Application Ref: NP/21/0172/TPO

Case Officer	Mike Higgins		
Applicant	Mr Hopkinson, The Beach Court (Saundersfoot) Management Co Ltd)		
Agent	Mr Paul Cleaver, Tree Consultants Wales		
Proposal	Fell 1x Monterey cypress (Cupressus macrocarpa) to ground level, leaving stump in situ. (T12 on TPO 33, wrongly identified as a Douglas Fir)		
Site Location	Beach Court, The Strand, Saundersfoot, Pembrokeshire, SA69 9EU		
Grid Ref	SN13790502		
Date Valid	10-Mar-2021	**Target Date**	16-Jun-2021

The application is referred to the Development Management Committee for determination as the application has been called in by Cllr P Baker.

Consultee Response

- **Saundersfoot Community Council**: At time of writing this report is unable to make a fully informed recommendation to the Planning Authority as it is considered that there is no up-to-date independent survey.
- **Friends of Saundersfoot and District**: Object

Public Response

A tree report by Arb-Aid - *Arb/VTA/112.a* (as revised) - was received on behalf of the groups 'Save Saundersfoot's Lonely Tree' and Friends of Saundersfoot and District.

At the time of writing this report there were in excess of 170 objections received by this Authority.

Policies considered

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

LDP2 Policy 01 - National Park Purposes and Duty

LDP2 Policy 08 - Special Qualities

LDP2 Policy 14 - Conservation of the Pembrokeshire Coast National Park

LDP2 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
Affordable Housing Submarkets
Seascape Character Areas
Within Site of Special Scientific Interest consult NRW / Planning Ecologist_20m
Landscape Character Area
Special Area of Conservation - within 50m

Application Description

The application seeks consent to fell 1x Monterey cypress to ground level, leaving stump in situ.
The tree is protected by Tree Preservation No. TPO 33 (T12) and is incorrectly recorded on the TPO Schedule as a Douglas fir rather than a Monterrey cypress.

Officer Appraisal

Policy and Principle of Development
It should be noted that the policies considered below primarily relate to development rather than tree management; however, there are points within the following policies that relate to effects that tree works could be considered as having to the immediate landscape and the national park.

Policy 01 - National Park Purposes and Duty (Strategy policy)
States that development within the national park must be compatible with:
a) *the conservation and enhancement of the natural beauty, wildlife and cultural heritage of the Park, and*
b) *the public understanding and enjoyment of the special qualities.*

The proposed removal of the tree in question will have a significant visual impact on the immediate landscape as the tree is a prominent feature in a public area; however, removal is proposed for health and safety reasons.

Due to the location of the tree (Image No. 1) it is not possible to remove targets (property / persons) or restrict access to the tree (close off the outcrop and immediate area), and it is the opinion of this officer (and the Arboriculturists involved in this application) that this tree cannot be left unmanaged due to its current condition.

As such the proposed works in this instance would not be considered to be detrimental to the National Park Purposes and Duty as the over-riding obligation is health and safety.

Image No. 1 *– Overview of tree*

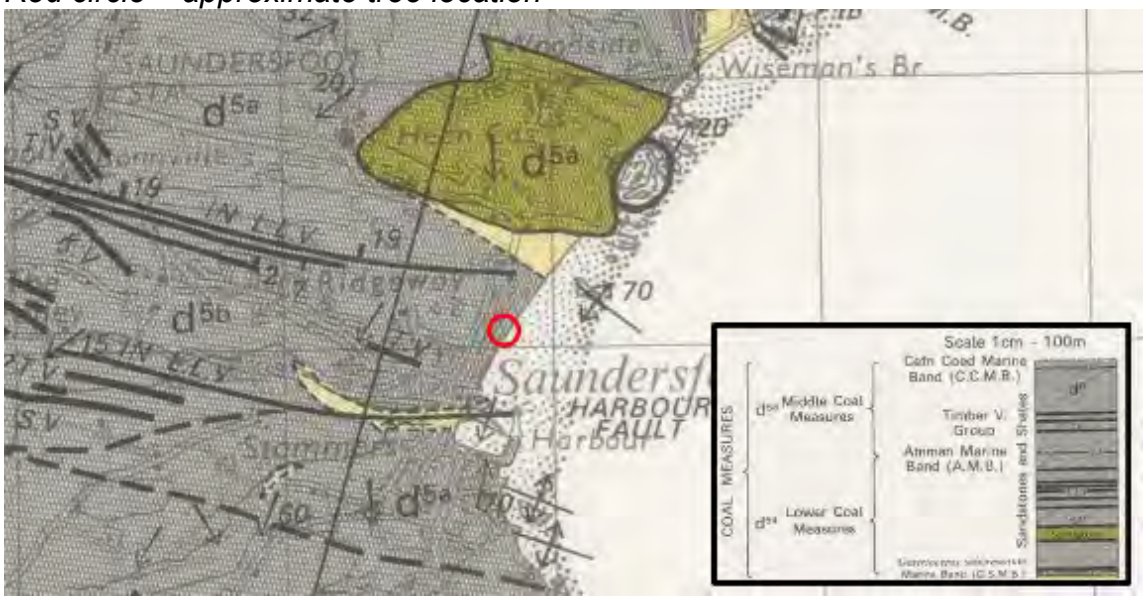
Policy 08 - Siting, Design and Impact upon the Special Qualities of the National Park Special Qualities (Strategy Policy)

The tree in question is a non-native specimen to the UK and Pembrokeshire; however, it is a common tree along the coast of Pembrokeshire.

The tree has a locally relevant history and is recognised as a prominent tree which appears to be situated on an exposed outcrop of Middle Coal Measures (*Image No.2*) which is both historically and geologically significant in terms of the industry of the area.

The tree is shown to have amenity value and contributes to the immediate landscape visually, as well as the species being observable in the greater south Pembrokeshire landscape. The tree is considered to have low biodiversity potential and is not considered by this officer as being a material consideration in regard to this policy.

Image No 2. British Geological Survey data for area
Red circle – approximate tree location



Policy 14 - Conservation of the Pembrokeshire Coast National Park
It is accepted that the removal of the tree would have a visual impact on the immediate area; however the tree is located on a notable landform related to the geology and historical coal industry of the area.

