

## REPORT OF THE DEVELOPMENT MANAGEMENT TEAM LEADER ON OTHER PLANNING ISSUES

<b>Application Ref</b>	NP/17/0009/TPO		
<b>Case Officer</b>	Mike Higgins		
<b>Applicant</b>	Mr C Hopkinson		
<b>Agent</b>	Mr Paul Cleaver, Tree Works (West Wales) Ltd		
<b>Proposal</b>	1 x Cupressus macrocarpa - fell to ground level and leave stump in situ		
<b>Site Location</b>	Beach Court, The Strand, Saundersfoot, Pembrokeshire, SA69 9EU		
<b>Grid Ref</b>	SN13800502		
<b>Date Valid</b>	04-Jan-2017	<b>Target Date</b>	23-Mar-2017

The application is referred to the Development Management Committee for determination as the officer recommendation differs from that of the Community Council. It was considered and deferred at the last meeting of the Committee to allow the Tree and Landscape Officer to be present.

### **Application description**

The application seeks consent to fell a Cupressus macrocarpa tree located on a rocky outcrop at Beach Court, Saundersfoot beach and to leave the tree stump in situ. The tree is protected by Tree Preservation No. TPO33 (T12).

### **Consultee Response**

Saundersfoot Community Council: Object to the proposal and provided the following comments:-

‘The Council felt very strongly about the total felling of this fantastic tree. It has been a part of the landscape for many, many years and is an enhancement to the village and a part of our history.’

Two letters of objection were received, one from the Friends of Saundersfoot and the other from Saundersfoot and District Historic Society.

A Visual Tree Inspection report (ARB/VTA-0105) has been produced by Arb-Aid on behalf of the Friends of Saundersfoot. This will have been circulated to Members prior to the committee meeting for consideration.

### **Policies considered**

Please note that these policies can be viewed on the Policies page of Pembrokeshire Coast National Park website - <http://www.pembrokeshirecoast.org.uk/default.asp?PID=549>

LDP Policy 01 - National Park Purposes and Duty  
LDP Policy 08 - Special Qualities

LDP Policy 11 - Protection of Biodiversity  
LDP Policy 15 - Conservation of the Pembrokeshire Coast National Park  
LDP Policy 30 - Amenity

### **Constraints**

Special Area of Conservation - within 500m  
Special Protection Area - within 500m  
LDP Mineral Safeguard  
Recreation Character Areas  
Surface Coal  
High Coal Risk  
Landscape Character Assessment  
Seascape Character Assessment

### **Officer's Appraisal**

#### **Description of Proposal**

- T1 – Cupressus Macrocarpa – Fell to ground leaving stump in situ

#### **Appraisal**

##### ***Ownership***

- *A Land registry search was carried out; however the outcrop in question was not registered on the Land registry plan (Appendix L)*

##### ***Amenity and location***

- The tree is a medium sized tree that is an identifiable landscape feature visible in an arc of 180° along the beach (**Appendix B**).
- The tree is a non-native specimen; however the species is common along the South Coast of Pembrokeshire and there are numerous other specimens of a similar age.
- It is clear to observe that it is growing on a rocky outcrop extending from the adjacent buildings onto the beach.

##### ***Root calculation***

- The tree has a stem diameter of 1080mm (**Appendix C**) which would suggest a calculated root zone radius of approximately 12.91m based upon BS5837:2012. (**Appendix D**)
- *BS5837:2012 Table D.1 Annex D – Root protection area* shows that this would result in a root area of approximately 519m<sup>2</sup> ( $\pi r^2$ )
- *BS5837:2012 Clause 3.7 Terms and Definitions* states that the Root Protection Area indicates the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability.

##### ***Outcrop observations***

- The outcrop is a narrow feature 5-6m wide with near vertical sides showing signs of historic and continuing erosion (**Appendix E**).
- From site investigations there appears to be a layer of soil varying in depth between approximately 0.5m - 2m deep above the rocky outcrop. (**Appendix F**)

- Based upon OS data the total area of the outcrop is approximately 145.6m<sup>2</sup> (**Appendix G**)
- OS data and aerial images show that approximately 48.3m<sup>2</sup> lacks soil coverage (**Appendix H**)
- The total area of the outcrop that will have soil coverage is approximately 97.3m<sup>2</sup>; suggesting that the medium on which the tree is growing is insufficient for the support of a tree this size long term.
- *BS5837:2012 Table D.1 Annex D – Root protection area* suggests that the calculated area of the outcrop (97.3m<sup>2</sup>) would be sufficient for a tree with a diameter of 450mm.
- The outcrop is located within the Pembrokeshire coal measures; however it appears to resemble the adjacent lower limestone shales, and may be a remnant thereof

