# International Dark Sky Landscape for Bodmin Moor





# **Executive Summary**

Bodmin Moor is a special place. Amongst the many environmental designations ranging from the international to the local, Bodmin Moor forms part of an Area of Outstanding Beauty. This means it benefits from the same planning status and protection as English National Parks. Visitors are already drawn to the dramatic panoramas, varied wildlife and intriguing history, with those already in the know also appreciating and learning about the stars in the exceptionally dark night sky.

Caradon Observatory readings taken in and around Bodmin Moor quantify the remarkable quality of the sky's darkness and correspond with the findings of the Campaign to Protect Rural England Night Blight study. The results show that even around the villages there are impressive views of the night sky.

There is considerable support from the public and stakeholder organisations for the establishment of Bodmin Moor as an International Dark Sky Landscape with "Park" status. Feedback from residents, businesses, landowners, farmers, astronomers, educators, environmental bodies and other statutory and charitable organisations has helped shape the proposals. Enthusiasm is such that there have already been calls to widen the buffer zone if the designation is successful. The alternative title for the designation stems from local feedback and reflects the AONB status.

Bodmin Moor comprises a varied moorland landscape with a few small villages and hamlets so there is very little artificial light. Nevertheless, steps have been taken and are continuing to be made to reduce light pollution, particularly from streets. This means that the vast majority of lighting is sensitive to the dark night sky and is becoming even more sympathetic. Nobody would be forced to change their lights. Good practice is being promoted and measures to limit light pollution from new development are to be enhanced.

Local observatories are already engaged in education programmes through local schools as well as more informal activities. There are exciting plans to build on this outreach in terms of the scope, formats and catchment, using the impetus of an international designation.

A local multi-stakeholder approach will be taken to managing the proposed designation. This will ensure that local interests help direct the future of the International Dark Sky Landscape. Recognition throught a designation will encourage and support further improvements in lighting and assist with securing both funding and inspiration for dark sky activities.



27 March 2017

Date:

International Dark-Sky Association 3223 North First Avenue Tucson Arizona 85719 USA

Dear Dr Barentine and the IDA Committee,

# **Proposed International Dark Sky Landscape for Bodmin Moor**

I am delighted to present this application on behalf of Cornwall Council and Caradon Observatory for Bodmin Moor to be considered as an International Dark Sky Landscape.

Bodmin Moor forms the largest stretch of the Cornwall Area of Outstanding Natural Beauty, where peace and tranquillity are promoted and efforts have been taken to minimise the already limited light pollution. The rugged moorland landscape is complemented wholeheartedly by the enthralling views of the universe above.

Bodmin Moor's dark night sky is a tremendous natural asset which is borne out not just by technical data but also captivating photography and the sense of wonder and delight created by the breath-taking nightscape. Residents and visitors, including astronomers, have been eager to tell us that they cherish the clarity of the sky over the moor and agree that international status would offer great potential for the local area and Cornwall as a whole.

Critically, we understand that a designation would be a gateway to numerous opportunities and not an end point. To maximise the enhancement of an International Dark Sky Landscape and the capacity for enjoyment and learning we believe a true partnership approach is essential. This is central to the management plan. Stakeholders have contributed significantly to the proposal and will continue by directing any future dark sky designation.

An international designation would also help facilitate Bodmin Moor becoming an inspiration for other places. We already know that communities elsewhere in Cornwall are becoming increasingly interested in protecting the night sky and eager to see what can be achieved.

We hope that this application meets with your requirements and very much look forward to working with you.

Yours sincerely

Edmie Hemolood

**Cllr Edwina Hannaford** 

**Portfolio Holder for Planning, Cornwall Council** 



27 March 2017

Dear Dr Barentine and the I.D.A. Committee,

Member Nomination for an International Dark Sky Landscape for Bodmin Moor

It is with great pleasure that we, the undersigned, nominate Bodmin Moor for International Dark Sky Landscape.

Ken Bennett and his wife Muriel purchased their small holding on the foothills of Bodmin Moor in 1986. Relocating from a Cornish town just across the water from the city of Plymouth they were truly amazed at the clarity and majesty of the Milky Way when viewed from this light free privileged position. It inspired them to immediately buy a small telescope and quality binoculars. They often speculated that it would be great to leave some sort of legacy when they moved on. That opportunity became more of a dream when new laws rendered the farm buildings redundant. Eventually Caradon Observatory came into being and the task then was to find highly talented and experienced astronomers to bring everything to "life".

We all give our time freely when we can. The main objective here is to inspire future generations from an early age to be so "wowed" that they may consider their future careers in the sciences, mathematics and engineering. Collectively and enthusiastically we considered ways to bring astronomy to the attention of as wide an audience as possible. An I.D.A. designation is without doubt the most crucial way of achieving this wider attention. It will elevate Bodmin Moor to even higher (excuse the analogy) accolades than it deservedly enjoys now. Conditions over Bodmin Moor are the best we have experienced in the British Isles and our images taken on modest equipment, together with our readings demonstrate that the quality of the night sky is first-rate.

Your approval of this application will create a groundswell of enthusiasm to maintain our uncorrupted skies, and where possible, improve them. It will create publicity at national level and generate increased "astro tourism" throughout the year. At the observatory we will be offering more ongoing lectures to Town and Parish Councils, along with schools and community groups, so as to raise awareness to other parts of Cornwall where they hopefully may wish to "do their bit". What we will aspire to achieve is to create a tsunami of enthusiasm within Cornwall and perhaps beyond, and maintain an ongoing dialogue with yourself at the I.D.A.. Bodmin Moor is already great in many ways and with an I.D.A. designation that beauty will be enhanced both day and night.

Many thanks for the opportunity to apply for consideration.

IDA Member Dr Wayne Thomas BSc (Hons), MB.BS, FRCP, FRCPath.

Ken Bennett I.S.M.

MgWillmoth

M.J.B.come FT

K. R. Bernett

Mike Willmott BSc(Hons), DIS, PGCE, FRAS

Michael Bennett BSc(Hons)

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# 1. Our Journey and Objectives

# 1.1. Our Journey

Our journey towards an International Dark Sky Landscape was inspired by astronomical observations and images demonstrating the quality of the night sky above Bodmin Moor. Caradon Observatory and Cornwall Council developed a shared vision of retaining the beauty of Bodmin Moor; preserving the night sky for future generations – of both residents and visitors – to enjoy. A wide range of stakeholders have been involved from the early stages and continue to help shape ideas and provide support.

# 1.2. Our Objectives

A dark night sky has wide-ranging benefits. Our objectives for Bodmin Moor are set out below:

- To preserve and enhance the dark night sky above Bodmin Moor for its beauty and to support the wellbeing of residents and wildlife
- To demonstrate the importance of a dark night sky and reducing light pollution
- To become a focal point for astronomy education and outreach in Cornwall
- To guide residents and visitors to the most appropriate locations and opportunities for appreciating the dark night sky
- To support astro-tourism
- To provide an inspiration to other dark sky places

# 2. Location and Description of Bodmin Moor

Bodmin Moor is situated in the eastern half of the Cornish peninsula, in the far south-west of the United Kingdom as shown in Figure 1:

Cornwall **Cornwall Location Plan** BODMIN MOOR 20 Miles

Figure 1: The location of Bodmin Moor

The boundary for the proposed designation is the extent of Bodmin Moor which is designated as part of the Cornwall Area of Outstanding Natural Beauty (AONB). A letter of permission from IDA Program Manager John Barentine for an application to consider only the Bodmin Moor extent of the Cornwall AONB is included at Appendix 1. Sections 5.2 and 5.3 explain the role of the AONB designation, which provides the same status and level of protection as English National Parks.

The Bodmin Moor boundary forms the "Core Area", measuring 80.6 square miles. This will be supported by a 2 mile "Buffer Zone" measuring 87.1 square miles. Good lighting practice and the associated benefits will be promoted across both of these areas. A detailed map of the proposed Core Area and Buffer Zone is provided at Figure 2.

Figure 2: Proposed Core Area and Buffer Zone for designation Tresmeer Werrington Werrington Treneglos Proposed Core Area Forrabury and Minster Egloskerry Proposed 2 Mile Buffer St. Stephens By Launceston Rurat Davidstow Local Council Boundary Laneast 3 / 8/1/ St. Clether 2 Miles St. Thomas the Apostle Rural Launceston Trewen Camelford Advent Lawhitton St. Teath / Rural South Petherwin St. Endellion Lewannick Altarnun Michaelstow Lezant St. Breward St. Kew North Hill Stokeclimsland Blisland Linkinhorne St. Mabyn South Hill Egloshayle St. Cleer St. Neot Helland Warleggan Callington St. Ive Cardinham St. Mellion Bodmin Lanivet Liskeard Menheniot Dobwalls and Trewidland Quethiock Broadoak Lanhydrock © Crown copyright and database rights 2017 Ordnance Survey 100049047.

Planning and Regeneration General\\16\_012 St. Pinnock Şt. Pinnock St. Winnow

Cornwall Council owned land represents 0.19% of the Core Area and 1.5% of the Buffer Zone (see Figure 3). This includes undeveloped land, housing, car parks, burial grounds, primary schools, farms, play areas, a quarry, rights of way and public toilets. As with UK national parks, there is not a reliance on public sector land for public access – this is enabled through Open Access Land (see Section 3.2).

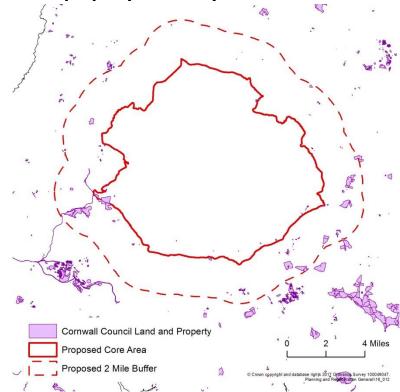


Figure 3: Land and property owned by Cornwall Council

Much of Bodmin Moor is a working agricultural landscape and established as common land (see Figure 4). The commons are privately owned and subject to rights of common grazing.

Common Land and Village Greens 4 Miles Proposed Core Area

Proposed 2 Mile Buffer

Figure 4: Common land and village greens

Bodmin Moor is a sparsely populated area of upland which features grassland, heathland, woodland, granite outcrops, pastoral farms, rivers, lakes, waterfalls, small villages and hamlets. A detailed description of the landscape can be found in Cornwall Council's Landscape Character Area Description<sup>1</sup>.

The villages include Blisland, St Neot, Altarnun, Five Lanes, Henwood and Minions. The populations of those parishes with a settlement in the Core Area are identified at Table 1 below. This table provides a guide to the rurality of Bodmin Moor; there are no known definitive population figures for the Core Area. As shown by Figure 2, all of the moorland parishes extend beyond the Core Area into the Buffer Zone (and some further afield), plus there are other parishes extending into the moorland with no settlements in the Core Area – so the total does not equate to the population of Bodmin Moor.

http://map.cornwall.gov.uk/reports landscape chr/areaCA32.pdf

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Table 1: The populations of parishes that have a settlement within or partly within the Core Area<sup>2</sup>

Parish	Population <sup>3</sup>
Palisii	Population
Altarnun	1,033
Blisland	608
Linkinhorne*	1,541
St Cleer*	3,297
St Neot*	947
Warleggan	222

<sup>\*</sup>Population is understood to be largely resident outside of the Core Area

Residents are served by community facilities including post offices, shops, primary schools, community rooms / halls and village greens within the moor. The A30 trunk road is the main vehicular route in and out of Cornwall and runs south-west to north-east across the moor.

As the crow flies, the nearest cities to Bodmin Moor are Truro (population 21,396<sup>4</sup>) 23 miles to the west and Plymouth (population 261,546<sup>4</sup>) 13 miles to the east in the neighbouring county of Devon. As well as visitors from within the south-west region, Bodmin Moor attracts holidaymakers from further afield, including international tourists.

Cornwall's highest point, Brown Willy (420m) located in the north of Bodmin, Moor is popular with walkers and offers extensive views. Other outdoor attractions on Bodmin Moor include Rough Tor (400m), Cheesewring tor (370m), Caradon Hill (370m), Siblyback Lake, Colliford Lake, Dozmary Pool, Golitha Falls and a group of ancient stone circles known as The Hurlers.

Visitors are also drawn to Jamaica Inn at Bolventor in the heart of the moor – the inspiration for the eponymous novel by Daphne Du Maurier; Carnglaze Caverns in the south of the Buffer Zone near St Neot which were created from slate mining; and the Minions Heritage Centre in the south east of the Core Area which educates about the Caradon District of the Cornish Mining World Heritage Site that coincides with the south-east of the Core Area and Buffer Zone. In addition there are the many churches, pubs, tea rooms and shops of the villages.

<sup>&</sup>lt;sup>2</sup> Settlements as identified by the Cornwall Council settlement hierarchy

<sup>&</sup>lt;sup>3</sup> 2011 Census, Office for National Statistics.

<sup>&</sup>lt;sup>4</sup> 2014 Mid Year Population Estimate, Office for National Statistics

The Buffer Zone is predominantly rural with minor villages. It reaches up to the southern outskirts of Camelford (population  $3,080^4$ ) in the north and extends towards the towns of Bodmin (population  $15,283^4$ , 1 mile away) and Liskeard (population  $9,698^4$ , 1.5 miles away) in the south. At its most southerly reaches the Buffer Zone also includes a stretch of the A38 trunk road which is the secondary vehicular route into Cornwall.

# 3. Bodmin Moor Access

# 3.1. Getting to and Around Bodmin Moor

There are many places on Bodmin Moor that can be enjoyed car-free by residents and visitors. Leisurely access is often via Jamaica Inn near the A30 or on foot from or around Colliford Lake, Dozmary Pool, Minions, Roughtor car park and Siblyback Lake. Cycling and horse-riding are also popular means of enjoyment and exploration. The Camel Trail and Cardinham Woods in the Buffer Zone provide popular recreational routes for walkers, cyclists and horse riders. There are also public bus services skirting the moor on all sides, providing connections to surrounding towns and nearby train stations. Coach tours of Cornwall often feature a trip to Bodmin Moor, typically including a visit to Jamaica Inn and affording scenic views of the landscape.

As Figure 2 shows, there are numerous small roads and lanes – particularly around the outer edges of Bodmin Moor. The A30 provides links to much of the rest of Cornwall and takes the majority of the road traffic between Cornwall and the rest of England. At the time of writing, the A30 is being widened between Temple and Higher Carblake into a dual carriageway to enable improved access through Cornwall for summer 2017. The expansion will not introduce new lighting. It will improve the flow of traffic through Bodmin Moor, which during previous summers developed into substantial tailbacks.

The A38 trunk road and the A39 are arterial routes which pass just within the Buffer Zone in the south and north respectively, providing additional connectivity to south and north Cornwall and Devon including the city of Plymouth. The mainline railway line from London to Penzance also passes within the southern reaches of the Buffer Zone, with nearby stations at Liskeard and Bodmin Parkway. Liskeard station is also served by a branch line to the small seaside fishing town of Looe (26 minutes) which is particularly popular with visitors. Other stations on the railway line providing a direct service include Truro (32 minutes to Bodmin Parkway), Plymouth (22 minutes to Liskeard) and London Paddington (3.5 hours to Liskeard)<sup>5</sup>.

Cornwall Airport Newquay lies 14 miles to the west of proposed Core Area. Commercial flights provide links to cities across the UK and Europe, typically by small passenger aircraft. The Aerohub at the airport is a centre for aerospace businesses and also hosts science and engineering educational outreach activities with the BLOODHOUND rocket and supersonic car testing programmes<sup>6</sup>. There are also efforts for the airport to become a spaceport to

<sup>&</sup>lt;sup>5</sup> Based on fastest current services and informed by National Rail Enquiries

<sup>&</sup>lt;sup>6</sup> http://www.aerohub.co.uk/current-cluster/bloodhound-ssc

enable low-cost access to space for the small and micro satellite industry<sup>7</sup>. The distance from Bodmin Moor means that it does not cause light pollution in the proposal area.

# 3.2. Open Access Land

A right of access for walkers, known as a "right to roam" is provided on Open Access Land under the Countryside and Rights of Way Act 2000. Open Access Land covers 42% of the Core Area – this is more than some UK national parks. The right to roam applies day and night and removes the need to keep to the legally protected public rights of way but is subject to restrictions e.g. on activities such as camping, lighting a fire, events, water sports, paragliding, hang-gliding, horse riding and driving. There are also some limitations where there are crops, gardens, buildings and certain other structures for example and there may be short periods of time where additional controls apply to certain areas.

Given the darkness, terrain, rurality, potential equipment and other practicalities of stargazing not all Open Access Land would necessarily be suitable for dark sky visitors. It is therefore planned that guidance will be provided on recommended appropriate, accessible and safe dark sky viewing locations which may include non-Open Access Land (see Section 11.2). Additional accessible locations include other private land which is managed for public access and public rights of way.

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<sup>&</sup>lt;sup>7</sup> http://www.publications.parliament.uk/pa/cm201617/cmselect/cmsctech/160/160.pdf

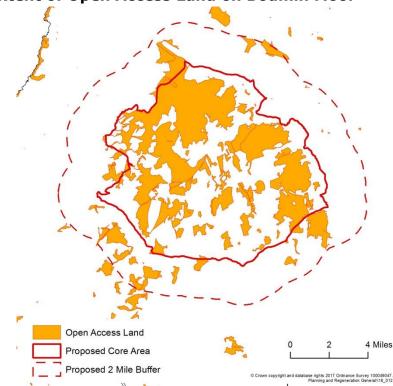


Figure 5: Extent of Open Access Land on Bodmin Moor

# 3.3 Communication Technologies

In addition to physical connectivity, Bodmin Moor benefits from broadband internet connections, (including areas with superfast broadband), good outdoor mobile phone signal and both 3g and 4g mobile internet coverage across the majority of the core proposal area<sup>8</sup>. This provides excellent opportunities for communicating, wayfinding, accessing up to date weather reports, using astronomical resources and sharing images and other data.

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<sup>8</sup> http://maps.ofcom.org.uk/check-coverage/

# 4. Natural and Historic Environment

#### **Overview** 4.1.

A rugged and sometimes bleak landscape, Bodmin Moor's colours and moods change with the seasons. Moorland ponies mingle with sheep and walkers with their dogs. The barren tops of Roughtor and Brown Willy can be glimpsed between the gorse bushes and ancient short stone granite walls.



Figure 6 Yellow gorse flowers with Kilmar Tor in the background9

Bodmin Moor is internationally famous due to its links with the Daphne Du Maurier novel inspired by Jamaica Inn which still sits atop a hill near the main arterial route into Cornwall. The moor's history goes back much further however. Although it is certain that the moor was used by Mesolithic hunter gatherers around six to ten thousand years ago, the first real visible evidence of human activity dates from around 3000BC, through ritual monuments such as long cairns, standing stones, stone rows and stone circles, followed by extensive Bronze Age hut circle settlements and the first field systems.