The tree is a prominent feature; however, it is considered that the outcrop could be impacted by root failure of the tree and has the longer potential as a landscape feature.

In reference to the geology and the ecology of the area, the approved removal of the tree which is considered to have low biodiversity potential would be considered as less harmful than the loss of the tree through failure and subsequent damage to the outcrop.

Policy 30 – Amenity
The proposed removal would have a detrimental impact on the quality of the environment currently enjoyed by people living, working or visiting the Park following the removal of the tree.

Social media has highlighted the importance of the tree to the wider community; however, health and safety must be taken into account, along with the geology and history of the area, in which the outcrop stands. As mentioned previously the outcrop is a landscape feature in its own right and will continue to be a feature should the tree be removed.

Character and Appearance

The tree is a medium sized tree (based upon species) approximately 16m tall growing on an outcrop approximately 5m high and has high amenity value.

The tree is a non-native specimen; however, the species is common along the south coast of Pembrokeshire and there are other specimens of a similar age.

The tree is a prominent feature on Saundersfoot beach and can be clearly seen in an arc of approximately 180° along the beach. The tree can also be viewed from selective higher vantage points within the village and with difficulty across the bay. It is accepted that the removal of the tree would have a significant detrimental impact on the character of the area, and as such the justification for removal must be considered as outweighing this impact.

Application - Reasons for Removal
The following reasons (a, b, c, d, e, f & g) for removal were given as part of the TPO application:

a. *'Defects compromising the tree's structural integrity unacceptably high level of risk. '*

The application report (PC21-31) has highlighted that the tree has compromised structural integrity based upon information provided by a third party report (Arb/VTA-0105) and comments made by this officer in the previous application (NP/17/009/TPO) in 2017.

There does not appear to be an individual appraisal of the tree by the applicant in 2021; and the applicant has not provided information relating to whether the tree has adapted or responded to symptoms observed in 2017, whether there are options of management to address these issues, whilst retaining the tree, or whether the tree is continuing to decline.

Additional information was received by this authority following a request to the agent. The agent has concerns that necessary works could have a detrimental impact on the amenity of the tree through the loss of the natural form due to pruning in order to reduce exposure. The information suggests that any works would simply reduce the tree to a moderate risk from an unacceptable risk; requiring continued management under the principle of ALARP (As Low As Reasonably Practicable).

b. Costly intervention work
The report refers to costly intervention work, on-going maintenance and annual assessments as recommended by the 2017 report (ARBVTA-0105).
There have been no definitive costs provided as part of this application in regard to the value of the tree in its current condition.

It is accepted that the tree will require immediate management to resolve issues within the crown such as hung-up branches, along with additional management and surveys; however, there have been no details of costs (precise or approximate) as part of the application to conclude whether future management would be cost prohibitive.

Were the tree to be retained for the medium-long term; it is likely that a geotechnical assessment of the outcrop would be required to understand the constraints posed by the outcrop. The outcrop is composed of Middle Coal Measures (Image No. 2) and

site visits have shown the material directly below the tree to be relatively friable, with a more resilient layer of material at the eastern end of the outcrop (Image No. 3).

Image No. 3 *– Material below the red dashed line appears more resilient to coastal exposure than the main body of the outcrop. The orange dashed area shows vegetation on the western side that is more established away from the coastally exposure eastern side. The material (soil horizon and outcrop) between the two highlighted areas appears more susceptible to erosion.*

It is unclear whether the outcrop has the structural integrity to support adequate stabilisation methods for the tree and outcrop; however, this has not been explored in this application in order to definitively rule-out retention and management of the tree and/or outcrop.

As stated in the previous section more information would be required through a detailed inspection in order to ascertain the viability of retaining the tree under a specific management scheme, with or without combined management of the outcrop.

In order to consider the long-term retention of the tree using stabilisation methods, a geotechnical survey would ascertain the feasibility of stabilizing the outcrop and root plate through adequate equipment (i.e. anchors, ground stabilisation cables/ geotextiles etc) and whether the outcrop would physically support anchoring equipment designed to stabilize the soil horizon and tree.

As with the management of the tree; precise or approximate costs have not been provided in the application in order to assess whether management of the tree and outcrop is cost prohibitive in relation to the value of the tree.

c. *No management carried out since previous application (NP/17/0009/TPO) was refused*

A tree report recommending management rather than removal has been provided at both times that an application to fell the tree has been received by this authority.

A tree report by Arb-Aid (*ARB/VTA-0105*) was provided as part of the previous TPO application (*NP/17/0009/TPO*) with one of the reasons for refusal by the committee at that time being '*possible preservation by outside bodies resulting from an expert report that the tree was potentially sustainable'.*

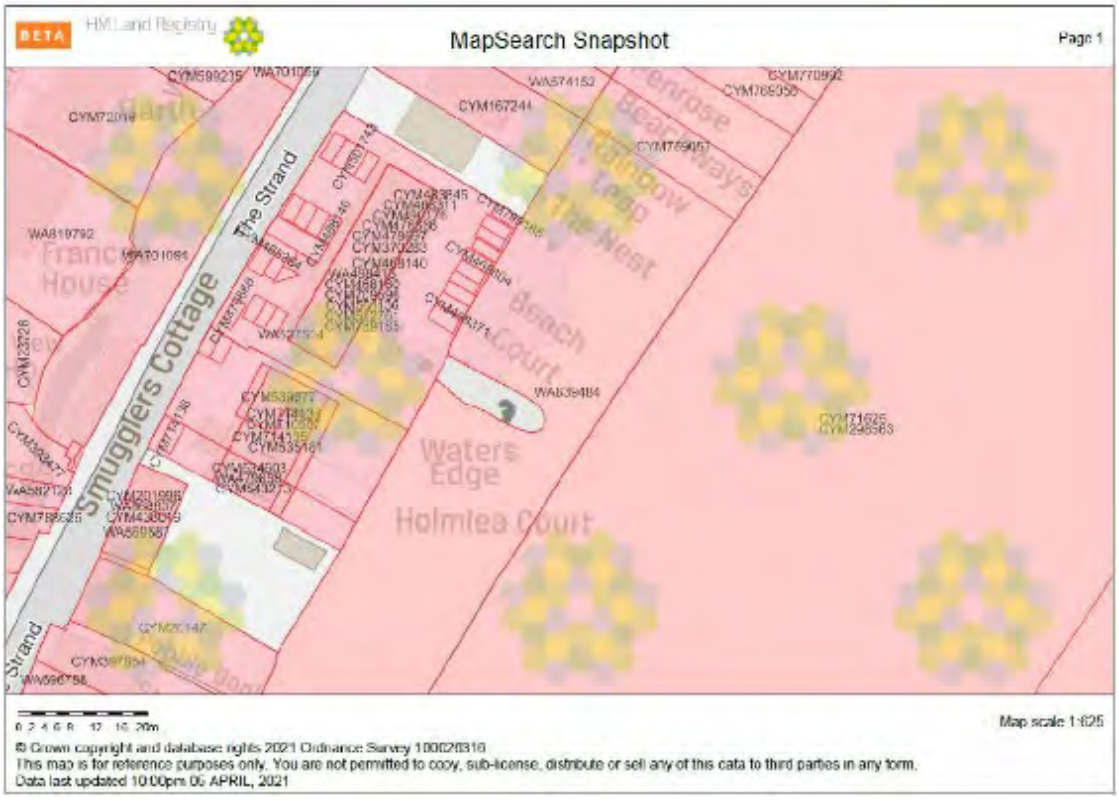
Four years on from TPO application *NP/17/0009/TPO*, no remedial works have been carried out, and no TPO application has been received by this authority by a third party to manage the tree.