### **Root zone observations**

- There are several significant roots that have been exposed (**Appendix I**) which will also likely have a detrimental impact on the long-term structural stability, integrity and health of the tree.
- There are large areas of the outcrop that have undergone denudation of the soil through weathering and erosion back to the exposed outcrop; which have resulted in an additional loss of the total soil area.
- The erosion of the soil horizon is natural through weathering and possibly coastal storms as well as mechanical (man-made) erosion as a path runs along the outcrop from the adjacent building to the beach (**Appendix J**).
- It would appear that the outcrop is subject to erosion as the Northern side has protection methods installed (**Appendix K**)
- The tree shows exposed roots along the outcrop in an easterly direction from the trunk.
- The southern side shows signs of the soil being undercut which will reduce the structural stability of the soil to support the root zone in this area. (**Appendix F**)
- The size of the roots now exposed (**Appendix I**) also suggest that these initially developed within an area of soil which has been lost.
- It would appear that the erosion of the soil is dynamic as some grass is present around the exposed roots; however the soil in this area is predominantly bare (**Appendix I**) suggesting that the soil is continuing to erode away before grass etc can re-establish.

### **Rooting environment**

- The layer of soil varies in depth between approximately 0.5m - 2m deep above the rocky outcrop.
- This would theoretically be sufficient depth for typical root development as found in most trees; as the majority of the rooting structure of trees (80-90% of the roots) will be found in the top 1m of the soil profile' however the available area is significantly reduced (**Appendix D**).
- The majority of these roots will be also found at 0.6m or shallower; with only the occasional root penetrating to a depth of 2m or greater.
- The root development of this tree is likely to have developed in relation to the specific conditions; as the soil medium is situated on an outcrop it is

likely to be free-draining which would allow the root system to develop unhindered into the available soil.

- Table 1 of the *Forestry Commission Information Note: The Influence of Soils and Species on Tree Root Depth* (2005) identified that the majority of trees growing on 'shallow soils over rock' will actually be restricted to a depth of <1.5m.
- The high bulk density of the rocky outcrop will result in mechanical resistance that will restrict root development' into the outcrop; limiting root formation to the soil horizon only.
- As such the root formation will be restricted to the limited available soil on the outcrop which in this instance is an insufficient area (m<sup>2</sup>) to support the rooting volume of a tree of this size (**Appendix D**).

### **Conclusion**

- The total area of soil present would be insufficient to allow the roots of this tree to have adapted unimpeded to the area expected for a structurally stable tree.
- The available soil area (97.3m<sup>2</sup>) is significantly smaller than the calculated root spread of this tree based upon *BS5837:2012 Annex D* calculations (519m<sup>2</sup>).
- It is therefore considered that although the tree is an identifiable landscape feature with likely locally historic relevance; it has outgrown its context and removal would be acceptable in terms of health and safety.

### **Replacement consideration**

- Although the tree is an individual specimen and a replacement would normally be conditioned; it is not felt that a replacement planted on this outcrop would be acceptable as the soil horizon on the outcrop will continue to erode and any future planting could be affected and become a future health and safety issue.

