached capacity rather than demonstrating a slowing of demand.

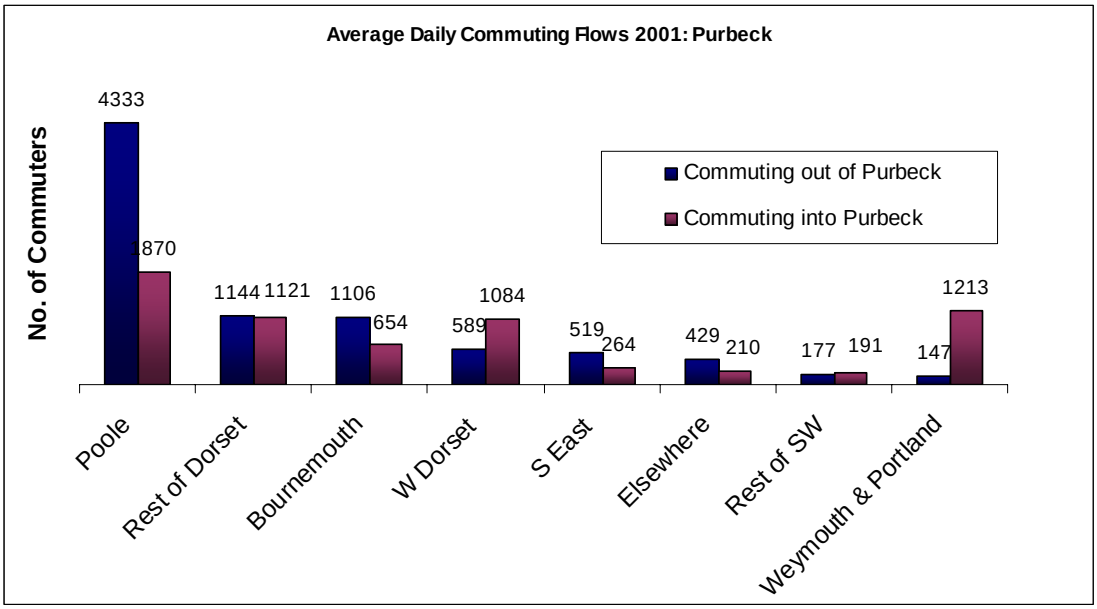


5.10 Source: Dorset County Council

5.10 Commuting Flows

The Census of Population shows the resident population has grown since 1991 by approximately 2% (43,200 adjusted to 44,416), while commuting traffic both travelling into Purbeck and traveling out of Purbeck has increased by 15.6%. Over the same period, between 1991 (10% of sample only) and 2001, Purbeck had a net loss of commuters (more people commuting out of the area than into it).

The flow of commuters is important to the estimation of carrying capacity in order to assess the relative impact of resident and commuter traffic and evaluate the perception by residents of overcrowding on the roads due to tourist traffic.



5.11 Source:Census of Population 2001 ONS

	1991*		Total	2001		Total
	In	Out		In	Out	
Purbeck	5300	7500	12800	6500	8300	14800

5.12 Source Economy and Labour Profile Dorset County Council *Sample 10%

The visitor population over the period 1995 to 2003 has remained relatively static although there has been some fluctuation of the trend over this period.

This could suggest a certain amount of demand self regulation in the Purbeck market as visitors seek less congested destinations and non-commuting residents moving to the area although similar visitor trends are noted in Dorset and the UK generally.

Visitors 1995					Visitors 2003			
	Staying		Day		Staying		Day	
	Trips million	Nights million			Trips million	Nights million		
Purbeck	0.46	2.50	2.54		0.43	1.98	2.03	
Dorset	3.95	22.12	16.43		4.52	18.7	15.33	

5.13 Source Visit Britain/ SW Tourism

6.0 Jurassic Coast Strategic Management Plan - Objectives

The following strategic objectives from the Dorset and East Devon Coast, World Heritage Site Management Plan (2003) provide an important framework for assessing the carrying capacity for the PJC. In the Appendix II there is a comprehensive list of indicators that can be used to measure the extent to which these objectives are being met or challenged by adverse trends. The list has been compiled with reference to feedback from visitors, residents and stakeholders. Not all of them have been incorporated into the carrying capacity calculation at this stage. Indicators have been selected on their strength of influence on the objectives described and a cost benefit of collection.

Objective 1: to conserve the geology and geomorphology of the Site by:

a) ensuring that there is minimal disturbance to natural coastal processes due to human activities

b) ensuring that human activities do not significantly reduce the quality of coastal exposures of geology within the Site

c) promoting responsible collection of fossils and other geological specimens.

Objective 2: to conserve, and enhance where appropriate, the quality of the landscape and seascape of the Site.

Objective 3: to welcome local people and visitors to the Site at levels which it can sustain, by encouraging those with responsibilities to:

a) maintain a network of access on foot to the beaches within the Site where practical

b) maintain access to the Site via the South West Coast Path, the rights of way network and other paths

c) ensure that provision of public access and information helps to match visitor numbers to the capacity of the Site, and maintains the tranquillity of remote areas

d) consider the safety of visitors to the Site as a management issue

e) provide for visitor safety through appropriate education initiatives, and management where practicable

f) promote viewing of the Site by boat

g) provide information on the Site at local, national and international levels which encourages visiting to the Site at levels which it can sustain

h) provide high quality information and interpretation about the Site to both local people and visitors at the main access points and within the Gateway Towns

i)manage the transport impacts of visitors to the Site.

Objective 4: to encourage safe use of the Site by educational groups of all ages, and to provide a high quality range of educational information and services about the Site:

Objective 5: to foster the gathering and dissemination of scientific information about the Site.

Objective 6: to ensure that World Heritage Site status:

a) Is used responsibly in all aspects of publicity in relation to the Dorset and East Devon Coast, and

b) assists wider sustainable development objectives within Dorset and East Devon.

7.0 Resident Community Values and Attitudes

As noted earlier, the rural appearance of Purbeck and the exceptional landscape of the coast belie a relatively successful and diverse economy. The area has a long history of industrial development mainly concerned with extraction industries, stone quarries, clay, gravel and oil which have all provided the local economy with employment and economic benefit, as well as the more conventional agriculture and tourism industries.

The population of Purbeck is a mixture of long established families - many of the names familiar in Purbeck now were recorded early in its history, for instance some appear in the documentation and records of the area during the English Civil War – and, in more recent times, there has been a steady 'immigration' of people working in the expanding businesses of Purbeck, commuters to local towns and retirees many of whom have been introduced to the area by holidays over the years.

Some specific clues about how these groups value Purbeck as home have been provided in Parish Surveys conducted over the past few years. The Arne Parish Survey[14], for instance, revealed the strength of attachment that all residents had towards the landscape and environment as evidenced by the level of visitation to local countryside.

Have you ever visited any of the following in Arne Parish?

	% past 12months	% No
Hartland Moor	70.5	17.9
Stoborough Heath	75.8	12
Arne Nature reserve	78.9	8.2
Middlebere	57.3	30.9
The River	90.7	4.8
Footpaths/bridleways	89.6	5.4

7.1 Source Arne Parish Survey 2003

[14] S.Calver, The Arne Parish Residents Survey, MRG 2003

From the same survey it was apparent that while there was disquiet at the apparent congestion caused by tourists, there was also an acknowledgment of the importance of the tourism industry to the local economy.

Should the following be encouraged in and around the parish? 1=Strongly Agree 6=Strongly Disagree

	1	2	3	4	5	6
	%	%	%	%	%	%
Tourism development attractions	9.2	26.9	16	28.9	19	0
Small scale business development	15.7	35.9	20.7	17.7	10	0
Small scale industrial workshops	8.5	25.2	20	23.4	23	0
More jobs in the Parish	22.1	41.7	24.5	7.4	4.4	0
Green tourism	42.5	34.2	12.1	8.2	3	0
Adventure tourism	5.3	10.1	18.7	21.8	44.1	0
Camping sites	2.9	15	25.7	27	29.4	0
Caravan sites	2.3	11.1	20.2	28	38.5	0
B&B Trade	8.4	42.7	35.3	8.2	5.5	0
Guest Houses	6.2	34.9	36.6	14.3	8.1	0
Hotels	3.8	20.8	31	19.6	24.8	0
Other	5.8	5.8	58.7	14.5	15.2	0

7.2 Source: Arne Parish Survey 2003, Base 612 respondents (734 Households in Parish)

Do you think that the traffic problems in Arne Parish are related to any of the following?

	%
	Yes
General congestion	25.3
Lack of parking	26
Lorry traffic	21.2
Pedestrian/vehicle conflict	21
Traffic speed	60
Need for wider footpaths	14
Need for traffic regulation	29.3
Need for more public transport	13.8
Volume of tourist traffic	54

612 respondents

7.3 Source: Arne Parish Survey 2003, Base 612 respondents (734 Households in Parish)

What do you think could be done to protect the wildlife and improve the environment of Arne Parish?

	%			
	Very Imp	Worth doing	Not necessary	Don't know
Create more local nature reserves	26.3	32	36.2	5.5
Manage peoples use of countryside	19.5	29.5	44.7	6.3
Look after marshes/wetlands/rivers/woods/Fields	59.4	35.4	3.9	1.3
Preserve single trees in special places	39.2	43.8	10.3	6.7
Keep hedges short	27.2	31.4	34.7	6.7
Let hedges grow	24.2	35.5	31.1	9.2
Plant more hedges	29.1	42.9	19.9	8.1
Clean up the beach	44.8	38.2	9.3	7.7
Improve access to river	29.5	38.6	26	5.9
Reduce pollution	84.9	13.6	1	0.4
Create new ponds	19.1	41.2	28.2	11.5
Don't know	14.3	10.7	7.1	67.9

7.4 Source: Arne Parish Survey 2003, Base 612 respondents (734 Households in Parish)

There have been a number of studies examining the attitudes and perceptions of residents as host community to tourists in the area. One study referred to earlier[15] was conducted in the United States amongst rural communities in Colorado in an area that had once been wholly dependent upon extraction industries and logging, but now relied more upon tourism and service related occupations.

It has been noted that communities as well as others view tourism as a major vehicle for addressing rural economic decline[16] (Jensen and Blevins 1992, Stokowski, 1992), especially where there had been a declining extractive industry. Tourism is widely viewed as having the potential to provide rural communities with local employment, tax revenues, and economic diversity[17] (Long, Perdue and Allen 1990).

However, some researchers have also noted significant negative social and economic impacts that tourism can bring in rural communities. Milman and Pizam[18], noted that in many communities with substantial amounts of tourism, the associated growth and development have resulted in congestion, loss of open space, price increases, disruption of social structure, and low paid work with unsocial working hours.

[15] M.D. Smith, R.S., Krannich Tourism Dependence and Resident Attitudes, Annals of Tourism, Vol 25 No 4 pp 783-802, 1998,

[16] K. Jensen, A. Blevins, Lead, South Dakota: The Remaking of a Company Mining Town, Small Town, 22(6): 4-11

[17] P.T. Long, R.R. Perdue and L. Allen, Rural Resident Tourism Perceptions and Attitudes by Community Level of Tourism, Journal of Travel Research 28(3):3-9

[18] A.Milman and A. Pizam, Social Impacts of Tourism on Central Florida, Annals of Tourism Research, 15:191-204, 1988

Research by Smith and Krannich was conducted amongst six rural communities with varying degrees of interdependence upon tourism. For each community the dependence level was determined by calculating:

- the ratio of per capita accommodation receipts (sales)/ population of the community = per capita receipts
- per capita receipts/per capita income = level of tourism dependence

Using this formula the authors devised comparable data on this single measure as follows:

Community type	**Community**	**Population**	**Per capita dependence on tourism**
Tourism saturated	I	4483	0.1483
Tourism realised+	**Purbeck**	**44,416**	**0.0300**
Tourism realised	II	4424	0.0230
Tourism hungry	III	7291	0.0123
Non tourism	IV	3254	0.0113

7.5 Source: Adapted from, Smith & Krannich, Tourism Dependence and Resident Attitudes 1998

The interpretation of these scores, in terms of 'saturation' etc. was then calibrated using the results from a residents' survey, which indicated that where scores exceeded 0.1 there were exceptionally negative attitudes towards tourism. The calculation for Purbeck has been inserted using this formula, with the result that on this measure, the benefits of tourism have been realised and while there is scope for growth this should be managed to avoid saturation.

This simple model was then tested using a more sophisticated range of questions to investigate whether increasing levels of tourism dependence in a community are associated with increasingly negative attitudes about the development of tourism, as well as lower levels of local satisfaction and higher levels of crime concern.

Communities I and II preferred less future tourism development and perceived significantly more negative impacts than communities III and IV. Moreover community I preferred significantly less future tourism development and perceived significantly more negative impacts than community II. These results anticipate some of the attitudes of Purbeck residents identified in the Resident Survey.

Another study by E.A Perez et al [19] examined the segmentation of attitudes *within* a community. Similar studies were conducted by Ryan and Montgomery[20] (1994) who categorized resident attitudes in the town of Bakewell, Derbyshire (1994). However the Balearic Islands research has a greater resonance with Purbeck as it has a stronger environmental and ecological focus. The islands cover an area of 5,000 sq km and receive over 10 million tourists a year (about 10 times the host population).

[19]E.A. Perez & J.R. Nadal, Host Community Perceptions, 2005

[20] C. Ryan and D. Montgomery, The Attitudes of Bakewell Residents to Tourism . Tourism Management, 15:358-369, 1994

The research involved interviewing residents about their views on economic, social, and environmental issues and then clustering the responses into distinct groups of segments.

The key points from the research worth noting:

- There was a clear majority of opinion that the tourism industry benefits the economy of the Balearics (e.g 86% recognised that it generated business opportunities for the community)
- There was a general perception that the pressure of tourism was responsible for higher prices, (59% of respondents)
- Only slight opposition to major new attractions proposed to be developed
- Strong opposition to new hotels over 50 rooms and support for new small rural hotels
- Belief that tourism leads to over saturation of community services (67%) and traffic congestion (80%)
- Recognition that tourism has led to the development of extensive leisure facilities and amenities
- Recognition that tourism has led to a deterioration of natural resources but some ambiguity regarding the issue that tourism may have led to more conservation work being undertaken to enhance the islands' market position

Below are identified five types or segments of resident, categorised by their attitudes towards tourism for the Balearics compared to Purbeck residents using questions from the Arne Survey and Purbeck Residents Survey. Note: The data in the two columns originates from two different surveys.

Segment	**% Balearics**	**% Purbeck**	**Perceptions**
Development Supporters	11	9	Strongly in favour of new developments, more business opportunities from tourism, does recognize traffic problems however and over saturation of public services.
Prudent Developers	26	23	Stronger than average conviction that tourism has led to greater employment opportunities and better leisure opportunities. Recognize changes to local culture
Ambivalent & Cautious	24	27	Less emphatic about benefits though they do recognize them but also less assertive about problems of congestion and pollution. Concerned about threat of tourism to environment.
Protectionists	20	20	Place emphasise on negative aspects of tourism, reluctant to recognize economic or leisure benefits to local residents
Alternative Developers	18	21	Positive about tourism, however feel strongly about the protection of heritage and environment and this should be a priority when planning for tourism.

7.6 Source:E A Perez & J R Nadal, Host Community Perceptions, 2005

7.1 Purbeck Residents Survey

A survey was conducted during 2006 in order to assess Purbeck residents' views about the tourism industry in their area. The survey involved a self completion questionnaire sent to random addresses in representative areas of Purbeck from which a sample of 752 responses was obtained. A control group of 80 Face to Face interviews was also conducted.

The survey included a significant proportion of respondents (15%) for whom Purbeck was not their main residence.

Returns by area are described below:

Area		
	Count	Percent
Bere Regis	79	10.5
Bloxworth	22	2.9
Church Knowle	21	2.8
Corfe Castle	138	18.4
East Lulworth	11	1.5
Kimmeridge	16	2.1
Lulworth Camp	4	0.5
Lytchett Minster	54	7.2
Studland	71	9.4
Swanage	71	9.4
Wareham	69	9.2
West Lulworth	63	8.4
WinFrith Newburgh	54	7.2
Wool	28	3.7
Worth Matravers	48	6.4
Other	3	0.4
Total	752	100.0

Table 7.7

Residents were also asked to categorise their home according to its location:

Location		
	Count	Percent
Seaside / Coastal countryside	116	15.5
Seaside / Coastal town or village	222	29.7
Countryside	117	15.7
Country town or village	287	38.4
Urban / Suburban	5	0.7
Total	747	100.0

Table 7.8

Residents indicated an extremely high level of awareness that the Jurassic Coast is a designated World Heritage Site.

Purbeck residents' awareness that the Jurassic Coast is designated as a World Heritage Site		
	Count	Percent
Yes	727	98.2
No	13	1.76
Total	740	100.0

Table 7.9

7.2 The role of tourism within Purbeck.

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There appeared to be acceptance that there was room for an increase in tourism outside the main season and that tourism benefits the economy. This further supports the findings from the 'Per capita spend' formula mentioned earlier.

Important features of living in your area were considered to be 'Countryside', 'Peace and Quiet', 'The Coast', 'Local Community' and 'Friends and Family' reinforcing the Arne Study findings of the level of appreciation for the local environment.

The most important feature of living in your area		
	Count	Percent
Countryside	644	86.6
Peace and Quiet	574	77.2
The Coast	561	75.4
Local Community	431	57.9
Friends and Family	390	52.4
Facilities	145	19.5
Employment Opportunities	67	9

Table 7.10

The opinions offered by residents indicate an acceptance that tourism development would benefit the economy of Purbeck but concern that this growth may result in a reduction of quality of life.

Opinions relating to the role of tourism in Purbeck										
	Strongly Agree		Agree		Disagree		Strongly Disagree		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
An increase in tourism would benefit the economy of Purbeck	127	17.89	389	54.79	134	18.87	60	8.45	710	100.0
There is room for an increase in the number of tourists in Purbeck in summer	42	5.98	209	29.77	322	45.87	129	18.38	702	100.0
There is room for an increase in the number of tourists in Purbeck outside of the summer season	157	21.90	433	60.39	91	12.69	36	5.02	717	100.0
My quality of life is detrimentally affected by tourism in Purbeck at present	78	11.03	182	25.74	348	49.22	99	14.00	707	100.0
An increase in future tourism in Purbeck would lower my quality of life	104	14.86	217	31.00	301	43.00	78	11.14	700	100.0

Table 7.11

Local residents experience of traffic and congestion seems to be a critical factor in the assessment of quality of life issues when considering the value of tourism.

Do you agree of disagree with the following statements regarding transport in Purbeck?										
	Strongly Agree		Agree		Disagree		Strongly Disagree		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
More car parking spaces are needed in the summer	343	47.77	242	33.70	95	13.23	38	5.29	718	100.0
Car parking is too expensive in the summer	299	41.53	219	30.42	174	24.17	28	3.89	720	100.0
Car parking is too expensive in the winter	186	26.35	243	34.42	245	34.70	32	4.53	706	100.0
Public transport links to the area should be improved	295	41.20	314	43.85	87	12.15	20	2.79	716	100.0
Public transport within the area should be improved	320	44.88	310	43.48	65	9.12	18	2.52	713	100.0
Journey times increase a lot during the summer	359	50.63	269	37.94	59	8.32	22	3.10	709	100.0
There are adequate public transport facilities to accommodate tourists and residents	23	3.27	124	17.61	376	53.41	181	25.71	704	100.0

Table 7.12

The effect of tourism. Respondents considered there to be a positive effect on Purbeck as a whole, a slightly positive effect on residents and the Jurassic Coast and a negative effect on wildlife from tourism.

How do you think tourism affects the following?												
	Extremely positively		Positively		Neutral		Negatively		Extremely negatively		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Local Wildlife	28	3.87	73	10.10	288	39.83	258	35.68	76	10.51	723	100.0
Residents	47	6.47	175	24.10	216	29.75	213	29.34	75	10.33	726	100.0
The Jurassic Coast	76	10.63	233	32.59	240	33.57	131	18.32	35	4.90	715	100.0
Purbeck as a whole	95	13.00	327	44.73	179	24.49	100	13.68	30	4.10	731	100.0

Table 7.13

Direct impact of tourism on behaviour. It was recorded by respondents that in general they did avoid certain places during the summer months, and that they were less willing to visit the Jurassic Coast during the summer because of high visitor numbers. Broadly, tourism was considered to have some impact of respondents' day-to-day life but generally, routines could be adapted to cope with this. Overall tourism was considered to enhance the community and important to the district's economy.

Do you agree or disagree with the following statements in regards to how tourism directly impacts on your own behaviour?										
	Strongly Agree		Agree		Disagree		Strongly Disagree		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
I avoid certain places in the summer as it is too busy for me	484	66.8	184	25.4	48	6.6	9	1.2	725	100
I am less willing to visit the Jurassic Coast in the summer due to high visitor numbers	284	40.6	231	33	157	22.5	27	3.9	699	100
Tourism has absolutely no impact on my day to day behaviour	28	3.9	130	18.2	376	52.5	182	25.4	716	100
I find I can easily adapt my daily routines around busy tourist periods	49	6.9	375	53.1	226	32	56	7.9	706	100
Tourists help enhance the community (e.g. by making farmers markets, local shops, events and festivals viable)	148	20.6	465	64.6	70	9.7	37	5.1	720	100
I feel tourism is important to the economy of Purbeck.	244	33.4	427	58.5	41	5.6	18	2.5	730	100

Table 7.14

Current use relative to capacity of services.
Public Transport, primarily below capacity, though it was thought to be at, or approaching, capacity in the summer months.
Road Network, below capacity in the winter, at or just below capacity in spring/autumn, significantly above in summer months.
Public Facilities (toilets, parks etc), slightly below in winter and spring/autumn but significantly above in summer.
Car Parking, below capacity in the winter, at or just below capacity in spring/autumn, significantly above in summer months.

What are your views on the current use, relative to capacity, of each of the following services?												
	Significantly exceeding capacity		Exceeding capacity		At capacity		Below capacity		Significantly below capacity		Total	
	Counts	Percent	Counts	Percent	Counts	Percent	Counts	Percent	Counts	Percent	Counts	Percent
Public Transport Spring / Autumn	16	3.1	22	4.3	136	26.7	253	49.6	83	16.3	510	100
Public Transport Summer	61	11.8	97	18.7	157	30.3	153	29.5	51	9.8	519	100
Public Transport Winter	9	1.8	17	3.3	84	16.4	255	49.7	148	28.8	513	100
Road Network Spring/Autumn	48	7.6	100	15.8	282	44.6	161	25.5	41	6.5	632	100
Road Network Summer	304	46.9	156	24.1	90	13.9	52	8	46	7.1	648	100
Road Network Winter	33	5.3	52	8.4	222	35.7	249	40	66	10.6	622	100
Public Facilities (toilets, parks etc) Spring/Autumn	54	9.1	52	8.8	197	33.3	232	39.3	56	9.5	591	100
Public Facilities (toilets, parks etc) Summer	166	27.3	141	23.2	153	25.2	88	14.5	60	9.9	608	100
Public Facilities (toilets, parks etc) Winter	30	5.1	25	4.3	144	24.7	283	48.5	101	17.3	583	100
Car Parking Spring / Autumn	53	8.2	99	15.4	281	43.6	174	27	37	5.7	644	100
Car Parking Summer	315	47.4	173	26	91	13.7	48	7.2	38	5.7	665	100
Car Parking Winter	40	6.2	44	6.8	222	34.5	268	41.7	69	10.7	643	100

Table 7.15

Concerns - almost 80% of respondents considered litter to be a concern, with almost 60% considering overcrowding to be an issue. A sizeable proportion indicate concern regarding damage to the Jurassic Coast.