d. *Unlikely that management will be carried out due to unknown ownership and responsibility*.

The section of the outcrop that the tree is located on is unregistered (Image No 4.) and as such is not under definable ownership.

At the time of writing this report there has been no official application to this authority from any party to manage the tree. The parties who have provided the *Arb/VTA/211.a* report have been asked by this officer whether they will be providing a TPO application to manage the tree as per the report; however, at the time of writing this report there has been no TPO application received by this authority for the management of the tree.

Image No. 4 – Land registry
White area on plan is unregistered land



e. *Continued deterioration of the tree and rooting environment*

The application has stated that the tree's condition and its rooting environment have continued to deteriorate. It is acknowledged that the crown of the tree is showing branch failures throughout the crown that are an immediate and actionable health and safety risk.

The failure of these branches may also lead to the requirement of further works to reduce exposure of adjacent branches.

A comparison of site photos from 2017 and 2021 (Image No. 5) confirm that there has been little or no additional erosion of the soil horizon in the last four years and would not be a justification for removal of the tree at this time.

Image No. 5 - Little or no visual change in soil horizon – with majority of reference roots still present.

2017

2021

f. *Unacceptable risk*

Additional risk assessment information was requested from the agent as part of the TPO application to provide a clearer understanding of the risk assessment of the tree. The agent assessed the risk using their own methodology as '5' which is shown on their risk matrix as between 'Risk Tolerable' and 'Risk Unacceptable'.

***Table 1** – Agent risk assessment*

Target value	Potential to fail	Size of part/severity	Risk rating
2	1	2	**5**

High/Moderate – Risk Unacceptable/Tolerable
Intervention essential/considered
Note: This calculation was clarified with the agent and is based on 'observations in the ArbAid reports that mention numerous problematic limbs and branches ranging in size from 100 – 300mm diameter'.

This score on the agent's risk assessment methodology states that intervention is essential to remove or reduce risk; with an attempt to weigh and balance the cost to any benefits when considering the work.

This balance does not seem to have been clarified in the associated documents; beyond confirmation that the client has a limited budget (as they are not the owners of the tree) and removal would be the most cost-effective way to remove the assessed risks within their budget.

Image No. 6
Main stem union at 3.5 metres with signs of fibre-buckling visible along with included bark

g. Foreseeable failure of tree

The application appraisal states that the failure of the tree is foreseeable and has the potential to cause harm.

The risk analysis provided suggests that this is most likely to be from failure of the stems (based on size of part). An assessment of the tree, has identified a multi-stemmed union at 3.5 m with included bark and signs of localised fibre-buckling (Image no. 6). Multiple stems is a key structural symptom associated with trunk/stem failure in the species.

The application has not provided any information as to whether the tree can be managed in order to reduce the risk to tolerable levels, or consideration to the balance of the benefits the tree provides and the costs of the works.

The intervention prioritization matrix within the risk assessment methodology recommends actions such as remove or reduce target (which would not be possible at this site), provide management to the tree based on the balance between the costs and the benefits of the tree.

Additional correspondence with the agent has confirmed that - as the tree is not on their client's property - there is insufficient budget for additional investigations in order to assess the viability of retaining this tree through management.

As such, it is not considered that alternative methods of management have been fully investigated as part of this application.

Additional correspondence has highlighted concerns that the level of management required may have a detrimental impact on the amenity and character of the tree. This is a possibility; however, it has not been fully explored in terms of site-specific management in order to make an informed response.
Appendix A provides additional risk assessments carried out by this officer based upon the agent's risk assessment methodology relating to various failures types for this tree: namely:

- Root failure - *High/Moderate – Risk Tolerable/Unacceptable*
- Stem failure - *High/Moderate – Risk Tolerable/Unacceptable*
- Branch failure - *Moderate – Risk Tolerable*

Additional information

- A TEMPO assessment has been carried out on the tree (See appendix B)
- A THREATS assessment has been carried out on the tree (See Appendix C)
- A CAVAT evaluation has been carried out on the tree (See Appendix D)
- An ISA Risk Assessment has been carried out on the tree (See Appendix E)

These assessments all confirm that the tree has the potential and amenity value to be retained; however, there are observable symptoms that require immediate intervention and additional issues that require long-term intervention.

Officers Appraisal of tree The information provided by the agent is not considered as providing adequate up-to date information to justify for the removal of the tree. The majority of the application information is based upon 2017 reports and more up-

to-date site specific information will be required.

Recent assessments of the tree by this officer have identified that the advanced erosion of the soil horizon suspected in 2017 is actually relatively stable with little additional erosion observed over the 4 year period.

The crown of the tree is showing degradation with failed branches and openings beginning within the crown that will require remediation; however, at this time the removal of the entire tree to resolve this would not be considered as justifiable.