Much later in date, but showing continuity of occupation, deserted medieval settlements sit alongside these prehistoric houses. Most of the valleys show evidence of deep channels, reflecting the efforts of early tin streaming; this

<sup>&</sup>lt;sup>9</sup> Image: Michael Bennett, Caradon Observatory

mining activity continuing into the hard rock / underground mining of the post medieval period. The result of this long span of human history culminates in locations such as Minions, where within single vistas stones that have stood for centuries can be witnessed beside abandoned mineral mines, mineral tramways and quarries. South eastern Bodmin Moor forms part of the Caradon Mining District of the Cornish Mining World Heritage Site which also includes Phoenix United Mine, with Kilmar Tor and Sharptor to the north shown below.

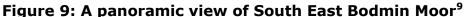
Figure 7: Abandoned engine house at Phoenix United Mine, Caradon Hill<sup>9</sup>



Figure 8: Remains of a railway track near Kilmar Tor and Sharptor9



The landscape of Bodmin Moor hosts an array of wildlife including otters; greater and lesser horseshoe bats; birds such as curlews, golden plovers, lapwings and snipes; fish such as salmon, bullhead and brook lamprey; and invertebrates such as the marsh fritillary butterfly, dragonflies and damselflies<sup>10</sup>. Many of the wildlife species are legally protected. A detailed report on the landscape and environmental qualities of Bodmin Moor is available from the government's advising body Natural England<sup>11</sup>.





The significance of the history and natural history of Bodmin Moor is reflected in a host of designations providing international, national and local recognition and conservation (see Table 2). The addition of an International Dark Sky Landscape would complement these by conserving and enhancing the natural setting above and around the special attributes.

Table 2: Historic and natural designations / listings with protected status in the Core Area

Designation	No.	% of Core Area	Status	Description
World Heritage Site	1	2%	Global	A place of outstanding value to all humanity. The natural and / or cultural significance is to be protected for future generations to appreciate and enjoy.
Special Area of Conservation	2	<1%	European	Protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the worlds biodiversity.

 $\frac{\text{http://publications.naturalengland.org.uk/publication/6654414139949056}}{24/01/2018]} \ [link updated 24/01/2018]$ 

<sup>10</sup> http://magic.defra.gov.uk/ and

<sup>&</sup>lt;sup>11</sup> http://publications.naturalengland.org.uk/publication/5032336

Designation	No.	% of Core	Status	Description
Area of	1	<b>Area</b> 100%	National	AONBs are designated solely for their landscape
Outstanding Natural Beauty	1	100%	National	qualities, for the purpose of conserving and enhancing their natural beauty (which includes landform and geology, plants and animals, landscape features and the rich history of human settlement over the centuries). See Section 5.2 for more information.
Biodiversity Action Plan Priority Projects	3	99%	National	UK Biodiversity Action Plan priority habitats and species that occur in Cornwall
Sites of Special Scientific Interest	8	22%	National	Protection to the best sites for wildlife and geology in Great Britain.
Scheduled Ancient Monuments	352	4%	National	An archaeological site that is recognised as being of national importance and is by definition legally protected and conserved.
Ancient Trees / Woodland	21 trees plus 12 areas	1%	National	Ancient, veteran and notable trees important for biological, cultural and historical reasons and irreplaceable.
National Nature Reserve	1	<1%	National	Many of the finest wildlife and geological sites in the country.
Listed Buildings	280	<1%	National	Buildings with special architectural and historic interest brought under the consideration of the planning system.
Areas of Great Scientific Value	2	99%	Local Authority (Cornwall Council)	Areas designed to act as buffers around the most important and sensitive nature conservation sites. They can provide links between protected sites
Areas of Great Historic Value	2	88%	Local Authority (Cornwall Council)	Areas where there is an important grouping of archaeological remains and important remnants of a historic landscape.
County Wildlife Sites	27	34%	Local Authority (Cornwall Council)	Features that are of substantive nature conservation value at a county level of significance.
Conservation Areas	5	4%	Local Authority (Cornwall Council)	An area of special architectural or historic interest with a character or appearance that is desirable to preserve or enhance.

Designation	No.	% of Core Area	Status	Description
County Geology Sites	6	<1%	Local Authority (Cornwall Council)	Conserves sites for public appreciation and protects sites that are historically important for advances in geological knowledge or have historical links with the local environment, culture, folklore or religion.
Tree Protection Orders	19 trees plus 14 areas	<1%	Local Authority (Cornwall Council)	Protecting individual trees and groups of trees.

# 4.1. A long and varied history

Bodmin Moor contains an exceptionally rich archaeological landscape. Few places in Britain can compare with its extensive landscape-scale preservation of prehistoric and medieval settlement. For example, there are around 1,500 prehistoric round houses within around 200 settlements<sup>12</sup>. The pattern of the land which was set in the Bronze Age and modified in the medieval period still survives today. Within this framework, farming still continues, very likely by the ancestors of the earlier inhabitants and in such a way that respects and understands the long history of the moor.

Alongside the settlements sit the ritual and ceremonial sites, equally impressive in number and preservation; 400 cairns and at least 16 stone circles and eight stone rows<sup>12</sup>. Again, the importance of these monuments within the moor is in the fact that they can be 'read' as complete prehistoric ritual complexes. It is possible to see the important inter-relationships between these monuments and the surrounding natural landscape. It is clear that alignments were key to their siting, both with natural features, particularly tors, and most likely with alignments to celestial bodies. It has long been argued, for example, that stone circles represented a form of agrarian calendar, linking with various alignments at key seasonal times of year. These early ritual and ceremonial monuments were affirming the place of the people within this landscape, intimately linked with the permanence of the natural landscape and elements.

A good example of this is The Hurlers, a series of three stone circles close to the village of Minions, the best known and preserved on the moor. Local legend states that a group of men were turned to stone for the crime of playing Hurling (a Cornish ball game) on a Sunday. In reality, the site is thought to date to the

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 $<sup>^{12}</sup>$  Peter Herring and Peter Rose; Bodmin Moor's Archaeological Heritage, CAU 2001

late Neolithic or early Bronze Age, possibly based on astronomical alignments<sup>13</sup>. Even if this is not the case, the building of such monuments perhaps reflects a very human compulsion to find and attempt to impose order in the world, something that would eventually lead to the rise of formal science.

It is certain that our ancestors - free from light pollution - would have experienced the night sky in a far more immediate and visceral manner than possible in most of the modern world. Today, Bodmin Moor still offers a largely unspoiled vista. Combined with the exceptional preservation of its prehistoric landscapes, an International Dark Sky Landscape would enable the moor to become one of the few places where the 21st century could come close to seeing and sensing the world of its prehistoric ancestors.





<sup>&</sup>lt;sup>13</sup> http://www.dailymail.co.uk/news/article-503384/Hurlers-built-mirror-stars-say-astronomers.html





A few hundred metres away from The Hurlers is the Rillaton Barrow, a 30m long burial mound.

Figure 12: Entrance to Rillaton Barrow<sup>9</sup>



When excavated in 1837 the grave goods found included a bronze dagger, beads, pottery, glass and a beautifully preserved gold cup, which now resides in the British Museum.

Figure 13: The Rillaton Cup<sup>14</sup>



A short climb up Stowe's Hill takes the visitor to Stowe's Pound.

<sup>&</sup>lt;sup>14</sup> Credit: Wikimedia user Fae, <a href="https://en.wikipedia.org/wiki/Rillaton">https://en.wikipedia.org/wiki/Rillaton</a> Barrow





This imposing enclosure is thought to date to the early Neolithic, making it perhaps 5,500 to 6,000 years old and as such is one of the oldest human-built structures in Cornwall. The entire site covers some five hectares and its ruined walls still stand up to five metres high in places, a considerable undertaking for the people of the time and a lasting testament to their organisation. Over 100 round platforms survive within the walls, and are likely to have been round houses. The role of these early Neolithic enclosures is uncertain, but it is possible that they had some sort of ceremonial or ritual purpose and would have been important high status meeting places.



Figure 15: Aerial view of Stowe's Pound upper enclosure<sup>15</sup>

These sites show the archaeological richness within just a small corner of Bodmin Moor.

There is a long history of mining on the moor, particularly for tin, copper and granite. Tin was of particular importance during the Bronze Age as major deposits are only found in four places in Europe: Iberia, Brittany, the German / Czech border and the south-west of the UK. There is evidence that Cornish tin was traded as far as the civilisations of the eastern Mediterranean. The Nebra Sky Disk found in eastern Germany, one of the earliest depictions of the cosmos, dates to about 1,600 BC – isotopic analysis of this artefact suggests that both its gold and tin originated in Cornwall. The cluster of stars is thought to represent the Pleaides. The importance of the role of Cornish mining is now recognised through a World Heritage Site designation.

<sup>&</sup>lt;sup>15</sup> Copyright Cornwall Council Historic Environment Record

Figure 16: The Nebra Sky Disk<sup>16</sup>



<sup>16</sup> Credit: Wikimedia user Dbachmann, <a href="https://en.wikipedia.org/wiki/Nebra">https://en.wikipedia.org/wiki/Nebra</a> sky disk

# 5. Existing Landscape and Lightscape Management

### 5.1. Overview of Cornwall Council and other bodies

Cornwall Council is the unitary authority covering Bodmin Moor. Its functions include:

- Duties towards AONBs (i.e. Cornwall AONB and Tamar Valley AONB);
- Local Planning Authority (i.e. Cornwall Council is the decision-making body for planning applications for new development<sup>17</sup> and sets local planning policies);
- Local Highways Authority (including maintaining most roads, public rights of way and street lighting);
- Local Education Authority (including responsibilities toward state schools);
- Housing (including provision of council housing);
- Health and social care (including child and adult wellbeing); and
- Leisure and culture (including facilities, arts and creative industries).

The Council's responsibilities towards AONBs include to:

- Prepare and publish a management plan for each AONB to set out how they will look after the AONBs. The duty to produce the Cornwall AONB Management Plan is discharged through the Cornwall AONB Partnership (of which Cornwall Council is a member);
- Take into account the purpose of conserving and enhancing the natural beauty of AONBs (e.g. in the determination of planning applications); and
- Consult Natural England in connection with development plans, with access agreements and with access orders.

In terms of governance, Cornwall Council has a Leader and Cabinet system. The 123 publicly elected councillors in turn elect a Leader on an annual basis. The Leader chooses up to nine Councillors to form a Cabinet. The Cabinet's responsibilities are divided up into Portfolios and each Cabinet Member is responsible for a Portfolio of work. Councillor Edwina Hannaford is the Portfolio Holder for Planning. This covers development management, planning enforcement planning policy, planning communications, environment strategies, building control and county farms. Councillor Edwina Hannaford has prepared the opening letter of support for this application on behalf of Cornwall Council as the appropriate administrative body.

A number of other statutory and non-statutory bodies including charities also contribute to land management on Bodmin Moor (see Table 3) and are consulted by Cornwall Council on a variety of issues. Many of these bodies act across the

28

<sup>&</sup>lt;sup>17</sup> With the exception of nationally "called-in" applications and appeals for example.

UK or England, including national parks. The more local organisations will generally have counterparts elsewhere.

Table 3: Key bodies contributing to land management in and around Bodmin Moor

Body	Remit
Department for the	The government department responsible for functions
Environment, Food	including countryside access, land management, landscape
and Rural Affairs	character, air quality, recreation and protected species.
(DEFRA)	
Environment	A national executive non-departmental public body,
Agency	sponsored by the Department for the Environment, Food
	and Rural Affairs. Works to create better places for people
	and wildlife, and support sustainable development.
	Functions include waste, water quality, flooding,
	conservation and ecology.
Forestry	The government department responsible for protecting,
Commission	expanding and promoting the sustainable management of
	woodlands and increasing their value to society and the
	environment. The Forestry Commission directly manages
	woods in both the Core Area and Buffer Zone.
Highways England	Central government company responsible for the trunk
	roads, namely the A30 and A38 in Cornwall.
South West Lakes	The south west's largest combined environmental and
Trust (SWLT)	recreational charity. Objectives include protection and
	conservation for the public benefit of the natural
	environment and facilities for recreation in the interests of
	social welfare, education. Manages Siblyback and Colliford
	lakes on Bodmin Moor.
Cornwall AONB	Work to conserve and enhance Cornwall's protected
Partnership and	landscape (Area of Outstanding Natural Beauty) so that it
AONB Unit	remains a key economic asset, valued by local people and
	visitors alike. See Section 5.2 for further details.
City council, town	There is one city council plus 28 town councils, 168 parish
councils, parish	councils, a community council and 15 parish meetings.
councils and parish	They are the first tier of local government and play a vital
meetings	role in engaging with local people and helping to shape
	their communities. Those covering Bodmin Moor (see
	Figure 2) have formed a Bodmin Moor Parishes Network to
	work in partnership on local issues.

Body	Remit
Bodmin Moor Commons Council	A statutory body. Its functions are to manage agricultural activities, vegetation and the rights of common and to
Commons Council	make rules relating to these. Bodmin Moor is a working agricultural landscape and the commons are a significant part of the landscape supporting a diverse range of moorland species and habitats. Proper management of the commons ensures biodiversity, ease of access, protection of archaeological sites and views from being obscured by scrub and vegetation. Such management is important for animal welfare, public enjoyment, its conservation and preservation of its heritage.
Association of	The association representing the owners of the common
Bodmin Moor	land of Bodmin Moor. All the commons are privately owned
Commons	and subject to rights of common grazing. All other activities
Landowners	are the right and responsibility of the landowners and managed by them.
Cornwall	An independent body set up by Cornwall Council to advise
Countryside Access Forum	on making the countryside more accessible and enjoyable to the public for open air recreation, in ways which address social, economic and environmental interests. Members are volunteers and represent a balance between users of the rights of access and rights of way, owners or occupiers of access land or land crossed by rights of way and those with other interests, including wildlife conservation, cultural heritage, tourism, sport and recreation, health, outdoor education and local business interests.
Camel Valley and	Works to improve and protect the local towns, villages and
Bodmin Moor	countryside for the benefit of the public.
Protection Society	

#### 5.2. **Bodmin Moor's AONB Status and Management**

# 5.2.1. Background to AONB Status

AONBs are landscapes of distinctive character and natural beauty which are recognised for their national importance. They are designated by the same legislation as National Parks and their landscapes have the same status and level of protection under The National Parks and Access to the Countryside Act 1949<sup>18</sup>. Section 85 of the Countryside and Rights of Way (CRoW) Act 2000<sup>19</sup> places a legal duty on all relevant authorities, including Cornwall Council, to have regard to the purpose of conserving and enhancing natural beauty when

http://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97http://www.legislation.gov.uk/ukpga/2000/37/contents

discharging any function affecting land within an AONB. Section 89 places a statutory duty on Cornwall Council (as the local planning authority) to produce a Management Plan for AONBs within Cornwall and review the plans every five years.

In addition to conserving and enhancing, there are two secondary purposes for AONBs: firstly, having regard to the needs of land-based and rural industries and of the economic and social needs of local communities, paying particular regard to promoting sustainable forms of social and economic development that in themselves conserve and enhance the area's natural beauty; and secondly, meeting the demand for quiet recreation.

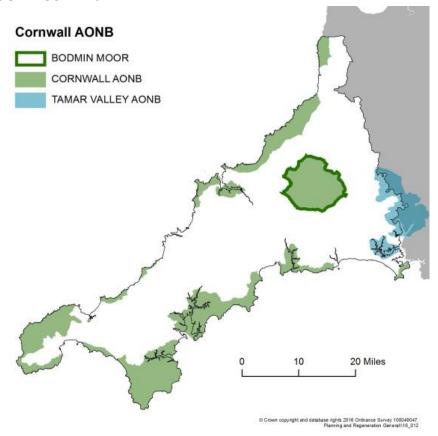
Sections 5.2.2 and 5.2.3 introduce and explain the management of Cornwall AONB and Section 5.3 sets out the importance and role of AONB status in planning.

#### 5.2.2. Bodmin Moor: Part of Cornwall AONB

Bodmin Moor has been a part of Cornwall AONB since the AONB was established in 1959. As illustrated in Figure 17, it remains the largest section of land in the Cornwall AONB, comprising over a fifth of the whole of the designation. Bodmin Moor on its own is larger than many of the other 45 AONBs in the UK<sup>20</sup>.

<sup>&</sup>lt;sup>20</sup> source: Cornwall AONB Management Plan 2016-2021 http://www.cornwall-aonb.gov.uk/management-plan/

Figure 17: Map showing the extent of Bodmin Moor and other land with AONB status in Cornwall



# 5.2.3. Managing Cornwall AONB

The Cornwall AONB Partnership is the body responsible for coordinating the conservation and enhancement of the Cornwall AONB. Its members are: Cornwall Agri-Food Council, Cornwall and Isles of Scilly Rural Partnership, Cornwall Association of Local Councils, Cornwall Council, Cornwall Health and Wellbeing Board, Cornwall Rural Community Charity, Cornwall Sustainable Tourism Project (CoaST), Cornwall Wildlife Trust, Country Land and Business Association, English Heritage, Environment Agency, Fal River Cornwall, Farming and Wildlife Advisory Group South West, National Farmers Union, National Trust, Natural England, University of Exeter's Environment and Sustainability Institute, and Visit Cornwall.

The statutory Cornwall AONB Management Plan is produced on behalf of Cornwall Council by the partnership and sets the agenda for the management of the protected landscape. The Management Plan for 2016-2021<sup>21</sup> explains that farming forms an intrinsic part of the landscape:

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<sup>&</sup>lt;sup>21</sup> http://www.cornwall-aonb.gov.uk/management-plan/

"The beauty and character of the AONB is primarily owed to the stewardship of generations of farmers and landowners. Traditional farm buildings of local stone and slate add greatly to the patina of the farmed landscape. Intricate small pasture fields bounded by Cornish hedges, hardy cattle and ponies on the moorland and traditional bulbs and vegetable horticulture are distinctive elements, maintained due to the actions of our land managers.

With the greatest proportion of land in the AONB used for farming, changes in farming and land management practices can have a profound effect upon the landscape, biodiversity and heritage. The farmed landscape in the Cornwall AONB still retains much of its Cornish identity, kept alive by a relative lack of large scale, intensive agricultural practices and the skills of local land managers."

The Management Plan also lists tranquillity, intrusion and night blight amongst its major monitoring indicators. Policy CC7 seeks to:

"Promote high levels of peace and tranquillity in the AONB with dark night skies by minimising noise, intrusive development and light pollution"

Relating to this, Policy RA2 supports "the pro-active de-cluttering of ... modern signage, lighting and furniture". Specifically in relation to Bodmin Moor the Management Plan seeks at BM12.10:

"to maintain current low levels of light pollution in order to maintain the dark night skies over the moor and support initiatives to designate Bodmin Moor as an important area for dark skies provided this is supported by landowners, the Commons Council and Parishes."