Are any of the following a concern in Purbeck?		
	Counts	Percent
Litter	578	79.1
Overcrowding	422	57.7
Increased cost of living	384	52.5
Pollution	358	49.0
Noise	301	41.2
Damage to the Jurassic Coast	253	34.6
Attitude towards residents	184	25.2
Violence	139	19.0
Development associated with the industry	117	16.0
Nothing in particular	102	14.0

Table 7.16

8.0 Visitor Values

In the previous section, the views and values of Purbeck residents were examined in order to evaluate their willingness to accommodate current and future levels of tourism to the area and thus provide a measure of perceived capacity. At various times and for various reasons residents will visit the coast thus contributing to the impact of tourism, perhaps with a greater sense of propriety and ownership but essentially with the same motivations and interests as tourists from further away.

Motivation and interest are a critical part of understanding the impact of visitors on a landscape (and vice versa). For example a mountain biker's desire for exercise in a landscape will have a different impact than a rambler's desire for similar exercise. These activity based interests are reasonably easy to identify from surveys and interviews with visitors to the countryside. How visitors and potential visitors view the countryside, its capacity and how they choose between alternative sites is more problematic. General concepts such as 'the countryside' and 'the coast' are not sufficient to understand why a visitor will choose a particular site for a visit rather than another. There are obviously pragmatic reasons for choosing a location, for instance the proximity of the nearest open countryside for regular dog walking or horse riding, but even these groups will occasionally venture out of their routine venue for another location.

The attraction of the open countryside for leisure, recreation and fulfilment has been a feature of British society for over 200 years. Growing urbanisation and industrialisation led to a reaction where previously the countryside had been thought of as wilderness and a place of poverty. It began to be seen as place for reflection and escape from the burgeoning cities. Byron expressed this growing pantheism thus:

> *There is a pleasure in the pathless woods*
> *There is rapture by the lonely shore*
> *There is society where none intrudes*
> *By the deep sea and music in its row,*
>
> *I love not man the less, but nature more*
> *From these our interviews, in which I steal*
> *From all I may be, or have been before*
> *To mingle with the universe and feel*
> *What I can ne'er express, yet cannot all*
> *Conceal.*
> Lord Byron, Childe Harolde Canto iv : 1812

Childe Haroldes Pilgrimage JMW Turner

This bucolic theme also captured the imagination of artists like J.M.W. Turner (above), social philosophers of the time and later developed in the work of such organisations as The Arts and Crafts Movement and eventually mainstream politics, via the early Fabians. The apparent social and psychological benefits of access to the countryside also inspired Octavia Hill and Canon Rawnsley to found The National Trust, the UK's largest and arguably most successful conservation charity.

The poetic extract anticipates the emotional and psychological benefit that different types of landscape can offer to the visitor. Research has demonstrated that this variability of response to a landscape is reflected in actual visitor numbers to an area. The huge differential in visitor numbers to Stonehenge (circa 1 million visitors a year) compared to a similar sized area with no such monument and largely undifferentiated from surrounding countryside is reasonably obvious to understand; one is iconic and internationally famous, the other is not. Understanding the likelihood of a tract of countryside to attract visitors is a key feature of understanding its capacity to accommodate them, not only physically but probably of greater importance, emotionally.

Lulworth Cove is a very good example of the variability of 'emotional' capacity along the Jurassic Coast. With nearly half a million visitors it may be presumed that this part of the coast is nearing capacity and yet there are good reasons to suppose that it could accommodate significantly more visitors.

Lulworth Cove is an established settlement on the coast with a long history as a visitor attraction; it has a substantial tourist infrastructure of car parks, restaurants, hotels, guest houses, shops and a visitor centre. The expectation of visitors arriving at Lulworth Cove will probably include sharing the experience of their visit with several hundred other visitors and this may even be part of the motivation for being there. A typical trip may be a walk from the car park to the Cove, a short walk along the shore (the shingle does make a walk for the full stretch harder) and then perhaps a walk up to Stair Hole and back to the shops, teashops and the visitor centre.

More energetic visitors may venture the one mile westwards to Durdle Door. The likelihood is that visitors will be very satisfied with their day out after such an experience. The same visitors walking 1 mile eastwards to Mupe Bay would undoubtedly be extremely disappointed to find the same volume of people present. In fact it is extremely unlikely that Mupe Bay would be crowded, even on the busiest day at Lulworth Cove, demonstrating the concentrated focus of visitation along the coast and in the countryside generally.

Post Byron, there have been a number of more prosaic but essentially more helpful attempts to examine the importance that visitors place on particular types of landscape. For instance Manzo[21] 2003 proposed a way of measuring the values that people associate with places or landscapes. Sense of place has been the focus of studies in the geographical sciences (Kaltenborn & Williams[22], 2002) which refers to the emotional attachment or bond people have with a place.

G. Brown and C. Raymond[23] (published 2007) examined the relationship between place attachment and landscape values using two measures of place attachment and a psychometric-based measurement. This study used regression analysis to show that landscape importance values, especially spiritual and wilderness values, are significant predictors of scale based measure of place attachment and the risks associated with changes to the landscape and adjacent areas.

[21]L.C. Manzo Beyond house and haven: Toward a revisioning of emotional relationships with places, Journal of Environmental Psychology 23 (2003) (1), pp 47-61.

[22] B.P Kaltenborn & D.R Williams The meaning of place: Attachments to Femundsmarka National Park, Norway, among tourists and locals, Norwegian Journal of Geography 56, pp 189-198, 2002

[23] (G.Brown & C Raymond, The relationship between place attachment and landscape values: Toward mapping place attachment. Applied Geography, Vol. 27, Issue 2 April 2007, Pages 89-111.)

9.0 Visitor Survey

A visitor survey was conducted as part of the carrying capacity research for the Purbeck section of the Jurassic Coast during 2006, which involved 150 interviews conducted at Corfe Castle, Lulworth Cove, Peveril Point, Studland Beach and Swanage. The sample was constructed to be broadly representative of the visitor market and the results at the 95% confidence level are within ± 8%.

A comparison of key visitor survey results for Purbeck, against the results for Dorset, may indicate where Purbeck has demand patterns that warrant concern. In addition the results have been analysed according to the market segments identified in the Jurassic Coast WHS Marketing Strategy[24] outlined in Appendix III

Visits to the Purbeck Coast

Activities				
	Dorset		Purbeck	
Base: All (527)	Count	Percent	Count	Percent
Coastal walk / path	381	76.4	121	84.0
Shopping	253	50.7	60	41.7
Nightlife (including eating out)	244	48.9	60	41.7
Historic houses, churches	199	39.9	52	36.1
Wildlife, natural history	162	32.5	57	39.6
Visiting museums	127	25.5	32	22.2
Visiting gardens	112	22.4	29	20.1
Fishing	87	17.4	17	11.8
Cycling	65	13.0	12	8.3
Cultural pursuits, theatre	61	12.2	17	11.8
Water sports	54	10.8	24	16.7
Geology	34	6.8	7	4.9
Sailing	19	3.8	11	7.6
Golf	16	3.2	7	4.9
Total (Valid: Multi Code)	499	**N/A**	144	**N/A**
(0) Missing Values	28	N/A	6	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 9.1

Eighty Four per cent of all visitors (84%) had been on a coastal walk in Purbeck during their visit, indicating its importance in the portfolio of activities generally considered by visitors to the area.

[24] Jurassic Coast World Heritage Site Marketing Strategy, The Tourism Company Nov. 2003

9.1 Primary Market Segments

Short Breaks – Post Family

Are you: (tick most appropriate)				
	Dorset		Purbeck	
Base: Staying visitors	Count	Percent	Count	Percent
On an additional holiday	134	35.1	48	41.7
On a main holiday	124	32.5	39	33.9
On a short break	85	22.3	22	19.1
Visiting friends or relatives	13	3.4	3	2.6
On business	5	1.3	0	0.0
Study trip	4	1.0	2	1.7
Attending a conference	1	0.3	0	0.0
Other (please specify)	16	4.2	1	0.9
Total (Valid: Single Code)	382	**100.0**	115	**100.0**
(0) Missing Values	32	N/A	12	N/A
Total (Base)	414	**N/A**	127	**N/A**

Table 9.2

This was given the highest priority in the JCWHS strategy. The results indicate that 19% of the Purbeck sample (3rd highest group) were on a short break and 16% of these were 'post family' or at least were travelling as a couple, or as singles at the time of the survey compared to 35% for Dorset.

Group Type				
	Dorset		Purbeck	
Base: All (527)	Count	Percent	Count	Percent
One adult	45	8.7	14	9.5
Two adults (no children)	257	49.9	68	46.3
Family with children	141	27.4	40	27.2
Other adults with children	47	9.1	16	10.9
Adults only (group of three or more)	25	4.9	9	6.1
Total (Valid: Single Code)	515	**100.0**	147	**100.0**
(0) Missing Values	12	N/A	3	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 9.3

Age and Gender				
	Male		Female	
Base: All visitors (1488)	Count	Percent	Count	Percent
0-15 years	64	13.9	73	15.9
16-24 years	13	2.8	21	4.6
25-34 years	13	2.8	10	2.2
35-44 years	45	9.8	49	10.7
45-54 years	38	8.3	36	7.8
55-64 years	33	7.2	33	7.2
65 years +	16	3.5	15	3.3
Total (Valid: Single Code)	**459**	**48.4**	**459**	**51.6**
(0) Missing Values	0	N/A	0	N/A
Total (Base)	**459**	**N/A**	**459**	**N/A**

Table 9.4

Activity Holidays – walking

As mentioned previously 84% of visitors had visited the coast for a walk, which appeared to be a key focus for a visit to the area combined with the seaside, beaches and coast. This is reinforced by the results of table below where the general motivators indicate that the scenery, countryside, seaside and beaches are the prime motivators (this analysis includes repeat visitors).

Main reason for visiting the area				
	Dorset		Purbeck	
Base: All (527)	Count	Percent	Count	Percent
Visited the area before and liked it	205	40.7	70	48.3
Visiting friends and relatives	70	13.9	19	13.1
Seaside, beaches and coast	54	10.7	19	13.1
Wanted to go somewhere not visited before	42	8.3	7	4.8
Scenery, countryside, natural history	25	5.0	7	4.8
Local visitor attractions	25	5.0	2	1.4
Recommended by friends and relatives	22	4.4	12	8.3
An event or festival	22	4.4	5	3.4
Easy to get to	21	4.2	2	1.4
Cultural, heritage or literary	7	1.4	0	0.0
Sporting Facilities	6	1.2	1	0.7
Peace and quiet	3	0.6	1	0.7
Good shopping Facilities	2	0.4	0	0.0
Total (Valid: Multi Code)	504	**100%**	145	**100%**
(0) Missing Values	23	N/A	5	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 9.5

General motivators				
	Dorset		Purbeck	
Base: All (527)	Count	Percent	Count	Percent
Scenery, countryside, natural history	367	76.5	112	82.4
Seaside, beaches and coast	327	68.1	98	72.1
Easy to get to	207	43.1	59	43.4
Peace and quiet	156	32.5	47	34.6
Visited the area before and liked it	153	31.9	40	29.4
Local visitor attractions	134	27.9	36	26.5
Cultural, heritage or literary	100	20.8	30	22.1
Recommended by friends and relatives	50	10.4	18	13.2
Visiting friends and relatives	46	9.6	15	11.0
Good shopping facilities	35	7.3	5	3.7
An event or festival	34	7.1	10	7.4
Sporting facilities	27	5.6	4	2.9
Wanted to go somewhere not visited before	11	2.3	4	2.9
Total (Valid: Multi Code)	480	**N/A**	136	**N/A**
(0) Missing Values	47	N/A	14	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 9.6

Special Interest Geo-tourism

Identified as a niche market but obviously important for the JCWHS, 5% of respondents cited this as a key attraction for visiting the area and had engaged in some activity related to this (i.e. visiting a museum, visiting sites along the coast).

9.2 Secondary market segments

Short breaks – Families

25% of the short break visitors in Purbeck were families concentrated mainly in the peak seasons of the year (spring and summer) compared to 22% for Dorset.

Overseas market segments

Currently 8% of visitors are from overseas with the largest proportion originating in Germany or the Netherlands.

Country of Origin: UK / Overseas				
	Dorset		Purbeck	
Base: All	Count	Percent	Count	Percent
UK	471	89.4	138	92.0
Overseas	56	10.6	12	8.0
Total (Valid: Single Code)	527	**100.0**	150	**100.0**
(0) Missing Values	0	N/A	0	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 9.7

Country of Origin: Overseas Visitors				
	Dorset		Purbeck	
Base: Overseas visitors	Count	Percent	Count	Percent
Germany	16	28.6	4	33.3
Netherlands	12	21.4	4	33.3
France	9	16.1	1	8.3
Channel Islands	5	8.9	0	0.0
Poland	3	5.4	2	16.7
Australia	2	3.6	0	0.0
Canada	2	3.6	1	8.3
Other	7	12.5	0	0.0
Total (Valid: Single Code)	56	**100.0**	12	**100.0**
(0) Missing Values	0	N/A	0	N/A
Total (Base)	56	**N/A**	12	**N/A**

Table 9.8

Cycling

Respondents who had cycled represented 8% of the sample. This is lower than the Dorset average but because of its intrusive nature on the 35% of visitors to Purbeck that are seeking peace and quiet from their visit, this is one target that may be considered currently at a reasonable level.

Education markets

Currently 2% of visitors to Purbeck are on a study trip compared to 1% for Dorset. Even though Purbeck is attracting a greater proportion than the Dorset average it may be considered insufficient considering it is one of the main objectives (Objective 5) of the Jurassic Coast WHS Management Plan.

9.3 Tertiary market segments

Long holidays

Purbeck currently attracts higher than average numbers of visitors on long holidays. In terms of carrying capacity and impacts on the Jurassic Coast, the length of holiday is not as critical as the activities undertaken whilst on holiday, although there is some evidence that visitors on longer stays 'learn' about the sensitivities of place and community, and may therefore have a lesser impact.

Number of nights				
	Dorset		Purbeck	
Base: Staying visitors				
1 to 3 nights	73	17.7	15	11.8
4 to 7 nights	229	55.6	75	59.1
8 to 10 nights	49	11.9	20	15.7
11 to 14 nights	45	10.9	13	10.2
Over 14 nights	16	3.9	4	3.1
Total (Valid: Single Code)	412	**100.0**	127	**100.0**
(0) Missing Values	2	N/A	0	N/A
Total (Base)	414	**N/A**	127	**N/A**
Average	7.7 nights		7.5 nights	

Table 9.9

Short Breaks – Pre Family

Sixteen per cent of the short break market in Purbeck is in the 16-24 'pre-family' group. This younger age group are encouraged by activity based holidays, for instance walking, climbing, sailing, cycling and the proximity of good pubs, restaurants and the nearby resorts of Poole and Bournemouth. The percentage for Dorset is 7%.

Watersports and coastal pursuits

A substantial number of respondents (17%) indicated that they have engaged in watersports during their holiday including sailing, canoeing, using powerboats and jetskis. The latter two categories are of obvious concern as they can have a disproportionate effect on the sense of place that the coastal zone offers and are often cited in visitor complaints about the area.

Business tourism

No respondents appeared in this category though 1.6% indicated that they were attending a conference or on a business trip in the Dorset sample.

Psychographic segments

Research into psychographic segments was not conducted at this stage as a more detailed description of their composition is required. Future research into this area would be helpful as it includes important attitudinal information.

10.0 Positioning and Branding

The level and nature of branding will influence the capacity of the destination. For instance, a destination that is presented as having outstanding landscape and 'sense of place' value will precondition visitors in terms of their expectations but also in their treatment of the site.

World Heritage Status does not seek to impose attributes on a location, rather to recognise the importance of what is already there and offer some means of protection through this recognition. It would be ironic if WHS designation led to increased pressure on the site, resulting in its degradation. However, evidence presented both in the United Kingdom [25]and internationally does not suggest this is happening at present.

Branding is intended to provide cues that encourage the observer to take meaning, without extensive explanation and to encourage a psychological and behavioural response to its stimulus. It also encourages 'positioning', where the observer will place these cues and their understanding of the brand within a mental map, defined by beliefs and evaluations of those beliefs. This involves placing other brands against criteria such as 'excitement', 'geological interest', 'safe for the children' and so on.

The marketing aims identified in the marketing strategy [26] that support branding, do not appear to be encouraging changes in demand or behaviour, but rather improving understanding and the recognition of the importance of the WHS thus:

- To utilise the recognition of the coast as a World Heritage Site to strengthen the local economy and performance of tourism enterprises in the surrounding area.

- To increase awareness, understanding and enjoyment of the special qualities of the Site amongst local people, local enterprises, educational groups and all types of visitor.

- To help to conserve the Site through effective visitor management and raise support for its conservation from visitors and the tourism sector.

- To increase the quality of the visitor experience.

These aims do not appear to have led to an increase in visitors to Purbeck as is evident from the number of recorded day trips and visits, which if anything demonstrate a small net reduction in recent years. Neither is there evidence that significantly more of this smaller market have visited the Purbeck section of the Jurassic Coast WHS, though changes in the weather patterns have extended the season for visiting.

[25]S.Calver Effect of WHS on Visitor Numbers, Avebury, The Market Research Group 1998
[26] Jurassic Coast World Heritage Site Marketing Strategy, The Tourism Company 2003

There is evidence that visitor behaviour has changed, for instance increased rock climbing and off road cycling. These changes should be monitored but do not yet indicate a need for a change in marketing strategy. The following action has been identified from the marketing plan to support the WHS brand in recent years:

- Development of a name and brand image for the Site: Jurassic Coast World Heritage Site.

- Development of information material for the site, application of the JCWHS brand to certain other activities and material (e.g. the coastal bus X53JC), and some promotional activity for the site.

- Introduction by the Locum report of the concept of 'World Heritage Coast' to cover the coast and a wide inland area, but without a definition of the inland boundary.

- The Four District level authorities in the area maintaining destination promotions for their areas while identifying themselves as being within the World Heritage Coast and also making reference to the Jurassic Coast WHS.

- Some destination branding and promotion at a county level, and two overseas campaigns based on separate brands for Devon/Cornwall and Dorset/New Forest.

- Creation of a World Heritage Coast Hospitality Association covering the full stretch of the coast and a wide inland area, as a private initiative which has attracted membership from 2000 enterprises/properties.
- Preparation of a World Heritage Coast destination guide as a private commercial initiative.

1. The name gives little sense of location and has a clear geological theme, coloured a little by associations with prehistory and the age of dinosaurs, thus providing additional interest.

2. Information material is available via the Internet, and through various information bureaus in Tourist Information Offices, visitor centres, museums, public offices and other tourism related businesses. Exposure around the coastal zone does reinforce the name and its associations and may encourage visitors who are already in the area to visit the coast.

Seen Information: Most influential				
	Dorset		Purbeck	
Base: All	Count	Percent	Count	Percent
Previous visit	242	46.1	78	52.7
Information from friends and relatives	78	14.9	29	19.6
Internet	62	11.8	15	10.1
Tour operator or travel agent	51	9.7	10	6.8
Brochure for Area	29	5.5	6	4.1
Brochure for accommodation provider / attraction	21	4.0	1	0.7
Media promotion / Feature / advert	17	3.2	2	1.4
Tourist Information Centre within the area	10	1.9	3	2.0
Tourist Information Centre outside the area	8	1.5	0	0.0
None of the above	7	1.3	4	2.7
Total (Valid: Single Code)	525	**100.0**	148	**100**
(0) Missing Values	2	N/A	2	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 10.1

3. Previous visits and information provided by friends and relatives still remain the principal sources of information. The influence of other information sources remains below that of the Dorset average in most categories. A response of over 3%+ citing media promotions as the most influential source usually implies a significant effect in this context; 1.4% of Purbeck visitors were influenced by media promotion indicating a relatively moderate level of influence.

4. The inland boundary is defined by drive times and access points to the coastal area. For Purbeck this appears to run along the A352, running almost parallel to the coast and pressure principally arises from visitors and residents within the zone defined by this road.

5. The Jurassic Coast is promoted at key, points notably the gateway towns of Wareham, Wool, and Swanage. Visitors arriving by car, train or bus will be aware that they are entering the WHS and at this point their expectations will be raised, even if they previously knew the location and nature of the coast.

6. Overseas and national promotional campaigns do not appear to have led to a significant increase in visitors specifically for the Jurassic Coast. Visitors seeking landscape, heritage and countryside would already know and be attracted to Purbeck. The Jurassic label may reinforce this interest but there are many locations in the United Kingdom with unique appeal.

7. Tourism businesses do not appear to have over exploited the WHS designation. The controls over the use of the logo and other promotional material and the various consultative bodies such as the World Heritage Coast Hospitality Association seem to provide an effective forum for consultation and control.

10.1 Competition and Positioning

Visitors have mentioned the following locations as alternatives to the Purbeck section of the Jurassic Coast.

Respondents to the visitor survey were asked which locations they actually considered before finally choosing Purbeck. The principal 'competitors' were similar open countryside areas:

Alternative destinations -considered				
	Dorset		Purbeck	
Base: All	Count	Percent	Count	Percent
Devon / Cornwall	95	49.0	23	50.0
West Dorset	29	14.9	10	21.7
New Forest	28	14.4	6	13.0
Elsewhere in the UK	24	12.4	7	15.2
East Dorset	14	7.2	1	2.2
Bournemouth	13	6.7	1	2.2
Purbeck	10	5.2	0	0.0
Christchurch	8	4.1	0	0.0
Wales	7	3.6	2	4.3
Non-UK destination	6	3.1	0	0.0
Lake District	5	2.6	1	2.2
Cotswolds	4	2.1	1	2.2
Scotland	3	1.5	2	4.3
Peak District	2	1.0	0	0.0
Total (Valid: Single Code)	194	**N/A**	46	**N/A**
(0) Missing Values	333	N/A	104	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 10.2

The profile of previous visits to alternative destinations during the past five years indicates a committed market for 'landscape holidays' or excursions in which the Purbeck section of the WHS maintains a strong profile without excessive dominance or relegation.

Visited for a holiday in the last 5 years - actual				
	Dorset		Purbeck	
Base: All (527)	Count	Percent	Count	Percent
Devon / Cornwall	295	60.5	90	67.2
Non-UK destination	281	57.6	59	44.0
Elsewhere in the UK	192	39.3	38	28.4
Wales	137	28.1	51	38.1
New Forest	130	26.6	30	22.4
Cotswolds	103	21.1	32	23.9
Lake District	98	20.1	34	25.4
Scotland	98	20.1	31	23.1
Peak District	73	15.0	26	19.4
Total (Valid: Multi Code)	488	**N/A**	134	**N/A**
(0) Missing Values	39	N/A	16	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 10.3

11.0 Carrying capacity for Purbeck locations

11.1 Visitor Counts

The number of people currently visiting locations along the Purbeck coast is critical to an estimation of its carrying capacity providing a benchmark against which change can be measured.

This research has examined key social and economic criteria as they influence the Purbeck community and visitors to the area in order to examine the evidence for pressure points and excess demand. An analysis of tourism visits, road counts, resident and visitor attitudes and other criteria at that level provides valuable evidence of where demand may be placing pressure on capacity.

The effect of climate change on the World Heritage Site is hard to quantify. Increased erosion from sea level rise, increased storminess and rainfall will actually enhance the quality of the rock exposures in the cliffs and the supply of fossils (though there will be a decline in access to the geology and fossils exposed in the foreshore) and continue to drive the geomorphological processes. The threat of climate change depends on the response to this erosion. For example, the construction of more sea walls will obscure the geology, reduce the number of fossils available and interfere with the geomorphological features. This will represent a continuing and ever more acute issue in the future unless sustainable shoreline management is adopted which may need to include abandoning property and infrastructure.

These changes combined with changes in the social and anthropological context are a matter of debate and continuing research.

It is arguable that it takes a very small number of people to start the degradation of a landscape and therefore management should not only be concerned with ways of preventing damage but establishing levels of degradation which are acceptable to the public and various agencies involved. A few thousand visitors per annum walking along a cliff path will fairly quickly create a gulley, the same number taking advantage of wet weather clothing to walk in the rain will do much more damage especially on hilly terrain as the loosened surface is washed away. Grazing animals, to keep the paths and adjacent areas clear, may have a similar effect.