The application relates to a multi-stemmed union with included bark and signs of fibre-buckling; which would require further consideration as multiple stems is a key structural symptom associated with trunk/stem failure in the species, although there has been no specific information from the applicant relating to the management of the feature, or information that retention is impractical.

A key concern for this officer is the likelihood of the tree being managed in the future if this authority refused the application to fell the tree.

There are immediate concerns for the safety of the surrounding area through injury/damage from existing failed and hung-up branches. There are also concerns for the medium term safety of the area through continued branch failure and possible failure of the main union which is showing signs of included bark and fibre-buckling.

There are longer term safety issues for the immediate area through possible root failure as the rooting area becomes compromised by exposure and erosion combined with the girdled root on the southern side. These symptoms would ordinarily be managed and monitored under the landowner's duty of care to ensure that the tree does not pose an unacceptable risk, however in this instance the tree does not have a registered owner.

The 2017 committee decision referenced the following as a reason for refusal: *'Possible preservation by outside bodies resulting from an expert report that the tree was potentially sustainable.'* However, no application has been received from any party relating to the management of the tree, and as such, it has continued to decline over the last 4 years.

At the time of writing this report; and based upon the condition of the tree, the previous TPO history of the tree, the lack of recent management, lack of ownership and no definitive proposals to manage the tree at this time, , the immediate health and safety of the tree and the immediate area must be carefully considered in any decision.

Conclusion

The information provided by the agent has identified that the tree has amenity value; however, the justification for removal rather than retention through management has not been adequately met by the information provided.

There has been no application to retain the tree, and as such the impact to the

character of the area were this tree to be removed must be weighed against the risk to persons and properties if the tree is retained and left unmanaged.

The *Arb/VTA/211.a* tree report recommending management rather than removal was received by this authority as part of the third party consultation process; and although there were points raised justifying retention of the tree, these points have not been adequately supported by documented evidence in order to add any bearing to the decision made by this officer.

Recommendation

The application be approved unless a TPO application to manage the tree is made and the management works are carried out within 6 months of this date.
This gives an opportunity for a TPO application to be received by this authority to retain and manage the tree, as well as allowing works to be arranged and undertaken.

If an application for the management of the tree is not received within this timescale; along with the necessary works being carried out, the removal of the tree should be approved.

APPENDIX A – Risk Assessment - Based upon agent's methodology.

Case officer assessment - Branch failure

Target value	***Potential to fail***	***Size of part/severity***	*Benefit (Aesthetic)*	***Risk rating***
*2**	*1*	*3*	*1*	***7***

**Target 2 - Branches are not definitively within falling distance of building*

Result: Moderate – Risk Tolerable
Intervention considered

Case officer assessment – Stem Failure

Target value	***Potential to fail***	***Size of part/severity***	*Benefit (Aesthetic)*	***Risk rating***
*1**	*2*	*2*	*N/A*	***5***

**Target 1 - Stems are potentially within falling distance of building if failing at 3.5 m union*

Result: High/Moderate – Risk Tolerable/Unacceptable
Intervention essential/considered

Case officer assessment - Root failure

Target value	***Potential to fail***	***Size of part/severity***	*Benefit (Aesthetic)*	***Risk rating***
*1**	*3*	*1*	*N/A*	***5***

**Target 1- Tree is within falling distance of adjacent building*

Result: High/Moderate – Risk Tolerable/Unacceptable
Intervention essential/considered

APPENDIX B – THREATS assessment:
http://www.flac.uk.com/wp-content/uploads/2010/07/THREATS-GN-June-2010.pdf

Failure example: Root failure
Failure score:
- 0.8 – Potentially with time
- Tree is showing a limited soil volume with exposed roots.
- The tree has a girdled root on the southern side with visual signs that it is having an impact on the development of the trunk.
- Root failure is the second most common failure in the species; with girdled roots a common factor as observed.

Target Score:
- 40 –Very high – Tree is within 1 x tree length of the building – Also parking area, and busy, open access beach area

Impact score:
- 10 – Severe - Structural damage, vehicles crushed – passenger fatalities very probable

Risk Evaluation Sum:
- 0.8 x 40 x 10 = 320

Threat Category: **3: Slight**

Recommended Action and Timescale
- *Re-inspect annually*
- *After storms (Force 10+)*
- *Expect to schedule work within 2 years*

Failure example: Stem
Failure score:
- 2 – Likely, Foreseeable – Inclusive bark at stem unions and signs of fibre buckling on stems

Target Score:
- 40 – Very high – stem failure point has potential to reach building structure – Also parking area, and busy, open access beach area

Impact score:
- 6 – Moderate – Moderate structural/ severe vehicle damage – fatal/disabling injuries likely

Risk Evaluation Sum:
2 x 40 x 6 = 600

Threat Category: **4: Moderate**

Recommended Action and Timescale
- *Remediate within 13 weeks,*
- *Reinspect after severe weather events (inc. gales to Force 7+)*

Failure example: Branch
Failure score:
- 8 – Probable/Soon – large detached and failed branches present in crown

Target Score:
- 20 – Medium - Parking area, and busy, open access beach area

Impact score:
- 4 – Minor - Damage/probable disabling/hospitalising injury to pedestrians

Risk Evaluation Sum:
8 x 40 x 4 =640
Threat Category: **4: Moderate**

Recommended Action and Timescale
- *Remediate within 13 weeks,*
- *Reinspect after severe weather events (inc. gales to Force 7+)*

APPENDIX C – TEMPO Assessment
http://www.flac.uk.com/wp-content/uploads/2014/12/TEMPO-GN.pdf

Condition – Fair (TEMPO Score: 3)
- The tree is a medium sized single-stemmed specimen
- It is an open grown specimen located on an outcrop
- The is showing defects within the crown including hanging failed branches
- The root area is of concern with an eroded soil horizon, friable rock structure and exposed roots
- The stem of the tree is showing a localised area of fibre-buckling on a main stem and included bark between stems.
- The needle formation is fair with some sparse areas and minor dieback within the crown extremities.
- The tree is considered to be have reached its size potential based on compared crown development and location (limited soil horizon).