It also seeks "the retention of current positive rural aspects such as unlit sections and the reduction to the minimum necessary of highway signage, lighting and markings" (BM12.04) and encourages "projects that combine supporting and enabling the community, schools, landowners, commoners and farmers in conserving the natural and historic landscape, with providing education and training..." (BM12.08).

As the following section sets out, planning policies give great weight to conserving the landscape of the Cornwall AONB.

# 5.3. Planning and Building Control

Legislation requires that applications for planning permission for development must be determined in accordance with local and neighbourhood planning policies unless material considerations indicate otherwise<sup>22</sup>. Neighbourhood plans should be in general conformity with local plans, which in turn should be consistent with the National Planning Policy Framework.

Once planning permission is granted Building Control regulations may apply depending on the extent and nature of construction.

# **5.3.1.** National Planning Policy Framework

The National Planning Policy Framework (NPPF, 2012<sup>23</sup>) sets the parameters and direction for local planning policies and determining planning applications. It states at paragraph 115 that:

"Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty."

As part of its core principles for decision-making and plan-making, the NPPF seeks to contribute to "conserving and enhancing the natural environment and reducing pollution". Light pollution is included in the NPPF's definition of pollution and is specifically targeted at paragraph 25:

125. By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

The NPPF is supported by National Planning Practice Guidance on Light Pollution<sup>24</sup>. This guides decision-making and states at section 2 that one of the considerations for assessing the impact of a development proposal should be whether or not the development is "in or near a protected area of dark sky or an intrinsically dark landscape where it may be desirable to minimise new light sources".

http://planningguidance.communities.gov.uk/blog/guidance/determining-a-planning-application/how-must-decisions-on-applications-for-planning-permission-be-made/

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/6077/2116950.pdf

# 5.3.2.Local Planning Policy

The Cornwall Local Plan: Strategic Policies 2010-2030<sup>25</sup> was adopted in November 2016. It provides the overarching planning approach and policies for Cornwall. Those parts of Cornwall with AONB status, of which Bodmin Moor is one, have protection through Policy 3 which seeks to conserve and enhance the landscape character and natural beauty. Protection of the Cornwall AONB and the dark sky is further afforded through Policy 23, parts 1 and 2<sup>26</sup>:

# **Policy 23: Natural Environment**

1. Development proposals will need to sustain local distinctiveness and character and protect and where possible enhance Cornwall's natural environment and assets according to their international, national and local significance.

# 2. Cornish Landscapes

Development should be of an appropriate scale, mass and design that recognises and respects landscape character of both designated and un-designated landscapes. Development must take into account and respect the sensitivity and capacity of the landscape asset, considering cumulative impact and the wish to maintain dark skies and tranquillity in areas that are relatively undisturbed, using guidance from the Cornwall Landscape Character Assessment and supported by the descriptions of Areas of Great Landscape Value. ...

# **2(a).** The Cornwall and Tamar Valley Area of Outstanding Natural Beauty

Great weight will be given to conserving the landscape and scenic beauty within or affecting the setting of the AONB. Proposals must conserve and enhance the landscape character and natural beauty of the AONB and provide only for an identified local need and be appropriately located to address the AONB's sensitivity and capacity. Proposals should be informed by and assist the delivery of the objectives of the Cornwall and Tamar Valley AONB Management Plans including the interests of those who live and / or work in them. Major development in the AONB will be refused subject to the tests of exceptional circumstances and where it can be demonstrated that the development is in the public interest as set out in national policy.

Policy 23 is due to be augmented by a Supplementary Planning Document called "Assessing Landscape Impact of Development".

<sup>26</sup> Bold font used for highlighting purposes; this text is not bold in the policy except the headings.

<sup>&</sup>lt;sup>25</sup> http://www.cornwall.gov.uk/localplancornwall

In addition, Policy 12 states "Development must ensure Cornwall's enduring distinctiveness and maintain and enhance its distinctive natural and historic character" and Policy 13 states new development will be expected to avoid adverse impacts of pollution and visual effects.

# 5.3.3. Neighbourhood Development Plans (NDPs)

Neighbourhood planning is a relatively new initiative which gives communities direct power to develop a shared vision for their neighbourhood and shape the development and growth of their local area. As yet there are no adopted neighbourhood plans in the proposed Core Area or Buffer Zone although work is underway in some parishes. The draft Liskeard NDP seeks a light pollution impact assessment and the identification of mitigating measures to be incorporated into development proposals through emerging Policy OSL9<sup>27</sup>. Similarly, the draft St Cleer NDP requires housing development to not "contribute to light pollution, especially in the Bodmin Moor 'Dark Skies' area" through emerging Policy ECR3<sup>28</sup>. Other localities beyond the Buffer Zone have also indicated interest in developing a dark sky policy for their NDP in response to the proposed International Dark Sky Landscape.

#### 5.3.4. Other Material Considerations

In addition to planning policies, both avoiding disturbance and nature conservation interests, including the AONB Management Plan, (see Section 5.2) are taken into account in planning decisions. Crime reduction is also pertinent but the UK police guidance Secured by Design specifically recognises dark sky policies and states that "light pollution must be minimised"<sup>29</sup>. Road safety is a further material consideration although there are mechanisms in place with regard to light pollution. Street and highway lighting is considered separately at Section 8.

# **5.3.5. Building Control**

Part L of the Building Control regulations<sup>30</sup> applies external lighting efficiency requirements to certain works to existing buildings and new developments. This includes domestic and non-domestic efficiency standards, use of meters on lighting circuits and combinations of both automatic and manual control options.

<sup>&</sup>lt;sup>27</sup> http://www.planliskeard.co.uk/

<sup>28</sup> https://www.cornwall.gov.uk/environment-and-planning/planning/neighbourhood-planning/neighbourhood-planning-in-cornwall/tab-placeholder/s/st-cleer-neighbourhood-development-plan/

http://www.securedbydesign.com [broken link updated 24/01/2018]

<sup>30</sup> https://www.gov.uk/government/publications/conservation-of-fuel-and-power-approved-document-l

#### 5.4. British Standards for Highways Lighting

British Standards 5849-1: 2013 and 13201-2:2015 give recommendations for the design and performance of lighting for all types of highway and public thoroughfare. Section 4.3.5 of BS 5849-1: 2013 on obtrusive lighting recognises lighting can be intrusive in rural, otherwise darkened areas. It seeks the minimisation of upward lighting and states that lighting schemes in dark sky parks and AONBs should "be given particular attention". Details of street and highways lights on Bodmin Moor are set out at Section 8.

Highways England's Design Manual for Roads and Bridges<sup>31</sup> sets out the design, construction and maintenance standards for the roads it controls. Where lighting is present on trunk roads – such as the A30 – TD34 Design of Road Lighting for the Strategic Motorway and All Purpose Trunk Roads<sup>32</sup> applies. Criteria include safety considerations, traffic flow, reflective properties of the road surfacing, energy consumption and environmental impact.

#### 5.5. Environmental Legislation

Changes in legislation brought in by the Clean Neighbourhoods and Environment Act 2005, sections 101-103<sup>33</sup> mean that artificial light is now defined as a potential statutory nuisance. This enables Cornwall Council's Environmental Protection Team to take action where lighting is a statutory nuisance by being prejudicial to health or a nuisance causing substantial interference with the enjoyment of a person's property. The DEFRA guide<sup>34</sup> which accompanies the legislation advocates using the minimum amount of artificial outdoor light necessary, appropriate focussing, special optics or double asymmetric luminaires, screening, light sensors, timers, reducing glare and increasing efficiency.

ocal/legislation/cnea/documents/statnuisance.pdf

<sup>&</sup>lt;sup>31</sup> https://www.gov.uk/guidance/standards-for-highways-online-resources#the-design-manual-for-roads-and-bridges

http://www.standardsforhighways.co.uk/dmrb/vol8/section3/td3407.pdf

<sup>33</sup> https://www.legislation.gov.uk/ukpga/2005/16/contents [broken link updated 24/01/2018]

http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/environment/quality/l

# **6. Local Observatories Supporting an International Dark Sky Landscape for Bodmin Moor**

#### 6.1. Observatories in Cornwall

Caradon Observatory is a partner in this application. Tolcarn Observatory<sup>35</sup> and Roseland Observatory<sup>36</sup> are also active with observations and outreach activities and have provided enthusiastic support for the designation (see Appendix 8). Roseland Observatory also joined the 2016 public consultation event.

#### **6.2.** Caradon Observatory

#### 6.2.1. Background and Role

Caradon Observatory is a purpose-built outreach observatory seeking to inspire the pursuit of science and engineering through the medium of astronomy. The observatory is positioned at the south-eastern edge of Bodmin Moor, beneath an exceptionally dark night sky, with a range of personnel, facilities and activities. In particular, Caradon Observatory offers considerable expertise in astrophotography and astronomy teaching. It is the only observatory of its kind sanctioned by exam board Edexcel to provide images of celestial objects for GSCE astronomy.

Caradon Observatory was established in 2011 by Ken Bennett, a former civil servant engineer at Devonport Dockyard and his wife Muriel. Other members of the team include:

- Mike Willmott FRAS (Director of Astronomy) a Fellow of the Royal Astronomical Society, lecturer in astronomy teacher and local STEM ambassador with many years' experience. He teaches GCSE astronomy at Liskeard School and his students request images from Caradon Observatory to assist them in their coursework.
- Dr Wayne Thomas (Astronomical Imaging Specialist) a consultant at Derriford Hospital. Wayne is a passionate astronomer whose images of galaxies and nebula for example are absolutely incredible.
- Michael Bennett produces and updates the website and has captured many wonderful images of the Milky Way and some of the planets in our solar system. Together with Wayne he is trying new techniques to simplify obtaining images.

http://roselandobservatory.com

<sup>35</sup> http://tolcarnobservatory.com

Caradon Observatory gathered preliminary light quality data in 2014, made the initial contact with the International Dark-Sky Association, jointly participated in the public consultation event (see Section 12.1), undertook the final readings (see Section 7.2) and contributed to this application. A selection of images taken from Caradon Observatory is provided at Appendix 2.

#### 6.2.2.Location and Website

Caradon Observatory lies to the south-east of Bodmin Moor, within the Buffer Zone. It is just 300 metres to the east of the Core Area and approximately 1 mile north of the small village of Upton Cross. In addition to the main observatory there are two satellite facilities based in Exeter and Sandhurst which also contribute images used for research and outreach.

Caradon Observatory has its own website<sup>37</sup>, Facebook page<sup>38</sup>, Twitter pages<sup>39</sup> and links to Flickr<sup>40</sup>. These sites are used to educate and inform. Regular posts of news and observations show what can be seen from Bodmin Moor.

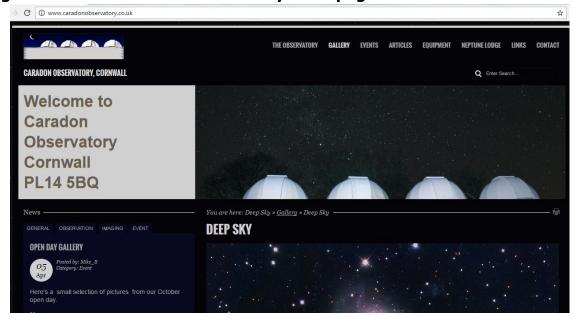


Figure 18: The Caradon Observatory homepage

<sup>37</sup> www.caradonobservatory.co.uk

<sup>38</sup> https://www.facebook.com/caradonobservatory/

<sup>&</sup>lt;sup>39</sup> @bodesgalaxy and @XRTCaradon

<sup>40</sup> http://www.flickr.com/photos/100875895@N06/sets/72157635251458175/

Figure 19: Caradon Observatory on Twitter

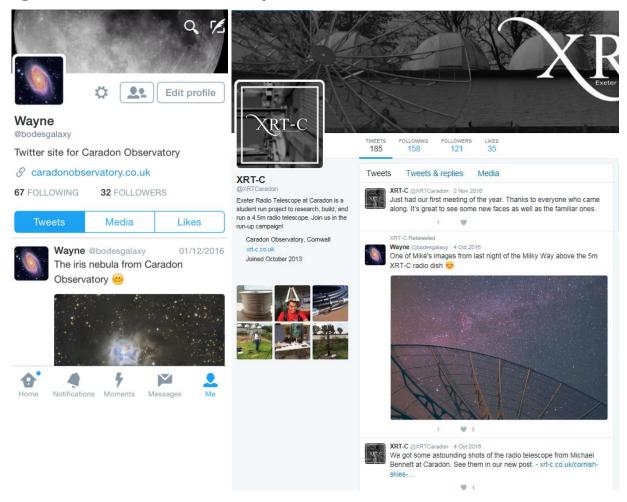
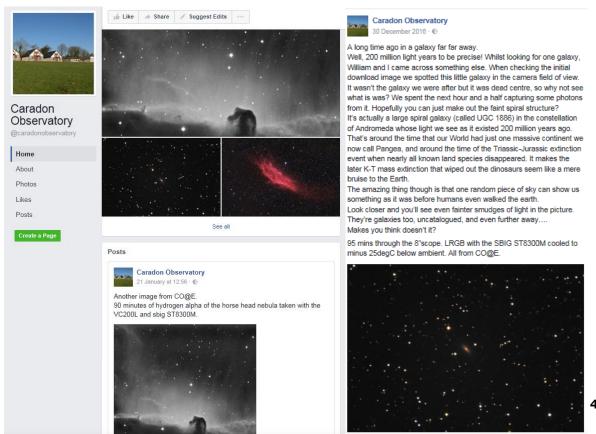


Figure 20: Caradon Observatory on Facebook



Caradon Observatory also uses their online presence to communicate and receive feedback about the proposed International Dark Sky Landscape. Both the initial conception of the project in 2014 and the public consultation in 2016 led to increases in the level of visitors to the website which demonstrates that there is much interest. The website statistics at Figure 21 show the increased traffic since 2013. This is in addition to Cornwall Council's dark sky webpage (www.cornwall.gov.uk/darksky) and social media activity.



Figure 21: Website views since 2013

#### 6.2.3. Facilities

The facilities available at Caradon Observatory include:

- Five domes.
- A range of telescopes including a 12 inch Newtonian Reflector on an equatorial tracking mount, a 12 inch Dobsonian, a 60mm Coronado

Solarmax H-alpha telescope, a 5 inch Apochromatic Refractor, an 8 inch flat field Vixen catadioptric telescope (particularly suitable for deep sky imaging) and a range of portable scopes and binoculars.

- A variety of imaging equipment including an Imaging Source Webcam, SBIG ST8300 Monochrome 8.3 MP camera capable of running 40°C below ambient, Canon EOS 450D and Nikon D3200. LRGB imaging can be employed using Baader LRGB filters housed in a USB-controlled StarlightXpress filter wheel.
- A stone circle / sundial.
- Flexible lecture / conference room.
- External space for rocketry.
- On-site accommodation, Neptune Lodge sleeps 6 to 7.

#### 6.2.4. Outreach Activities

Caradon Observatory's first outreach days were held in 2014, where Exeter University students, members of the public, scouts, guides and other interest groups visited over two days. They were able to see the equipment, observe through the telescopes, enjoy talks using the Magic Planet and take part in various activities. Also in 2014 Dr Thomas gave a talk to the Wadebridge Women's Institute about the dark sky above Bodmin Moor, and to the Plymouth Medical Society.

Figure 22: Inaugural outreach event at Caradon Observatory (2014)



Coinciding with the October 2014 outreach event and the initiation of the International Dark Sky Landscape proposal, a prestigious local brewery even released a limited edition ale!

Figure 23: Facebook feed of limited edition local Dark Sky ale



Caradon Observatory opened its doors for the partial solar eclipse of March 2015 despite the clouds! They also welcomed members of the local parish councils for a talk about 'Dark skies'. In November 2015 Dr Thomas gave a talk to the Camel Valley and Bodmin Moor Protection Society at their AGM. In 2016 the main focus was liaising with councillors and the public both at the observatory and at Jamaica Inn for the consultation (see Section 12.1). In April 2016, Dr Thomas continued his outreach to the University of Westminster, London to begin his annual stand at the schools science fair (see Figure 24), talking about the

formation and biology of iron. He also uses his stand to discuss dark sky preservation with the school children attending.

Figure 24: discussing the origins and biological use of iron at the Annual Schools Science Fair, London  $(2016)^{41}$ 



Caradon Observatory owner Ken Bennett is also a member of South East Cornwall Tourism Association. The observatory is committed to giving lectures to tourism businesses around Bodmin Moor to enable them to fully grasp the opportunities that the increased "astro tourism" will afford when designation is awarded. Its staff will also be able to offer on-going advice. Section 10 sets out future educational outreach plans to support an International Dark Sky Landscape.

<sup>41</sup> Photo used with permission from <a href="http://science4u.info/2016/photographs/">http://science4u.info/2016/photographs/</a>

44

### 7. Darkness Readings

#### 7.1. Campaign to Protect Rural England Night Blight Mapping

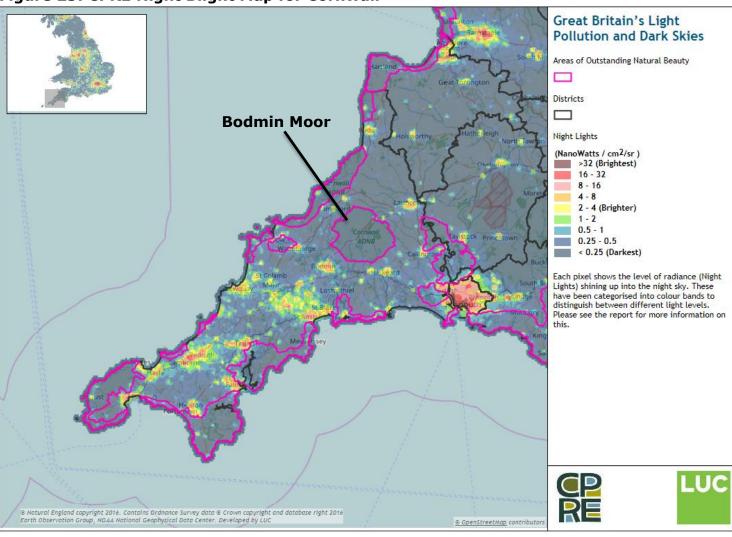
New interactive Night Blight mapping<sup>42</sup> based on satellite data captured at 1.30am throughout September 2015 has been published by CPRE. From this, CPRE identify Cornwall as the fourth darkest "county" in their study of England<sup>43</sup>.