There is also an aesthetic and emotional dimension to capacity which is extremely difficult to quantify. As mentioned earlier, half a million people per annum at Lulworth Cove, perhaps 5000 visitors on a fine Bank Holiday Sunday, may be acceptable to visitors and possibly residents understanding the nature of such occasions, but the same number of people one mile further along the coast at Mupe Bay would be considered over capacity relative to expectations.

The estimation of whether a location has reached capacity is based on research conducted over the past ten years[27] at countryside and coastal sites using a count of visitors, the evaluation of their experience at various sites and the potential for growth based on the actual capacity of adjacent car parks and the expansion of local populations. These estimations may be influenced by changes in attitudes towards tourism e.g. more or less development, changes in behaviour (more or less car use) and changes in expectation and tolerance where possibly even the background noise of speedboats and jet skis become commonplace and therefore 'accepted' as part of the coastal experience.

Over a two year period (2004-2006), a research project was undertaken for The National Trust with the objective of determining the volume and type of visits to the open countryside in its stewardship with a view to managing these areas with greater efficiency including improved conservation, interpretation and education. The area defined for this research was Dorset, Wiltshire, Somerset, Gloucestershire, and Avon (Wessex). Parts of the East Devon coast were also included in this survey for comparison.

The research was also undertaken in order to establish a method of estimating the volume of visitors to defined countryside areas which was cost effective and limiting the need for expensive surveys and ongoing physical counts.

The survey methodology involved an investigation and analysis of the variability of visits between sites and the categorisation of the countryside by visitor perceptions, followed by actual counts at sampled sites in each of the identified categories, also including weather conditions, time of day, week and season in the sample frame.

The effect on visitor numbers of various factors was then measured using regression analysis. The results demonstrated the importance of access points, car parks, countryside category and population density proximate to the site.

This allowed for estimations at sites not included in the research and subsequent counts at these sites to assess the accuracy of the estimates.

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[27] S. Calver, Purbeck, Spyway Barn Visitor Interpretation, The National Trust, The Market Research Group, 2001
S.Calver, Avebury WHS Visitor Impacts, The National Trust, The Market Research Group, 1997, 1998
S.Calver, Brean Down, Somerset Visitor Counts and Survey, The National Trust, The Market Research Group, 2001
S. Calver, Leigh Woods, Bristol, Visitor Counts and Survey The National Trust, The Market Research Group, 2003
S. Calver, Hindhead Common, Visitor Counts and Survey The National Trust, The Market Research Group, 2004
S. Calver, Glastonbury Tor, Visitor Counts and Survey The National Trust The Market Research Group, 2004
S Calver, Wessex Regional Visitor Counts and Survey, The National Trust The Market Research Group 2004-2006
S.Calver, The National Trust, Visitor Survey Data United Kingdom The Market Research Group 1991-2006

11.2 Countryside categories

The fact that there are differences in the way visitors perceive areas of the countryside and that these perceptions influence their choice of location became apparent during research at Spyway Barn, Purbeck. This research was conducted with the purpose of developing an interpretation centre in a barn which was located by the Durnford Drove footpath from the car park to the Coast Path at Dancing Ledge. Further analysis of previous research at Avebury, Brean Down, Leigh Woods and Hindhead Common, further reinforced the proposition that different types of countryside exert variable strengths of attraction on potential visitors, an effect significantly modified by access points, car parks and adjacent visitor facilities.

Further research using more focussed face to face interviews at open sites was conducted and categories proposed. These were then further refined following discussions with property and site managers, and others involved.

The categories used for the subsequent construction of the sampling frame of properties across Dorset, Wiltshire, Somerset, Avon and Gloucestershire were:

Categories	Description	Examples
1. Countryside with no central feature	Land with no identifiable feature other than being located in an exceptional landscape. This land may not be identified clearly as National Trust land and may be part of a route which includes multiple ownership by other charitable bodies as well as private individuals	Beacon and Bicknoller Hills, Brent Knoll, Cley Hill,
2. Countryside with central feature	Landscape with a strong central feature where the visitor can enjoy the freedom to roam or make use of visitor centres, visitor facilities, exhibitions and so on.	Cerne Giant, Avebury, Stonehenge
3. Countryside with known features	Known features in landscape, exceptional woods, lakes, streams, views	Leigh Woods, Spyway Barn, Dancing Ledge
4. Countryside less than 20 acres	Smaller open sites often providing local amenity, e.g. for dog walking, picnics and so on	Bibury, Blaise Hamlet, Failand
5. Parkland	Land around houses; recognised designed landscape. Property open throughout the year and free of charge	Kingston Lacy Park

Table 11.1

The strength of significance for the individual categories to visitors varied, but all represented alternatives for those choosing a day out or holiday. The research noted that coastal sites in each of the above categories almost doubled in their gravitational pull which was exerted over a much greater distance attracting more visitors from over 50 miles away than a similar non coastal area.

The research also determined that the countryside rather than being a largely undifferentiated expanse with occasional focal points of interest was divided into a patchwork of 'visit areas' largely defined by access and car parking facilities, and extending one to two miles from the car park representing half an hour 'out' and half an hour back, or up to one hour out and one hour back, with a minority continuing beyond.

The effect of car parks and local populations was also analysed and calibrated by D. Lilley[28] in his research of Dorset Heaths.

The Purbeck section of the Jurassic Coast consists of a series of visit areas, defined by access points and car parks, with a strong overall attraction represented by the sea and cliffs over which is superimposed a patchwork of relative interest in the landscape depending upon the motivation of the visitor on a particular visit. The earlier example of Lulworth Cove again demonstrates that within a very short distance of one mile, a visitor can either park their car at Lulworth Cove on a busy day to enjoy a mini resort with a lot of facilities and the following day can park in Lulworth Village and walk over the range to Mupe Bay for some quiet in an outstanding setting, where they may be disappointed to find even one other visitor.

The National Trust managed sites along the Dorset coast from Studland, were the subject of actual counts. Similar counts were conducted on the Somerset and Devon coasts to provide comparison. These were in addition to counts conducted at various inland countryside sites providing a comprehensive database.

11.3 The influence of the weather on visitation

The fact that the weather effects visitation is self evident but the extent has been the subject of investigation for some years. For instance B.G. Gomez[29] examined the influence that weather exerts on geographical space, demand, supply and market of the tourism system and anticipated the effects of climate change on the relationship between them. This latter research and that of earlier writers, notably G. Cazes[30] who researched the effects of weather, provide a good foundation for determining specific impacts on demand in countryside sites.

These previous research findings encouraged a comprehensive approach to the Wessex research where counts were conducted at the same site in different weather conditions and different seasons, and the effects on visitor behaviour noted.

Aggregating the data collected to estimate visitors to sites not included in the sample and to sites that were in the sample but where there were 'gaps' in the count was partially achieved by using the Metrological Office 30 year average of weather patterns for the south west. The 30 year average was however modified using research from the Tyndall Centre[31]., University of East Anglia to reflect current and possible future weather scenarios.

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[28] D. Liley, R. Clarke, D. Tyldesley, J. Underhill-Day, J. Lowen, Centre for Ecology & Hydrology, Evidence to support Appropriate Assessment of development plans and projects in south east Dorset, 2006

[29] B.G. Gomez Weather, Climate and Tourism – A geographical perspective, Annals of Tourism Research, Vol 32, No 3 pp 571-591, 2005,

[30] G. Cazes La Geographie du Tourisme:reflexion sur les objectives et les pratiques en France, Annales de Geographie 46: 537-600, 1987

[31] Hulm. M, Jenkins,G J, Lu, X, Turnpenny, J R, Mitchell, T D, Jones, R.G, Lowe, J., Murphy, J.M.,Hassell, D., Boorman, P., McDonald,R., and Hill,S, *Climate Change Scenarios For the United Kingdom:* The UKCIP02 Scientific Report, Tyndall Centre for Climate Change Research, School of Environmental Sciences, University of East Anglia, Norwich UK. 2002

11.4 Counting

There are obvious difficulties in determining the number of visitors to a site including the means of counting. A. Cope et al[32], give an overview of the techniques and problems associated with them. Mechanical counting appears to offer a solution, but in fact poses a number of additional problems especially in open sites including the sensitivity of the equipment to weather, insects, molluscs settling on the lens, long grass, animals, children and vandalism. To be effective, the counts have to be taken at least twice daily and records kept of weather conditions and other influences on the count (crowding on the path may cause inaccurate counts). Mechanical counts were tested as part of the research for the Avebury Management Plan[33] (1998) and while their use was satisfactory in that context, some of the problems encountered would have been difficult to overcome in a more remote and exposed position.

Manual counts are preferable but expensive and time consuming. In order for the results to be meaningful, counts must be conducted on several occasions at the same site in similar and varying weather conditions and at various times, days, months and seasons.

However because good baseline data was required upon which future estimations could be made, manual counts were considered a worthwhile investment. Face to face interviews were also conducted during these counts in order to provide behavioural and attitudinal data.

11.5 Visitor behaviour and capacity

The surveys previously mentioned conducted across the United Kingdom have provided a comprehensive database and important background to the analysis of carrying capacity for the Purbeck Coast and informed the development of the summary sheets for locations along the coast. The significance of each heading on the summary sheet is described below:

[32]A Cope, D DoxFord, and G Millar, Counting Users of Informal Recreation Facilities, Managing Leisure 4 229-244 (1999)

[33] Avebury World Heritage Site Management Plan, 1998

12.0 Carrying capacity summary sheets – Guidance notes

Summary sheets have been prepared for sub divisions of the Purbeck coast, to provide a breakdown of how visitor demand is distributed along it and an estimation of carrying capacity within the sub divisions described. The notes below offer an explanation of the various headings and values given on the summary sheets.

12.1 Location Name

The location name describes a section of the coast, for which an estimation of carrying capacity has been calculated and refers to a significant feature within the section. The focus and principal cause of visitation is the coast plus any special features such as Durdle Door, visitor facilities and so on; the aggregate of these features, result in varying degrees of attraction and motivation.

Visitor numbers will vary according to the proximity of car parks and access points from settlements, to the areas described. From previous research it was apparent that large areas of countryside divide into 'visit areas', based on visitor behaviour. Thus most visitors will walk a distance of up to 4 km, with only a minority walking further. The locations named (with northing and easting), describe a length of coast approximately 2 km in length but indentations and promontories make these units non standard, however this is does not influence the estimation of visitors or carrying capacity. Visitation is anyway not uniform within these visit areas; the visitor population for Durdle Door will cluster significantly around the central feature, whereas visitors to the White Nothe visit area will be distributed fairly evenly along its length. The visit areas are not discreet, it would be possible to combine the visitor numbers and carrying capacity for Durdle Door and Lulworth Cove and equally it may be considered appropriate to separate Durlston Head and Peveril Point, the current sub divisions therefore allow for some flexibility in the consideration of carrying capacity.

12.2 Population

The density of population within one mile and ten miles will have a significant effect on visitor numbers. Residents within one mile can easily walk to an area as long as there are suitable routes, safe roads or footpaths and certainly dog walkers will regard this as a convenient distance. Ten miles is a convenient driving time (15 minutes average).

Population changes within these distances will have an effect on visitation given the current social and economic climate for recreation.

A significant proportion of visitors to the Purbeck coast originate from much further away on day trips or on holiday, and this has been discussed earlier. However once at the coast they will enter via the access points or car parks and their behaviour will be much the same.

12.3 Car parks

Most visitors to the Purbeck coast will arrive by car. Due to the volume of traffic there is little scope in Purbeck for informal parking by the roadside to access the coast. Either the roads are too narrow to park a car without creating an obstruction, or there are restrictions on parking with penalties for non observance. Most visitors therefore have to use a car park in the vicinity. Some of the car parks charge and others at present are free and there are seasonal variations where charges are only applied during the main season.

There is a clear relationship between car parking and capacity. If visitors cannot park in a car park their options for the few informal spaces available are limited. There is already

evidence that road congestion is to some extent regulating road use, and visitor demand and feedback from visitor surveys indicates an increasing level of frustration with parking at peak periods in popular locations. The combination of the two may provide a self regulating mechanism for controlling demand, though likely to further increase disillusion with tourism amongst residents. Car park capacity was obtained by an audit during 2006 and 2007, and from information supplied by managing organisations and landowners.

The calculation for maximum capacity is based upon the assumption that cars can be replaced 2.4 times during a 9 hour period between 9am and 6pm.

12.4 Access Roads

This section refers to the nearest main ('A' road) feeder road from the national network and its average annual daily traffic count (AADTC). It is apparent that traffic volume on both the A352 and A351 has not increased substantially in recent years and yet commuting traffic has increased. This may imply that the roads have reached capacity and that resident non commuters are either seeking alternative routes or reducing their car use. Annual tourist demand (holidays and days out) has not increased significantly and tourist traffic may also be deterred by congestion on the roads at peak periods.

Weekend counts suggest that commuter traffic is replaced by visitor traffic during the summer season, especially on fine days.

Roads linking particular areas to the main feeder roads (usually 'B' roads or lesser designation) are also noted. Few official counts are available for these roads.

12.5 Footpaths

These are footpaths that link the main coastal path to car parks, settlements (villages, towns, hamlets), and other access points. Access to the foot of the cliffs is another critical issue for the carrying capacity of an area of the coast. A proportion of visitors will divert from the coast path along the top of the cliff to the bottom.

The Appendix IV contains a list and description of paths along the coast[34] prepared for the AONB Path Access and Walks Study. The topography of the paths is important for assessing potential impacts and capacity. Stiles tend to encourage gouging and puddling in wet weather, paths set at a gradient will act as gullies for water run off and will be more affected by erosion as visitors walk the path in wet weather. The reference number is that of the AONB path designation in Appendix IV.

12.6 Attractions/ facilities within one mile.

The categories described and the weightings have been derived from various visitor studies conducted over the past 15 years at various sites across the United Kingdom. In particular, countryside sites have been selected and motivation for visit analysed. The weightings vary between sites and so the 'best fit' has been selected from sites such as the Giants Causeway in Northern Ireland and other coastal areas.

Most visitors to countryside sites give the highest weighting to exceptional natural or

[34]Dorset AONB Partnership Dorset & East Devon Coastal Corridor Plan Coast Path Access & Walks Study Interim Report
Halcrow Group Limited
April 2007

man made features. The more exceptional, (i.e.Stonehenge, Giants Causeway), the greater the weighting, combined with additional motivators such as tranquillity, landscape interesting settlements (village, town) and visitor infrastructure (pubs, shops and teashops).

Areas along the coast are 'scored' against these criteria, thus Lulworth will score highly on most categories except tranquillity and archaeology, while Mupe Bay will score highly on tranquillity and have very low scores for the other categories. Some of these scores have been obtained from previous research along the Purbeck coast, while others have been applied by the research team with reference to scores at similar sites.

A high score in all categories other than tranquillity implies a higher capacity; high scores on tranquillity but low scores in other categories implies a lower capacity.

12.7 Public Transport to within one mile of the Purbeck coast.

Public transport is currently used by a minority of visitors to Dorset and Purbeck. The proportion using public transport once they have arrived has risen over the past few years.

How have you travelled to Dorset?				
	Dorset		Purbeck	
Base: All	Count	Percent	Count	Percent
Own car	377	78.7	108	78.8
By sea	13	2.7	5	3.6
Organised Coach Trip	12	2.5	3	2.2
Public Transport	8	1.7	2	1.5
Hire car	6	1.3	2	1.5
By air	5	1.0	0	0.0
On Foot	5	1.0	3	2.2
Train	3	0.6	2	1.5
Bicycle	2	0.4	0	0.0
Other	48	10.0	12	8.8
Total (Valid: Single Code)	479	**100.0**	137	**100.0**
(0) Missing Values	48	N/A	13	N/A
Total (Base)	527	**N/A**	150	**N/A**

Table 11.2

Bus routes

Passengers on the X53 Jurassic Coast (Bournemouth to Exeter) bus have increased from 56,078 in 2002/2003 to 125,738 in 2004/2005, with visitors representing a high proportion of the passengers.

The route of the X53 through Purbeck uses the A352 running parallel to the coast, but at its nearest point is 4 miles distant and therefore not immediately useful for walkers, although they can get connections to the coast from Wool and Wareham. The X53 passes through Osmington to the west of the Purbeck section 1 mile from a connecting footpath. An unrepresentative sample of walkers expressed the view that this is an excellent service providing a launching point at the west end of the Purbeck coast, arriving at approximately 1100am, and providing opportunity for a four to five hour walk with the option of catching a bus back from Swanage or Worth Matravers.

Other routes serving Purbeck and the coast are described below with an indication of those within one mile of the coast. During the summer, the open top buses from Bournemouth to Swanage via Studland using the car ferry are increasingly popular.

Destination	Bus route	Within 1 mile of the coast
Blackmanston	275	
Church Knowle	275	
Coombe Keynes	103	
Corfe Castle	29, 142, 143, 275	
Durdle Door	103	*
Kimmeridge	275	*
Langton Matravers	142, 143, 144	*
Lulworth Cove	103	*
Studland	150	*
Swanage	150,275,29,142,143,144,	*

Table 11.3

The following figures give an indication of the increasing use of some of these bus routes in recent years.

Increase in passengers on selected Wilts and Dorset routes

2003/4	**2004/05**	**2005/06**	**2006/07**
475,948	472,936	461,886	570,889

Table 11.4

Rail connections

The mainline route Weymouth / London stops at Wareham and Wool with connecting bus routes to the coast. Only a minority currently use the service for their main journey from home, although there is evidence that more visitors from Bournemouth/Poole are using the service to Wool and Wareham for connections (and vice versa).

Unfortunately there is no regular rail connection between Wareham and the Swanage railway. Most users of the latter drive to Norden or Corfe and travel to Swanage, thus there is little net reduction on the main feeder roads especially the A351 north of Wareham.

12.8 Site category and counts

During 2004-2006 actual counts were conducted at coastal sites for the National Trust on National Trust managed land and at other key sites along the Dorset and Devon coast to serve as a comparison.

The table below is a sample of a count sheet for the National Trust car park at Ringstead, describing the season, weather and time categories. The recorded figures are weighted averages following at least three observations during the same time period; figures in bold were actual counts. Separate sheets record weekend and weekday figures.

Visitor Count Sheet, NT Ringstead Car Park, Summer, Weekends

May – Oct Weekend	Visitors Pre0800	0800-1000	1100-1300	1400-1600	1700-1900	Post 1900	**Total number visitors**	*Summer weather proportion of days*	Count x No. of weekend summer days x weather ratio
Clear/Sunny	**26**	80	98	65	38	**12**	**319**	*0.48*	**20211.84**
Overcast	10	**78**	**85**	55	**32**	2	**262**	*0.11*	**3804.24**
Showers/drizzle	**2**	21	18	**21**	8	1	**71**	*0.21*	**1968.12**
Heavy rain	2	15	15	15	**8**	8	**63**	*0.12*	**997.92**
Cold/Miserable	2	9	5	6	4	8	**34**	*0.08*	**359.04**

Table 11.5

The areas along the Purbeck coast fall into categories 2 and 3 as indicated below. These categories have been derived from the research previously described; each category has a different strength of attraction for visitors. The level of attraction for each type of site almost doubles if it is a coastal site.

2. Countryside with central feature	Landscape with a strong central feature where the visitor can enjoy the freedom to roam or make use of visitor centres, visitor facilities, exhibitions and so on.
3.Countryside with known features	Known features in landscape, exceptional woods, lakes, streams, views.

The sea and the cliffs provide a constant strong feature in the Purbeck coastal landscape and the addition of visitor facilities at points along the coast provide additional attraction.

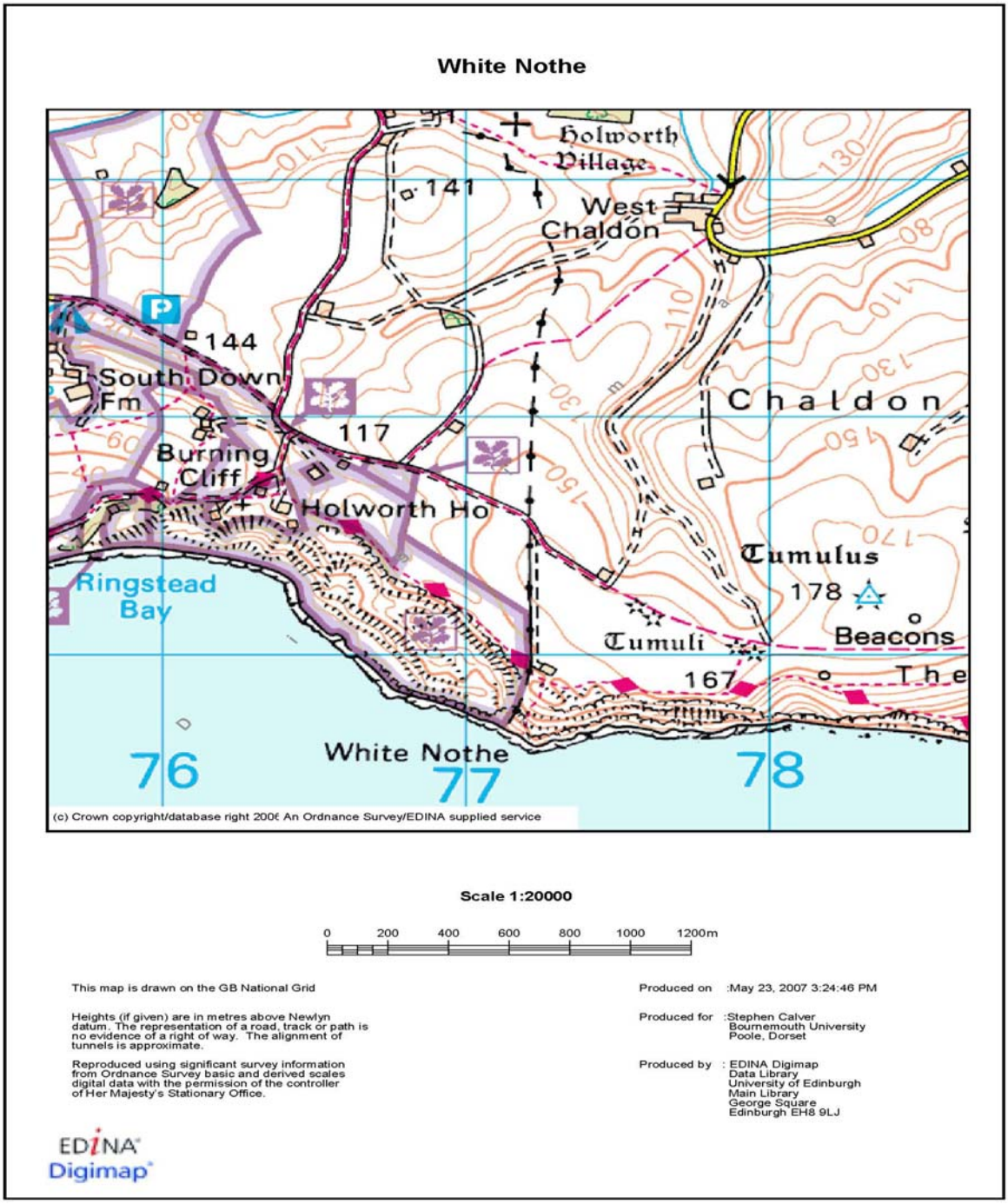
12.9 Calculating capacity

The calculation of capacity at the level of the visitor area starts with the visitor count and what that represents as a proportion of car park capacity within one mile. Any increase will have to be accommodated within formal and informal parking areas and intrusive overspill will usually result in parking restrictions being applied. The potential for the site is estimated with reference to the scale of visitation recorded at a range of countryside and coastal sites depending upon their category, the visitor infrastructure, and traffic counts on local roads. Population within 1 mile and 10 miles are then factored to provide an estimate of what the area can reasonably accommodate. If there is a high tranquillity factor then this will mitigate the capacity level; if there are significant visitor facilities this will augment the capacity. Reference to visitor numbers at the site during peak periods and similar sites in the United Kingdom provides a measure of what is acceptable at present.