Retention Span – Just suitable (TEMPO Score: 1)*
- The tree is recorded as being over 84 years old; with the species recorded as commonly showing failure at around 66 years.
- The tree is located on an outcrop with a limited rooting zone, which will limit the longevity of the tree as erosion continues to slowly erode.
- It is not considered that the tree can be retained without management; however, due to the tree species it is considered that the tree has reached it potential and is likely to decline in the short-medium term.

**A zero score has not been given in case the tree is incorporated into a management regime; However, if no management regime is forthcoming (TPO application to manage the tree) a zero score should be applied as the crown is declining structurally and is a Helath and Safety issue.*

Relative public visibility – Medium tree with limited view (TEMPO Score: 3)
- The tree is located on a raised outcrop on a busy tourist beach.
- The tree is clearly visible along the beach for an arc of 180o with selected views from higher pints within the village.
- The tree is not visible from the adjacent road (The Strand) due to adjacent buildings.

Sub-total: 7 (Must have accrued 7 or more points with no zeros to qualify)
**Subtotal if no TPO application applied: 6*

Other factors - identifiable locally historic importance (TEMPO Score: 3)

- The tree is noted as being planted by a local family in 1938

Sub-total – 10 (Must have accrued 10 or more points)

Expediency assessment – Immediate threat

- TPO application received *(TEMPO Score: 5)*

Total – 15 points –TPO defensible

If no TPO application to manage the tree is made prior to a decision being made - it is recommended that a score of '***6 - TPO indefensible'*** is assigned to the tree.

APPENDIX D - CAVAT Assessment

CAVAT	Quantities you measure / look up		Calculated Values
Step 1: Basic Value			
Measured Trunk Diameter	107.00		
Unit Value Factor	16.26		
Basic Value			£146,210.30
Step 2: CTI Value			
Community Tree Index (CTI) Factor	100		
Community Tree Index (CTI) Value			£146,210.30
Step 3: Location Value			
Location Factor	100		
Location Value			£146,210.30
Step 4: Functional Crown Value part 1			
Structural Factor	70		
Structural Value			£102,347.21
Step 5: Functional Crown Value part 2			
Functional Crown Factor	80		
Functional Crown Value			£81,877.77
Step 6: Amenity Value			
Positive Attributes Factor	40		
Negative Attributes Factor	0		
Amenity Value		140	£114,628.88
Step 7: Full Value			
Life Expectancy Factor	10 - <20		
FINAL VALUE			£63,046

The tree is calculated as having an approximate value of **£63,046**

APPENDIX E – ISA Basic Tree Risk Assessment Form

Failed branches

Likelihood of failure – Imminent

- Hanging branches present within crown.
- Failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load.
- This is an infrequent occurrence for a risk assessor to encounter, and it may require immediate action to protect people from harm.
- The imminent category overrides the stated time frame.

The likelihood of impacting a target: High

- Hanging branches above beach and parking areas
- The failed tree or tree part is likely to impact the target.
- This is the case when there is a constant target with no protection factors, and the direction of fall is toward the target.

Matrix 1 – Likelihood matrix - Very likely
The consequences of failure: *Minor*
Failed and hung-up branches are unlikely to cause fatal injuries; although minor personal injury, low-to-moderate value property damage, or small disruption of activities would be likely.

Matrix 2 – Risk Rating Matrix – Moderate
Intervention – not qualified in the assessment methodology

Stem Failure

Likelihood of Failure - Possible

- Inclusive bark at stem unions and signs of fibre buckling on stems – continued subsidence of the stems along with incremental growth could result in failure of the stem union.
- Failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions within the specified time frame.

Likelihood of impacting target – High

- The failed tree or tree part is likely to impact the target.
- This is the case when there is a constant target with no protection factors, and the direction of fall is toward the target.
- The tree is within one tree length of the building, car park, beach and outcrop.

Matrix 1 – Likelihood matrix - Somewhat
The consequences of failure: *Severe*

- Serious personal injury or death, high-value property damage, or major disruption of important activities.

Matrix 2 – Risk Rating Matrix – Moderate
Intervention – not qualified in the assessment methodology

Root failure

Likelihood of Failure - Possible

- Tree is showing a limited soil volume with exposed roots.
- The tree has a girdled root on the southern side with visual signs that it is having an impact on the development of the trunk
- Root failure os the second most common failure in the species; with girdled roots a common factor.
- Failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions within the specified time frame.

Likelihood of impacting target – High

- The failed tree or tree part is likely to impact the target.
- This is the case when there is a constant target with no protection factors, and the direction of fall is toward the target.
- The tree is within one tree length of the building, car park, beach and outcrop.