### **Works**

- **Macrocarpa** – Fell and leave stump in situ

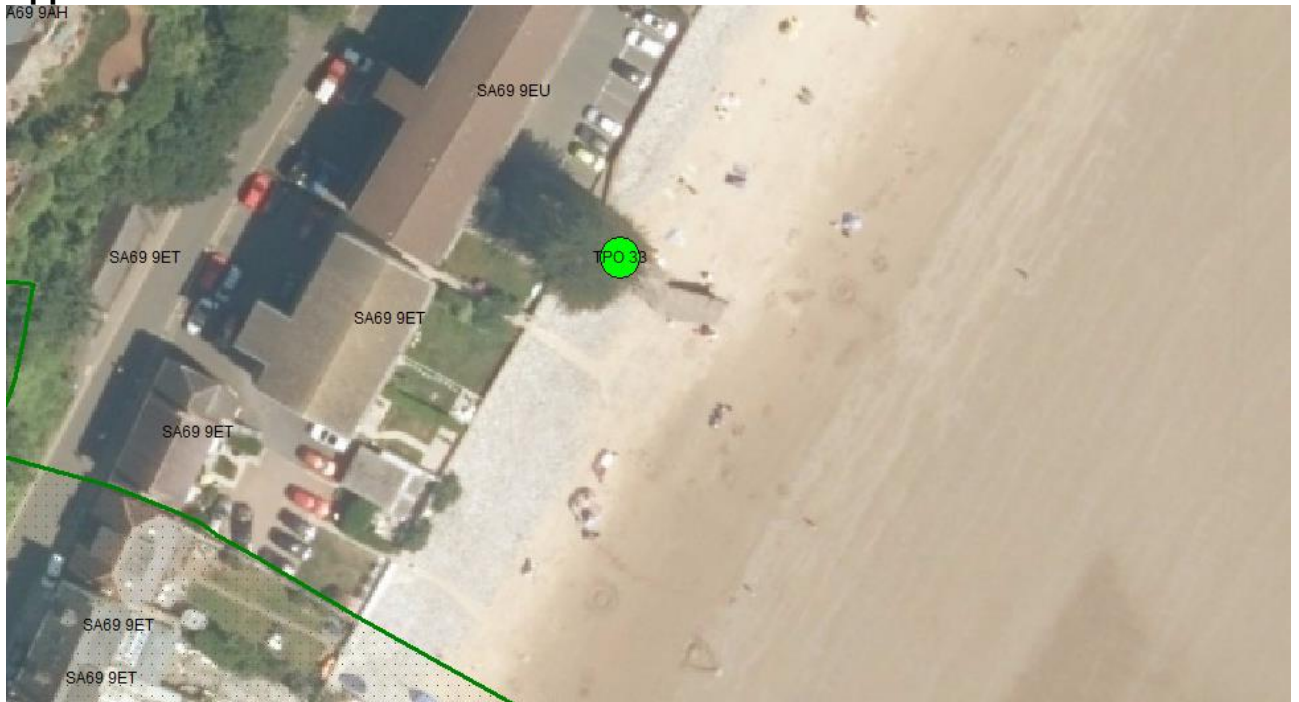
### **Recommendation**

#### **APPROVE, subject to the following condition:**

1. All works hereby approved shall be carried out within two years of the date of this consent.  
Reason: Required to be imposed pursuant to Section 91 (1) of the Town and Country Planning Act 1990 (as amended).