Downloads from the map are included at Figures 25 to 27. These illustrate that even within the Cornish context, Bodmin Moor stands out as having a particularly dark night sky. Bodmin Moor is the single largest area in Cornwall of such good quality night sky. It has just three localised patches of slightly lighter conditions. Data on National Character Area 153 (closely aligned to the proposed Core Area) shows that around 80% of Bodmin Moor enjoys the darkest possible readings and ranks 13<sup>th</sup> out of 159 NCAs (see Figure 26).

<sup>&</sup>lt;sup>42</sup> http://nightblight.cpre.org.uk/images/resources/Night Blight cpre.pdf, based on satellite data captured at 1.30am throughout September 2015

<sup>43</sup> https://nightblight.cpre.org.uk/images/resources/Night Blight cpre.pdf page 9





<sup>44</sup> http://nightblight.cpre.org.uk/maps/

LUC England's Light Pollution and Dark Skies Campaign to Protect Rural England Q Q D 🕹 🖨 XX OpenStreetMap Search tools Areas of Outstanding Natural Beauty -Cornwall AONB National Character Areas - NCA 153 More information < 0.25 (low) (%) 79.2 0.25 - 0.5 (%) 17.8 1.7 1 - 2 (%) 0.7 2 - 4 (%) 0.5 8 - 16 (%) >32 (high) (%) Average (Mean) Rank How to use the maps Natural England copyright 2016. Contains Ordnance Survey data & Crown copyright and database right 2016. Arth Observation Group, NOAA National Geophysical Data Center. Developed by LUC Credits

Figure 26: CPRE Night Blight Map for Bodmin Moor (NCA 153)<sup>44</sup>

Great Britain's Light Pollution and Dark Skies Areas of Outstanding Natural Beauty Night Lights (NanoWatts / cm<sup>2</sup>/sr ) >32 (Brightest) 16 - 32 8 - 16 4 - 8 2 - 4 (Brighter) 1 - 2 0.5 - 1 0.25 - 0.5 < 0.25 (Darkest) Each pixel shows the level of radiance (Night Lights) shining up into the night sky. These have been categorised into colour bands to distinguish between different light levels. Please see the report for more information on LUC 8 Natural England copyright 2016. Contains Ordnance Survey data 8 Crown copyright and database right 2016 Earth Observation Group, NOAA National Geophysical Data Center: Developed by LUCTURE. 8 OpenStreetMap contributo

Figure 27: CPRE Night Blight Map for Bodmin Moor (as part of AONB)<sup>44</sup>

The small patch of lighter conditions on the north-east boundary of the Core Area (see Figure 27) corresponds with the adjacent villages of Five Lanes and Altarnun. Altarnun features seven of the nine street lights in the proposed Core Area which currently emit light above the horizontal (with the remaining two at Common Moor which is not highlighted in the CPRE mapping) plus further street lighting and an adjacent lit junction on the A30 from lights that do not emit light upwards (see Section 8). Figures 28 and 29 showing Five Lanes illustrate that the impact of its street lighting is limited. Nevertheless measures are to be put in place to reduce spillage in this area as set out at Section 9.

Attanua to the Cameron to the Camero

Figure 28: Image of Five Lanes with turning for Altarnun to the left<sup>45</sup>

(Canon EOS 1300D, F3.5, 18mm FL, 0.6s, ISO3200)

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<sup>&</sup>lt;sup>45</sup> Photograph taken by the Caradon Observatory team

Figure 29: Image from Five Lanes across to Altarnun showing the street lighting<sup>45</sup>



(Canon EOS 1300D, F3.5, 18mm FL, 0.8s, ISO3200)

Less notably, there are two very small areas of subtly lighter conditions on the periphery of the proposed Core Area at Blisland village and at Bolventor. Of these, there is only one street light at Blisland (in the Buffer Zone) which emits some light above the horizontal and this spillage is due to be eliminated (see Appendices 3 and 4).

The vast majority of the proposed Buffer Zone is also shown to experience very dark conditions with lighter conditions corresponding to the villages in the west, south and north-east. Of these, Dobwalls, Pensilva, St Breward and St Cleer collectively include 32 street lights that emit light above the horizontal. Plusha village / A30 junction is another area of increased light. This is the only stretch of the A30 in the proposed Buffer Zone which is lit (also with a petrol station and other services), with a junction allowing traffic heading east to cross the west-facing carriageway. All the lamps are down-facing and provide additional safety lighting for the junction. Despite these small localities of increased radiance, the scale bar on the maps shows that the levels of radiance from the villages in the proposed Buffer Zone are modest. Further details of lighting are set out at Section 8.

Figure 30: Image showing the A30 junction at Plusha in the Buffer Zone (facing eastwards) with downward lighting and service station



(Canon EOS 1300D, F3.5, 18mm FL, 1/8s, ISO3200)

Figure 31: Image showing the A30 junction at Plusha (facing eastwards) with downward lighting and service station



(Canon EOS 1300D, F3.5, 18mm FL, 1/13s, ISO3200)

The relatively higher levels of light from the towns are outside of the proposed Buffer Zone and do not appear to reach the brightest category of light pollution.

### 7.2. Caradon Observatory Readings

Initial data was gathered by Caradon Observatory in 2014 to form the basis of evidence for undertaking further work. The final readings presented in this application were taken in the autumn of 2016. Data was mainly captured using a Unihedron Sky Quality Meter (SQM-L, see Figure 32) and a Dark Sky Meter

application with an iPhone. Since the iPhone App gave a slightly higher reading of around +0.2 bias, all readings provided in the spreadsheet (Appendix 3) are from the Unihedron SQM.

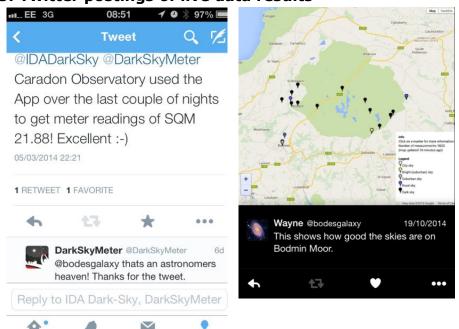
Figure 32: The Unihedron Sky Quality Meter (SQM-L) used to capture the darkness of Bodmin Moor



The advantages of the iPhone application include the ability to directly load the data onto a combined database and also enable the sharing of real-time data on social media as demonstrated by Figure 33.

Figure 33: Twitter postings of live data results

Notifications



The final set of readings was taken with the Unihedron SQM between 21 September 2016 and 29 November 2016 between around 11pm and midnight. The readings were taken during a last quarter moon and a new moon when the cloud coverage was minimal.

Readings were predominantly taken around the perimeter of the proposed Core Area, with further readings towards the centre of Bodmin Moor in the more accessible locations. Jamaica Inn (at Bolventor) is centrally sited with the single track road from Redgate (data point 7) to Bolventor (data point 12) considered representative of the sky quality throughout the proposed Core Area including locations in and around villages.



Figure 34: Map showing the locations of readings

The International Dark Sky-Association guidelines for International Dark Sky Parks establish Unihedron SQM readings of greater than 21.75 as gold standard, 21.74 to 21.00 as silver standard and 20.99 to 20.00 as bronze standard.

The 2016 readings are set out in a spreadsheet (Appendix 3). The Caradon Observatory readings are largely consistent with those of CPRE and also demonstrate the high quality darkness of the night sky above Bodmin Moor. The median result for the readings was 21.30 (absolute range 16.75 to 22.17; mean 21.07). Throughout much of the perimeter and deeper into Bodmin Moor on clear nights the expectation is that SQM readings of around 20 to 21 are normal. There has been very little change in the overall dark sky quality since the first readings in 2014.

In addition, photographs were taken at key locations showing the horizon and any visible light domes (see Figures 35-38). A Samyang 14mm f2.8 lens (at f2.8) was used on an unmodified Canon 700D (APS-C crop sensor) camera, with 30 second exposures at ISO 800. The field of view is about 78 by 56 degrees. The brightness of the images has been boosted by 34% to better show the features. As expected there are light domes visible, but they typically extend less than 15 degrees above the horizon. Figure 38E shows this well; the constellation of Orion is clearly visible despite the light dome. The Caradon radio mast (in the Buffer Zone) is seen in Figures 36E and 38E but its red lights only extend into the immediate vicinity of the mast and do not detract from the majority of the view of the sky.

Figure 35: The night sky over Crowdy Reservoir (near data point 27)





# B) Western horizon



# C) Southern horizon



# D) Northern horizon



# E) Eastern horizon



Figure 36: The night sky over Dozmary Pool (to the west of data point 11)

### A) Zenith



### B) Western horizon



# C) Southern horizon



# D) Northern horizon



# E) Eastern horizon



Figure 37: The night sky over the Draynes Valley (near data point 9)

### A) Zenith



# B) Western horizon



# C) Southern horizon



# D) Northern horizon



# E) Eastern horizon



Figure 38: The night sky over Minions (at data point 3)

# A) Zenith



### B) Western horizon



# C) Southern horizon



# D) Northern horizon



# E) Eastern horizon (showing the Pleiades to the top left of the radio mast atop Caradon Hill)



The following images from The Cheesewring and Roughtor further demonstrate the quality of the dark night sky.



Figure 39: The Cheesewring by Rhys Harris



Figure 40: Roughtor – the second highest point on Bodmin Moor – by Mike Wilson

### 8. External Lighting on Bodmin Moor

#### 8.1. Background

Given the rurality and low population of Bodmin Moor and the surrounding area, there is a very limited amount of external lighting in both the Core Area and Buffer Zone. Nevertheless in order to optimise conditions it is important to understand the nature of the lighting and determine the potential for improvements. CPRE advises that in England, one of the main light pollution culprits is street lighting<sup>46</sup>. A review has therefore been undertaken of street and highways lighting in and around Bodmin Moor. The street lighting is controlled by Cornwall Council, while lighting on the A30 trunk road is controlled by Highways England.

Appendix 4 identifies the locations of individual street and highways lamps in both the Core Area and Buffer Zone. It shows that almost all of the lighting is peripheral to the Core Area or in the Buffer Zone and that it is clustered to serve the villages, hamlets and key A30 junctions. There are no plans to introduce any further street or highways lighting. As set out below, considerable improvements have been made to the street lighting in the past few years.

#### 8.2. Street Lights: Invest to Save – Restoration Project

Cornwall Council has implemented a programme to become a pioneer in street lighting management and a world leader in carbon reduction. The Invest to Save<sup>47</sup> project replaced street lighting lamps throughout Cornwall with a new lamp technology and centralised control system enabling the following:

- The ability to vary light levels based on traffic usage / demand (dimming)
- The ability to switch lights on and off at any desired time
- The capacity to monitor the exact energy consumption of the units

Invest to Save was only possible due to advances in lamp and control gear technology and followed a public consultation and pilot project. The main beam of the light is focussed down onto the ground to maximise the useful light produced by the fitting and minimise light spill / light pollution. The project was completed in 2012, and has reduced energy consumption by 45% overall, which equates to a monetary value of £24m to date.

The public have been advised of the many benefits of the scheme including the reductions in light pollution across Cornwall. A summary of the public messages

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<sup>46</sup> http://nightblight.cpre.org.uk/images/resources/Night Blight cpre.pdf

<sup>&</sup>lt;sup>47</sup> [broken link removed 24/01/2018]

is available online (https://www.cornwall.gov.uk/media/3626966/Factsheet.pdf [link revised 24/01/2018]) including an example leaflet (https://www.cornwall.gov.uk/media/3626967/Information-leaflet.pdf). The success of Invest to Save was also set out at the Bodmin Moor dark sky public consultation event (see Section 12.1) and communicated at <a href="https://www.cornwall.gov.uk/darksky">www.cornwall.gov.uk/darksky</a> (main text and FAQs), serving as an example of how improvements to lighting should be a win-win for efficiency as well as reducing light pollution.

Appendix 5 provides a detailed schedule of the Cornwall Council street lamps in the Core Area and Buffer Zone. This shows that of the 120 lamps in the proposed Core Area, all but two units (co-located at Common Moor) have been networked (98%) and put on a dimming regime. In the Buffer Zone 626 units (95%) of the 657 lamps have been networked and put on a dimming regime. The remaining lamps yet to be upgraded in the Buffer Zone are located across several settlements with no significant clusters in the immediate vicinity of the Core Area. It is not possible to network every single street lamp due to some being isolated units in remote locations but the aspiration is to upgrade wherever feasible.

In the Core Area 92.5% of the lamps are designed so that they do not spill light above the horizontal. This rises slightly to 92.8% in the Buffer Zone. It is Cornwall Council's aspiration to reduce upward spillage from the remaining lamps.

The correlated colour temperature is also detailed at Appendix 5. This shows that all of the street lights within the proposed Core Area and over 97% of the lights in the Buffer Zone are below 3000K. Those 15 lights with a correlated colour temperature of 4000K are clustered on the most outer reaches of the proposed Buffer Zone in the town of Camelford and are on a dimming regime.

#### 8.3. Highways Lighting

Appendix 6 schedules the Highways England trunk road lighting in the Core Area and Buffer Zone. This lighting is not under Cornwall Council control as Highways England is a government company but the data is provided for context. There are only five lamps in the Core Area (clustered at Altarnun in close proximity of the Cornwall Council street lighting), plus 71 lamps in the Buffer Zone clustered at Altarnun, Lewannick and Polyphant. All relate to the A30 trunk road, with none along the A38.

All of the Highways England lamps are photoelectric control units which turn on at dusk and off at dawn. The works to upgrade the A30 to a dual carriage way at Temple will not introduce lighting. All highways lamps in the Core Area and 59% in the Buffer Zone direct the light downwards, with the remainder in the Buffer Zone allowing just 0.2% spill (of total lumens) between 90 and 100 degrees and 0.7% between 100 and 180 degrees.

The correlated colour temperature of the five highways lights in the Core Area is 3000K. The lights in the Buffer Zone have a colour temperature of either 2800K or 3000K.

### 8.4. Cornwall Council Property

Street lighting represents the vast majority of external lighting relating to Cornwall Council in the Core Area and Buffer Zone. In addition to street lamps, Cornwall Council also owns property (see Section 2). Those Council-owned properties with a public-type use (e.g. schools) with external lighting in the Core Area and Buffer Zone are however autonomous for the purposes of external lighting. The externally lit properties in private-type uses (i.e. residences) have not been scheduled as this would be personal / private data.

### 9. Lighting Management Plan

#### 9.1. Context

As set out at Section 8 there are already controls in place to limit light pollution on Bodmin Moor. There is also a range of emerging schemes that would be built upon with the benefit of an International Dark Sky Landscape. These are set out below.

#### 9.2. Cornwall Council Lighting Improvements and Compliance

To build on the Invest to Save project's improvements (see Section 8.2) and support a designation, further changes to street lights are planned to take place in 2017. These improvements are set out at Appendix 7 and comprise switching refractors and lamps to prevent light spillage above the horizon in 19 lamps using second-hand / spare equipment and using black paint to part shield a further five heritage style Abbey lamps. Although the bulbs in the heritage style lamps are already located in the top of the lamp in line with IDA guidance, the paint will further reduce remaining upward spillage. The paint will be applied to the rear in all of the heritage lamps except three – only one of the remaining lamps is in the Core Area.

In the Core Area there will be physical mitigation measures to 8 street lights this year. With these improvements and the existing dimming it is considered that each of the 120 street lights in the Core Area will be dark sky-friendly by the end of 2017. All of the lamps have a correlated colour temperature less than 3000K. The one heritage style lamp (J002) where there is some limited upward light spillage and physical mitigation is currently not possible for safety reasons has the bulb set into the top of the heritage lamp and a dimming setting of 75% is in operation. The remainder of lamps will either emit no uplight or have physical mitigation plus 75% dimming.

In the Buffer Zone, there will be physical mitigation measures to 16 street lights in 2017. There are two heritage style lamps where there is some limited upward light spillage but physical mitigation is currently not possible for safety reasons (H006) or not beneficial because it is very close to a wall (H007) but the bulb is set into the top of the heritage lamp and a dimming setting of 75% is in operation in both. The remaining 46 lamps where there is either some uplight or a correlated colour temperature exceeding 3000K are primarily located on the very outer reaches of the Buffer Zone and are dimmed to either 75% or 50%. None of the lights exceeding 3000K emit any uplight. It is therefore considered that the lights in the Buffer Zone are sensitive to the Core Area.

Cornwall Council is also open to considering the removal of street lights in rural areas where residents are all in agreement, subject to operational

considerations. This may be of interest to the future Steering Group (see Section 11.1).

Cornwall Council aspires to avoid unnecessary light pollution from those premises the Property Services department manages, including through appropriate design controls to be expressed in its new Property Strategy.

Cornwall Council will implement the following requirements to necessary new or replacement external lighting it controls for council housing (i.e. social housing in both the Core Area and Buffer Zone) and Pensilva gypsy site (in the Buffer Zone):

- Any lighting fixtures above 500 initial lumens are required to use fully shielded fixtures emitting no light at or above the horizontal. When unshielded fixtures are used, impacts to the lightscape must be minimized with the use of timers and / or curfews
- Methods for determining the appropriate type of lamp (colour, efficiency, technology) and fixture that should be used with goals to maximize energy efficiency and minimize impact to human vision dark adaptation / recovery time, wildlife, and the nocturnal ecology. The correlated colour temperature (CCT) of lamps installed shall not exceed 3000 K, and a CCT of 2000 K or less is recommended to minimize the impact on most wildlife.

Lighting would be deemed necessary where there are safety issues. The approach would also be applied to any new council housing or gypsy sites in the Core Area or Buffer Zone. The above standards are consistent with the approach that is to be taken in planning conditions (see Section 9.5) and exceeds other policies / requirements.

As well as being proactive in the consideration of its lighting, Cornwall Council also aims to be responsive where issues arise. For example, residents and organisations can (and do) request changes to existing lighting. In some cases the requests have been inspired by the proposed designation. Requests are considered factoring in safety and cost.

Where there is lighting on Cornwall Council premises and Cornwall Council does not have direct control, the tenants and other end users will be able to access the guidance for private lighting (see Section 9.4).

#### 9.3. Highways England Lighting

In the pursuit of more efficient lighting systems, Highways England's preference would be towards lights with low up-spill.

#### 9.4. Private Lighting

Nobody will be required to change their existing lighting. Cornwall Council will however be promoting the International Dark Sky Landscape if it is achieved and will be advising that improving lighting is a "win-win" for both light pollution and efficiency savings – as well as providing benefits for health, wildlife and enjoyment of the stars. Good practice will be encouraged and advice will be provided for when lights need to be replaced. This would be supported by the educational outreach activities (see Section 109.5). An example of the types of messages that will be promoted is set out in Figure 41. This will be supplemented with more detailed online guidance. With the overwhelming public support for the designation it is understood that the guidance will be welcomed. The key lighting messages have already been presented as part of the public consultation and were well-received.