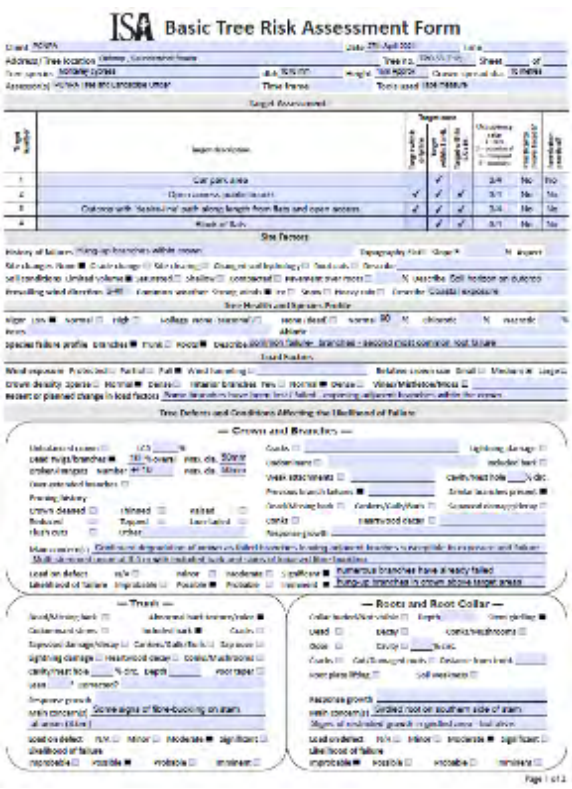
Matrix 1 – Likelihood matrix - Somewhat

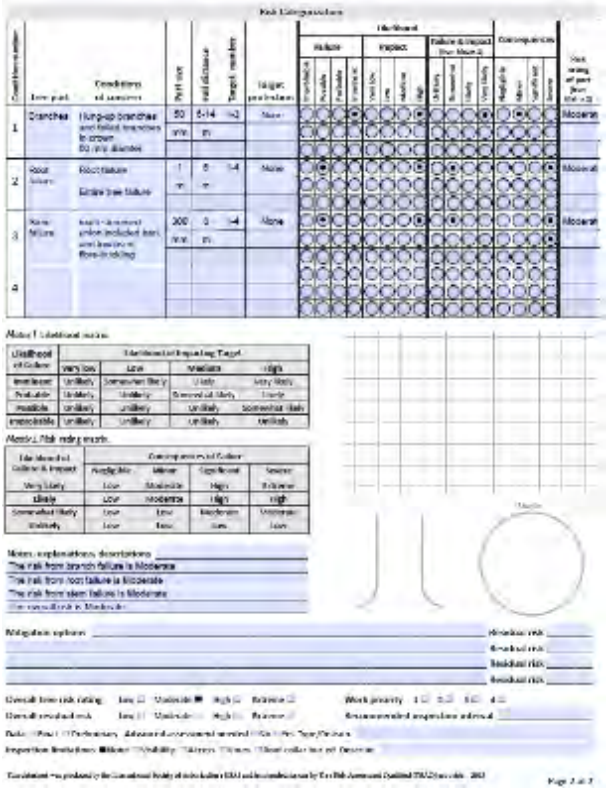
The consequences of failure: **Severe**

- Serious personal injury or death, high-value property damage, or major disruption of important activities.

Matrix 2 – Risk Rating Matrix – Moderate

Intervention – not qualified in the assessment methodology





APPENDIX F - Objections/comments received

The following points were raised in documents sent by consultees:

Key points of Objection to TPO

The main issues raised in the objection documents are:

1. *Ownership unknown*
2. *Contrary to policy*
3. *Tree continues to pose no threat to public safety*
4. *Miscellaneous Provisions Act is in place to deal with dangerous trees on private land.*
5. *Bat potential of tree*
6. *Tree can be managed without removal.*
7. *Too many trees lost in Saundersfoot recently*
8. *Species can live up to 300 years.*
9. *Protects Scar Rock (outcrop)*
10. *Felled for a view*
11. *Rooting form is good for coastal erosion*
12. *Biodiversity potential*

Comments on objections raised:

In respect of Issue (1) *Ownership*

In terms of ownership; this is not normally deemed as a planning consideration, and this planning authority does not have powers to deal with this type of matter; however, a key consideration in this application is that the tree is not under definitive ownership and as such is not under an existing management regime. This contributes to the perceived risk that tree poses and further investigation has been carried out within the limits of this authority's powers.

A land registry search identified that a section of the outcrop is within the ownership of the Beach Court development (Image No. 4). This issue was raised with the agent for Beach Court; who has confirmed that the tree lies outside the boundary of the property, in the area of the outcrop that is unregistered.

Another possible owner could be the family of George Williams referred to in the Friends of Saundersfoot comments. This letter mentioned that the family planted the tree on the outcrop in 1938. If they planted the tree on the outcrop it may have been under their ownership at that time. Prior to 1990 there was no compulsory obligation to register land.

The 'triggers' for registering land were that it had to be registered at the Land Registry on 'disposition' i.e., the sale or re-mortgage. If the section of outcrop was never sold then this may not have been triggered. Land registry does not include the section of outcrop on which the tree stands, so it could have been retained by the family when the main Beach Court plot was sold.

Ownership/responsibility is a key consideration in this application as it relates to the likelihood of future management of the tree; however, it is primarily a civil matter and has been addressed purely for the objections that raised the issue. At this time this

Authority is unable to definitively ascertain to owner of the section of outcrop on which the tree stands.

In respect of Issue (2) - *Contrary to policy*
This has been explained under the Policy considerations of this report.

In respect of Issue (3) – '*Tree continues to pose no threat to public safety'*
The application includes reference to the risk that the tree poses to the public based upon the experience of the consultant, and the additional report (*Arb/VTA/112.a*) also provides a hazard assessment based upon the experience of the consultant.

Both reports state that the tree is in such a condition that a lack of management would require the tree to be removed for health and safety; so this objection is not considered as a valid point.
An independent risk assessment (THREATS) of the tree has been carried out by this officer (See Appendix B) which finds that the tree is poses a safety issue if left unmanaged along with the potential risk from branch failure, stem failure or root failure.

The *Arb/VTA/112.a* report was revised to include Hazard assessment criteria. The report assesses the tree as currently having a rating of '6' based upon the following:

Failure potential	2	Defects are present and obvious eg. Co-dominant stems without included bark, small cavities encompassing <25% of the stem.	
Defect size	2	15 – 45 cm diameter	
Target	2	Picnic area, day use parking	
Total hazard rating	**6**	3 = Low 12 = Severe **A score of '6' is unexplained in assessment**	

The report refers to the ISA methodology; however, it appears to have been amended as the sections do not appear to relate to the ISA template (see Appendix E for this officers assessment of the tree using ISA).

The *Arb/VTA/112.a* report also refers to 'hazard assessment' rather than risk assessment which are separate considerations as defined by the Health and Safety Executive; namely:

- *Hazard: Something that can cause adverse effects*
- *Risk: Likelihood that a hazard will actually cause adverse effects*

ISA refers to risk as having two components:

(1) The likelihood of a tree failure striking a target, divided into:
- *The likelihood of failure*
- *The likelihood of impact*

(2) The consequences of failure

The ISA method is qualitative (providing an explanation of the risk – i.e. 'Moderate') whereas the *Arb/VTA/112.a* method is quantitative (providing a score – i.e. '6').

In reference to the score provided by the *Arb/VTA/112.a* assessment; I have looked at the formula and the result and I am unable to find a detailed key to the information

in order to understand what a score of '6' specifically represents. It is also unclear whether any of the proposed works would change the score (to a lower or higher risk rating).