The final calculation is based upon:

- The category of the site as defined earlier (2 /3).
- Proximity to settlements of population within 1 mile.
- Car parking capacity at formal and informal sites within 1mile with a turnover of 2.4 between 9am and 6pm.
- Average annual road counts (AADTC), on feeder roads. The effect is augmented if a road runs through or very close to the visit area.
- Access routes via footpaths.
- Attractions and facilities within 1 mile. Where these are extensive the capacity is increased; where tranquillity is the principal feature capacity is reduced.
- No of days in which increased capacity would not have a significantly adverse influence on the resident population i.e. weekends and school holidays = 164 days. Bank Holidays are assumed to have reached capacity (weather permitting).

Carrying capacity summary sheets - Purbeck Jurassic Coast
White Nothe

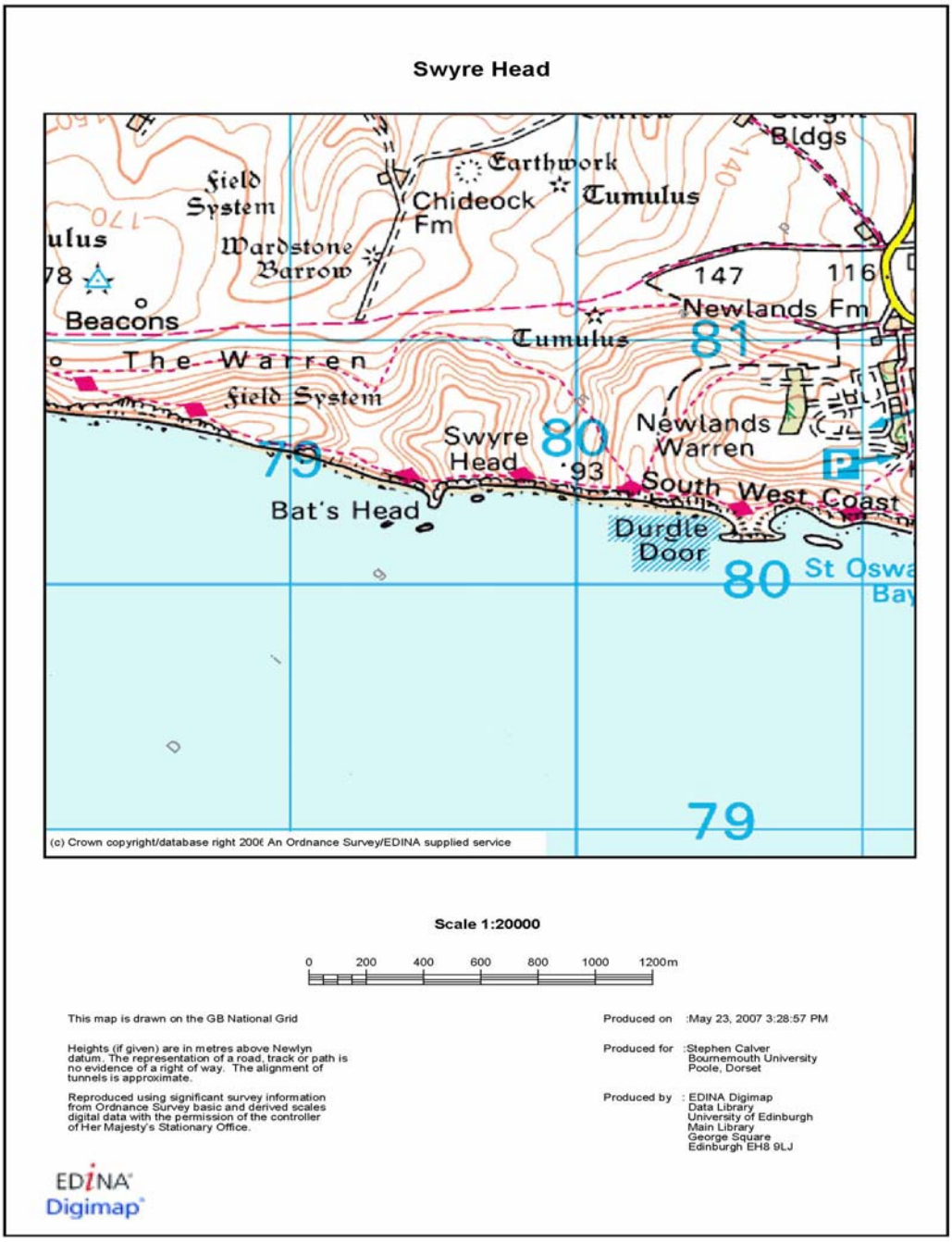


WHITE NOTHE	OS Map Ref	From	To
		SY770808	SY790805
Population within	Miles	Popn	
	1		
	10	191000	Includes Weymouth, Dorchester
Car Parks	Within 1 mile, spaces		
	a.	260	NT car park at Ringstead 1 m to West
	b.	400	Pay car park, Ringstead beach
Informal car parking		30	Villages of W Chaldon, Chaldon Herring
Access roads	To within 2 miles	AADTC	**A**nnual **A**verage **D**aily **T**raffic **C**ounts
	A352	8900	Count at Owermoigne 2001
	B Road		To Holworth footpath 1 mile to coast
	B Road		To W Chaldon footpath 1 mile to coast
Footpaths			LP/Dor 20a/2121a
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	0	3 miles to Pub at Chaldon Herring
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5	0	
Camping Caravan Parks			
Visitor Attraction	10	0	
Exceptional Features	20	0	
Tranquility	20	20	
Archaeology	10	5	Tumuli
Settlement	20	0	
Total	100	25	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	2.5 miles to Osmington X53
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	24000	28000	26000
	Nov to April	12000	18000	15000
	Total			41000

Approximate Capacity Limit	76,752	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Swyre Head, Durdle Door



Durdle Door	OS Map Ref	From	To
		SY790805	SY810802

Population within	Miles	Popn	
	1	220	400 Owner occupied mobile homes at Durdle
	10	50000	
Car Parks	Within 1 mile, spaces		
	a.	400	Visitors to Durdle Door
	b.	400	Mobile homes
Informal car parking			

Access roads	To within 2 miles	AADTC	
	A352	8900	Count at Owermoigne 2001
	B Road		4miles from A352
	Minor road		from Corfe Castle
Footpaths			LP/Dor 20
			Connecting footpath from Chaldon Herring 2m
			Connecting footpath from Lulworth Cove 2m

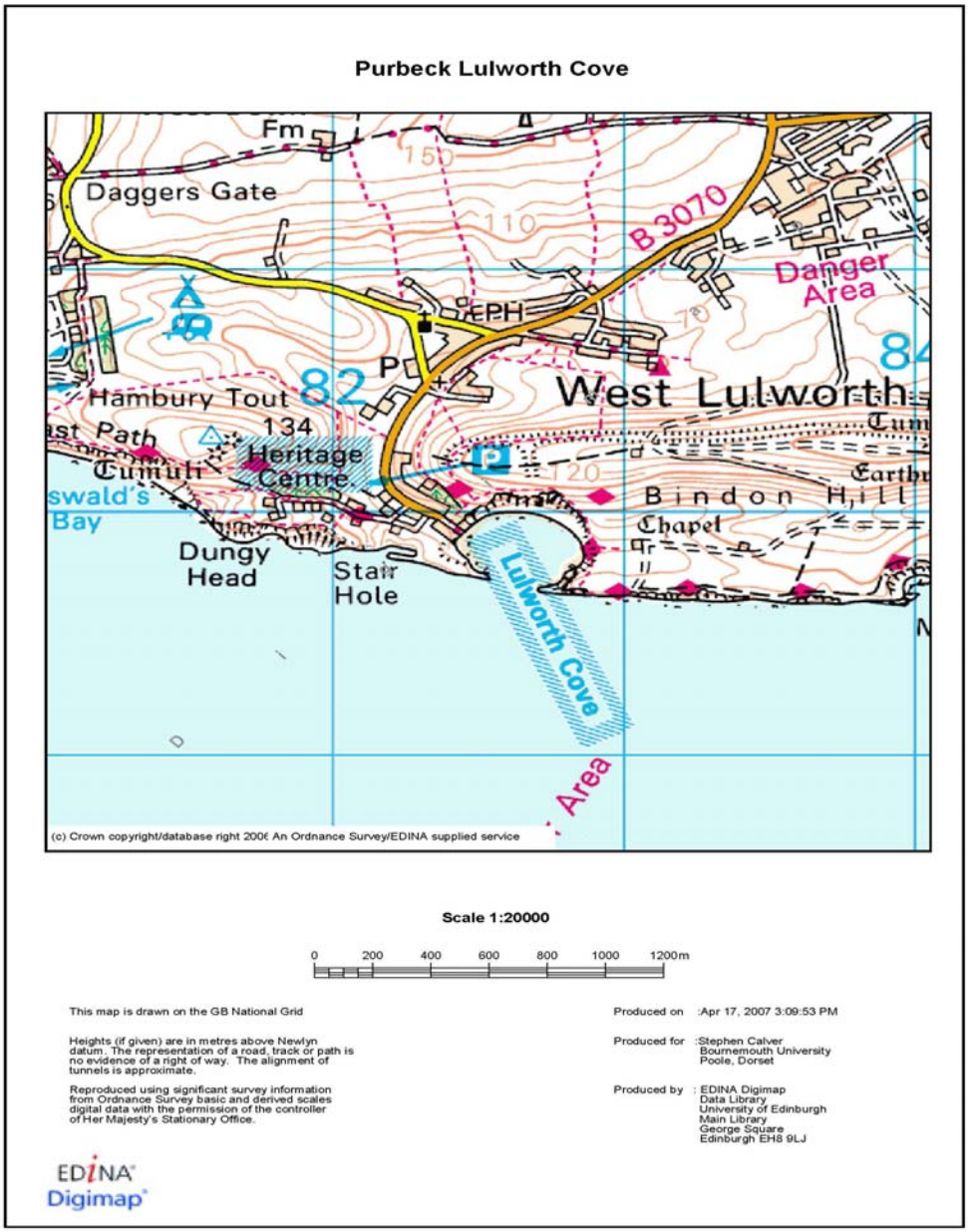
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	2	
Cafes & Tea Shops	5	2	
Shops	5	2	
Hotels & BB	5	5	
Camping Caravan Parks			Mobile holiday homes (30) and camping (100 pitch)
Visitor Attraction	10	0	
Exceptional Features	20	20	The 'Door' plus the beach, swimming
Tranquility	20	5	
Archaeology	10	0	
Settlement	20	5	
Total	100	41	Fragile steps to beach limits capacity

Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	route 103 to Durdle Door
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	93000	142000	117500
	Nov to April	71000	85000	78000
	Total			195500

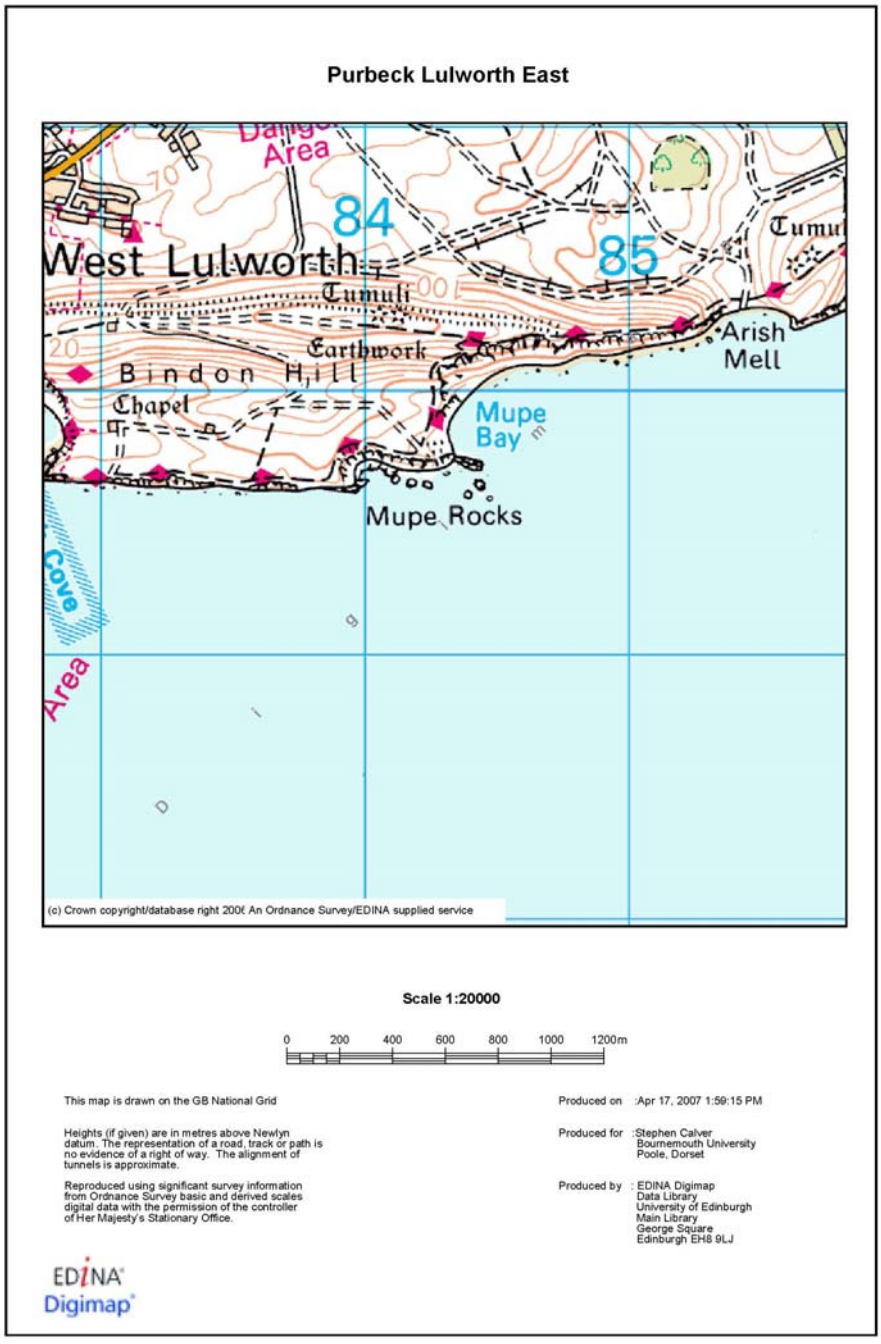
Approximate Capacity Limit	351,160	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity	x			No public access

Lulworth Cove



West Lulworth	OS Map Ref	From	To
		SY810802	SY830797
Population within	Miles	Popn	
	1	550	Includes Lulworth army camp
	10	50000	
Car Parks	Within 1 mile, spaces		
	a.	1000	200 main car park 800 overspill
Informal car parking		150	In village, pub
Access roads	To within 2 miles	AADTC	
	A352	8900	Count at Owermoigne 2001
	B Road		4miles from A352
	B Road		from Corfe Castle
Footpaths			LP/Dor 19/19a
			Connecting footpath from Chaldon Herring 2m
			Connecting footpath from Lulworth Cove 2m
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	Multiple facilities
Cafes & Tea Shops	5	5	Multiple facilities
Shops	5	5	Multiple facilities
Hotels & BB	5	5	Multiple facilities
Camping Caravan Parks			Multiple facilities
Visitor Attraction	10	10	Multiple facilities
Exceptional Features	20	20	Multiple facilities
Tranquility	20	2	East end of cove
Archaeology	10	2	Bindon Abbey remains
Settlement	20	20	Multiple facilities
Total	100	74	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Route 103
	Train	0	
Site category	02-Mar	2,3	
Visitor Numbers		Lower	Upper / Average
	May to Oct	284000	315000 / 299500
	Nov to April	183000	203000 / 193000
	Total		479000
Approximate Capacity Limit	735,840	Nearing capacity	Within capacity / Under Capacity
	Exceeds capacity	x	No public access

Mupe Bay

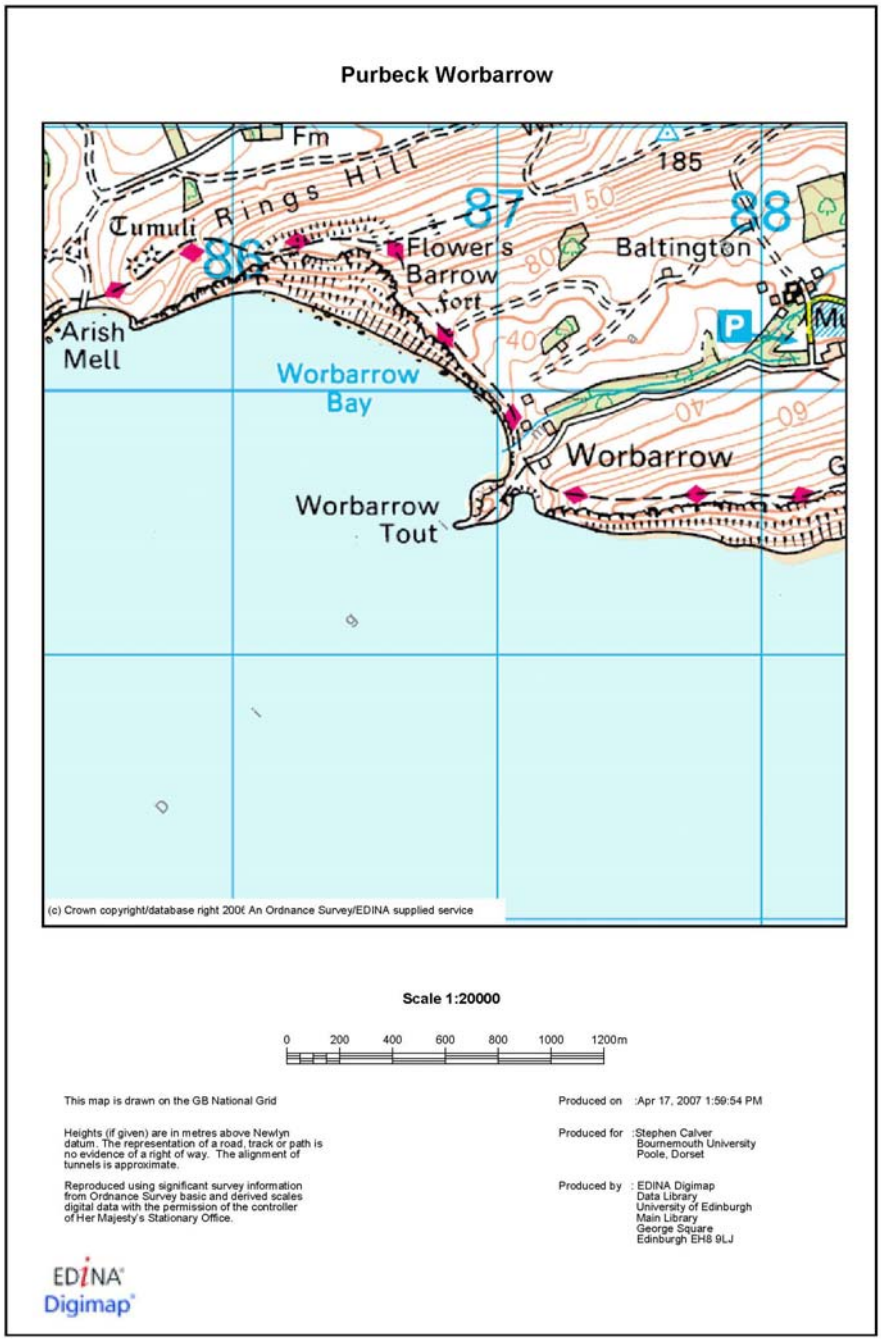

Purbeck Lulworth East
Danger Area
84
85
West Lulworth
Tumuli
Earthwork
Bindon Hill
Chapel
Mupe Bay
Mupe Rocks
Arish Mell
Cove
Area
(c) Crown copyright/database right 200£ An Ordnance Survey/EDINA supplied service
Scale 1:20000
0 200 400 600 800 1000 1200m
This map is drawn on the GB National Grid
Heights (if given) are in metres above Newlyn datum. The representation of a road, track or path is no evidence of a right of way. The alignment of tunnels is approximate.
Reproduced using significant survey information from Ordnance Survey basic and derived scales digital data with the permission of the controller of Her Majesty's Stationary Office.
Produced on :Apr 17, 2007 1:59:15 PM
Produced for :Stephen Calver Bournemouth University Poole, Dorset
Produced by : EDINA Digimap Data Library University of Edinburgh Main Library George Square Edinburgh EH8 9LJ
EDINA Digimap

Mupe Bay	OS Map Ref	From	To
		SY830797	SY850801
Population within	Miles	Popn	
	1	350	
	10	50000	
Car Parks	Within 1 mile, spaces		
Informal car parking		150	In village, pub, YHA Hostel
Access roads	To within 2 miles	AADTC	
	A352	8900	Count at Owermoigne 2001
	B Road		4miles from A352
	B Road		from Corfe Castle
Footpaths			
			Footpaths subject to firing range closure
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	0	
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5	0	
Camping Caravan Parks			
Visitor Attraction	10	0	
Exceptional Features	20	10	Mupe rock and beach
Tranquility	20	20	
Archaeology	10	10	Bindon Abbey remains
Settlement	20	0	
Total	100	40	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	0	
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	23100	25600	24350
	Nov to April	15400	18500	16950
	Total			41300

Approximate Capacity Limit	75,000	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Worbarrow Bay

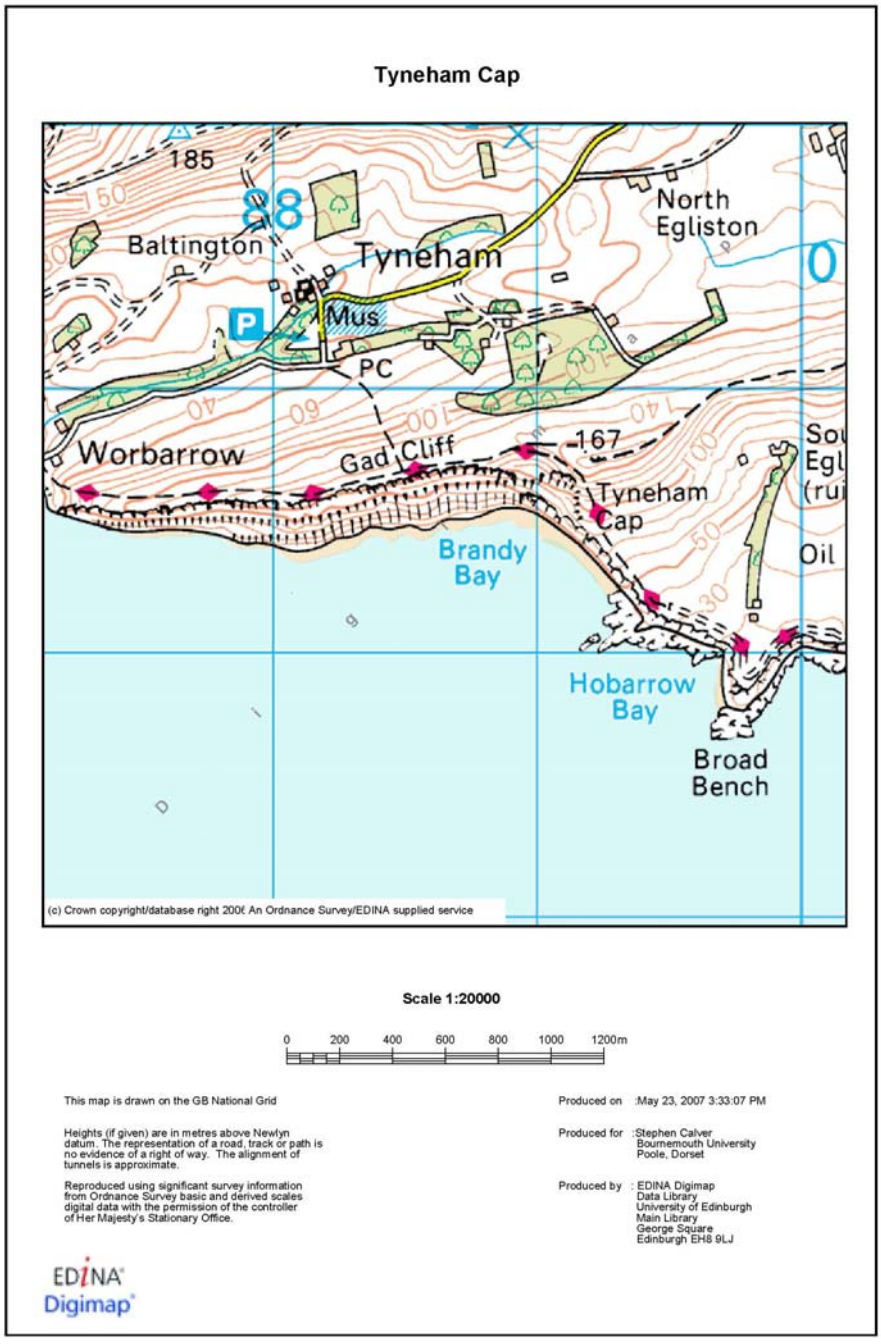


Worbarrow Bay	OS Map Ref	From	To
		SY850801	SY870795
Population within	Miles	Popn	
	1	80	
	10	40000	
Car Parks	Within 1 mile, spaces		
	a.	150	Tyneham village
	b.	80	Whiteways Hill
Informal car parking			
Access roads	To within 2 miles	AADTC	
	A351/352		
	B Road		Connection from A351via Corfe
	Minor road		Subject to range closure
Footpaths			LP/ Dor 18
			Subject to range closure
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	0	
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5	0	
Camping Caravan Parks			
Visitor Attraction	10	10	Beach and Tyneham Village
Exceptional Features	20	20	
Tranquility	20	15	
Archaeology	10	5	Flowers Barrow on ridge
Settlement	20	0	
Total	100	50	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	0	
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	29210	38500	33855
	Nov to April	19500	27500	23500
	Total			57355