# Figure 41: Example public messages on reducing light pollution in and around an International Dark Sky Landscape (indicative leaflet content in the event of designation<sup>48</sup>)

### A Quick Guide to Minimising Light Pollution in Bodmin Moor International Dark Sky Landscape

#### Enhance the night sky and be energy efficient

Bodmin Moor's night sky is amongst the best in the world. Following public consultation and detailed assessment, Bodmin Moor has been recognised as an International Dark Sky Landscape by the International Dark-Sky Association.

Guarding against light pollution will help protect this extraordinary natural spectacle which offers considerable enjoyment, educational, health, wildlife and tourism opportunities.

We will not and cannot make anyone change existing lights as a result of the designation. Lighting is important to modern daily life but it can be too bright, poorly aimed, create shadows and be left on when it isn't needed. Poor use of light can be harmful to the night sky, wasteful and in some cases a nuisance. Well considered lighting can be practical, give us the feeling of safety and save money.

#### Basic tips

This is a guide we hope you'll find helpful if you are a resident, business or visitor on Bodmin Moor or its surroundings.

- Turn lights off when you don't need them
- Consider using timers and motion sensors
- Only light the area that is necessary
- Keep lighting turned down as low as practicable, make sure you can see what you need to without being too bright
- Consider installing shields to reduce unnecessary light pollution
- If you replace or install a light make sure it's a down light that's fit for purpose and isn't overly bright.
- Choose a warm light (not blue-white light)

For more detailed guidance and FAQ see <a href="www.cornwall.gov.uk/darksky">www.cornwall.gov.uk/darksky</a> and <a href="http://darksky.org/lighting/lighting-basics/">http://darksky.org/lighting/lighting-basics/</a>

Be part of the International Dark Sky Landscape and help us keep Bodmin Moor's starry night sky special.

<sup>&</sup>lt;sup>48</sup> Images from <a href="http://darksky.org/lighting/lighting-basics/">http://darksky.org/lighting/lighting-basics/</a>; public messages to be subject to finalisation and design work.

### Figure 41 cont.:

#### Discouraged

Fixtures that produce glare and spill light.

#### Preferred

Fixtures that shield the light source to minimise glare and light spillage and facilitate better vision at night.



#### 9.5. Development Management and Enforcement

Light itself, minor domestic light fittings, vehicle lights and other mobile-type lighting are not subject to planning controls but may be subject to other types of regulation (see Section 5.5). Planning permission is required for "development" defined under section 55 of the Town and Country Planning Act 1990<sup>49</sup>. This means that controls can be applied to where there are building, mining and engineering operations and changes of use for example. Lighting schemes themselves can require permission / consent e.g. where they are mounted on poles / structures, part of a commercial scheme or for advertisement.

In the determination of planning applications Cornwall Council must have regard to the planning policies and "material considerations". Adopted planning policies and designations support the dark night sky and make it unlikely that major development would be granted planning permission on Bodmin Moor (see Sections 4.1 and 5.3). An International Dark Sky Landscape designation will be a "material consideration" if a proposal may be detrimental to this status.

In instances where potential external lighting associated with new development is a concern, the planning permission would be granted subject to Cornwall Council's subsequent approval of the lighting details. This requirement would be contained in a "planning condition". This planning condition would require the developer to only light the scheme according to the details approved by Cornwall Council. In this way the principle of the wider development is unlikely to be affected. This approach would apply to planning applications made by Cornwall Council as well as external applicants.

Details of the lighting which can be made subject to planning condition – to be considered on a case by cases basis – include but are not limited to:

- Justification for the need for proposed lighting;
- Full shielding of any fixture exceeding 500 initial lumens and evidence of limited impact of unshielded lighting through use of adaptive controls;
- Correlated colour temperature limit of 3000K or less; and
- Number and position of lamps.

The use of planning conditions would be in the context that it is understood that lighting is a requirement in modern life including for business e.g. farming.

Both Cornwall Council and the Secretary of State for Communities and Local Government (e.g. in appeal cases) have legally enshrined powers to apply planning conditions to planning permissions under the Town and Country Planning Act 1990 (sections 70, 72, 73, 73A, 77, 79 and 177 and Schedules 5

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<sup>&</sup>lt;sup>49</sup> http://www.legislation.gov.uk/ukpga/1990/8/contents

and 6). The powers to legally enforce planning conditions are established by section 187A of the Act.

An overview of planning enforcement procedures is provided at <a href="https://www.cornwall.gov.uk/environment-and-planning/planning/enforcement/">https://www.cornwall.gov.uk/environment-and-planning/planning/enforcement/</a>. This explains that Cornwall Council has a team responsible for monitoring for planning breaches and investigating complaints. The team can seek breaches to be regularised by requesting the person responsible to submit a retrospective planning application, stop the unauthorised activity, remove unauthorised development or comply with the planning conditions. Where necessary an enforcement notice will be issued.

It is a criminal offence not to comply with the terms of an enforcement notice if there is no outstanding appeal. A person guilty of an offence is liable, on summary conviction, to a fine currently not exceeding £20,000 or on conviction on indictment to an unlimited fine. Where Cornwall Council achieves a successful conviction for failure to comply with an enforcement notice, as the local planning authority, it can apply for a Confiscation Order, under the Proceeds of Crime Act  $2002^{50}$ , to recover the financial benefit obtained through unauthorised development.

Cornwall Council also has powers (as the local planning authority) to enter enforcement notice land and carry out the requirements of the notice themselves (under section 178 of the Town and Country Planning Act 1990). It is an offence to willfully obstruct anyone who is exercising those powers on the local planning authority's behalf. Furthermore, the local planning authority can recover from the landowner any expenses reasonably incurred by them in undertaking this work (regulation 14 Town and Country Planning General Regulations 1992<sup>51</sup>).

For the most serious cases, Cornwall Council can apply for an injunction whether or not it has exercised, or proposes to exercise, any of their other powers to enforce planning control. If a person fails to comply with an injunction they can be committed to prison for contempt of court. Further details on enforcement powers are set out in the (national) Planning Practice Guidance on Ensuring Effective Enforcement (2016)<sup>52</sup>.

https://www.gov.uk/quidance/ensuring-effective-enforcement

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<sup>&</sup>lt;sup>50</sup> http://www.legislation.gov.uk/ukpga/2002/29/contents

http://legislation.data.gov.uk/uksi/1992/1492/made/data.htm?wrap=true

#### 10. Educational Outreach Plan

#### 10.1. Background

Enthusing and educating Bodmin Moor's residents, businesses and visitors are fundamental to the success of an International Dark Sky Landscape designation. The momentum provided by the formal recognition will be used to bolster outreach activities and enhance appreciation which will in turn be key to further encouraging the preservation and enhancement of the dark night sky.

Local observatories (see Section 6.1) and other experts in Cornwall such as STEM Ambassadors<sup>53</sup> are well-established in delivering educational outreach. A designation would provide additional inspiration, promotion and a draw for further opportunities and may well help unlock future funding. There are already signs of increasing demand. Since the public consultation (see Section 12.1) there has been fresh interest from members of the public, education representatives and businesses on education possibilities.

It is recognised that a mix of formal and informal formats is required to maximise engagement. Education would not be limited to the Core Area or Buffer Zone although the designation would provide the focus for the material and inspiration. The following sections summarise some of the approaches that are being considered for ongoing educational outreach – these are certainly not exhaustive and there are multiple organisations and individuals keen to extend their educational provision in this area. There is also considerable scope for astronomical education to continue to join up with activities on other areas of interest such as archaeology, arts, geology, history or wildlife. Input from the future Steering Group (see Section 11.1) on opportunities would be welcomed.

#### 10.2. Public Outreach Meetings

There will be a number of dark sky outreach events for the general public over the next 12 months organised by Caradon Observatory. The dark sky education will focus on the positive aspects of reducing light pollution as well as the negative impact of excess light on wildlife, human health and the environment. All of the dark sky events will feature discussions about the work of the IDA.

Delivery will be led by Dr Wayne Thomas. He regularly lectures on a vast array of topics and has a great deal of understanding about human biology and the negative effects of light pollution. He has been interviewed on television and the radio about dark skies and as an astrophotographer his images have been reproduced in many newspaper articles and on the BBC.

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<sup>53</sup> http://www.stemnet.org.uk/ambassadors/

The first event of the year will commence at 7pm on 29 April 2017 at Jamaica Inn where members of the public can choose to either drop in for free or attend as part of a dinner evening to discover what it means for Bodmin Moor to become an International Dark Sky Landscape and how we can maintain our amazing dark night sky. Between courses Mike Willmott and Dr Wayne Thomas will present the 'Magic Planet' and 'dark skies education' respectively. Mike is a Fellow of the Royal Astronomical Association (FRAS) and a teacher based at Liskeard School. Over the years he has enthused students by his love and knowledge of science. The magic planet is an interactive globe depicting solar system bodies, their topography and their breath-taking beauty.

At the end of the evening the public will be invited to view the sky through an array of telescopes and a chance to meet another educator and FRAS – Grant Mackintosh, who has an exoplanet discovery programme running from his observatory at Tolcarn in Cornwall – and of course Ken Bennett, founder of Caradon Observatory. The following three public outreach events are planned to follow a similar format with a combination of both indoor presentations / demonstrations and outdoor observing sessions. The observing sessions for each public outreach evening are outlined below:

west. We should be able to view the ruddy hue of Mars. A fine crescent moon will grace the skies just above Orion to the left of Mars. At such an oblique angle we'll be able to clearly see many beautiful craters on the moon. As the sun sets, Jupiter will have already risen in the east, with Saturn rising later around midnight. To see a planet other than our own through a telescope is a truly awe inspiring experience.

If we're lucky a meteor shower – the Alpha Bootids should still be active due east around sunset. At 9pm Ursa Major will reside at the Zenith (directly above) featuring a host of deep space objects such as galaxies that our telescopes can be trained upon. As well as a vast array of star clusters, there will be plenty to see – just remember to wrap up warm and keep your fingers crossed for clear skies.

- 19 August 2017: This is a real see the planet night! We will take a greater in depth look at exoplanet discovery with Grant. The observing session will include Jupiter at sunset (around 7:30pm) with Saturn, Pluto (yes Pluto!) and then later in the evening Neptune and Uranus.
- 14 October 2017: This will be Milky Way night. At around 7:45pm the Milky Way will stretch high overhead with the beautiful constellation of Cygnus visible throughout the night. Our telescopes will be trained on deep sky objects where we will use the latest technology to display the

images directly onto computer screens. The visual showpiece will be Albireo, a gorgeous double star in Cygnus – an absolute 'must see' because of the contrasting colours of the stars.

<u>2 Dec 2017:</u> This will be a wrap up warm night and look at the closest celestial object that our eyes can see without a telescope – the moon – and perhaps the farthest – the Andromeda galaxy. There will be the opportunity to see Neptune and Uranus again as well as plenty of other deep sky objects.

#### 10.3. Schools

Overview	Provide information packs for educational purposes
Personnel	Caradon Observatory personnel with relevant experience
Title	Dark sky for primary schools / dark sky for secondary schools
Format	Provide access to information, lesson plans, lesson resources (e.g.
	images and worksheets). Resources to be made available
	electronically and developed in consultation with the local
	associations for primary / secondary head teachers.

#### 10.4. Further Educational Projects

Caradon Observatory personnel to work with local advisors to consider other educational opportunities.

#### **10.5.** Outreach Meetings for Specific Groups

Overview	Tailored presentations to specific groups						
Personnel	The speaker would be provided by Caradon Observatory						
Title	Why a dark sky is important to Cornwall						
Format	A lecture given by the speaker including:						
	<ul> <li>A general introduction to</li> </ul>						
	<ul> <li>the International Dark Sky Landscape</li> </ul>						
	dark sky potential						
	<ul> <li>opportunities for involvement</li> </ul>						
	<ul> <li>Additional material tailored to level and nature of interest</li> </ul>						
	<ul> <li>Showing images</li> </ul>						
	o Q & A session						

#### 10.6. Exhibitions at Public Venues

Overview	An exhibition illustrating the key ideas about a dark sky in Cornwall
Personnel	Unstaffed
Title	Why a dark sky is important to Cornwall
Format	A roaming exhibition that could be located in publicly accessible
	indoor locations, moving on to new locations on a weekly or
	fortnightly basis for example.

#### 10.7. Business Briefings for Visitor Accommodation Providers

Overview	A series of meetings across Cornwall (or one county-wide meeting)
	focusing on providing business owners with basic information about
	the dark sky, so as to better interact with their guests
Personnel	Speakers from Caradon Observatory and a tourism industry
	representative
Title	Are you ready to embrace what a dark sky has to offer?
Format	Conference-style meeting to brief attendees on basic astronomy,
	the dark sky and recommended viewing location(s). This will enable
	them to interact more knowledgeably with guests and consider the
	potential business opportunities provided by the establishment of an
	International Dark Sky Landscape.

## **10.8.** Dark Skies: Bright Stars – Cornwall Astronomy Creative Heritage Engagement Project

Inspired by the proposed International Dark Sky Landscape for Bodmin Moor, Joanna Mayes, Creative Director of Mayes Creative has secured funding from Heritage Lottery Fund, Feast, Bournemouth Symphony Orchestra and Cornwall Heritage Trust to establish a calendar of events and activities to investigate and share Cornwall's astronomy heritage. This is scheduled at Appendix 9.

# 11. Management of the International Dark Sky Landscape

#### 11.1. Steering Group

A steering group will be established to manage the future of Bodmin Moor's proposed International Dark Sky Landscape. The members of the steering group will be key stakeholders. A number of relevant organisations have shown interest in becoming founding members of the steering group.

It is envisaged that the steering group will meet on at least a quarterly basis, more frequently if required. The steering group will be responsible for preparing the Annual Report. Whilst Cornwall Council does not wish to set the agenda for the Steering Group going forward, it is anticipated that the initial meetings will need to cover the following matters:

- Formally agree membership
- Outline role of chairperson and appoint
- Outline role of secretary and appoint
- Terms of reference
- Means of communication
- Familiarity with the latest International Dark Sky-Association Guidelines
- Progression of Lighting Management Plan
- Progression of Education Outreach Plan
- An Action Plan for other ideas for maximising the potential of the designation
- Installation of sign
- Deadline and scope for Annual Report
- Dates of further meetings

Cornwall Council anticipates its participation in the future management of the International Dark Sky Landscape but does not envisage taking a principal role since other parties are better placed to take a lead and it is important that local stakeholders are empowered to steer the way forward. Nevertheless, Cornwall Council will take a continued and active interest in the future of the International Dark Sky Landscape, providing advice and, where available and appropriate, other resources.

#### 11.2. Promoted Dark Sky Location and Signage

If the designation is successful, it is anticipated that the dark sky will be further appreciated across Bodmin Moor. There would also initially be one specifically recognised access point at Siblyback Lake, with the potential for additional

locations to be promoted in the future. The advantages of Siblyback Lake include:

- visitor information (freely available, 24hrs)
- café and gift shop (seasonal / daytime<sup>54</sup>)
- picnic area (freely available 24hrs)
- camping (modest charge, 24hrs)
- toilets including accessible facilities (freely available, 24hrs)
- parking (modest charge, 24hrs)
- cycle path (freely available, 24hrs)
- footpaths connecting with public footpaths, including a wheelchair accessible path around the lake (freely available, 24hrs)
- landing points (modest charge, seasonal / daytime<sup>54</sup>)
- activity centre and cycle hire (modest charge, seasonal / daytime<sup>54</sup>)
- open, attractive views

The location of Siblyback Lake is shown at Figure 42. It is managed by South West Lakes Trust which strongly supports the proposal, including the recognition of Siblyback Lake as a destination point, and has experience in managing Wimbleball Dark Sky Discovery Site in Exmoor National Park. Their letter of support is included at Appendix 8.

<sup>&</sup>lt;sup>54</sup> Please see http://www.swlakestrust.org.uk/lakes-and-facilities/the-lakes/siblyback-lake for opening times.

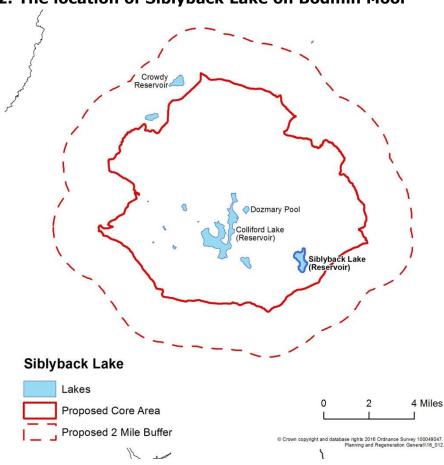


Figure 42: The location of Siblyback Lake on Bodmin Moor

Siblyback Lake already features visitor information at its facilities located on the eastern shore. A sign recognising the International Dark Sky Landscape and potentially some dark sky information in this location would complement this. There is a general campaign to reduce signage clutter across the moor and the co-location of signage with existing information boards at Siblyback Lake, away from the through-roads and other visually prominent locations would avoid such aesthetic intrusion. In line with designation requirements, the sign will include the International Dark Sky-Association logo. A photograph and confirmation of the location will be supplied to the International Dark Sky-Association once it is installed.

Figure 43: Views of Siblyback Lake and visitor facilities<sup>55</sup>





Further information on Siblyback Lake is available online<sup>56</sup>. Other popular locations for accessing Bodmin Moor include Roughtor car park to the north,

Images courtesy of South West Lakes Trust
 <a href="http://www.swlakestrust.org.uk/lakes-and-facilities/the-lakes/siblyback-lake">http://www.swlakestrust.org.uk/lakes-and-facilities/the-lakes/siblyback-lake</a>

Minions in the south-east and Jamaica Inn in the centre; it is envisaged that these will continue to play an important role.

#### 11.3. **Alternative Title**

This application is seeking International Dark Sky Park-level status although an alternative title is proposed. The alternative title is an "International Dark Sky Landscape". This title would be used to avoid the word "park" which has raised concerns by stakeholders about misinterpretation. Whilst protected as an AONB, Bodmin Moor is a working agricultural landscape and not a national park (which would be different again to a US national park).

#### 11.4. **Media Promotion**

Cornwall Council's Communities Communication and Engagement Specialists have been supporting the promotion of the proposals, with media relations input from CPRE. Future press-releases are planned as the proposals progress and are submitted and there is ongoing contact with the media in the meantime. If the designation is successful, Cornwall Council will look forward to working with the International Dark-Sky Association and local stakeholders on its media release announcing the International Dark Sky Landscape. Cornwall Council will be able to offer support in relation to media enquiries and future press releases.