In terms of the ratings and examples; it is the interpretation of this officer that the occupancy score is too low - '2' - Picnic area, day use parking; whereas the tree is adjacent to a public beach used for dog walking year-round and is in falling distance of a block of 37 apartments and associated overnight car-parking. This was raised with the writer of the report and the following response was received:

'*My observation of the target area is little to moderate use for the majority of the year, with one car there when I assessed the tree in April. With the flats being mainly second homes and holiday lets the parking area would mainly be used in the holiday season, this being approximately 3 months of the year and generally when the weather is good. The beach is mainly used when the weather is good, and I see this as similar to the picnic area description in the ISA Hazard rating.'*

This assessment would therefore suggest that it be classified as: *'3' - Storage facilities, seasonal camping area, seating areas.* However, this officer would assess the tree as *'4' - Residences, offices, year-round use for a number of hours each* day' as there are adjacent residences and parking (in use in April) and year round use of the beach by locals.

In terms of Failure potential the report gives a score of *'2 - Defects are present and obvious eg. Co-dominant stems without included bark, small cavities encompassing <25% of the stem'*.

However, in reference to 'Section 4 Tree Quality Assessment' of *Arb/VTA/112.a* the tree is recorded as having symptoms including:

- 3 scaffold limbs (300mm dia) at collar with compression unions
- Co-dominant at 9.5m, good union with little ears
- Creased bark/fibre buckling at 3m (600mm horizontal), Solid sound
- Start of inclusion at 2.4m between N/E stem & W stem
- Creased bark/fibre buckling between 2-3m on collar

By referring to the Visual Tree Assessment (VTA) methodology '*little ears'* do suggest included bark, and fibre-buckling is a symptom of compressive loading which most often causes failure in trees as the resistance of wood to compression is only half a great as its resistance to tension wood.

As such it would be the interpretation of the assessment criteria that the likely failure level would be above '2' as there is included bark and there are signs of compressive fibre-buckling in several locations. The prescriptive explanation in '3' is unclear in the report; however there are symptoms identified in the report beyond '2' so a half score is used. It is the interpretation of these points that would suggest that the 'hazard rating' would be more accurately assessed as:

Failure potential	2.5*	Compounding and/or significant defects present eg. Cavity encompassing 30 – 50% of the stem, multiple pruning wounds with decay along the branch	
Defect size	2	15 - 45cm diameter	
Target	4	Residences, offices, year round use for a number of hours each day	
Total hazard rating	**8.5**	**Scores between 3 and 12 are not unexplained in the assessment criteria – so it is unknown what the ratings represent or when action is required.**	

In respect of Issue (4) - *Miscellaneous Provisions Act*
Under consultation Pembrokeshire County Council have confirmed that it is unlikely that it would use its discretionary powers to intervene under *Section 23 and 24 of the Local Government (Miscellaneous Provisions) Act 1976*.

In respect of Issue (5) - *Bat potential of tree*
There have been observations made during the consultation period relating to bat potential of the tree, which is also raised in *Arb/VTA/112.a* through the presence of 'crevasses in the stem and middle crown', however there are no specifications of the crevasses in which to clarify if they would meet the minimum requirements of the bat species known to use this species of tree.

Section 5.9 of *Arb/VTA/122.a* refers to a summer bat roost; however no survey data has been provided to support this and a site visit carried out by this officer observed no visible signs of bat usage such as viewings, droppings below the hole, or grease stains at a tree hole.

Section 5.9 and Image 8 of *Arb/VTA/112.a* refers to 'bat roosts'.
It is acknowledged that the Common noctule (*Nyctalus nocula*) and Common pipistrelle (*Pipistrellus pipistrellus)* will use Monterey cypress for winter, pregnancy and nursery roost features*;* however, the report has not provided any confirmation of the tree being used as a bat roost.

A site visit in April by this officer carried out an assessment as to the likelihood of bats based upon a recognised methodology and noted the following points:

- The tree has a Medium/Low bat potential confirmed by:
  - Some small cracks and crevices
  - No ivy cover
  - Deadwood and hung-up branches within the crown
- There were no obvious signs of bats present:
  - No sightings confirmed
  - No obvious smell of bats
  - No grease stains around crevices
  - No droppings present
  - No urine staining below crevice.

This was raised with Arb-Aid who has suggested that the tree would be used *'for a summer roost …This is why the 'inspector' found no evidence of droppings as the bats will start use it in the coming weeks.'*
The Bat habitat key 2016[10] has recorded Monterey cypress as having bat occupancy in the following seasons:

- Winter – January & February
- Pregnancy – May & June
- Nursery – July & August

Although it is possible that the tree could be used as a pregnancy and/or nursery roost, there has been no information provided by the tree report to support that this has occurred.

In respect of Issue (6) - *Tree can be managed without removal*
The species is suited to coastal areas and is estimated to be tolerant to drought, but sensitive to waterlogging.
Arb/VTA/112.a report advises that the eroded rooting area can '*be infilled with mature wood mulch and the area of root system be protected with installing turf protect mesh over the surface and secure it with thread pins into the rock strata below, making sure not to damage the structural root system. This will prevent future erosion from foot traffic and maintain a healthier root system*.'

Image No. 7
Exposed roots shown growing into soil and outcrop.
Most roots can be seen entering and exiting the surface from grassed or soil areas with only occasional roots growing from cracks within the outcrop. Many are separated from the soil (gaps beneath) which questions the level of support that they are physically providing.

The reinstatement of the lost soil horizon could be acceptable in principle; however, the exposed roots have adapted to their exposure, and as the species is sensitive to waterlogging there are concerns that newly laid, moist mulch could be detrimental to these exposed, adapted roots (Image No. 7) resulting in stress of the root tissues and problems with waterlogging, pests and diseases and rotting of the root zone.

A detailed method statement for the implementation of this type of remediation would need to be carefully considered to ensure that it is not detrimental to the exposed roots.

In respect of Issue (7) - *Too many trees lost in Saundersfoot recently*
Each application is assessed on its own merits.

In respect of Issue (8) - The s*pecies can live up to several hundred years*
The *Arb/VTA/112.a* tree report refers to the longest living Monterey Cypress as being 284 years old; however, the source of this statistic is not actually referenced in the report and rather relates to an unconfirmed tree rather than either the general species characteristics or the specific tree to which the application refers.