## Appendices

### **Appendix A – Aerial Plan**



### **Appendix B – Tree is visually prominent (image taken from slipway)**

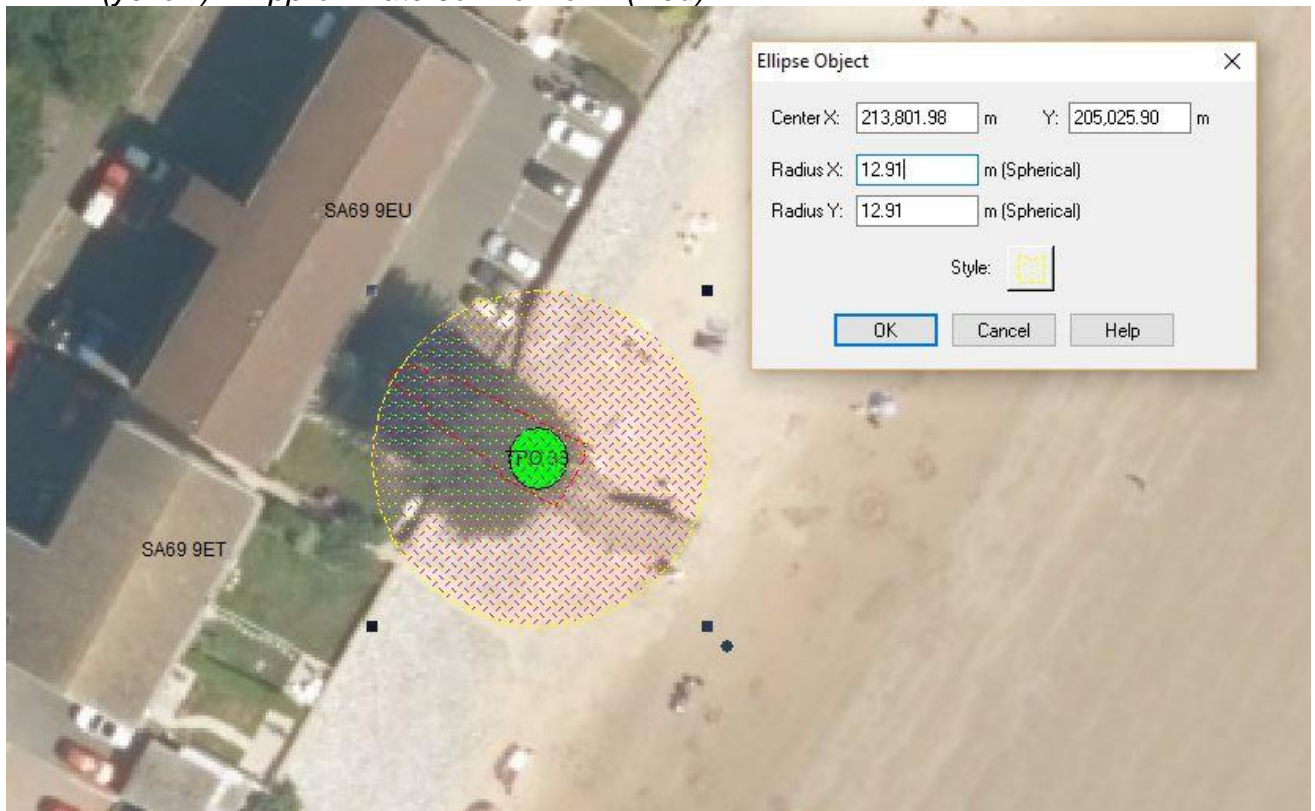


**Appendix C – Trunk circumference 338cm (3380mm)**



**Appendix D – Annotation of the calculated root protection area (12.91m) of the tree**

RPA - (yellow) Approximate soil horizon - (Red)



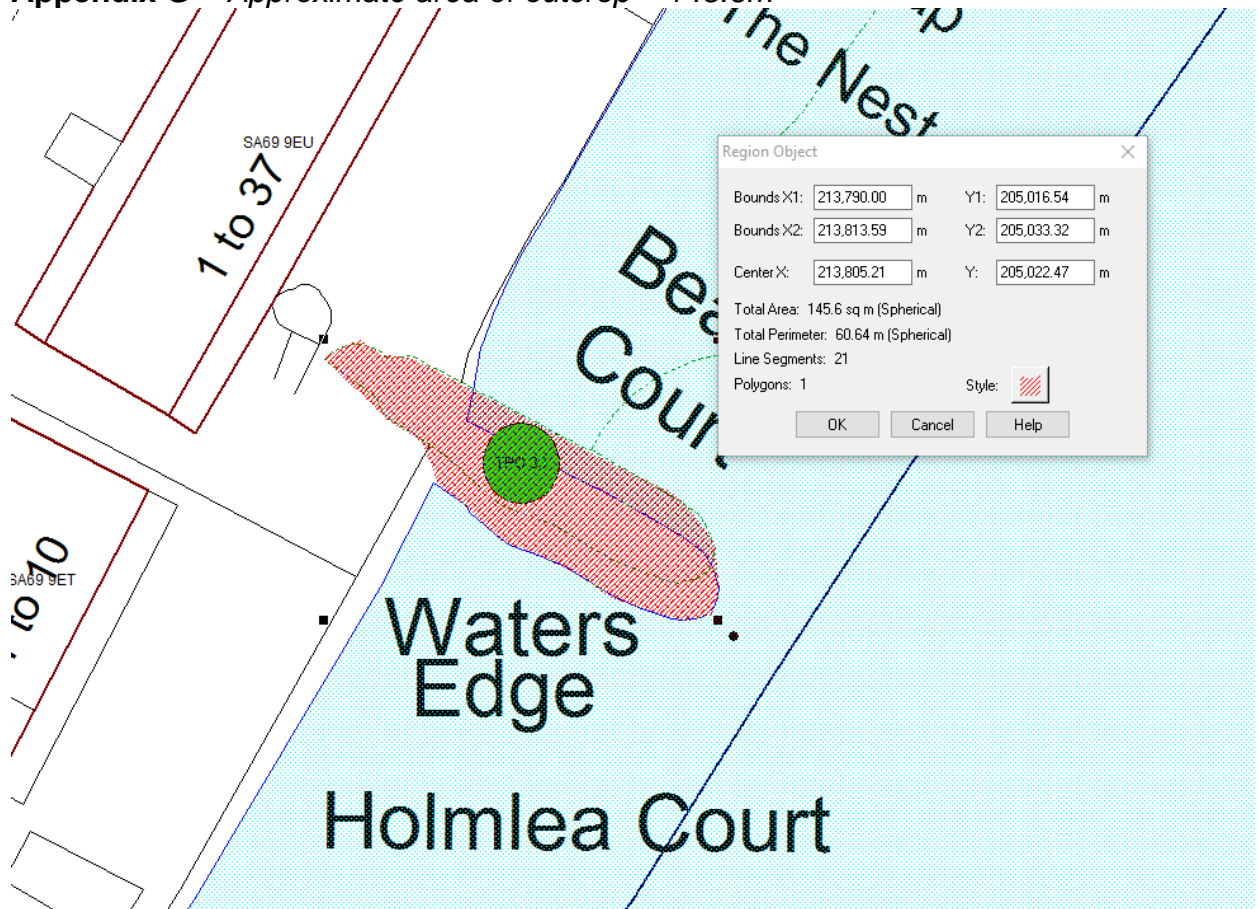
**Appendix E – Outcrop and tree from Beach (showing Eastern section of outcrop does not have soil horizon)**