There has already been keen media interest in the prospect of an International Dark Sky Landscape for Bodmin Moor, resulting in promotion on the BBC<sup>57</sup> and Pirate FM<sup>58,59,60</sup> websites, broadcast pieces on BBC Radio Cornwall (19 April 2016 and 20 February 2017) and Pirate FM (11 April 2016 and 26 February 2017) and items in the local newspapers  $^{61,62,63,64,65,66,67,68}$  .

today.co.uk/article.cfm?id=103643&headline=Dark%20Sky%20Park%20discussions%20continue&sectionIs=n ews&searchyear=2016

times.co.uk/article.cfm?id=109294&headline=Bodmin%20Moor%20'dark%20sky%20park'%20bid%20to%20q 0%20ahead&sectionIs=news&searchyear=2017

<sup>57</sup> http://www.bbc.co.uk/news/uk-england-cornwall-36061898

http://www.piratefm.co.uk/news/latest-news/1960623/video-dark-skies-ahead-for-cornwall/

<sup>59</sup> http://www.piratefm.co.uk/news/latest-news/1944662/have-your-say-on-cornwalls-dark-sky-bid/

https://www.piratefm.co.uk/news/latest-news/2232100/watch-bid-to-protect-cornwalls-night-sky-movescloser/ 61 http://www.bude-

<sup>62 [</sup>broken link removed 24/01/2018]

<sup>63 [</sup>broken link removed 24/01/2018]

<sup>&</sup>lt;sup>64</sup> [broken link removed 24/01/2018]

<sup>65</sup> http://www.westernmorningnews.co.uk/bodmin-moor-bid-international-dark-sky-status/story-20979791detail/story.html

<sup>66</sup> http://www.cornish-

<sup>[</sup>broken link removed 24/01/2018]

http://www.falmouthpacket.co.uk/news/15109384.Bodmin Moor may receive special Dark Sky Designation

### 11.5. Maintaining the Designation

Cornwall Council will take overall responsibility for maintaining the designation, including the long-term protection of the dark sky over the moor and the submission of the annual report. Nevertheless Cornwall Council will take a partnership approach to these responsibilities. Ken Bennett from Caradon Observatory will be responsible for taking / overseeing the new sky brightness measurements for each annual report.

### 12. Stakeholder Engagement

#### 12.1. Public Consultation

Before a submission to the International Dark-Sky Association was prepared, Cornwall Council led a public consultation to gauge the level of interest and support for a dark sky designation. The consultation period ran for four weeks between 4 April and 2 May 2016, publicised by leaflets, posters, a webpage, newsletters (including a bespoke newsletter) and a media release. A public consultation event was held during this period (15 April 2016) at Jamaica Inn. The event included a joint presentation from Cornwall Council and Caradon Observatory demonstrating the exceptional quality of the dark night sky, educational activities, the benefits of an International Dark Sky Landscape and practical implications including the types of lighting that would be encouraged. The details of the consultation and the related materials are available online<sup>69</sup>.

The content and delivery of the presentation was well received and it was reported by BBC Radio Cornwall that there were over 100 people attending. Formal feedback was received through forms, emails and letters. In total there were 208 written responses from a wide range of stakeholders including: individuals, Cornwall Council Members, local councils / Members, public bodies, a church, artists, a photographer, local interest groups, a residents group, the tourism industry, observatories, astronomers / amateur astronomers, town planning consultancies and other businesses.

Around 45% of respondents who gave a location are from within the proposed Core Area or Buffer Zone. Given the low population of the proposal area and the widespread interest from the nearby towns, across southern England and even overseas, this represents an appropriate proportion and good level of local engagement.

Of the responses there was only one "no comment" from a public body and one objection to an application at this time. The remainder provided overwhelming support with the following key reasons:

- Astronomy and scientific research
- Value to education
- Health benefits
- Beauty
- Unique and magical location
- Benefits wildlife
- Shows concern for the quality of the environment

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<sup>69</sup> http://www.cornwall.gov.uk/darksky

- Energy-saving
- Discourages intrusive lighting
- Good for tourism, including the winter months
- Supports businesses and employment
- Boost the role of Caradon Observatory
- Good example to set

There have even been calls to extend the Buffer Zone in the future once the designation is in place.

The individual who did not consider this an appropriate time for Cornwall Council to submit an application is located outside of the proposed Core Area and Buffer Zone. Their concern was that Cornwall Council should not be promoting the project and advising on lighting when they consider that Cornwall Council creates unnecessary light pollution from its street lights. Cornwall Council has taken this concern extremely seriously and – as set out at Sections 8 and 9 – has made and is continuing to make lighting improvements.

Other issues raised by those who provided their support in principle were the risk of benefits being localised and not inclusive and that there was insufficient publicity for the consultation. Both Cornwall Council and Caradon Observatory consider that the dark night sky is a resource which is freely available with a range of educational activities planned in order to maximise participation (see Section 10). Other organisations have also shown a key interest in undertaking dark sky-related activities. The application team is also engaged with the team promoting a dark sky designation in the far west of Cornwall. In terms of the publicity for the consultation, there was keen media interest (see Section 11.4) which has supplemented Cornwall Council's promotion and the level of response indicates these efforts were effective.

#### 12.2. Stakeholder Organisations

In addition to the wider public consultation, Cornwall Council and Caradon Observatory are liaising with key stakeholder organisations, engaging in detailed discussion where appropriate. To date this has included local councils, land owners, land managers, astronomers and tourism representatives. Along with the public consultation, these stakeholders have helped to shape the application. Appendix 8 features letters of support from key groups and representatives.

#### 12.3. Ongoing Engagement

Further to specific consultation activities, Cornwall Council and Caradon Observatory have been undertaking continuous efforts to engage and keep stakeholders up to date on progress. This includes communications received through a dedicated email account (<a href="mailto:darksky@cornwall.gov.uk">darksky@cornwall.gov.uk</a>) and dedicated



 $<sup>^{70} \</sup> Newsletters \ available \ via \ free \ email \ subscription \ and \ download able \ at \ \underline{http://www.cornwall.gov.uk/darksky}$ 

## Appendix 1: Letter of Permission to Apply for Designation of Bodmin Moor Only



"...to preserve and protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting."

### IDA Headquarters

3223 North First Avenue, Tucson, AZ | 85719, USA |

tel +1.520.293.3198 | fax +1.520.293.3192 |

www.darksky.org | ida@darksky.org

Executive Director J. Scott Feierabend

Emeritus Director David L. Crawford, Ph.D. 9<sup>th</sup> March 2017

Dear Directors:

To: IDA Board of Directors

From: John Barentine, International Dark Sky Places Program Manager

Re: Application for IDSP status from Bodmin Moor

## Board of Directors

President Diana Umpierre • USA

Vice President Kim Patten • USA

Treasurer Kenric Kattner • USA

Secretary Laurel Alyn-Forest • USA

Members

J. Kelly Beatry • USA
Darcie Chinnis • USA
Jim Dougherty • USA
Krissa Glasgow • USA
Alejandro Sanchez Miguel • Spain
Kellie Pendoley • Australia
Connie Walker • USA

A region of the Cornwall Area of Outstanding Natural Beauty (AONB) in southwest England, United Kingdom, has requested consideration for status as an IDA International Dark Sky Park (IDSP). This region, known as Bodmin

Moor, comprises some 208 square kilometers of land out of a total of 958 square kilometers of non-contiguous land units in the AONB.

The 2014 IDSP guidelines, under which Bodmin Moor applies for IDSP status, only contemplates the designation of sub-units of park lands provided the land area of the park exceeds 1,000 square kilometers. In that case (quoting page 9): "a smaller portion of the Park may be designated with special permission. A description explaining why this subset of the larger Park was chosen must be approved in advance by the Program Manager."

I have given the applicants my permission to seek designation of Bodmin Moore separately from the other lands of the AONB despite falling just short of the 1,000 square kilometer threshold. I feel it is appropriate to consider Bodmin Moor as an IDSP-eligible unit unto itself not only because the AONB land area very nearly meets the cutoff, but also because the Moor really is a land feature unto itself and its land use patterns (what the applicants describe as a "working agricultural landscape") are different than most other lands in the AONB.

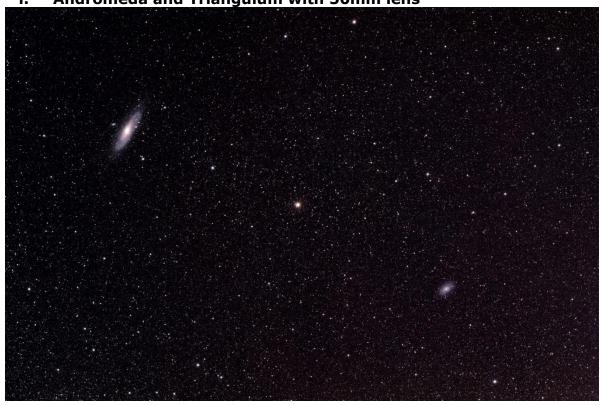
This letter serves as evidence that, per the IDSP guidelines requirement, the applicants have satisfactorily justified consideration of something short of the entire land area of the AONB.

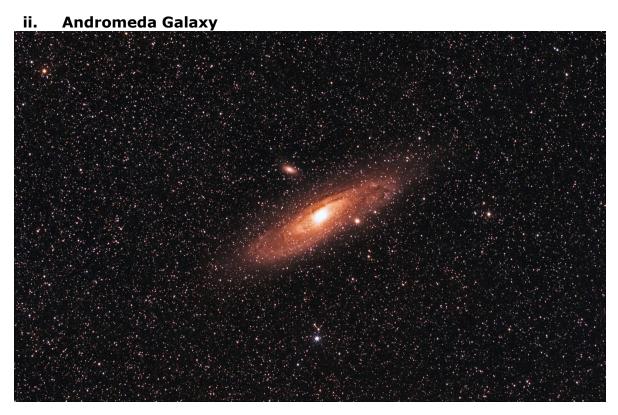
Respectfully,

John C. Noreuline

# **Appendix 2: A Selection of Images Taken from Caradon Observatory**

. Andromeda and Triangulum with 50mm lens



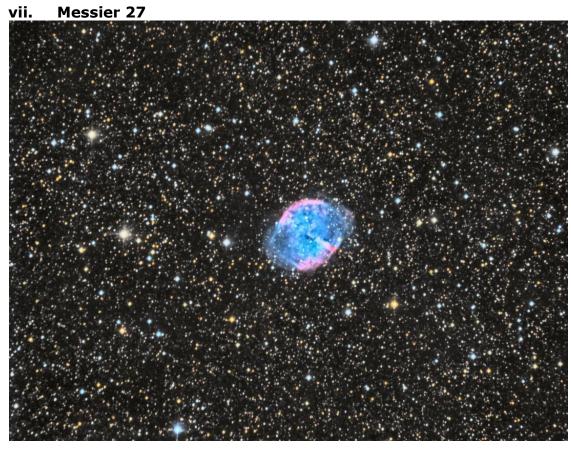


#### Eskimo Nebula iv.



### **Horsehead Nebula**

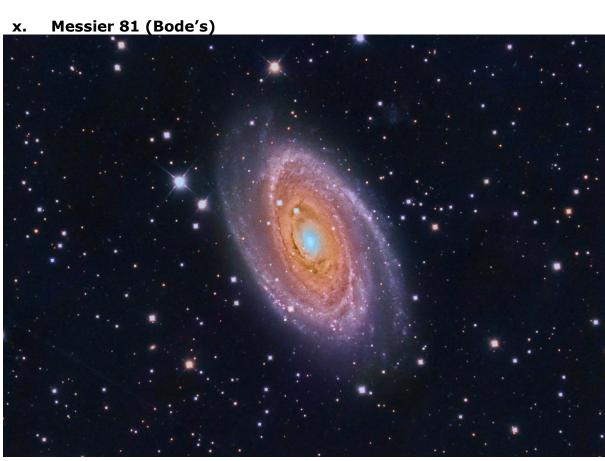






## ix. Messier 42





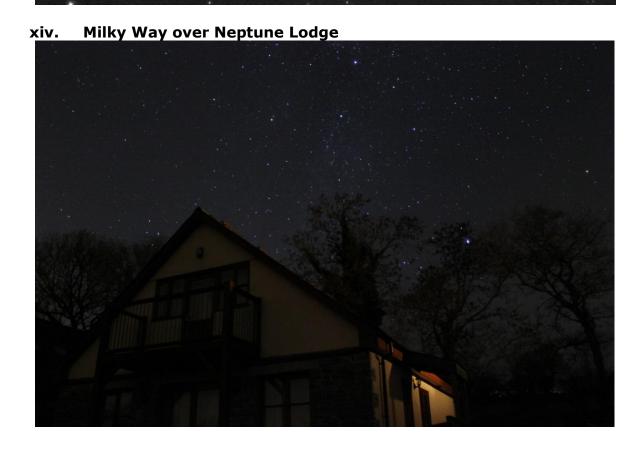
## xi. Messier 106

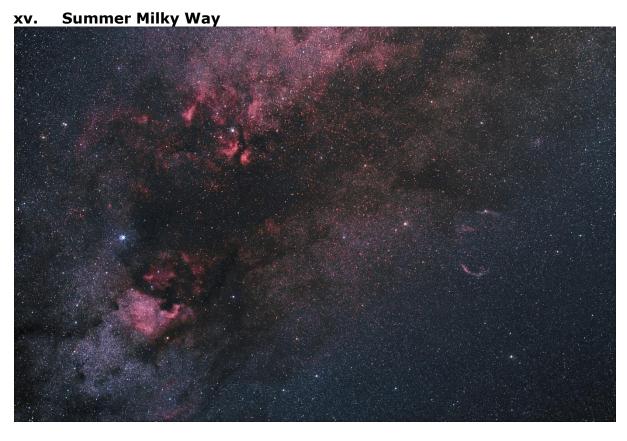














xvii. The Moon 29 November 2014



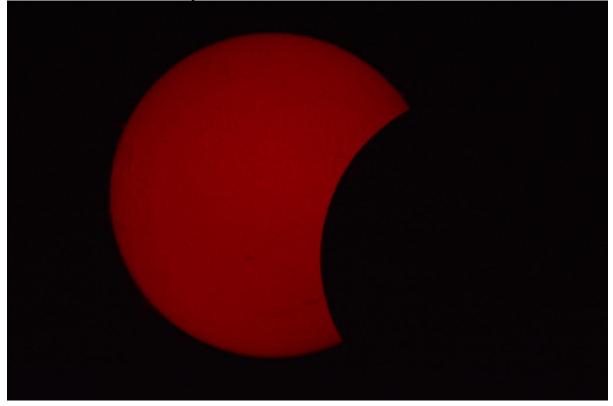
















xxiii. North America Nebula







Pacman Nebula
Caradon Observatory
© Wayne Thomas

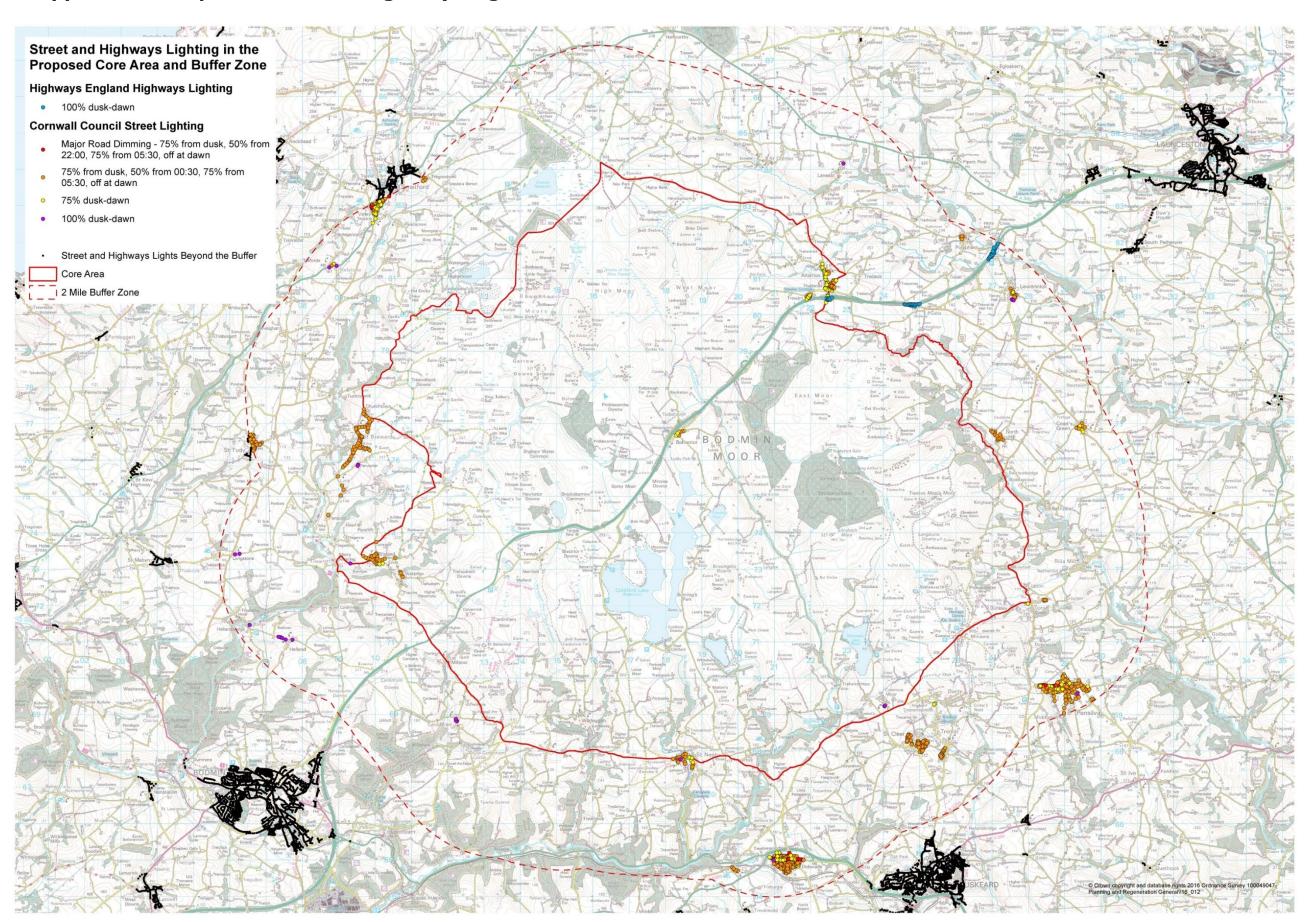
## **Appendix 3: Darkness Readings**

All readings are in Unihedron Sky Quality Meter units and were taken between around 11pm and midnight.