The species was first sent to the horticultural society around 1838 as seeds, so there are no recorded trees in the UK older than 183 years in which to compare.

The particular species (Monterey cypress) has undergone a detailed structural failure assessment based upon 463 trees surveyed, which produced data showing that the species has a mean failure age of 66 years.

This particular tree is historically recorded as being over 84 years old and is now showing signs of the most common failure in the species – branch failure. This can be observed throughout the crown with significant branches within the crown having failed and detached, with some branches presently hung-up within the crown (Image No. 8) overhanging public and private areas.

The second most common failure in Monterey cypress is root failure, with girdled roots a common contributing factor. This particular tree is showing a significant girdled root on the southern side, which appears to have restricted the natural root flare of the tree in the immediate area (Image No.9).

Documented information does not support that the tree in question will live for ‘several hundred years’, as the tree is already showing symptoms of failure and is over-mature in terms of the mean failure age of the species (66 years).

Image No. 8

Deadwood and hung-up branches within the crown

Image No. 9
Red circle – Significant girdled root on Southern side of tree
Orange circle - Minor girdling root

In respect of Issue (9) - *Protects Scar Rock (outcrop)*
If the tree were to fail at the root (which is a common point of failure in this species) it is likely that the outcrop would be detrimentally impacted; whereas a controlled dismantling of the tree would minimise disruption of the outcrop or root zone.

The proposed removal of the tree leaving the stump in situ would not be considered as having a detrimental impact on the geological interest of the area as the main outcrop, soil and root structure would be retained. If the tree were to fail at the root in the future; the failure is likely to have a detrimental impact on the outcrop.

Proposed removal of the tree would therefore not be considered as being detrimental to the long-term special qualities of the area in terms of geology.

Arb/VTA/112.a states that this example of the species is *'why they are planted in coastal areas on rocky cliff edges'*, although there is no reference to the source of this statement in the report. It is accepted that the species is tolerant to drought and exposed locations; however, there is no information that the tree is providing erosion control of the outcrop.

It is not possible to ascertain with any certainty whether this particular tree is reducing the erosion of the outcrop. There does appear to be more significant erosion on the eastern side of the outcrop (Image no. 3), so the presence of the tree may be offering some protection to the eastern side of the outcrop, although the boundary walls of Beach Court may also be a contributing factor.

In respect of Issue (10) - *Felled for a view*
This has not been raised as part of the TPO application and as such the reasons for the TPO application are the only consideration at this time.

Note: By referring to GIS data Beach Court complex comprises 37 properties. It is not considered by this officer that the view from every flat within the complex is compromised by the presence of this tree.

In respect of Issue (11) - *Rooting form is good for coastal erosion*
Arb/VTA/112.a states that *'this species is unique in its root system, it will penetrate into rock strata and bore its tap root(s) into these for many meters* (sic)'*.*

There are examples of exposed roots present on the outcrop shown to be growing from the soil horizon into the outcrop (Image No. 7); however, the information relating to the taproot has not been referenced in the report and there is no information provided to support this statement.

Young cypresses develop a long taproot in the first year; however there is insufficient information to suggest that this particular tree retained the taproot beyond the initial years.

Historical records for this particular tree note that the tree was planted in 1938 and it was '*the family's custom to take the tree when it was small into the house but by 1937 it had become too large to be brought indoors again'.*

This regular re-potting or transplanting is likely to have resulted in the taproot for the tree being pruned and/or damaged, which is a common occurrence in nursery stock, and as such is it reasonable to consider that this particular tree would not have retained the a taproot when planted, and would instead have a more typical lateral root spread into the existing soil horizon, with occasional opportunistic roots establishing in outcrop cracks.
Actual UK storm damage surveys following the 1987 and 1990 storms showed that 95% of root plates were shallower than 2m, with the deepest root plate at 3m and an average root plate of 1-2m.

There is the possibility that some opportunistic roots within the soil horizon are utilising cracks within the outcrop to grow into, but there is no supported evidence provided in the report to support that this is the predominant nature of the root formation of this tree.

The roots on the outcrop that appear to be penetrating into the rock do not appear to be substantial in size or in number (Image No. 10) and the majority are 'bridging' the surface without direct contact along the length to provide active support.

There is no verifiable information provided in the report to suggest that the tree root system is growing beyond typical convention; and it is therefore reasonable to consider based on industry findings that the majority of the root zone is located within the soil horizon growing in a lateral formation, with only occasional opportunistic roots growing within cracks in the outcrop.

In respect of Issue (12) – Biodiversity potential
Observed faunal associations
The tree clearly has amenity value and is a visually significant feature with locally

historic relevance along the Saundersfoot beach, however, the information provided in *Arb/VTA/112.a* relating to habitat potential has discrepancies.

Arb/VTA/112.a report refers to a miner bee colony located within the outcrop (with supporting imagery (Figures 17-19). The proposed removal of the tree leaving the stump in situ would not be considered as having a detrimental impact on the colony as the main outcrop, soil horizon and root structure would remain. If the tree were to fail at the root, the resulting failure is likely to have a detrimental impact on the existing soil horizon in which the colony is based.

Most mining bees in the UK are solitary bee species. Solitary bees will nest with other bees in suitable conditions; however, the size of the nest aggregation at this site has not been clarified in order to ascertain the area of the soil horizon that the bees inhabit, or any reference to the scale of the nests.

There are recognised arboricultural methods for aerating soil such as the use of compressed air to decompact root zones; however, there is no supporting references within the report relating to miner bees providing an equivalent benefit in terms of 'oxygen into the compacted soil'.

Observed floral associations

Photographs 14 and 15 of *Arb/VTA/112.a* refer to '*ferns*' being identified on the tree to support the biodiversity of the specific tree. A site visit by this officer identified the species in Image 14 as a Wall pennywort (*Umbilicus rupestris*) with some lichens also present. Image 15 is a piece of green string (Image No.11).

A site visit confirmed the presence of other scattered epiphytes (pennyworts, ferns and lichens) on the tree; however, they are not of a number or species to be considered significant in this instance.

Image No.11 – Comparison images
Left – Wall pennywort (Umbilicus rupestris)
Right – Length of string