Approximate Capacity Limit	90,666	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Wagon Rock, Tyneham Cap

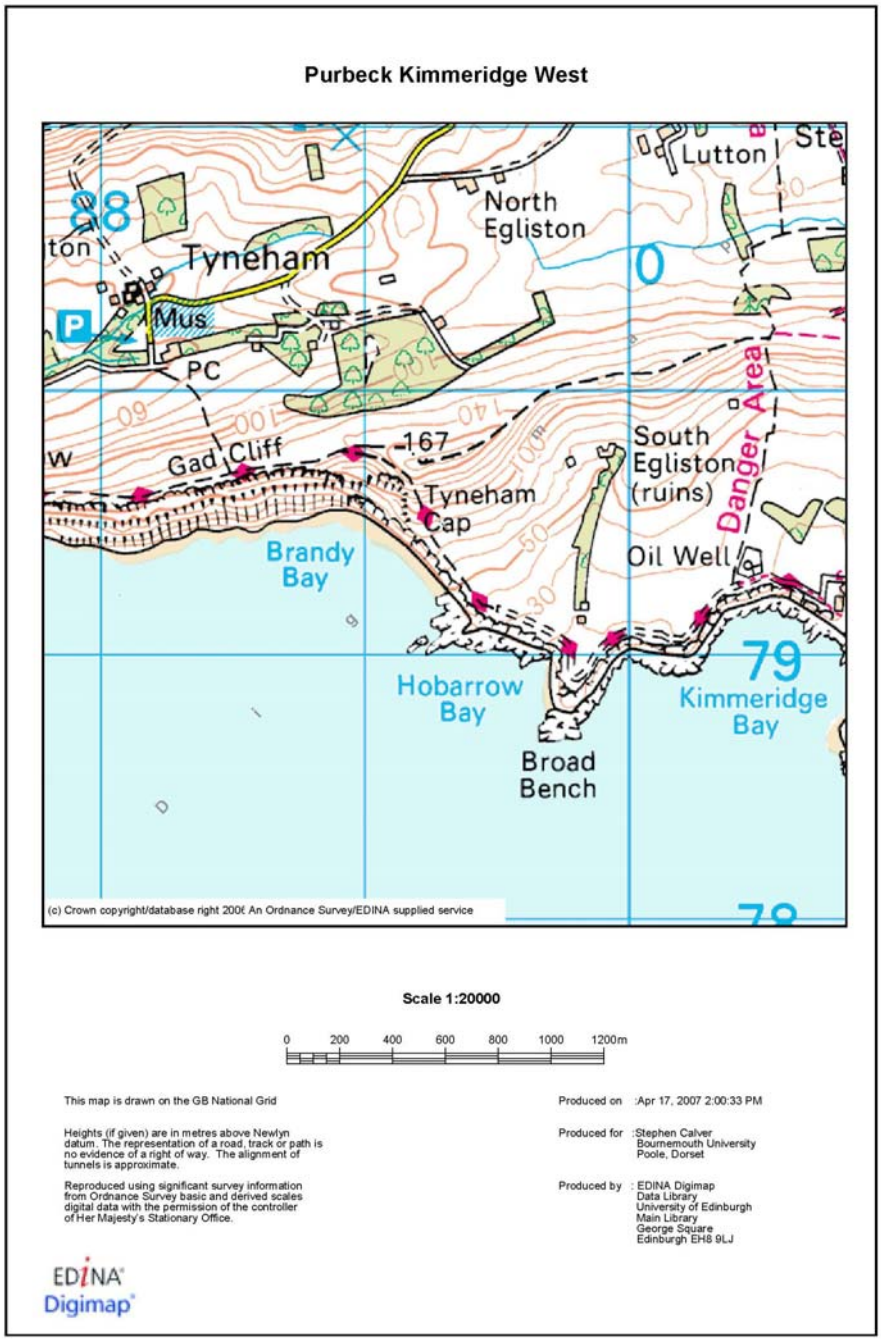


Wagon Rock	OS Map Ref	From	To
		SY870795	SY890795
Population within	Miles	Popn	
	1	80	
	10	40000	
Car Parks	Within 1 mile, spaces		
	a.	150	
Informal car parking			
Access roads	To within 2 miles	AADTC	
	A351/352		
	B Road		Connection from A351via Corfe
	Minor road		Subject to range closure
Footpaths			LP/Dor 17a
			Popular route from Tyneham to Worbarrow
			Tout/ Tyneham Cap along cliff
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	0	
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5	0	
Camping Caravan Parks			
Visitor Attraction	10	10	
Exceptional Features	20	15	
Tranquility	20	15	
Archaeology	10	5	
Settlement	20	0	
Total	100	45	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	0	
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	24500	26200	25350
	Nov to April	17500	19500	18500
	Total			43850

Approximate Capacity Limit	78,840	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Kimmeridge Bay

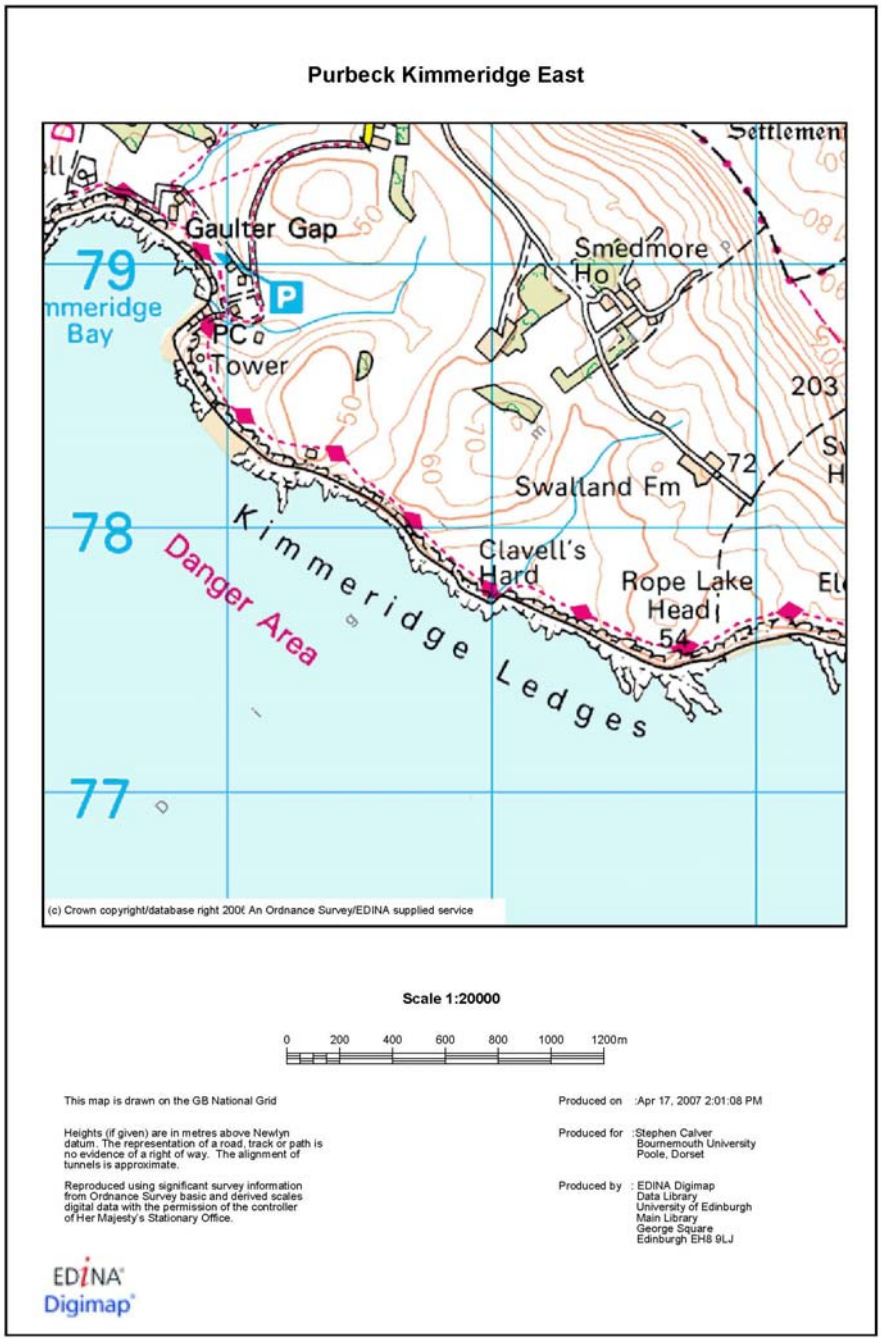


Kimmeridge Bay	OS Map Ref	From	To
		SY890795	SY910784
Population within	Miles	Popn	
	1	300	
	10	42000	
Car Parks	Within 1 mile, spaces		
	a.	1000	On clifftop
		0	In village
Informal car parking		40	
Access roads	To within 2 miles	AADTC	
	A351/352		
	B Road		A351 Link via Corfe Castle
	Minor road		Toll road to beach and cliff
Footpaths			LP/Dor 17/16
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	0	
Cafes & Tea Shops	5	5	
Shops	5	5	
Hotels & BB	5	5	
Camping Caravan Parks			
Visitor Attraction	10	5	Clavells Tower, Beach, Diving, Fishing, BBQs
Exceptional Features	20	10	Oil extraction
Tranquility	20	10	
Archaeology	10	0	
Settlement	20	20	
Total	100	60	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Route 275
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	62500	75200	68850
	Nov to April	42500	52000	47250
	Total			95750

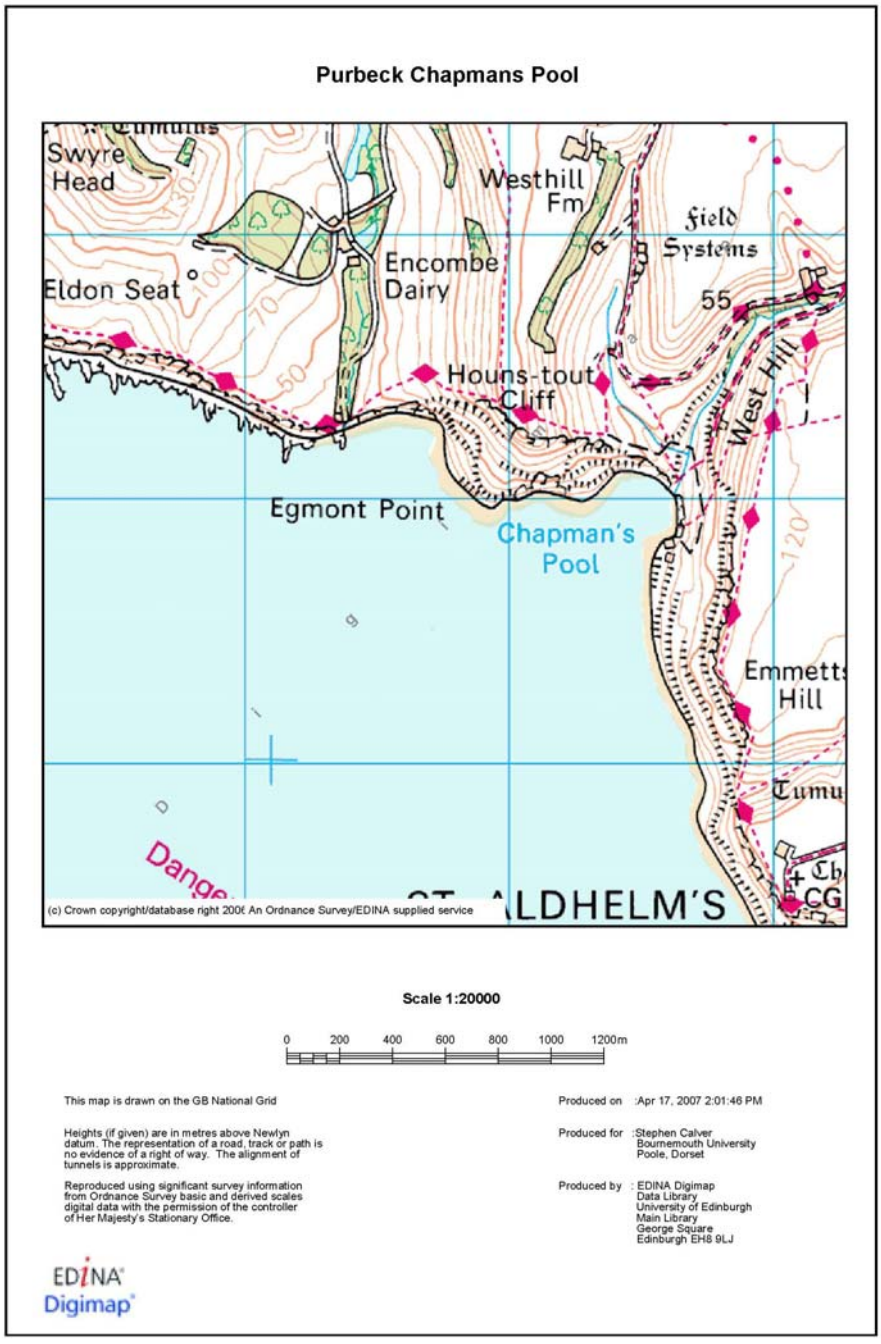
Approximate Capacity Limit	185,000	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Kimmeridge Ledges



Kimmeridge	OS Map Ref		From		To	
Ledges			SY910784		SY930776	
Population within	Miles	Popn				
	1	300				
	10	42000				
Car Parks	Within 1 mile, spaces					
	a.	1000	On clifftop			
Informal car parking	b.	40	In Kimmeridge village			
Access roads	To within 2 miles	AADTC				
	A351/352					
	B Road					
	B Road					
Footpaths			LP/Dor 16			
Attractions/facilities within 1 mile	Weighting	Score				
Pubs and Inns	5	0				
Cafes & Tea Shops	5	0				
Shops	5	0				
Hotels & BB	5	0				
Camping Caravan Parks						
Visitor Attraction	10	0				
Exceptional Features	20	0				
Tranquility	20	20				
Archaeology	10	0				
Settlement	20	0				
Total	100	20				
Public Transport	Yes =x, No = 0					
To within 1 mile	Bus	0				
	Train	0				
Site category	2,3					
Visitor Numbers		Lower	Upper	Average		
	May to Oct	28500	34200	31350		
	Nov to April	15500	19500	17500		
	Total			48850		
Approximate Capacity Limit	65,594	Nearing capacity	Within capacity	Under Capacity		
	Exceeds capacity		x		No public access	

Eldons Seat, Chapmans Pool

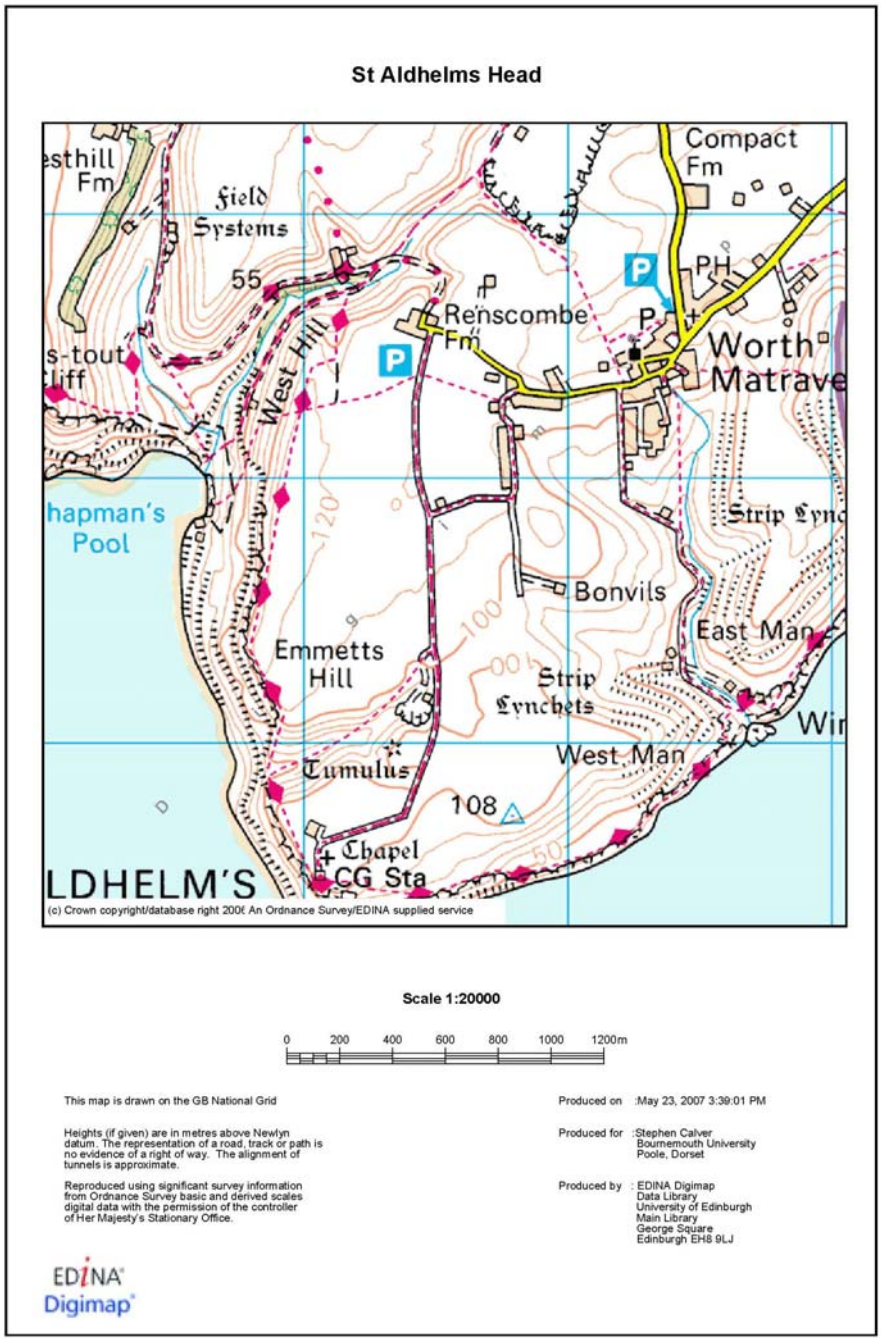


Eldon Seat	OS Map Ref	From	To
		SY930776	SY950770
Population within	Miles	Popn	
	1	350	Includes Kingston village
	10	55000	Within 10 miles of ferry link to Poole
Car Parks	Within 1 mile, spaces		
	a.	40	
	b.	150	Just beyond 1 mile zone
Informal car parking		20	Kingston village
Access roads	To within 2 miles	AADTC	
	A351		
	B3069		Link from Corfe Castle to Kingston
	Minor road		Links Kingston to footpath to coast
Footpaths			LP/Dor 15/15a/15b
			From Kingston to coast 1 mile
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5		Hi proportion of second homes in Kingston
Camping Caravan Parks			
Visitor Attraction	10	0	
Exceptional Features	20	0	Viewpoint at Swyre Wood 0.5m inland
Tranquility	20	20	
Archaeology	10	2	Tumulus Swyre Wood
Settlement	20	10	Kingston 1 mile from east end of area
Total	100	37	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	0	
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	28500	34200	31350
	Nov to April	15500	19500	17500
	Total			48850

Approximate Capacity Limit	82,782	Nearing capacity	Within capacity	Under Capacity	Nearer settlement
	Exceeds capacity		x		No public access

St Aldhelms Head



St Aldhelms Head	OS Map Ref	From	To
		SY950770	SY970754
Population within	Miles	Popn	
	1	350	Worth Matravers
	10	58000	Within 10 miles of Shell Bay/Poole ferry
Car Parks	Within 1 mile, spaces		
	a.	110	In Worth and Renscombe
			Kingston
Informal car parking		10	Village of Worth, Teashop
Access roads	To within 2 miles	AADTC	
	A351	7300	East of Corfe Castle
	B3069		from Corfe to Swanage via Langton
	Minor road		Off B3069 to Worth
Footpaths			LP/Dor 14/15
			From Worth & Kingston
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	Exceptional views, exceptional pub
Cafes & Tea Shops	5	5	
Shops	5	0	
Hotels & BB	5	5	Hi level of 2nd homes in Worth
Camping Caravan Parks			
Visitor Attraction	10	4	Museum in pub, exhibition in teashop
Exceptional Features	20	20	Chapmans Pool, St Aldhelms Chapel
Tranquility	20	20	
Archaeology	10	2	Tumulus
Settlement	20	20	Worth Matravers
Total	100	81	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Route 144
	Train	0	
Site category	2,3		
Visitor Numbers		Lower	Upper / Average
	May to Oct	22600	32500 / 27550
	Nov to April	19500	21800 / 20650
	Total		60350
Approximate Capacity Limit	101,021	Nearing capacity	Within capacity / Under Capacity
	Exceeds capacity		x / No public access