Dat	a point	Date: 21/09/16	Date: 22/09/16	Date: 1/10/16	Date: 29/11/16	Average
3	Minions	21,09/10	21.20	1/10/10	21.35	21.26
4	1/2m E Minions	21.24	21.30		21.33	21.35
5	Trewalla Farm	21.16	21.30		21.41	21.33
6		21.16			21.29	
	Common Moor					21.19
7	Redgate	21.24			21.36	21.30
8	Golitha	21.29			21.43	21.36
9	Draynes	21.12			21.65	21.38
10	2m N Redgate	21.36			21.64	21.50
11	3m N Redgate Jamaica Inn (200yrds	21.36			21.50	21.43
12	outskirt)	21.41			21.52	21.46
13	Mount	21.47			21.61	21.54
14	1m S St Neot	21.47			21.60	21.54
15	St Neot Centre	18.60			18.64	18.62
16	Darley Quarry		21.20		21.34	21.27
17	Bathpool		21.95		22.17	22.08
18	Berrio Bridge		20.93		21.11	21.02
19	North Hill (outskirt) North Hill		21.02		21.21	21.11
20	centre		16.75		16.83	16.79
21	Trebartha		21.20		21.29	21.24
22	Trevadlock		20.94		21.18	21.06
23	Five Lanes			21.15	21.35	21.25
24	Altarnun			18.95	19.08	19.02
25	Altarnun (just outside village SE)			21.29	21.44	21.38
26	Altarnun (just outside village NW)			21.36	21.51	21.43
27	Davidstow			21.21	21.34	21.28

Dat	a point	Date:	Date:	Date:	Date:	Average
		21/09/16	22/09/16	1/10/16	29/11/16	
	2.5m N					
28	Camelford			21.24	21.35	21.29
	Camelford					
29	(main car park)			19.75	19.73	19.74
	1m S					
30	Camelford			21.30	21.43	21.36
	1m N St					
31	Breward			21.29	21.43	21.36
	0.5m N St					
32	Breward			21.29	21.45	21.37
33	Wenford Bridge			21.25	21.39	21.32
	1.25m NW					
34	Blisland			21.29	21.44	21.36
35	Blisland Centre			17.70	18.10	17.90
	0.5m SE					
36	Blisland			21.20	21.35	21.28
37	Millpool			21.26	21.41	21.33
	0.5m NW					
38	Cardinham			21.27	21.43	21.35
	Cardinham					
39	(outskirts)			21.18	21.38	21.28
	Caradon					
40	Observatory			21.31	21.48	21.39

Appendix 4: Map of Street and Highways Lights on Bodmin Moor



## **Appendix 5: Schedule of Current Cornwall Council Street Lighting**

NB lights marked with an asterisk are subject to improvements as set out in Appendix 7.

Core or	Lamp	East-	North- Settlement	Location	Lamp	Focus	Colour	r Switching Dimming
<b>Buffer?</b>	Ref.		ing		•		Temp.	
Core Area	J006*		081174 Altarnun	Altarnun-Five Lanes Rd:Adj-Ruins opp Butchr	Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J003*	222334	081256 Altarnun	Altarnun-Five Lanes Rd:Below Penpont Cottage	Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J002	222322	081295 Altarnun	Altarnun-Five Lanes Rd:Beside Old Brdge & Meml	Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J004*	222367			Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J008*	222389	081127 Altarnun	Altarnun-Five Lanes Rd:Rd Jct opp Meth Church	Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J005*	222379	081203 Altarnun	Altarnun-Five Lanes Rd:Verge opp Penpont Mill	Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
				Cottage				
Core Area	J012				Evolo 45W Cosmopolis 2020 LP			
Core Area	J015				Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J011	1			Evolo 45W Cosmopolis 2020 LP			
Core Area	J013	222433	080955 Altarnun	Altarnun-Five Lanes Rd:Belw Fivelns Sign On Pole 13	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J022		080673 Altarnun	Altarnun-Five Lanes Rd:Beside Casamoor Cafe	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Core Area	J021		080677 Altarnun	·	Evolo 45W Cosmopolis 2020 LP			
Core Area	J023	1			Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J018				Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J009				Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J001			* *	Evolo 45W Cosmopolis 2020 LP			
Core Area	J019			Altarnun-Five Lanes Rd:Opp Anys An Hael Cottag	-			
Core Area	J016				Evolo 45W Cosmopolis 2020 LP			
Core Area	J020				Evolo 45W Cosmopolis 2020 LP			
Core Area	J014				Evolo 45W Cosmopolis 2020 LP			
Core Area	J010				Evolo 45W Cosmopolis 2020 LP			
Core Area	J017				Evolo 45W Cosmopolis 2020 LP			
Core Area	J049			1 1	Evolo 45W Cosmopolis 2020 LP			
Core Area	J040			• • • • • • • • • • • • • • • • • • • •	Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J056		080781 Altarnun		Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J041		080943 Altarnun	Harrett Hill: O/S The Croft	Evolo 45W Cosmopolis 2020 LP			
Core Area	J039		080870 Altarnun	Harrett Hill: O/S Westmoor View	Evolo 45W Cosmopolis 2020 LP			
Core Area	J054		080800 Altarnun	Harrett Hill:R/O No 1 Thorn Cl	Evolo 45W Cosmopolis 2020 LP			
Core Area	J047		081145 Altarnun		Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J048			Rosehill:O/S Methodist Church	Evolo 45W Cosmopolis 2020 LP		2800K	
Core Area	J046				Evolo 45W Cosmopolis 2020 LP		2800K	3 1
Core Area	J045			,	Evolo 45W Cosmopolis 2020 LP		2800K	· · · · · · · · · · · · · · · · · · ·
Core Area	J044 T014				Evolo 45W Cosmopolis 2020 LP Evolo 90W Cosmopolis 2018 LP		2800K 2800K	
	T014			-	-			
Core Area	T009	1		Tregirls R/A:Btwn Trenilk & Bodmin Rds Tregirls R/A:First Light On Trenilk Rd	Evolo 90W Cosmopolis 2018 LP Evolo 90W Cosmopolis 2018 LP			
	T017			Tregirls R/A:First Light Of Treflik Ru  Tregirls R/A:Five Lanes S/O Bridge	Evolo 90W Cosmopolis 2018 LP			
Core Area	T010				Evolo 90W Cosmopolis 2018 LP			
				Tregirls R/A: Under Bridge	-			
Core Area Core Area	T016* C003			Cassacawn Rd:O/S Little Place	Evolo 45W Cosmopolis 2018 LP	Some uplight		
-	C003			*	Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area Core Area	C004		073286 Blisland		Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area	C002		073310 Blisland		Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area	A016				Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area	A017			Main Rd:O/S Churchgate Cottage	Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area	A018			Main Rd:O/S The Rectory	Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area	A014	1			Evolo 45W Cosmopolis 2018 LP		2800K	
Core Area	A015	1		Main Rd:Opp Webbers Garage	Evolo 45W Cosmopolis 2018 LP			
Core Area	A004				Evolo 45W Cosmopolis 2018 LP			
30. C / II Cu			5. 3313 Billialia		1011 C031110p0110 Z010 L1	I aprigin		2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming
Buffer?	- 1		ing	Settiement	Location		locus	Temp.	Switching.	
Core Area		210056	_	Blisland	Manor CI:O/S Lower Meadow	Evolo 45W Cosmopolis 2018 LP	No uplight		Dusk - Dawn	Default CMS - 75% dusk-dawn
Core Area		210023			Manor CI:O/S No 12	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210022			Manor CI:O/S No 4	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			073364		Meadow Plash: O/S Chicks Nest	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			073348		Meadow Plash: O/S No 12 opp Spindlewood		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			073337		Meadow Plash: O/S Woodland View	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210015			Pen Tor Crt:Btwn Nos 5 & 10	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210032			Pen Tor Crt:O/S No 12 - opp No 9 In F/P	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210055			Pen Tor Rd:By Garages R/O No 1 Pen Tor	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210064			Pen Tor Rd:Junction-Cassacawn	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210062			Pen Tor Rd:O/S Parish Hall	Evolo 45W Cosmopolis 2018 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			073278		Pen Tor Rd:Opp Glenhurst	Evolo 45W Cosmopolis 2018 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		210041			Pen Tor:O/S No 8		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	A006	210004	073380	Blisland	Pen Tor:Opp No 16	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	A025	209868	073280	Blisland	Tregenna Rd:O/S Ivy Cott	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	A023	209935	073256	Blisland	Tregenna Rd:Opp The P O	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	W001	210760	072788	Blisland	Waterloo:Below Riverside O/S Shed	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	W003	210706	072890	Blisland	Waterloo:Below Rowan Hse	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	W002	210750	072827	Blisland	Waterloo:Below Waterloo Cott	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	W004	210699	072929	Blisland	Waterloo:O/S White Gables	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	A019	210213	073155	Blisland	Main Rd:Adj New Health Centre	ZX1 45W Cosmopolis 1543	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Core Area	A007	209974	073371	Blisland	Pen Tor:Opp No 19	ZX1 45W Cosmopolis 1543	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	E005	218373	076677	Bolventor	Dozmary Pool Rd:O/S Cresta Nr Water Twr	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	E004	218327	076704	Bolventor	Dozmary Pool Rd:Opp Ent-Quarry Field	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	E007	218337	076734	Bolventor	Old A30 Btwn Seats opp Jamaica Inn	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Core Area	E006	218362	076776	Bolventor	Old A30 O/S Potters Museum	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Core Area	E008	218292	076675	Bolventor	Old A30 On Old National School	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Core Area	E001	218511	076799	Bolventor	St Cleer Rd:O/S Blackwatch	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Core Area	E002	218468	076793	Bolventor	St Cleer Rd:O/S Daphne Du Mauriers School	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	E003	218415	076780	Bolventor	St Cleer Rd:O/S Old School Hse	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	001KF*	224050	069255	Common	Footpath	Gamma 6 35W Sox	Some uplight	1750K	Dusk - Dawn	Mini cell - 100% dusk-dawn
				Moor						
Core Area	002KF*	224031	069237		Wall On Steps	Gamma 6 35W Sox	Some uplight	1750K	Dusk - Dawn	Mini cell - 100% dusk-dawn
				Moor				22221		
Core Area					Penpond View	Evolo 45W Cosmopolis 2018 LP				Default CMS - 75% dusk-dawn
Core Area					Corner Pk:O/S No 2 By Turning Head	Evolo 45W Cosmopolis 2020 LP	· · ·	_		Default CMS - 75% dusk-dawn
Core Area					Corner Pk:O/S No 9	Evolo 45W Cosmopolis 2020 LP				Default CMS - 75% dusk-dawn
					Corner Pk:S/O Barn On Ent	·	No uplight			Default CMS - 75% dusk-dawn
				Five Lanes	Hendra Tor View:Btwn No 3 & No 4	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Hendra Tor View:O/S No 10		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Hendra Tor View: O/S No 2	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Hendra Tor View: O/S No 7	•	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Hendra Tor View:Opp No 6	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Penpont View: O/S Garage Of No. 1	· · · · · · · · · · · · · · · · · · ·	No uplight			Default CMS - 75% dusk-dawn
				Five Lanes	Penpont View: O/S No. 7	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Penpont View:Opposite Bungalow No. 36	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Thorn Cl:O/S 6 & 7	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Five Lanes	Thorn CI:O/S No 2 - opp No 8	<u>'</u>	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
-				Five Lanes	Thorn CI:O/S No 4 - opp Sunninghill	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area				St Breward St Breward	Church Rd: Adj Church	Evolo 45W Cosmopolis 2018 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area				St Breward	Church Rd: By The Inn Car Park	<u>'</u>	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area					Church Rd:S/O The Old Inn		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area		218660 218732			Liskeard Hill: Jnt Loveny Rd/By Sign Pt	<u> </u>	No uplight	_		Default CMS - 75% dusk-dawn
Core Area		218/32			Liskeard Hill: Opp 2 Sunnybank & Iona		No uplight	_		Default CMS - 75% dusk-dawn
		218349			Liskeard Hill:R/O Slades Lukes Leat:Opp Institute		No uplight			Default CMS - 75% dusk-dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
		218349			Lukes Leat:Opp Institute  Lukes Leat:Opp Lukes Yeat		No uplight No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn  CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
		218387			• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	' '			
Core Area	A028	210320	00/812	St Neot	Lukes Leat:Opp Tregurrier	LVOID 45W COSMOPOUS 2018 LP	No uplight	2000K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming
Buffer?	-		ing	Settiement	Location	Lamp	locus	Temp.	Switching	
			067911	St Neot	School Hill:Below The Primary School	Evolo 45W Cosmopolis 2018 LP	No unlight	•	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
			067925		School Hill:O/S Wainfylde opp School	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area	A007		067797		Tripp Hill:Jnt. Bush Hill By F/P	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			067874		Tripp Hill:Opp P.O./S/O Carlyon Hse		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			080542		Gate Rd:S/O No 1 Trewint Cottages	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
			080422		1St Off A30		No uplight			Default CMS - 75% dusk-dawn
			080475		Nr Wesley Cott		No uplight			Default CMS - 75% dusk-dawn
			080554		O/S Cresta		No uplight			Default CMS - 75% dusk-dawn
			080450		O/S Lower Trewint		No uplight			Default CMS - 75% dusk-dawn
Core Area			080532		O/S Treebeard Cott		No uplight			Default CMS - 75% dusk-dawn
Core Area			080505		Opp No 3 Trewint Cotts	·	No uplight			Default CMS - 75% dusk-dawn
Core Area			080530		Opposite Sandy Cottage	·	No uplight			Default CMS - 75% dusk-dawn
Core Area			080465		Side Of John Wesley Cott	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Core Area			080490		F/P Old A30/Gate Rd:R/O Trewint Cott	ZX1 45W Cosmopolis 1543	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
			080500		Opposite Car Park	ZX1 45W Cosmopolis 1543	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Altarnun-Five Lanes Rd:Above Cttges Old A30 Rd		No uplight	_		Default CMS - 75% dusk-dawn
Buffer Zone					Altarnun-Five Lanes Rd:Nr Cafe opp Kings Head		No uplight	_		Default CMS - 75% dusk-dawn
Buffer Zone				Altarnun	Harrett Hill:Opp Jnt Thorn Cl	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Harrett Hill:S/O Sub		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Altarnun	Tregirls R/A:Btwn Altarnun & Slip Rd-R/A		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Altarnun	Tregirls R/A:Btwn Slip Rd & Trevague Rds		No uplight	1		Default CMS - 75% dusk-dawn
Buffer Zone				Altarnun	Tregirls R/A:Btwn Trevague & Trenilk Rds		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Altarnun	Tregirls R/A:First On Trevague Rd	·	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone					Tregirls R/A:R/A S/O Bridge		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone					Tregirls R/A:Second Along Trevague Rd	-	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone			073155		Main Rd:O/S Nos 2 & 3 Whitley Barn	Beta 5 35W Sox	Some uplight			Mini cell - 100% dusk-dawn
Buffer Zone			073750		Pendrift:O/S No 1		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			073355		Tregenna Rd:O/S Nos 7 & 8		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			073292		Tregenna Rd:O/S Rose Cottage		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			073302		Tregenna Rd:O/S Sun Valley & Pastures Edge		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			073316		Tregenna Rd:O/S Sundowner		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					F/P Treclago View:Btwn 68 & 69		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Highfield Rd Ind Est:Side Of R & J Jeffs	'	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Camelford	Longfield Rd:O/S No 13	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Camelford	Longfield Rd:O/S No 16	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Camelford	Longfield Rd:O/S No 2	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Camelford	Longfield Rd:O/S No 9 Foxglove	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Camelford	Longfield Rd:S/O No 1A		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Camelford	Roughtor Dr:Between Nos. 9 & 11		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Roughtor Dr:O/S N0 19		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Roughtor Dr:O/S NO 25		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		210198	083085	Camelford	Roughtor Dr:O/S N0 43		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A135	210195	083105	Camelford	Roughtor Dr:S/O 15 In Turning Head		No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A337	210019	082958	Camelford	Treclago View:Btwn 126 & 128	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A338	210002	082943	Camelford	Treclago View: O/S 107	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A335	210055	082964	Camelford	Treclago View: O/S 123	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A341	210075	082894	Camelford	Treclago View: O/S 87	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View: O/S 93	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A339	210020	082929	Camelford	Treclago View:O/S 98	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View:S/O 125		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Valley Truckle:Junction Fenteroon Road		No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	001NG	209938	082523	Camelford	Valley Truckle:O/S House Bronswick	Evolo 60W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View:O/S No 10	Kirium 15 LED 500mA 26W	No uplight	_		Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View:O/S No 23	Kirium 15 LED 500mA 26W	No uplight	4000K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A327	210107	083036	Camelford	Treclago View:O/S No 25	Kirium 15 LED 500mA 26W	No uplight	4000K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View:O/S No 29	Kirium 15 LED 500mA 26W	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View:O/S No 33	Kirium 15 LED 500mA 26W	No uplight	4000K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Camelford	Treclago View:O/S No 38	Kirium 15 LED 500mA 26W	No uplight	_		Default CMS - 75% dusk-dawn
<u>-</u>				•		•				