**Appendix F – Soil layer overlaying rocky outcrop showing undercut soil layer**



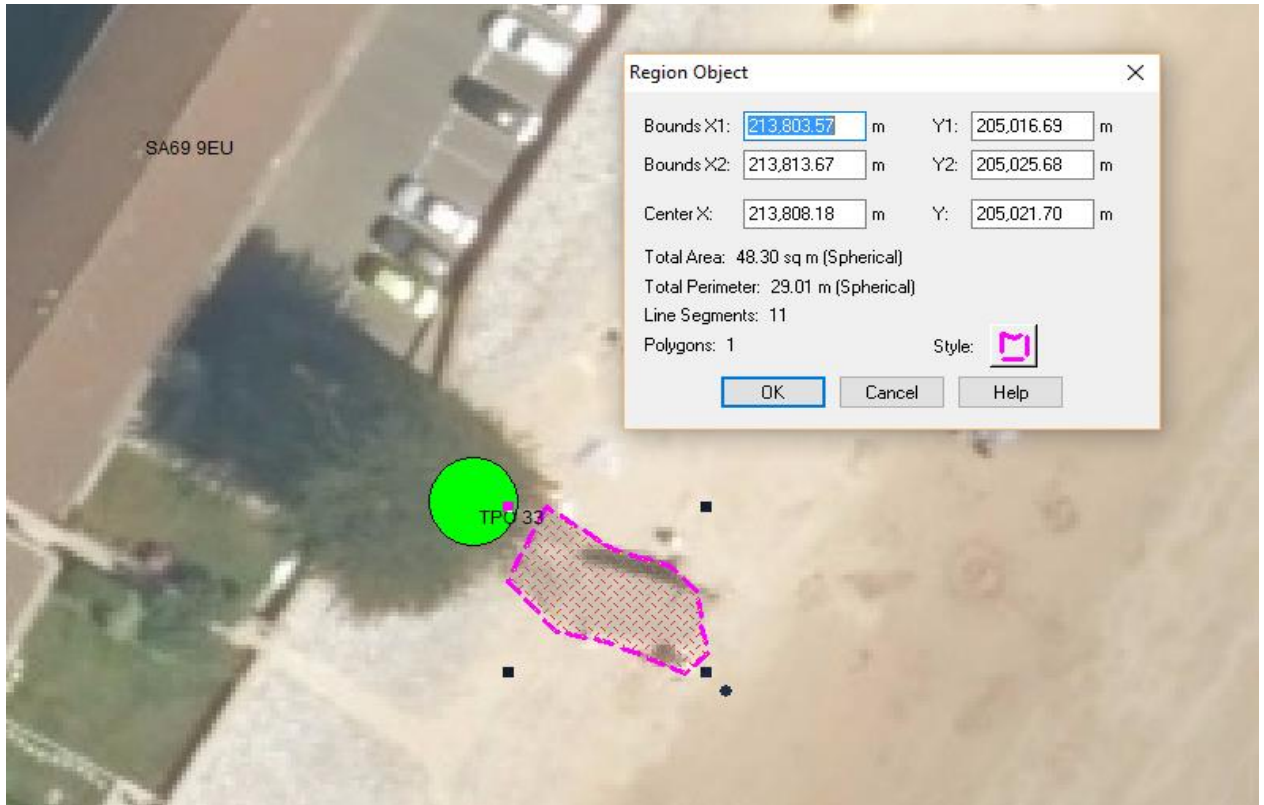
**Appendix G – Approximate area of outcrop – 145.6m<sup>2</sup>**



**Appendix H – Approximate area of outcrop without soil is 48.30m<sup>2</sup> –**

- Therefore maximum likely area with soil horizon is  $145.6 - 48.3 = 97.3\text{m}^2$





**Appendix I** – *Significant roots exposed – no grass present to suggest dynamic erosion*



**Appendix J** – *Footpath running from building to beach resulting in compaction and erosion*



**Appendix K** - *Previous measures to curtail outcrop degradation (mesh netting)*



**Appendix L – Land registry Search (land unregistered)**