Winspit


Winspit
ompact
m
Matrave
South
Priest's Way
Eastington
Fm
Spyway
Barn
Sea
Spray
Worth
Matravers
Strip Lynchets
Caves
Cave
Dancing Ledge
Seacombe Cliff
Cave
East Man
Winspit
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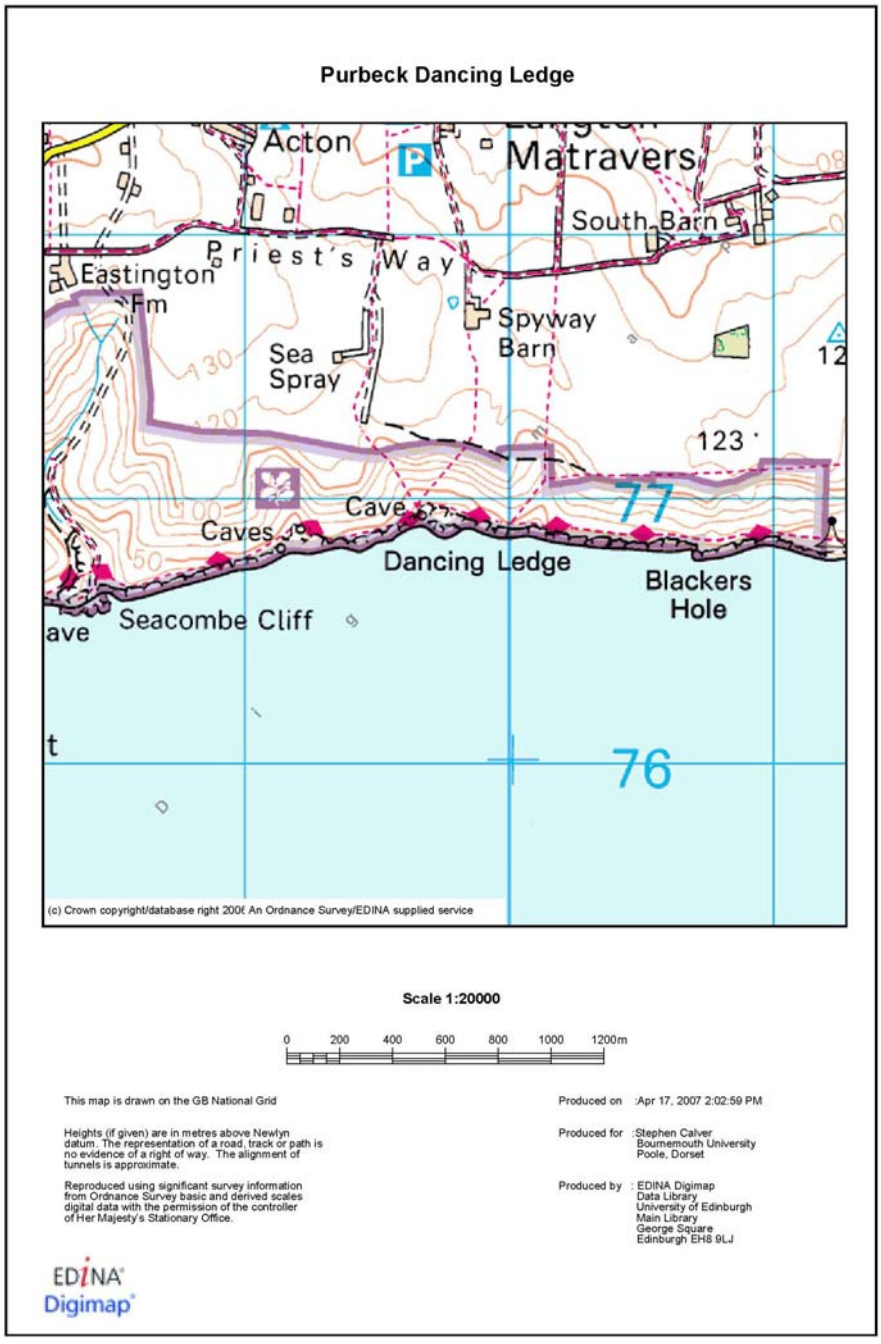
Winspit	OS Map Ref	From	To
		SY970754	SY990768
Population within	Miles	Popn	
	1	330	
	10	58000	Within 10 miles of Shell Bay/Poole ferry
Car Parks	Within 1 mile, spaces		
	a.	110	Worth Matravers
	b.	40	Acton 1 mile from coast path
Informal car parking		6	Worth Matravers
Access roads	To within 2 miles	AADTC	
	A351	7900	East of Corfe Castle
	B3069		from Corfe to Swanage via Langton
	Minor road		Off B3069 to Worth
Footpaths			LP/Dor 13
			Priests Way from Worth/ path to coast
			Direct route Seacombe Bottom
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	Exceptional views, exceptional pub
Cafes & Tea Shops	5	5	
Shops	5	0	
Hotels & BB	5	5	Hi level of 2nd homes in Worth
Camping Caravan Parks			
Visitor Attraction	10	5	Museum in pub, exhibition in teashop
Exceptional Features	20	20	Quarries, bathing
Tranquility	20	10	
Archaeology	10	2	Tumulus
Settlement	20	20	Worth Matravers
Total	100	72	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Route 144
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	41300	45200	43250
	Nov to April	29200	32200	30700
	Total			73950

Approximate Capacity Limit	106,591	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity	x			No public access

Dancing Ledge



Dancing Ledge	OS Map Ref	From	To
		SY990768	SY010769

Population within	Miles	Popn	
	1	350	Langton Matravers, Swanage 2 miles
	10	75000	Within 10 miles of Shell Bay/Poole ferry

Car Parks	Within 1 mile, spaces		
	a.	41	Durnford Drove car park, Langton
Informal car parking		20	In Durnford Drove

Access roads	To within 2 miles	AADTC	
	A351	7900	East of Corfe Castle
	B3069		from Corfe to Swanage via Langton
	Minor road		Off B3069 to Worth
Footpaths			LP/Dor 11/12

Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	2	In Langton
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5	3	
Camping Caravan Parks			
Visitor Attraction	10	4	Information in Spyway Barn
Exceptional Features	20	15	Dancing ledge and swimming pool
Tranquility	20	15	
Archaeology	10	0	
Settlement	20	5	
Total	100	44	

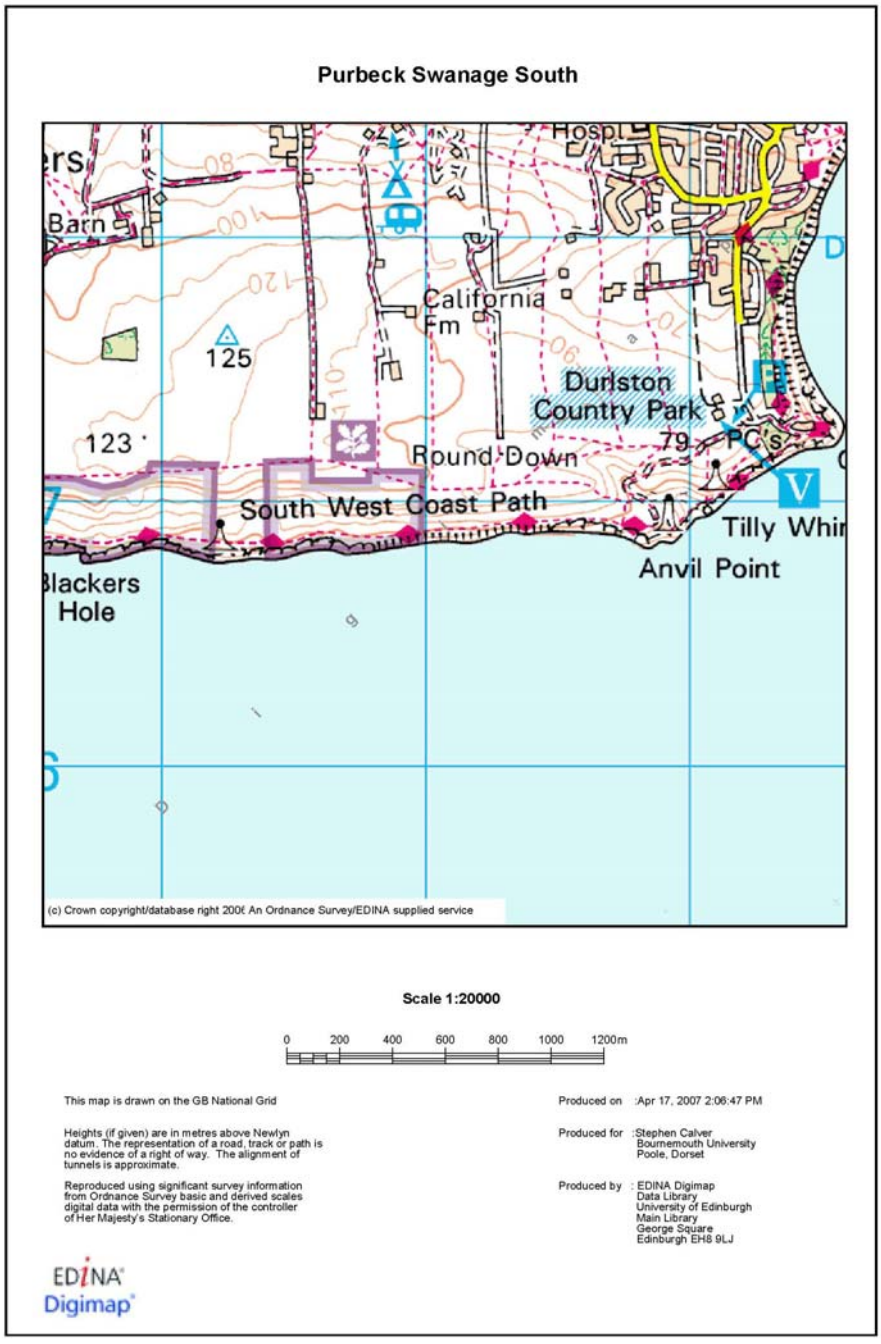
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Routes 142,143,144
	Train	0	

Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	28400	32500	30450
	Nov to April	18500	20500	19500
	Total			60350

Approximate Capacity Limit	96184	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Anvil Point


Purbeck Swanage South
Barn
California Fm
125
123
Durlston Country Park
79
PCs
Round Down
South West Coast Path
Tilly Whir
Anvil Point
Blackers Hole
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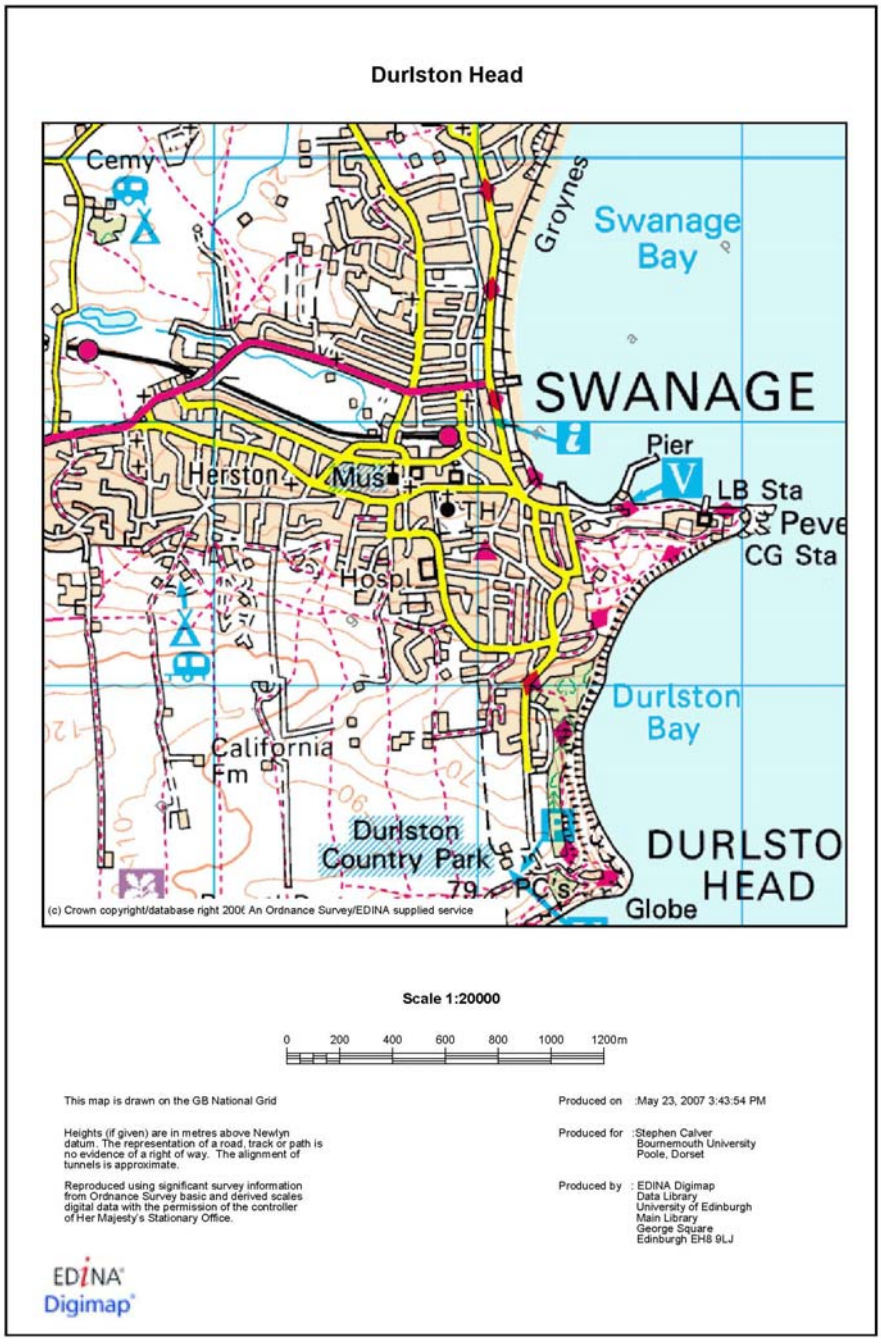
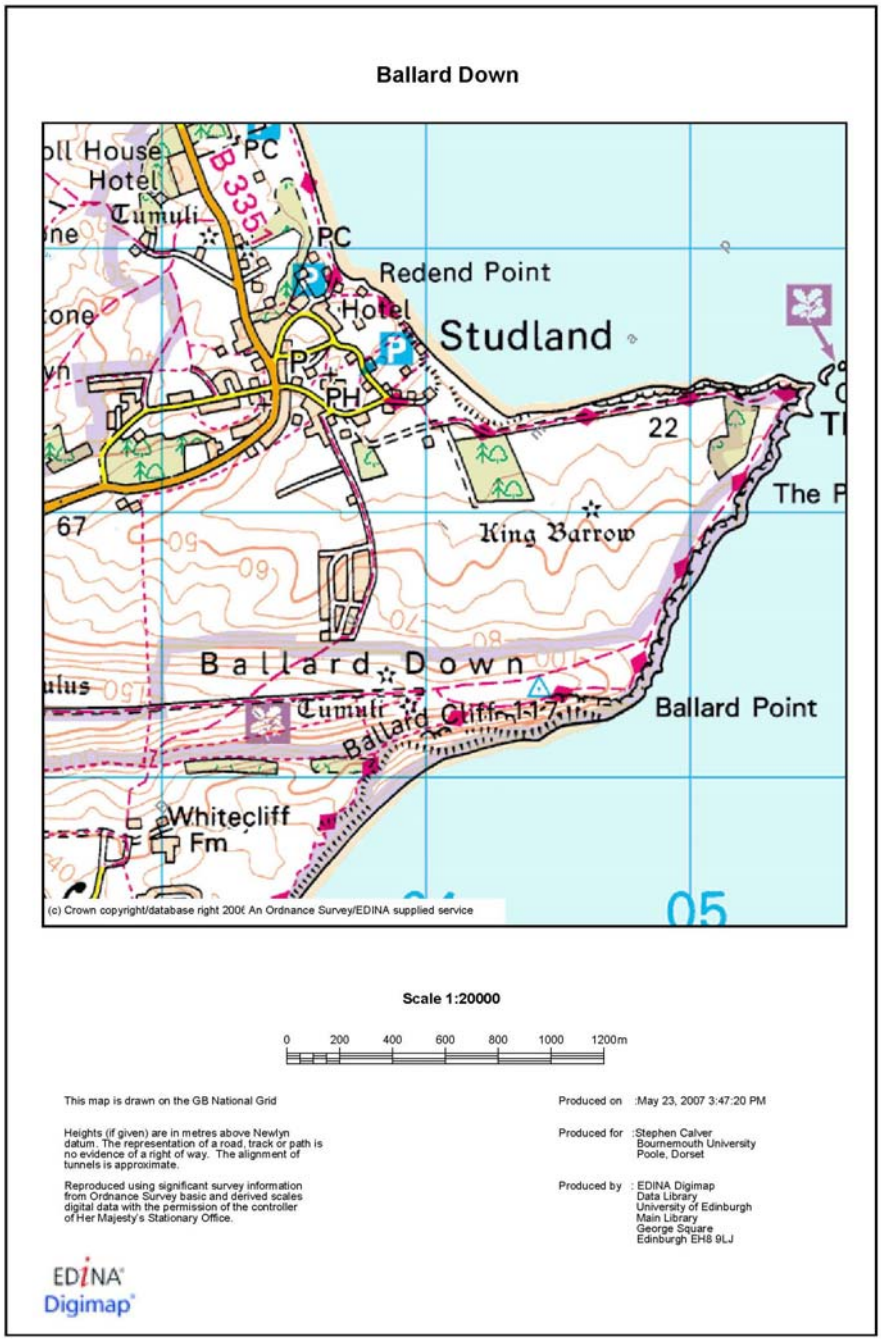
Anvil Point	OS Map Ref	From	To
		SY010769	SY030769
Population within	Miles	Popn	
	1	6200	Swanage South
	10	78000	Within 10 miles of Shell Bay/Poole ferry
Car Parks	Within 1 mile, spaces		
	a.	140	Durlston Country Park
Informal car parking		100	On road parking Swanage
Access roads	To within 2 miles	AADTC	
	A351	7900	To Swanage and Durlston Head car park
	Urban route		Through Swanage
Footpaths			LP/Dor 10
			Numerous footpaths from Swanage
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	
Cafes & Tea Shops	5	5	
Shops	5	5	
Hotels & BB	5	5	
Camping Caravan Parks			
Visitor Attraction	10	10	Museums and visitor facilities in Swanage
Exceptional Features	20	5	Quarries in the locality
Tranquility	20	10	
Archaeology	10	0	
Settlement	20	20	Swanage
Total	100	65	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Buses to Swanage from Bournemouth/Poole
	Train	x	Steam Train Norden to Swanage
Site category	2,3		
Visitor Numbers		Lower	Upper / Average
	May to Oct	38500	44500 / 41500
	Nov to April	29500	32500 / 31000
	Total		72500
Approximate Capacity Limit	94,608	Nearing capacity	Within capacity / Under Capacity
	Exceeds capacity		x / No public access

Durlston Head, Peveril Point



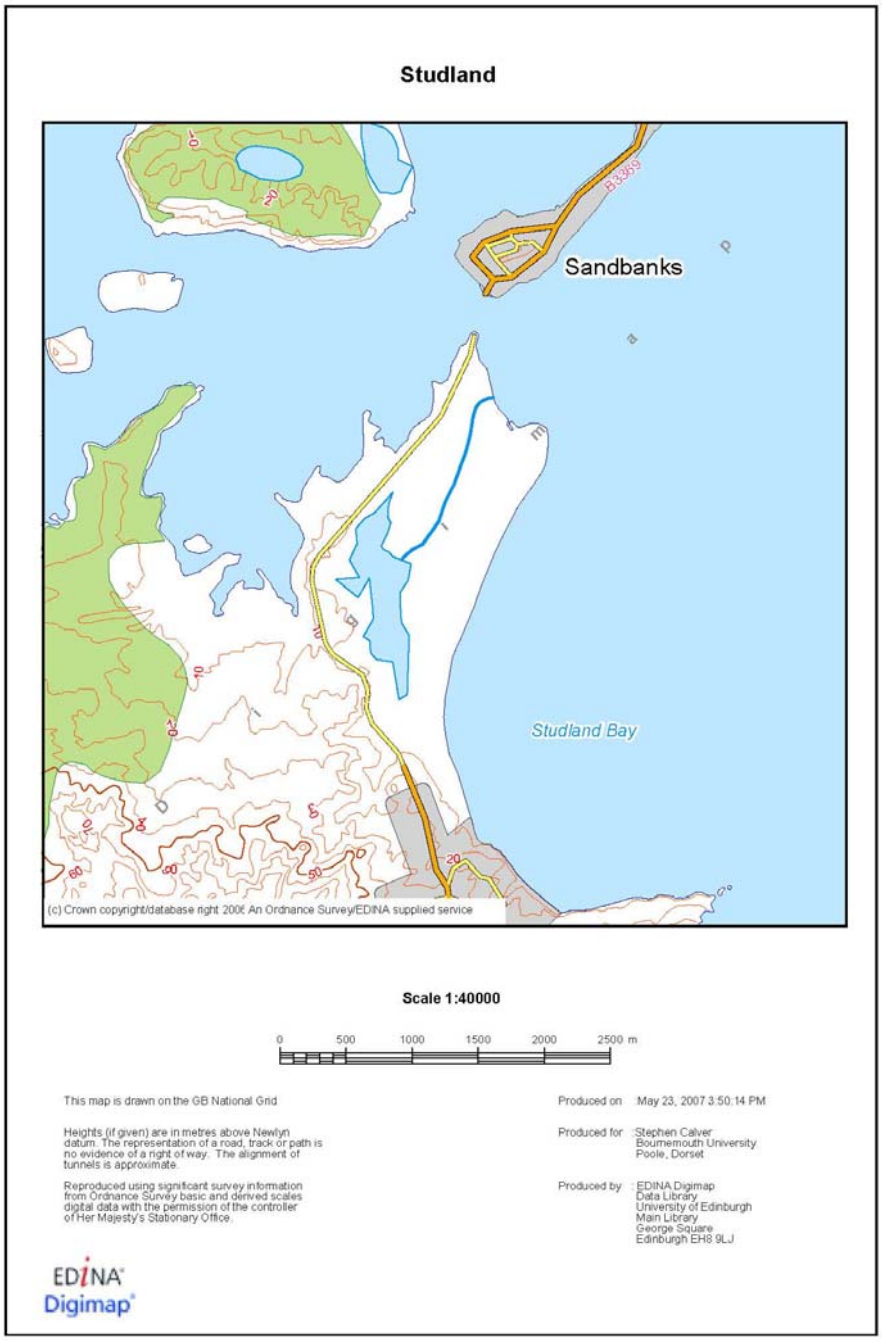
Durlston Head to	OS Map Ref		From		To	
Peveril Point			SY030769		SY040786	
Population within	Miles	Popn				
	1	6200	Swanage South			
	10	78000	Within 10 miles of Shell Bay/Poole ferry			
Car Parks	Within 1 mile, spaces					
	a.	140	Durlston Head			
	b.	800	In Swanage			
Informal car parking		150	On road in Swanage			
Access roads	To within 2 miles	AADTC				
	A351	7900	To Swanage and Durlston Head car park			
	Urban route		Through Swanage			
Footpaths			LP/Dor 6/8/9/10			
Attractions/facilities within 1 mile	Weighting	Score				
Pubs and Inns	5	5				
Cafes & Tea Shops	5	5				
Shops	5	5				
Hotels & BB	5	5				
Camping Caravan Parks						
Visitor Attraction	10	10				
Exceptional Features	20	20				
Tranquility	20	5				
Archaeology	10	0				
Settlement	20	20				
Total	100	75				
Public Transport	Yes =x, No = 0					
To within 1 mile	Bus	x	Buses to Swanage from Bournemouth/Poole			
	Train	x	Steam Train Norden to Swanage			
Site category	2,3					
Visitor Numbers		Lower	Upper	Average		
	May to Oct	342000	425000	383500		
	Nov to April	147000	202000	174500		
	Total			558000		
Approximate Capacity Limit	838,721	Nearing capacity	Within capacity	Under Capacity		
	Exceeds capacity		x			No public access

Old Harry, Ballard Down



Ballard Down to	OS Map Ref		From		To	
Old Harry			SY040786		SY055825	
Population within	Miles	Popn				
	1	5200	Swanage North and Studland			
	10	350000	Within 10 miles of Shell Bay/Poole ferry			
Car Parks	Within 1 mile, spaces					
	a.	1400	South Beach Studland 1 mile +			
	b.	150	Swanage North			
Informal car parking		100	On road parking Swanage			
Access roads	To within 2 miles	AADTC				
	A351	7900				
	Urban route					
Footpaths			LP/Dor 5/5/6			
Attractions/facilities within 1 mile	Weighting	Score				
Pubs and Inns	5	5	Studland and Swanage			
Cafes & Tea Shops	5	5	Studland and Swanage			
Shops	5	5	Studland and Swanage			
Hotels & BB	5	5	Studland and Swanage			
Camping Caravan Parks						
Visitor Attraction	10	10				
Exceptional Features	20	20	Old Harry Rocks (Handfast Point), Ballard Down			
Tranquility	20	10				
Archaeology	10	4	Tumulus			
Settlement	20	20	Swanage, Studland			
Total	100	84				
Public Transport	Yes =x, No = 0					
To within 1 mile	Bus	x	Buses to Swanage from Bournemouth/Poole			
	Train	x	Steam Train Norden to Swanage			
Site category	2,3					
Visitor Numbers		Lower	Upper	Average		
	May to Oct	215200	258700	236950		
	Nov to April	152000	178000	165000		
	Total			401950		
Approximate Capacity Limit	779,328	Nearing capacity	Within capacity	Under Capacity		
	Exceeds capacity		x			No public access

Studland Area

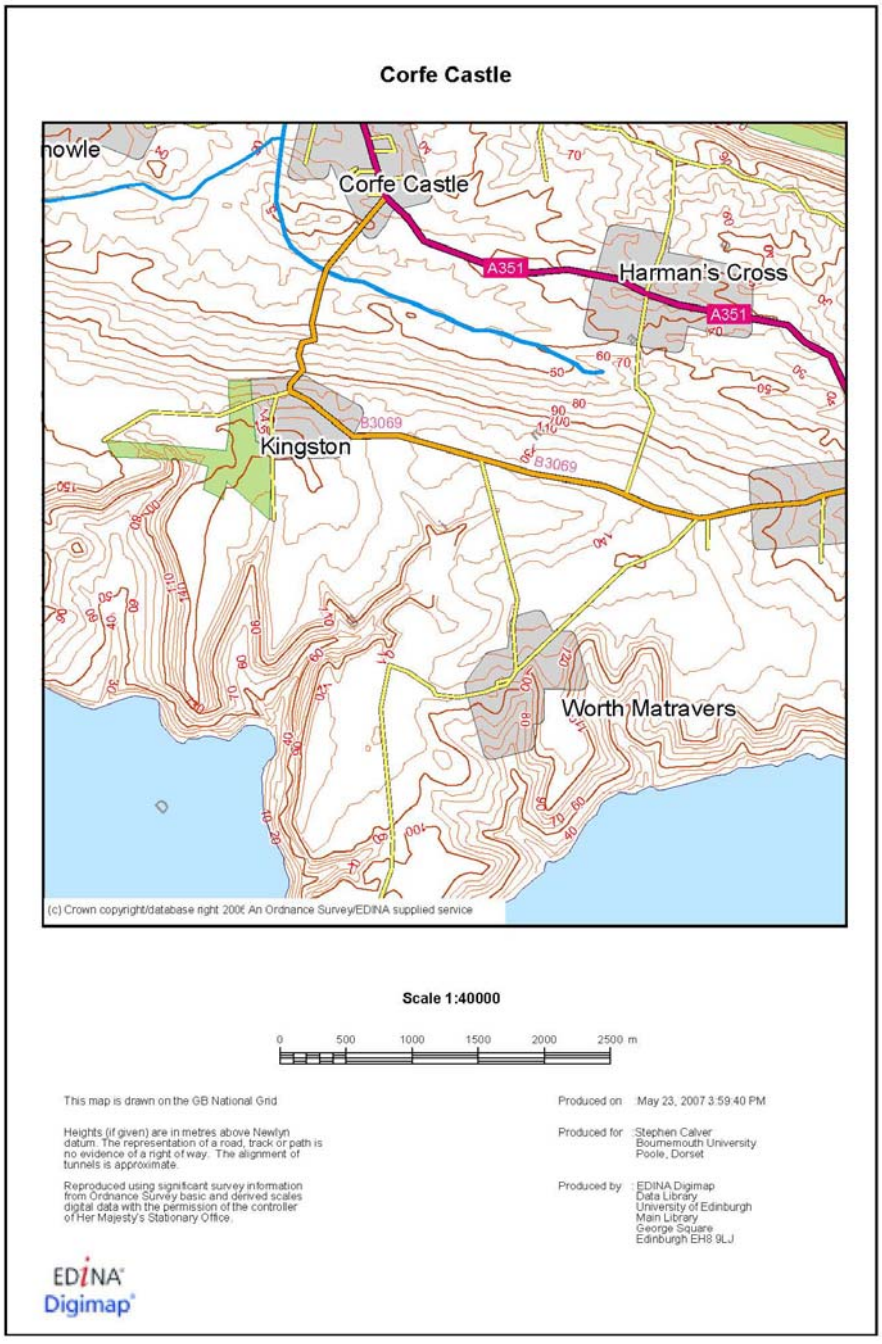


Studland	OS Map Ref	From	To
		SY055825	SY036867
Population within	Miles	Popn	
	1	5200	Swanage North and Studland
	10	350000	Within 10 miles of Shell Bay/Poole ferry
Car Parks	Within 1 mile, spaces		
	a.	1100	Knoll Beach
	b.	450	Middle Beach
	c.	605	Shell Bay, South Beach
Informal car parking		150	On road
Access roads	To within 2 miles	AADTC	
	A351	7900	East of Corfe
	B3351	1980	Corfe to Studland
	Ferry		To ferry
Footpaths			LP/Dor 1/2/3
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	
Cafes & Tea Shops	5	5	
Shops	5	5	
Hotels & BB	5	5	
Camping Caravan Parks			
Visitor Attraction	10	10	Beaches
Exceptional Features	20	20	Dunes
Tranquility	20	10	
Archaeology	10	0	
Settlement	20	10	Studland
Total	100	70	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	0	
	Train	0	
Site category	2,3		

Visitor Numbers		Lower	Upper	Average
	May to Oct	475800	525600	500700
	Nov to April	345000	385000	365000
	Total			865700

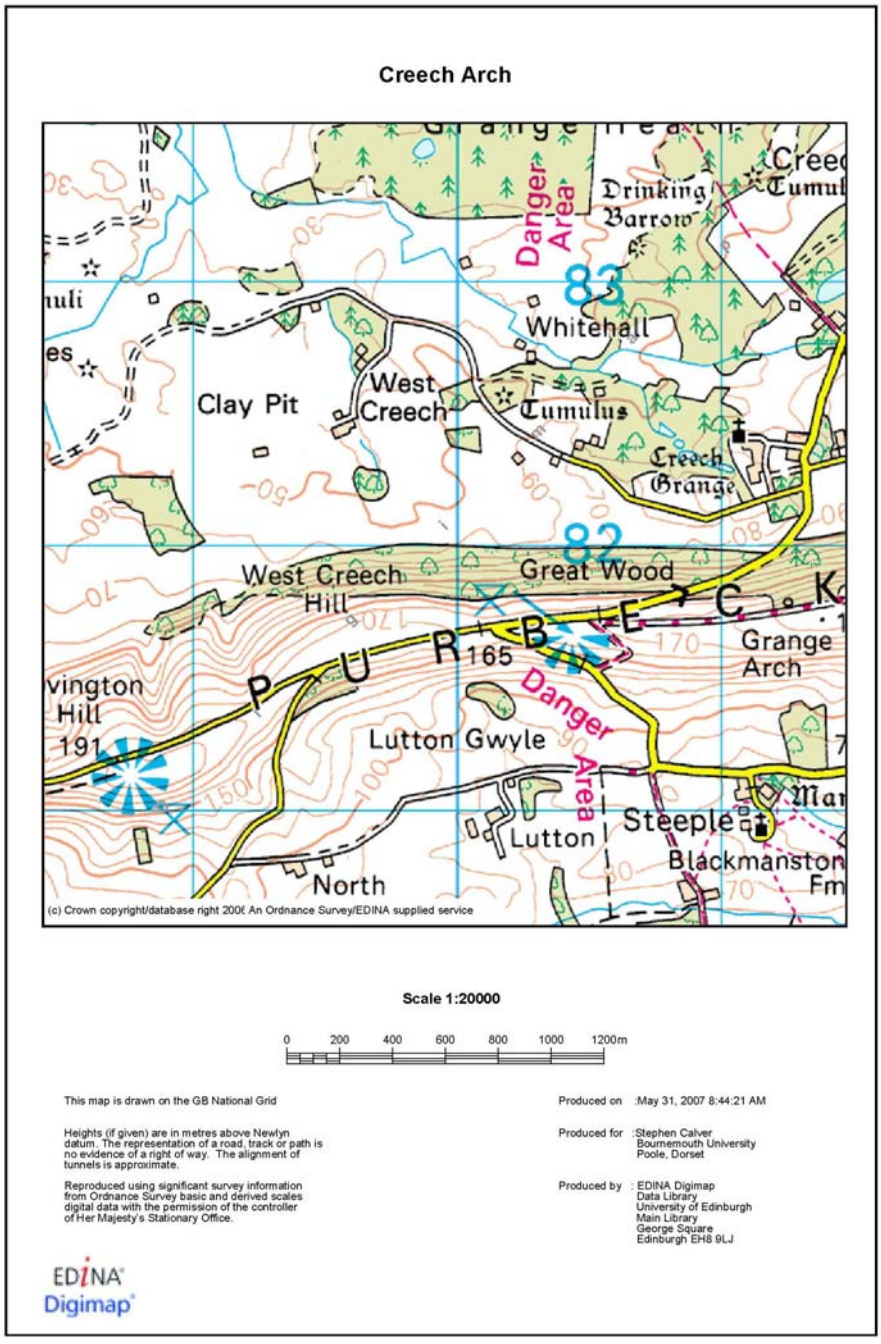
Approximate Capacity Limit	1,360,872	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity	x			No public access

Corfe Castle



Corfe Castle	OS Map Ref	From	To
	SY959824		
Population within	Miles	Popn	
	1	1500	
	10	40000	
Car Parks	Within 1 mile, spaces		
	a.	160	
	b.	345	
Informal car parking		60	On road
Access roads	To within 2 miles	AADTC	
	A351	7300	East of Corfe
Footpaths			
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	5	
Cafes & Tea Shops	5	5	
Shops	5	5	
Hotels & BB	5	5	
Camping Caravan Parks			
Visitor Attraction	10	10	Corfe Castle visitor centre
Exceptional Features	20	20	
Tranquility	20	5	
Archaeology	10	10	
Settlement	20	20	Corfe village
Total	100	85	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	x	Buses to Swanage from Bournemouth/Poole
	Train	x	Steam Train Norden to Swanage
Site category			
Visitor Numbers		Lower	Upper / Average
	May to Oct	450000	495000 / 472500
	Nov to April	183000	245000 / 214000
	Total		686500
Approximate Capacity Limit	877,166	Nearing capacity	Within capacity / Under Capacity
	Exceeds capacity	x	No public access

Creech Arch


Creech Arch
Danger Area
Drinking Barrow
Creech Tumul
83
Whitehall
Clay Pit
West Creech
Tumulus
Creech Grange
82
West Creech Hill
Great Wood
PURBECK
165
Grange Arch
Danger Area
Lutton Gwyle
Lutton
Steeple
Blackmanston Fm
North
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0 200 400 600 800 1000 1200m
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Creech Arch	OS Map Ref	From	To
	SY912819		
Population within	Miles	Popn	
	1	300	
	10	40000	
Car Parks	Within 1 mile, spaces		
	a.	126	
Informal car parking			
Access roads	To within 2 miles	AADTC	
	A351	7900	
	B3070		
	Minor road		
Footpaths			Footpath along Purbeck Hills
Attractions/facilities within 1 mile	Weighting	Score	
Pubs and Inns	5	0	
Cafes & Tea Shops	5	0	
Shops	5	0	
Hotels & BB	5	0	
Camping Caravan Parks			
Visitor Attraction	10	0	
Exceptional Features	20	15	View to coast, Creech Arch, view to Creech Grange
Tranquility	20	15	
Archaeology	10	0	
Settlement	20	0	
Total	100	30	
Public Transport	Yes =x, No = 0		
To within 1 mile	Bus	0	
	Train	0	
Site category	2		

Visitor Numbers		Lower	Upper	Average
	May to Oct	27400	32500	29950
	Nov to April	15500	19500	17500
	Total			47450

Approximate Capacity Limit	82,782	Nearing capacity	Within capacity	Under Capacity	
	Exceeds capacity		x		No public access

Key Capacity Indicators – Purbeck

			Purbeck	Dorset	Management Plan Objectives	Notes
Purbeck Economic						
Purbeck working age population	2005		25800		3	
Purbeck Employment growth	1993-2003 % change		25%		3	General growth in employment; public services, manufacturing
Purbeck Average gross weekly wage			397	402	3	Lower than Dorset average weekly pay
Purbeck % Employed in DH&R	2003		22%	29%	3	Lower proportion employed in DH&R in Purbeck than Dorset
Purbeck % Change Employed in DH&R	1993-2005		-8%		3	Further drop of -1% 2003-2007
					3	
Purbeck commuting flow total in/out	1991-2001 %change		15.60%		3	Significant increase in road use by residents and those commuting to Purbeck
					3	
AADTC A351 Stoborough (15)	1999-2005 %change		3%		3	High proportion of this traffic passes through Wareham town
AADTC A351 Harmans Cross (Site 359)	1999-2005 % change		5%		3	Traffic to and from Swanage & east end of Purbeck JWHS
AADTC B3390 Crossways (355)	1999-2005 %change		8%		3	Connecting road A35 to west end of Purbeck JWHS
AADTC A352 Owermoigne (10)	1999-2005 %change		3%		3	On A352 connecting east, west Wareham to Dorchester 10 miles parallel to coast
AADTC Wareham By Pass (1033)	1999 count		9100		3	Traffic from main route from east, Bournemouth and beyond
AATC B3071 W Lulworth	1999 count		1000		3	Traffic from A352 Wool
Sandbanks/Swanage Ferry	2001 -2005 % change		7%		3	Traffic both ways
Key Bus routes % change			20%		3	
					3	
Cumulative visits to coastal zone attractions	2000-2005 % change		3%		3	No significant change in visitors to coastal zone attractions
Change Number Trips millions			-6	14	3	
Change Number of nights millions			-21	-15%	3	Overall reduction in tourism activity in Purbeck and Dorset
Change Number of Day Trips millions	1995-2005		-20	-7%	3	

Demographics	**1991**	**2001**		Management Plan Objectives	Notes
Change in Coastal Zone Population				2,3	
Castle	1814	1969		2,3	
Creech	1684	1851		2,3	
Langton	1515	1617		2,3	
St Martin	2536	2752		2,3	
Swanage	9036	10124		2,3	
Wareham	5657	5665		2,3	
West Purbeck	1589	1513		2,3	
Winfrith	1643	1616		2,3	
Wool	4431	4118		2,3	
TOTAL	29905	31225		2,3	
Change %		4%		2,3	
Number of Second Homes				2,3	
Castle		83		2,3	
Creech		44		2,3	
Langton		113		2,3	
St Martin		11		2,3	
Swanage		190		2,3	
Wareham		349		2,3	
West Purbeck		26		2,3	
Winfrith		45		2,3	
Wool		35		2,3	
Ranking of 2nd homes		896		2,3	11th in national ranking of number of second homes 8% of households in coastal zone compared to 7% in Purbeck

Economically active	1991	2001		Management Plan Objectives	
Castle	803	923		2,3	
Creech	789	898		2,3	
Langton	625	700		2,3	
St Martin	1221	1279		2,3	
Swanage	3587	4095		2,3	
Wareham	2751	2791		2,3	
West Purbeck	874	763		2,3	
Winfrith	800	859		2,3	
Wool	2185	1942		2,3	
TOTAL	13635	14250		2,3	
Change%		4%		2,3	

Residents			Purbeck	Dorset	Management Plan Objectives	
Per capita dependence on tourism	2001		0.03		3	An indication that Purbeck is not yet 'Tourism Saturated' but is 'Tourism Realised'
					3	
%Residents awareness of WHS	2006		98%		3	
%Most important feature of living in your area - The Coast			75%		3	
%Increase in tourism would benefit the economy of Purbeck	2006 Strongly Agree		18%		3	
%My quality of life is detrimentally affected by tourism in Purbeck	2006 Strongly Agree		11%		3	
%Journey times increase a lot during summer	2006 Strongly Agree		50%		3	
%I feel tourism is important to the Purbeck economy	2006 Strongly Agree		32%		3	
%Roads Spring Autumn	2006 Significantly exceeding capacity +Exceeding capacity		22%		3	
%Roads Summer	2006 Significantly exceeding capacity +Exceeding capacity		71%		3	
% Roads Winter	2006 Significantly exceeding capacity +Exceeding capacity		13%		3	

Visitors			Purbeck	Dorset	Management Plan Objectives	
% Activities	Coastal Walk		84%	76%	1,2	
% Segment	Short Break		19%	22%	1,2	
% Segment	Post' Family		16%	35%	1,2	
% Segment	Interest Geotourism		5%		1,2	
% Segment	Overseas visitors		8%	11%	1,2	
% Segment	Education holidays		2%	1%	1,2,4	
% Segment	Long holidays (Over 7 nights)		29%	27%	1,2	
% Segment	Short breaks Pre Family		16%	7%	1,2	
% Segment	Watersports coastal pursuits		17%		1,2,4	

			Purbeck	**Dorset**	**Purbeck rating compared to Dorset**	Management Plan Objectives
Visitors Rating (Average Scores) 5=Excellent, 1=Very Poor						
Quality of accommodation			4.4	4.53	-0.14	1,2,3,4
Availability of accommodation			4.45	4.63	-0.18	1,2,3,4
Tourist Information: Staff Friendliness			4.65	4.65	0	1,2,3,4,
Tourist Information: Range of information			4.71	4.64	0.07	1,2,3,4,6
Provision of information boards			4.29	4.16	0.13	1,2,3,4,5,6
Signposting to town and villages			4.1	4.06	0.04	1,2,3,4,5
Signposting to visitor attractions			4.24	4.23	0.01	1,2,3,4,5
Pedestrian signposting			4.12	4.05	0.08	1,2,3,4,5
Availability of car parking			3.98	4.15	-0.17	1,2,3,4,5
Cost of car parking			2.95	3.23	-0.27	1,2,3,4,5
Provision of public transport			3.98	3.68	0.3	1,2,3,4,5
Provision of cycle routes			3.9	4.21	-0.31	1,2,3,4,5
Provision of footpaths			4.34	4.44	-0.09	1,2,3,4,5
Provision of Public toilets			3.59	3.75	-0.16	1,2,3,4,5,
Shops			4.07	4.28	-0.21	1,2,3,4,5
Places to eat and drink			4.17	4.4	-0.23	1,2,3,4,5
Service received			4.34	4.41	-0.07	1,2,3,4,5
Places to visit			4.61	4.65	-0.04	1,2,3,4,5
Cleanliness of the countryside			4.4	4.34	0.05	1,2,3,4,5
Cleanliness of the beach			4.54	4.5	0.05	1,2,3,4,5,

Marketing			Purbeck	Dorset	Management Plan Objectives	
% Most influential in making trip	Previous Visit		53%	46%	4,6	
% Most influential in making trip	Media promotion		1%	3%	4,6	
% Rating	Car Parking Availability V Good + Good		71%	74%	4,6	
	Area	**Capacity**	**Current Visitor Numbers**			
Purbeck Jurassic Coast	White Nothe	76752	41000		1,2,3,6	
	Durdle Door	351160	195500		1,2,3,6	
	W Lulworth	735840	479000		1,2,3,6	
	Mupe Bay	75000	41300		1,2,3,6	
	Worbarrow Bay	90666	57355		1,2,3,6	
	Wagon Rock	78840	43850		1,2,3,6	
	Kimmeridge Bay	185000	95750		1,2,3,6	
	Kimmeridge Ledges	65594	48850		1,2,3,6	
	Eldon Seat	82782	48850		1,2,3,6	
	St Aldhelms Head	101021	60350		1,2,3,6	
	Winspit	106591	73950		1,2,3,6	
	Dancing Ledge	96184	60350		1,2,3,6	
	Anvil Point	94608	72500		1,2,3,6	
	Durlston Head	838721	558000		1,2,3,6	
	Old Harry	779328	401950		1,2,3,6	
	Studland	1360872	865700		1,2,3,6	
	Corfe Castle	877166	686500		1,2,3,6	
	Creech Arch	82782	47450		1,2,3,6	

Appendix I

As noted several visitor management frameworks have been developed.

This appendix gives further information on the following:
i. Limits of Acceptable Change (LAC) 1995
ii. Visitor Impact Management (VIM) 1996
iii.Visitor Experience and Resource Protection (VERP) 1997
iv Visitor Activity Management Process (VAMP) 1998
v. The Recreation Opportunity Spectrum (ROS) 1999
vi The Tourism Optimisation Management Model (TOMM) 1997

i.i Limits of Acceptable Change (LAC)

Developed by researchers working for the U.S. Forest Service in response to concerns about the management of recreation impacts. The process identifies appropriate and acceptable resource and social conditions and the actions needed to protect or achieve those conditions.

Steps of the process: A nine-step process, normally illustrated as a circle of steps:
1. Identify area concerns and issues.
2. Define and describe opportunity classes (based on the concept of ROS).
3. Select indicators of resource and social conditions.
4. Inventory existing resource and social conditions.
5. Specify standards for resource and social indicators for each opportunity class.
6. Identify alternative opportunity class allocations.
7. Identify management actions for each alternative.
8. Evaluate and select preferred alternatives.
9. Implement actions and monitor conditions.
Applications best suited for:
The process is a good vehicle for deciding the most appropriate and acceptable resource and social conditions in wilderness areas. It has been applied to wild and scenic rivers, historic sites and tourism development areas. Relationships: The process incorporates opportunity classes based on concepts of ROS and a means of analysis and synthesis. It is built into the U.S National Parks Service VERP framework.

Adapted with permission From Nilsen and Tayler, 1998.
Strengths: The final product is a strategic and tactical plan for the area based on defined limits of acceptable change for each opportunity class, with indicators of change that can be used to monitor ecological and social conditions.

Weaknesses: The process focuses on issues and concerns that guide subsequent data collection and analysis. Strategic and tactical direction may not be provided on management topics where there are no current issues or concerns.

i.ii Visitor Impact Management (VIM)
Developed by researchers working for the USNPS and Conservation Association, and for use by the USNPS. The process addresses three basic issues relating to impact: problem conditions; potential causal factors; and potential management strategies.

Steps of the process:
1. Conduct pre-assessment database review.
2. Review management objectives.
3. Select key indicators.
4. Select standards for key impact indicators.
5. Compare standards and existing conditions.
6. Identify probable causes of impacts.
7. Identify management strategies.
8. Implement.

Standards are established for each indicator based on the management objectives that specify acceptable limits or appropriate levels for the impact. Applications best suited for: This is a flexible process parallel to LAC that can be applied in a wide variety of settings. It employs a similar methodology to assess and identify existing impacts and particularly the causes. Relationships: Like LAC, this process has been incorporated into the VERP system (see below).

Strengths: Process provides for a balanced use of scientific and judgmental considerations. It places heavy emphasis on understanding causal factors to identify management strategies. The process also provides a classification of management strategies and a matrix for evaluating them.

Weaknesses: The process does not make use of ROS, although it could. It is written to address current conditions of impact, rather than to assess potential impacts.

i.iii Visitor Experience and Resource Protection (VERP)
Created by the USNPS. It is a new process dealing with carrying capacity in terms of the quality of the resources and the quality of the visitor experience. It contains a prescription for desired future resource and social conditions, defining what levels of use are appropriate, where, when and why.

Sustainable Tourism in Protected Areas
Steps of the process:
1. Assemble an interdisciplinary project team.
2. Develop a public involvement strategy.
3. Develop statements of park purpose, significance and primary interpretive themes; identify planning mandates and constraints.
4. Analyse park resources and existing visitor use.
5. Describe a potential range of visitor experiences and resource conditions (potential prescriptive zones).
6. Allocate the potential zones to specific locations within the park (prescriptive management zoning).
7. Select indicators and specify standards for each zone; develop a monitoring plan.
8. Monitor resource and social indicators.
9. Take management actions.

Factors, indicators and standards: The following factors are considered in the planning process:

- park purpose statements
- statements of park significance
- primary interpretation themes
- resource values, constraints and sensitivities
- visitor experience opportunities
- resource attributes for visitor use
- management zones

Resource and social indicators, as well as associated standards, were developed for each zone at Arches National Park, where the process was first tested.

Applications best suited for: The VERP framework was conceived and designed to be part of the USNPS's general management planning process. This analytical, iterative process attempts to bring both management planning and operational planning together as one exercise. The emphasis is on strategic decisions pertaining to carrying capacity based on quality resource values and quality visitor experiences. The product is a series of prescriptive management zones defining desired future conditions with indicators and standards. Relationships: This process refers specifically to both LAC and VIM. No mention is made of ROS or VAMP. VERP parallels the basic processes of VAMP and ROS, and is seen as a component of LAC.

Strengths: Like VAMP, VERP is a thought process that draws on the talents of a team and is guided by policy and the park purpose statement. It guides resource analysis through the use of statements of significance and sensitivity, and visitor opportunity analysis is guided by statements defining important elements of the visitor experience. Zoning is the focus for management.

Weaknesses: Additional work is required to pilot the approach in different environments. "Experience" is not defined and the indicators for it are absent beyond the examples for Arches National Park. The will and ability to monitor sufficiently to provide information to guide management actions must also be tested.

i.iv Visitor Activity Management Process (VAMP)

Created by Parks Canada as a companion process to the Natural Resources Management Process within the Parks Canada Management Planning System. The process provides guidance for planning and management of new parks, developing parks and established parks.

Steps of the process:
The process uses a model based on a hierarchy of decisions within the management programme. Management plan decisions relate to the selection and creation of opportunities for visitors to experience the park's heritage settings through appropriate educational and recreational activities. Decisions about managing and delivering support services for each activity are reflected in the service plan. The basic principles of VAMP are within three Parks Canada documents:

- Guiding Principles and Operational Policies;
- Management Planning Manual; and
- Visitor Activity Concept Manual.

General steps of the management plan process are:

1. Produce a project terms of reference.

2. Confirm existing park purpose and objectives statements.

3. Organize database describing park ecosystems and settings, potential visitor educational and recreational opportunities, existing visitor activities and services, and the regional context.

4. Analyse the existing situation to identify heritage themes, resource capability and suitability, appropriate visitor activities, the park's role in the region and the role of the private sector.

5. Produce alternative visitor activity concepts for these settings, experiences to be supported, visitor market segments, levels of service guidelines, and roles of the region and the private sector.

6. Create a park management plan, including the park's purpose and role, management objectives and guidelines, regional relationships, and the role of the private sector.

7. Implementation – set priorities for park conservation and park service planning.
   - quantity, diversity, location
   - experiences/benefits sought
   - support services and facilities required at all stages of trip cycle
   - stakeholder profiles
   - interpretation theme presentation
   - resource values, constraints and sensitivities
   - existing legislation, policy, management direction, plans
   - current offer of services and facilities at all stages of trip cycle
   - regional activity/service offer
   - satisfaction with service offer

Applications best suited for:
The detailed process is specific to the planning programme of Parks Canada and is paralleled by the Natural Resources Management Process. The basic VAMP concept incorporates the principles of ROS. The framework will benefit from and can easily incorporate the principles of VIM, LAC and VERP. The focus is assessment of opportunity, while the more precise impact question is left to the Natural Resources Management Process.

Relationships: The overall process provides a comprehensive framework for the creation and management of opportunities for visitors within the Parks Canada Management Planning Program.

Strengths: Comprehensive decision-making process based on a hierarchy. It benefits

from the structured thinking required to analyse both opportunity and impact. It combines social science principles with those of marketing to focus on visitor opportunities.

Weaknesses: Although well-developed at the service planning level, VAMP does not yet have the clout it should have at the management planning level, mainly because the "opportunities for experience" definition has not been built into management plans or into the zoning.

i.v Recreation Opportunity Spectrum (ROS)

Developed by researchers working for the U.S. Forest Service and Bureau of Land Management in response to concerns about growing recreational demands and increasing conflict over use of scarce resources, and a series of legislative directives that called for an integrated and comprehensive approach to natural resource planning. The process comprises six land classes to aid in understanding physical, biological, social and managerial relationships, and to set parameters and guidelines for management of recreation opportunities.

Steps of the process:
1. Inventory and map the three perspectives that affect the experience of the visitor, namely the physical, social and managerial components.
2. Complete analysis:
a) identify setting inconsistencies;
b) define recreation opportunity classes;
c) integrate with forest management activities; and
d) identify conflicts and recommend mitigation.
3. Schedule.
4. Design.
5. Execute projects.
6. Monitor.

The end product is a definition of the opportunity for experience expected in each setting (six land classes—primitive to urban), the indicators of the experience, and the parameters and guidelines for management.

Factors, indicators and standards: Seven setting indicators have been identified. They represent aspects of recreation settings that facilitate a range of experiences that can be influenced by managers:

1. Access
2. Remoteness
3. Visual characteristics
4. Site management
5. Visitor management
6. Social encounters
7. Visitor impacts

Criteria have been developed by the U.S. Forest Service for each of the indicators and for each of the six land classes. For example, distance guidelines, remoteness, user density in terms of capacity and frequency of contact, and degree of managerial oversight required.

Applications best suited for: This process can be employed in almost all landscape planning exercises. However, the nature of the spectrum, the indicators and their criteria depend on the purpose of the area, the mandate of the organization and the responsibilities of management.

Relationships: This management matrix approach has been incorporated into the LAC system (see above and Table 6.3), and can be used with VIM (see above). It has been recognised within VAMP (ditto), but is hindered by the current use of zoning in Parks Canada.

Strengths: It is a practical process with principles that force managers to rationalise management from three perspectives:
protection of the resource; opportunities for public use; and the organization's ability to meet preset conditions.

It links supply with demand and can be readily integrated with other processes. It ensures that a range of recreation opportunities are provided to the public.

Weaknesses: The recreation opportunity spectrum, its setting indicators and their criteria must be accepted in total by managers before any options or decisions can be made. Disagreement will affect the rest of the planning programme. ROS maps need to be related to the physical and biophysical characteristics of each area.

i.vi Tourism Optimisation Management Model (TOMM)

The Tourism Optimisation Management Model, or TOMM (Manidis Roberts, 1997), is a sophisticated and comprehensive framework for monitoring tourism activities, as well as for helping people make better decisions about tourism. It was developed for Kangaroo Island in southern Australia and is intended to be used by all of the stakeholders involved in and/or affected by tourism. In fact, it was created specifically as an alternative to LAC and VIM because these were found lacking in several ways, especially in the involvement of all parties. The tourism industry found the terminology of these methods, which identify impacts and limits, unpalatable, wanting to focus more on growth and forward movement from a business perspective. At the same time, many of the traditional methods examined environmental impacts and visitor experience, but ignored the local community. TOMM combines the concepts and practices of regional planning, social and biological monitoring, and business management. Even the terminology used to describe the steps of the model manifest its multi-disciplinary origins.

There are several unique features of TOMM which make it useful as a model from which to base a monitoring system for developing countries. One of these is the inclusion of socio-cultural conditions as a dimension which stands on equal footing with four others: economic, market opportunities, environmental and experiential. Another is the incorporation of a market approach in addition to a strictly economic one. There is a distinct business bias to the model, which makes it useful for examining emerging issues and alternative management strategies to be promoted by the business sector.

The steps for implementation of TOMM resemble those of LAC and similar frameworks. First, it identifies the context within which tourism functions. Then TOMM selects the optimal conditions desired within the five dimensions (mentioned

above). This is done by developing alternative scenarios of tourism, in which the scale of tourism is increased or decreased and/or other factors come into play. Benefits and costs of each scenario are predicted, and the type of information needed to measure them is determined. From the list of information needs, indicators are determined. Once optimal conditions are specified, acceptable ranges for each indicator are selected. When monitoring demonstrates that these ranges are exceeded, causes are identified and their potential effects are analyzed. If the effects are due to tourism activities, the industry assesses management options and tests them with its predictive models. When models indicate that these management responses can bring the indicators back into the acceptable range, management actions are implemented.

The methodology uniquely and importantly assesses the costs of implementing the program and human resources required. Unfortunately, the results indicate that TOMM is extremely expensive to apply. In addition, its industrial perspective may be a bit overwhelming for rural communities

Nevertheless, TOMM surpasses many other impact monitoring methodologies in a number of ways. First, its holistic approach, giving equal emphasis to multiple dimensions (socio-cultural and economic, as well as environmental) and stakeholders in tourism, is fundamentally correct. Second, the process of determining optimal conditions is recommendable because it requires multi-stakeholder planning and visioning, useful exercises for determining the diverse values of many players. Third, in selecting ranges of acceptance, rather than specific limits which are sometimes arbitrarily chosen, it provokes discussion and analysis. While these ranges are chosen based on value judgements, the performance of indicators is measured objectively. Finally, the model's focus on assessing progress, as well as using the data for predicting the future, is useful and forward thinking.

Appendix II Potential Carrying Capacity Indicators

ECONOMIC INDICATORS	Management Plan Objectives
Annual total profit of tourism operators on Purbeck.	3
Total tourism expenditure on Purbeck.	3
Change in the number of visits levels.	3
Level of direct tourism employment.	3
Per capita visitor yield from tourism.	3
Annual investment in tourism development.	3
Number of products and services consumed by tourists which are supplied by businesses operating on Purbeck.	3
Number of tourism development proposals approved in past two years.	3
Change in tourism target market.	3
Number of tourism operators.	3
Number of operators who have Quality Assurance.	3
Participation rate of cooperative marketing campaigns.	3
Level of investment in tourism infrastructure and services.	3
Number of operators with international accreditation.	3
Number of new products developed by local suppliers in response to tourist demand.	3
Proportion of skilled versus non-skilled direct tourism related employment.	3
Profitability of tourism businesses.	3
Change in occupancy levels of accommodation	3
Proportion of overnight to day visitors.	3
Level of use of Jurassic Coast logo.	3
Change in costs of products and services.	3
Level of investment in public services and Facilities.	3
Number of operators that have accreditation.	3
ENVIRONMENTAL INDICATORS	
Number of rare and endangered species or habitats at sites impacted by tourists.	1
Population of wildlife colonies within defined vicinity of coastal path.	1
Change in conservation measure for water.	1
Change in tourism industry methods of wasted disposal.	1
Change in volume of waste per capita.	1
Change in beach cleanliness	1
Change in bathing water quality	1
Change in water quality.	1
Change in visitors' perceptions of crowding.	3
Net coverage of natural vegetation in defined area of coastal path.	1
Change in biodiversity.	1
Change in level of disturbance to natural coastal processes	1
Change in quality of coastal exposures due to human activity	1
Change in volume of fossil collecting	1

The number of visitors to Purbeck and WHS within areas designated.	3
Proportion of native roadside vegetation remaining.	1
Proportion of roadside vegetation without disease.	1
Number of threatened plant communities.	1
Number of threatened animal communities.	1
Status of ground nesting birds	1
Breeding rate of a particular species.	1
Number of hectares of vegetation removed For tourist related infrastructure.	1
Number of animal road kills.	1
Number of animal roadkills on tourism roads.	1
Proportion of trackside disturbance.	1
Change in resources being expended on environmental regeneration.	1
Change in water usage by tourism developments.	1
Membership level of environmental groups by tourism operators.	1
Condition of footpaths	3
Degree of erosion.	3
EXPERIENTIAL INDICATORS	
Proportion of visitors who perceive that they are in an exceptional environment.	2
Perceived quality of interpretation. Perception of range of interpretation.	3
Proportion of tourist time spent on being a nature based tourist.	3
Degree to which marketing driven expectations are met.	6
Proportion of natural vista occupied by tourism related infrastructure.	2
Satisfaction level of visitors departing Purbeck.	3
Proportion of visitors who leave Purbeck having had a significant learning experience.	2
Number of visitors returning to Purbeck.	3
Proportion of visitors who experienced a feeling of remoteness and/or space on Purbeck.	2
Proportion of visitors who had a wildlife/nature/cultural experience.	3
Change to the integrity of Purbeck.	2
Change in the amount of litter.	2
Change in numbers of visitors in shoulder months	3
Change in the number of tourists.	3
Change in the number of developments.	2
Change in the level of crime.	3
Change to the existing land clearance and conservation laws.	2
Change in the number of visits.	3
Proportion of time spent observing wildlife/ geology.	3
Degree to which expectations to visit certain places are met.	6
Degree to which photographic expectations are met.	6
Number of contacts with other visitors at natural sites.	2
Change to visitor's perception of crowding.	2
Proportion of visitors who perceive their experience on Purbeck could only have been experienced on Purbeck.	2
Proportion of visitors who consider that new infrastructure improves the quality of the tourist experience.	2

Change in the number of opportunities to experience interpretation at sites.	3
Change in degree of ease in booking into tourist services.	3
SOCIO-CULTURAL INDICATORS	
Proportion of tourists versus locals at major events.	3
Change in population level.	3
Change in population demographics.	3
Range of public services available.	3
Difference in the number of visits across months.	3
Change in opening and closing Facilities of attractions	3
Proportion of residents to tourists at recognised local recreation sites.	3
Proportion of residents to tourists at recognised local tourist sites.	3
Reports of degenerative behaviour by tourists.	3
Reports of degenerative behaviour by residents towards tourists.	3
Change in perception of ease of parking i.	3
Use of Sandbanks Shell Bay Ferry	3
Use of public transport	3
Change in boat use to view coast	3
Car Park Occupancy	3
Change in Average Annual Traffic volume on key roads	3
Number of traffic accidents involving tourists.	3
Proportion of members of local tourism association who are not operators.	3
Level of involvement in tourism related consultations.	3
Membership level of voluntary community service groups by tourism operators.	3
Change in crime rate.	3
The number of councillors who derive their primary income From tourism.	3
The number of approvals to modify cultural sites For tourism activity.	3
Number of cultural heritage listings.	3
Membership level of local historical society.	3
Number of reports of damage to cultural sites.	3
Number of tours visiting recognised cultural sites.	3
Level of Funding contributions from tourism operations accessing cultural sites.	3
Proportion of tourism employees employed with cultural training.	3
Number of community initiatives to present culture.	3
Number of residents attending a cultural special event developed by tourism industry and residents.	3
Number of tourists attending a cultural special event developed by tourism industry and residents.	3
Change in community perception of interactions with tourists.	3
Number of tourists visiting significant local historic sites.	3

Appendix III Jurassic Coast Visitor Segmentation

The Jurassic Coast World Heritage Site (JCWHS) Marketing Strategy prepared by the Tourism Company[35] identifies a number of segments drawn from comments received during the consultation process for developing the management plan. The segments are split into two sections. The first section is demographic (D) (age, gender, life style stage and activities), the second section is psychographic (P) and includes motivation and attitudes. The priority segments and approach relevant to the JCWHS were considered to be:

Primary market segments

Short breaks – post family
This represented the highest priority owing to the size of the segment, flexibility in travel period and interest in gentle outdoor activities and exploration.

Approach:

- Improve impact of JCWHS brand in general destination promotion.
- Significantly improve JCWHS website for general potential visitor enquiries.
- Encourage sensitive exploration through web and print based information.
- Encourage loose packaging of break offers.
- Improving opportunities for sensitive exploration, including boat and bus.
- Strengthen off-season events.
- Generate media coverage.
- Improve orientation of visitors through signing, Tourist Information Centres (TICs), and hosts.
- Improve serviced accommodation quality.

Activity holidays – walking
Considered to be extremely relevant to the JCWHS as it is a significant market segment rather than a small niche. This group relates directly to the concept of sensitive exploration, reflects the linear nature of the site and can make use of existing product, notably the SW Coast Path. Product and information for this segment are also very relevant to other domestic segments.

Approach:

- Develop and promote a new JC branded campaign – Walking Through Time.
- Prepare web and print information associated with the above.
- Work with others to improve the walking product at all levels.
- Encourage and assist private sector enterprises to promote product linked to this brand.
- Link walking to public transport.
- Develop walker-friendly schemes and events.

[35] The Jurassic Coast World Heritage Site Marketing Strategy, The Tourism Company, 2003

Special Interest Geo-tourism
Although this is a very small niche market, it was considered to be a primary market segment owing to the special relationship with the international recognition of the Site and the experience it offers.

Approach:

- Development and maintenance of a database.
- Direct marketing to database, including e-newsletter.
- Inserts into specialist media.
- Pursue overseas as well as domestic groups/members.

Secondary market segment

Short breaks – families
The area already receives a significant number of family holidays, including short breaks and additional holidays. The theme was considered to have potential appeal to this market, especially fossils and association with dinosaurs, but seasonality is a negative suggesting this should only be a secondary market.

Approach:

- Largely as for above, but also:
- Create a Jurassic Coast for children brochure.
- Offer, and specially identify, events for children.

Overseas market segments
Overseas visitors were seen only as a secondary market due to the market size and cost of access, but should be the subject of marketing activity owing to the international status of the Site and visitor spend. Priority should be given to the European identified segments owing to their interest in the environment and walking.

Approach:

- Develop high profile presence for JCWHS in regional campaigns.
- Offer information and assistance to media and tour operators.
- Carry some language information as a welcome on JCWHS website.
- Lobby for greater exposure of UK World Heritage Sites by VisitBritain.
- Seek promotional links with other UK World Heritage Sites and European palaentological World Heritage Sites.
- Extend Walking and Geo-tourism campaigns overseas.

Cycling
This segment was considered potentially important owing to the opportunities it offered for sustainable exploration and to the general growth in holiday cycling, but is restricted by infrastructure and terrain.

- Work with the development and promotion of the cycling route Route 2, Norden to Studland.
- Add cycling information to website and other information material.
- Consider adding bike trailer to Jurassic Coast bus.
- Encourage cycle friendly accommodation and services.

Education markets
These segments were considered important in their own right but also as generators of useful income as a form of tourism.

The approach should follow the JCWHS Education Strategy.

Particular tourism/promotional elements include:

- Developing accommodation packages and discounts.
- Establish web-integrated database.
- Develop direct marketing and communication via flyer, e-newsletter etc.
- Offer trips to teachers.

Tertiary market segments
Long holidays
As many visitors to the area, especially those in self-catering and holiday parks, will be on long holidays, it was considered important to address this market. Opportunities for using the JCWHS to add to the visitor experience, and hence chances of repeat visiting and distribution of spend, were regarded as important. Emphasis should be on addressing visitors already in the area, and promoting opportunities for sensitive exploration.

Approach: Emphasis on:

- Orientation of visitors.
- Children's information and events.
- Boat trips and other interpretation.

Short Breaks – pre-family
Considered a potentially important market for short breaks but only as a tertiary market owing to propensity of the segment to take city and overseas breaks.

Approach:

- No particular product or marketing initiative specifically designed for this segment is envisaged. However, many people in this segment will behave like the post family segment and respond to marketing activity aimed at that segment.
- Strengthening the events programme to include arts events could be of value

Watersports and coastal pursuits
The current presence and growth of these activities meant that this segment was considered to be important. There are a number of product development, environmental and visitor management issues associated with it relating to the World Heritage Site.

Approach:

- Pursue ways of communicating environmental issues to operators and visitors.
- Refer to these pursuits as a potential component of the offer for certain types of short breaks, especially in relation to certain lifestyle and psychographic segments.

Business Tourism

Business tourism is already very important in the Jurassic Coast Anchor Towns of Exeter, Poole and Bournemouth. However, the limited availability of large-scale facilities elsewhere means that development potential lies with:

- Encouraging visits to the JCWHS by business tourists attending conferences in Anchor Towns.
- Attracting specialist, smaller scale events and conferences centred around subjects such as geology, World Heritage Site management, coastal protection and sustainable tourism.

Day Visitors & Visiting Friends and Relatives

Day visitors represent an important market not just in volume terms but also because there is a strong local element (75% of independent day trips have a round trip distance of 75 miles or less). VFR is also very popular to this area offering a good opportunity to raise awareness of the Site and convey conservation messages.

Approach:

- Use events as a hook to draw day visitors/VFR.
- Ensure good local distribution of JCWHS printed material.
- Develop local advertising and media relations (as proposed in JCWHS Communication Strategy).
- Develop effective gateway and directional sign-posting for JCWHS.
- Work with private sector enterprises, particularly in the food and drink sectors, to carry the JCWHS conservation piece of print for the organised day visit market,
- Work with selected coach tour operators to develop off-peak season packages and accessible and creative interpretation of the JCWHS (e.g. boat trips).

Psychographic Segments
The psychographic segments were not considered to be mutually exclusive from the demographic segments. Primarily they enable further sophistication to be applied to the treatment of the short break segments.

It was considered that identification of these segments could provide a way for the JCWHS to link to possible forthcoming campaigns by South West Tourism based around thematic brands. The company that identified these segments is currently involved with market research to identify databases and household locations of people falling into the different segments. This may allow direct marketing by SWT and its partners of relevant brand products, which would provide a specific marketing opportunity for the future.

The order of priority identified given the product strengths were:

Cosmopolitans
Considered to be important owing to the large size and level of activity of the group. They are particularly relevant to the JCWHS as they enjoy scenic locations, activities and may be environmentally conscious. They should form a component of post family short breaks market but in particular are like to embrace the element of pre-family short breaks that are likely to respond to the JCWHS.

Approach:
- Consider SWT campaign development (as above).
- Target suggested new walking campaign at them.
- Include reference to watersports and coastal pursuits in image and offers.

Discoverers
Although a considerably smaller segment than the cosmopolitans sector, this segment is considered to be important owing to its interest in themes and experiences off the beaten track.

Approach:
- Consider SWT campaign development .
- Target suggested new walking campaign at them.

Traditionals
This segment is considered to be important owing to its propensity to take short breaks in England including the South West. They are more likely to enjoy the JCWHS quite passively, visiting associated attractions and the nearby market towns etc.

Approach:
- Consider SWT campaign development (as above).

Appendix IV AONB Analysis of path standards[36]: Dorset (not all the paths have information added to this table yet)

Reference LP/Dor	Origin and Destination	Barrier-Free	Kissing or pedestrian gates	Stiles	Steps	Surface	Obstacles	Gradient (1 to 5 where 5 is most strenuous)	Notes
01	Shell Bay	Yes				Yes		1	
02	Middle Beach	Yes				See right		1	Short distance From surfaced car park to sandy beach (on which the SWCP passes)
03	Studland to Redend Point	Yes				Yes		1	
05	Studland to Cliff End	Yes				Yes		2	
06	New Swanage	Yes				Yes		2	
06	Swanage Rail & Bus Station	Yes				Yes		2	
08	Peveril Point Car Parks to SWCP N	Yes				Yes		2	
09	Peveril Point Car Parks to SWCP S	Yes				Grass		3	
10		Yes				Yes		2	

[36] Dorset AONB Partnership Dorset & East Devon Coastal Corridor Plan Coast Path Access & Walks Study Interim Report
Halcrow Group Limited
April 2007

Reference LP/Dor	Origin and Destination	Barrier-Free	Kissing or pedestrian gates	Stiles	Steps	Surface	Obstacles	Gradient (1 to 5 where 5 is most strenuous)	Notes
	Durlston								
11	Langton Matravers & Spyway to Dancing Ledge		2 kissing gates		Yes	Grass and tracks		4	
12	Worth Matravers to Seacombe		2 Pedestrian gates	3		Mainly grass	One muddy patch	3	
13	Worth Matravers to Winspit		2		Yes	Mainly tracks		2	
14	Worth Matravers to West Hill		1 kissing gate	5		Some road, some Fields		1	
15	Kingston to Hounstout			3		1/3 track, 2/3 Fields		1	
15a	Corfe Castle to Hounstout								
15b	Sheeps Pen Car Park to Swyre Head								
16	Kimmeridge to Clavell Tower	Yes				Tarmac		3	
17	Kimmeridge to Kimmeridge Bay		1 pedestrian 1 Farm gate	2		Fields		3	
17a	Tyneham to Gad Cliff								

Reference LP/Dor	Origin and Destination	Barrier-Free	Kissing or pedestrian gates	Stiles	Steps	Surface	Obstacles	Gradient (1 to 5 where 5 is most strenuous)	Notes
18	Tyneham to Worbarrow Bay								
19	Lulworth Cove Car Park	Yes				Tarmac		1	
19a	WinFrith Newburgh to Lulworth Cove								
20	Durdle Door Car Park and Bus Stops to SWCP	Yes				Stony track and some tarmac		4	
20a	Owermoigne to Holworth								
21	Southdown to Holworth House								
21a	Southdown to Holworth House								