Cana an	1	Foot	Nowth Cottlement	I a anti-an	1	F	Colour Cuitabina Dimenina
Core or Buffer?	Lamp Ref.		North- Settlement	Location	Lamp	Focus	Colour Switching Dimming
		ing	ing 082988 Camelford	Traclaga Viawo /C No E	Visium 15 LED 500mA 26W	No unlight	Temp.
Buffer Zone				Treelage View: O/S No 5		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083022 Camelford	Treclago View: O/S No 60		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083003 Camelford	Treclago View: O/S No 7		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083093 Camelford	Treclago View:On F/P-Longfield Dr		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083110 Camelford	Treclago View:On F/P-Longfield Dr		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083001 Camelford	Treclago View:Opp No 15		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082991 Camelford	Treclago View:Opp No 20		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083025 Camelford	Treclago View:Opp No 50		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			083027 Camelford	Treclago View:Opp No 55		No uplight	4000K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e A245	210387	083253 Camelford	High St:Opp 20	Sapphire 60W Cosmopolis 1632	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
Duffer Zen	- 4200	200000	002027 Com alfand	Valley Trysolder F/D Weeks Disc/Coesterno providelle	TV1 45W Compandia 1542 LD	No unlinh	dawn
Buffer Zone	e A308	209908	083027 Camelford	Valley Truckle:F/P Weeks Rise/Sportsman:middle of F/P	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Duffer Zen	2 4207	200014	002007 Com alfand	l ·	7V1 4FW Compandia 1F42 LD	No unlinh	2000K Duels Davin CC Disagning Delices, 750K from duels 500K from 00:20, 750K from 05:20, off at davin
Buffer Zone			083007 Camelford			No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082751 Camelford 082750 Camelford	Valley Truckle:Farriers Green:O/S 1	-	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone				Valley Truckle:Farriers Green:O/S 14	-	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082734 Camelford	Valley Truckle:Farriers Green:O/S 20	-	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	_		082763 Camelford	Valley Truckle:Farriers Green:O/S 3	-	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082804 Camelford	Valley Truckle:Farriers Green:O/S 5		No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082784 Camelford	Valley Truckle:Farriers Green:O/S 8		No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082772 Camelford	Valley Truckle:Farriers Green:O/S 9		No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082789 Camelford	Valley Truckle:Farriers Green:O/S 9	-	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082735 Camelford	Valley Truckle:Farriers Green:Opp 19	-	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082778 Camelford			No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			082857 Camelford	Valley Truckle:The Courtyard:Adj No 7		No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082830 Camelford		-	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082901 Camelford	· · · · · · · · · · · · · · · · · · ·	-	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				· ·	-	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082855 Camelford	· ·	-	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082847 Camelford			No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e A272	209914	082938 Camelford	Valley Truckle:The Courtyard:Opp No 38	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e A291	209971	082973 Camelford	Valley Truckle:The Courtyard:O/S 15 Weeks Rise	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e A276	209960	082950 Camelford	Valley Truckle:The Courtyard:O/S 19 Weeks Rise	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
					•		dawn
Buffer Zone	e A275	209945	082921 Camelford	Valley Truckle:The Courtyard:O/S 25 Weeks Rise	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
							dawn
Buffer Zone	e A292	209950	082994 Camelford	Valley Truckle:The Courtyard:O/S 3 Weeks Rise	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e A274	209924	082913 Camelford	Valley Truckle: The Courtyard: O/S 39 Weeks Rise	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
							dawn
Buffer Zone	e A273	209906	082962 Camelford	Valley Truckle:The Courtyard:Opp 34	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
							dawn
Buffer Zone			083003 Camelford	Valley Truckle:Weeks Rise:Opp 16	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082981 Camelford	Valley Truckle:Weeks Rise:Opp 4	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			082988 Camelford	Valley Truckle: Weeks Rise: Opp 6 Adj F/P	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e C001*	212258	068823 Cardinham	Poundstock CI:O/S No. 1	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	e C002*	212234	068831 Cardinham	·	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	e C003*	212227	068876 Cardinham	Poundstock CI:Opposite Nos. 15 & 16	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	e L004	229492	076936 Coads Green	B3257 C/R By P/O	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e L001			B3257 O/S Capitol Vw	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e L002	229476	076829 Coads Green	B3257 Opp Coads Green Sch	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e L003	229504	076775 Coads Green	B3257 Opp Methodist Ch	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e L010	229554	076897 Coads Green	O/S No 1 Chapel Cl	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e L009	229327	076877 Coads Green	Penhole CI:O/S Tien Kwang	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		229396	076862 Coads Green	Penhole CI:Opp Nos 3 & 4	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e L007	229342	076890 Coads Green	Rd Off B3257/Oakfield:O/S No 1 Oakfield	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			077015 Coads Green		Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e D094	221105	065065 Dobwalls	_	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				-	·		

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming			
			ing	Settiement	Location	Lamp	locus	Temp.	Switching				
Buffer Zone				Dobwalls	Duloe Rd:Opp. Highwood Park Ent.	Evolo 45W Cosmopolis 2018 LP	No unlight		Dusk - Dawn	Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Duloe Rd:Opposite Primary School	· ·	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Harvett Hill:R/O 31 Havett Cl	· ·	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Havett Cl:Between No. 33 & 34		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Havett Cl:Between Nos. 30 & 31	·	No uplight	_		Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Havett CI:O/S 40 R/O 49S Garden		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Havett CI:O/S No. 16	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Havett CI:O/S No. 21	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at d			
Buffer Zone				Dobwalls	Havett CI:O/S No. 26	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at day			
Buffer Zone				Dobwalls	Havett CI:O/S No. 43		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Havett CI:O/S No. 6		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Havett CI:O/S Sub Station By Seat opp 42	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Havett CI:Opposite Side Of No. 15	· ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Higher Meadow:O/S Lanesend On Ent	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Higher Meadow:O/S No 15	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone	_			Dobwalls	Higher Meadow:O/S No 19 - opp No 7	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Higher Meadow:O/S No 2		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:In Turning/Parking Area By Sub	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 11	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 14	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 32		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 4 - opp No 28		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 41	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 47 - opp No 44	·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S No 50	-	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Highwood Pk:O/S Nos 17 & 18 - opp No 23	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Rowe Ct:Ent-Rowe Ct	-	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Rowe Ct:O/S No 11	Evolo 45W Cosmopolis 2018 LP				Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at			
Duller Zone	10109	221120	003179	Dobwalis	Nowe Ct.0/3 No 11	Evolo 45 W Cosmopolis 2010 El	No apligne	20001		dawn			
Buffer Zone	D171	221141	065182	Dobwalls	Rowe Ct:O/S No 16	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K		Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Rowe Ct:On F/P At Ent	·	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Rowe Ct:Opp Ent Twelvewoods Pl	· ·	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Rowe Ct:Opp No 12	-	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Rowe Ct:Opp No 2	-	No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Rowe Ct:S/O Play Area	Evolo 45W Cosmopolis 2018 LP				Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Tremabe Pk:Btwn No 5 & Vistas	Evolo 45W Cosmopolis 2018 LP		2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S 33 By Garages	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S No. 15/Opposite No. 6	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S No. 36	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S No. 38	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S No. 42	· ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S No. 46	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:O/S No. 51/Opposite No. 60		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods Pl:Opposite No. 14		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Twelvewoods PI:S/O 20 By Lane-21 & 22		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn			
Buffer Zone				Dobwalls	Duloe Rd:Btwn Higher Neadow & A39		No uplight			Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Duloe Rd:O/S Memorial Hall	-	No uplight			Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at			
					,	· ·	' '			dawn			
Buffer Zone	D055	221634	064851	Dobwalls	Duloe Rd:O/S No. 1 Treheath Road	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Duloe Rd:Opp Highwood Park Stores	Evolo 60W Cosmopolis 2018 LP	No uplight	_		Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Duloe Rd:Opposite Highwood Park		No uplight	_		Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Harvett Hill:Opp No 1 Havett Rd	-	No uplight			Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at			
						·				dawn			
Buffer Zone	D058	221427	065159	Dobwalls	Harvett Hill:Opp R/O 28 Havett Cl	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at			
						·				dawn			
Buffer Zone	D001	221498	065075	Dobwalls	Havett Rd:O/S Lenten Cott	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Havett Rd:O/S No 4 Havett Cl		No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn			
Buffer Zone				Dobwalls	Old A38:O/S Penmount Cottage	-	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn			
	•					·	•	•					

	_		North-	Settlement	Location	Lamp	Focus	Colour Temp.	Switching	Dimming
Buffer Zone				Dobwalls	F/P Beneathway/Tremabe Pk:R/O No 15 Tremabe Pk	K-Lux 45W Cosmopolis	Some uplight	•	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D049	221340	064873	Dobwalls	F/P Treheath Rd/Pendray Garden:O/S No. 39 - S/O Chy-Dean	K-Lux 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D048	221362	064848	Dobwalls	F/P Treheath Rd/Pendray Garden:O/S No. 42	K-Lux 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		221377	064817	Dobwalls	F/P Treheath Rd/Pendray Garden:O/S No. 47	K-Lux 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D122	221077	064957	Dobwalls	Beneathway L:R/O Corndue	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D067	221046	064908	Dobwalls	Beneathway L:Side Of Chrisdevale	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D065	221095	064905	Dobwalls	Beneathway:Between Nos. 8 & 9	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D064	221068	064930	Dobwalls	Beneathway: O/S No. 10	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D066	221118	064887	Dobwalls	Beneathway:O/S No. 4	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D068	221033	064882	Dobwalls	Beneathway:O/S Princess Vla/Opp Heathdale	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D063	221040	064938	Dobwalls	Springfield:Opposite No 5 Corndue	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D021	221272	064709	Dobwalls	Tremabe L:O/S Elnor	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D020	221266	064740	Dobwalls	Tremabe L:O/S Maruso	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D022	221280	064661	Dobwalls	Tremabe L:O/S St. Marys	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D102	221226	064759	Dobwalls	Tremabe Pk:O/S Cambua - opp No 23	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D106	221094	064830	Dobwalls	Tremabe Pk:O/S Nos 11 & 12	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D107	221132	064835	Dobwalls	Tremabe Pk:O/S Nos 16 & 17	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D104	221160	064808	Dobwalls	Tremabe Pk:O/S Nos 19 & 20	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D105	221132	064802	Dobwalls	Tremabe Pk:O/S Tyndale	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D069	220988	064898	Dobwalls	Wherry CI:O/S 12 E/O Beneathway L	K-Lux 60W Cosmopolis	Some uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D005	221617	065101	Dobwalls	Braeside Pk:O/S No 12 Dobwalls	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D004	221570	065107	Dobwalls	Braeside Pk:O/S No 15 Dobwalls	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D003	221531	065112	Dobwalls	Braeside Pk:O/S No 21 Dobwalls	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D002	221516	065106	Dobwalls	Braeside Pk:Opp No 4 Dobwalls	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D044	221375	064878	Dobwalls	F/P Treheath Rd/Tamblin Ave:Between Nos. 9 & 10	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D045	221399	064850	Dobwalls	F/P Treheath Rd/Tamblin Ave:O/S No. 5	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Dobwalls	F/P Treheath Rd/Tamblin Ave:Side Of No. 11	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Dobwalls	Newton Crt:At Turning Circle	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D127			Dobwalls	Newton Crt:In F/P Adj A38	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D042			Dobwalls	Tamblin Ave:O/S No. 12	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D041	221428	064883	Dobwalls	Tamblin Ave:O/S No. 15	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		221388	064783	Dobwalls	Treheath Rd:Opposite No. 41	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D133	221017	064999	Dobwalls	A390/Opp Springfield Bungalow	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Mini cell - 100% dusk-dawn
Buffer Zone				Dobwalls	A390/Opp Springfield Bungalow/Torwegian	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Mini cell - 100% dusk-dawn
Buffer Zone	D019	221382	064960	Dobwalls	Dawes CI:Adj Martina	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D018	221370	064931	Dobwalls	Dawes CI:Btw No 21 & Kenton	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D015	221287	064899	Dobwalls	Dawes CI:Btwn Kimpwanza/Trelawne	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D011	221220	064981	Dobwalls	Dawes CI:O/S Derrydown	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D012	221252	064977	Dobwalls	Dawes CI:O/S Highbury	ZX1 60W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D016	221311	064963	Dobwalls	Dawes CI:Opp Killigarth	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D013	221273	064959	Dobwalls	Dawes Cl:Opp Lagnna	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D014	221298	064935	Dobwalls	Dawes CI:R/O Killigarth	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D017	221343	064952	Dobwalls	Dawes CI:S/O No 21	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D009	221540	064870	Dobwalls	Higman CI:O/S No. 5 Cul De Sac	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D008	221568	064863	Dobwalls	Higman CI:Side Of No. 14	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D124	221307	065070	Dobwalls	Newton Crt:By Parking Area	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D125	221286	065063	Dobwalls	Newton Crt:O/S No 4	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	D135	221077	065003	Dobwalls	Old A38/O/S Ashleigh	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	D131	221049	065019	Dobwalls	Old A38/O/S The Furs	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	D136	221103	065000	Dobwalls	Old A38/Opp 3 Five Lanes	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Dobwalls	Old A38/Opp Belmont	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	D130	221032	065015	Dobwalls	Old A38/Opp Tresquite	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Dobwalls	Old A38/R/O 9 Twelvewood Pl	ZX1 60W Cosmopolis 1543 LP	No uplight			Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	D160	221206	065003	Dobwalls	Old A38:Last S/L Coming Out Of Dobwalls	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Duck - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Durier Zone	חזטו	221000	003003	פווסאמוס	Old ADO. Last 3/L Colling Out Of Dobwalls	LVI 001/1 COSHIODOIIS 1343 FL	no apiigiit	ZOUUK	Dazk - DaMII	CC Diffining Folicy - 75% from dusk, 50% from 00.50, 75% from 05:50, on at dawn

0	T	F	Nauth Cattlanaut	1	Ta	Te	Colour Cuitable Dimenia
Core or	Lamp		North- Settlement	Location	Lamp	Focus	Colour Switching Dimming
Buffer?	Ref.	ing	ing	Old A20.0 (C 1 High as Mandau)	7V1 C0W C	Nialialat	Temp.
Buffer Zone			065019 Dobwalls	Old A38:O/S 1 Higher Meadow	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			065034 Dobwalls	Old A38:O/S 1 Rosedene	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			065020 Dobwalls	Old A38:O/S 10 Highwood Park	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			065019 Dobwalls	Old A38:O/S 13 Highwood Park	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e D145	221378	065025 Dobwalls	Old A38:O/S 14 Havett Cl	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D158		065015 Dobwalls	Old A38:O/S 2 Crestbourne Tce	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone			065020 Dobwalls	Old A38:O/S 8B Highwood Park	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e D139	221180	064996 Dobwalls	Old A38:O/S Glyn Cottage	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e D156	221672	065026 Dobwalls	Old A38:O/S Hollytree	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D159	221773	065010 Dobwalls	Old A38:O/S Ivydene	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D140	221211	065006 Dobwalls	Old A38:O/S Leigh	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e D147	221437	065032 Dobwalls	Old A38:O/S Linden Lea	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e D138	221147	064997 Dobwalls	Old A38:O/S Lynwood	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	e D155	221638	065029 Dobwalls	Old A38:O/S Masonville	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D148	221471	065035 Dobwalls	Old A38:O/S Polgenna	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			065021 Dobwalls	Old A38:O/S Rosemelling	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D146	221405	065030 Dobwalls	Old A38:O/S The Old Church	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D142	221277	065005 Dobwalls	Old A38:Opp Felsburg	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			064995 Dobwalls	Old A38:Opp Inglenook	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone		- 1	065005 Dobwalls	Old A38:Opp Lynes House	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D143	221312	064996 Dobwalls	Old A38:Opp New House	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	e D137	221125	065007 Dobwalls	Old A38:Opp Olden Days	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			064729 Dobwalls	Pendray Gardens:Between Nos. 7 & 8	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064850 Dobwalls	Pendray Gardens:Between Nos. 36 & 37 - Opp. 26	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e D071	221327	064823 Dobwalls	Pendray Gardens: O/S No. 23	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064838 Dobwalls	Pendray Gardens: O/S No. 31	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064760 Dobwalls	Pendray Gardens: O/S Nos. 17 & 18	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064778 Dobwalls		ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064781 Dobwalls	Pendray Gardens:Rear Of No. 49	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		- 1	064825 Dobwalls	Tamblin Ave:Opposite No. 27	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		064858 Dobwalls	Tamblin Ave:Rear Of No. 2 opp No. 23	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064793 Dobwalls	Treheath Rd:In Grassed Area	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		064699 Dobwalls	Treheath Rd:O/S Garden Of No. 53	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064812 Dobwalls	Treheath Rd:O/S No. 19	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		- 1	064799 Dobwalls	,	-		
			ļ	Treheath Rd:O/S No. 25	ZX1 60W Cosmopolis 1543 LP	No uplight	
Buffer Zone			064795 Dobwalls	Treheath Rd:O/S No. 33	-	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064833 Dobwalls	Treheath Rd:O/S No. 7		No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zon	_		064761 Dobwalls	Treheath Rd:Opp No 43		No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		- 1	064807 Dobwalls	Treheath Rd:Opposite No. 39 By Wall	-	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064721 Dobwalls	Treheath Rd:Opposite No. 47	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		064850 Dobwalls	Treheath Rd:Side Of No. 3	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	_		064694 Dobwalls	Treheath Rd:Side Of No. 51	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		064666 Dobwalls	Treheath Rd:Side Of No. 77 - Opp. 32	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		064931 Dobwalls	Tremabe L:Next-Holmlea/Opp Hendra Cot	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064887 Dobwalls	Tremabe L:O/S Demelza - opp Pen-Foye	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064845 Dobwalls	Tremabe L:O/S Tanglewood - opp Lynmere	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064783 Dobwalls	Tremabe L:O/S Telephone Exchange	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064806 Dobwalls	Tremabe L:O/S Westering By Mini Pillar	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	e D096	221140	064968 Dobwalls	Tremabe L:On Ent From A38 By Stone Wall	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn

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Core or	Lamp		North- Settlement	Location	Lamp	Focus	Colour Switching Dimming
Buffer?	Ref.	ing	ing				Temp.
Buffer Zone			064644 Dobwalls	Wherry Way:Between Nos. 21 & 22		No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Wherry Way:O/S No. 25		No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Wherry Way:O/S No. 5		No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			064997 Dobwalls	A390/O/S Springfield Villa		No uplight	2000K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone				Old A38:O/S Telephone Exchange	ZX3 140W Cosmopolis 1289 FG		2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	D161	220953	065039 Dobwalls	Dobwalls; Old A38; O/S Polmere	ZX3 140W Cosmopolis 1289 FG	No uplight	2800K Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
							dawn
Buffer Zone				Dobwalls; Old A38; Towards R/A	ZX3 140W Cosmopolis 1289 FG		2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone				Dobwalls; Old A38; Towards R/A	ZX3 140W Cosmopolis 1289 FG		2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			064704 Doublebois		Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		1	064739 Doublebois		Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	B004	219929	064716 Doublebois		Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				(Coal			
Buffer Zone		1	064797 Doublebois		Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	B002	219877	064763 Doublebois	Doublebois Ind Est:Opp. Welding Construction	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				Eng.			
Buffer Zone	B005	219960	064703 Doublebois	Doublebois Ind Est:R/O R.J. & S.P. Osbourne	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				(Coal			
Buffer Zone			080744 Five Lanes		Evolo 45W Cosmopolis 2020 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080716 Five Lanes	•	Evolo 45W Cosmopolis 2020 LP		2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			080737 Five Lanes	Fair Field Pk:O/S No 20 opp No 16 & 17	Evolo 45W Cosmopolis 2020 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	J058		080775 Five Lanes	Fair Field Pk:O/S No 23 opp No 2	Evolo 45W Cosmopolis 2020 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	J055		080786 Five Lanes	Fair Field Pk:O/S No 25 On Ent	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	J059	222635	080766 Five Lanes	Fair Field Pk:O/S No 4	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	J060	222655	080747 Five Lanes	Fair Field Pk:O/S No 5	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	J053	222592	080799 Five Lanes	Fair Field Pk:On Ent O/S No 1	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	H004*	207397	071127 Helland	Below The P O	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	H001*	207722	071058 Helland	Btwn Hall & 4 Limbsworthy Terr	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	H005*	207342	071140 Helland	By Meth Church & Public F/P	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	H003*	207439	071108 Helland	O/S No 4	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	H002*	207533	071065 Helland	Opp War Memorial & Church Rd	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	H006*	206547	071466 Helland	Hellandbridge:O/S Riversmead Helland Pottery	Beta 5 35W Sox	Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	H002	208797	081350 Helstone	O/S Fernleigh By Kiosk	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	H001	208869	081393 Helstone	O/S Romany	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	001NV	208940	081345 Helstone	O/S Homeleigh House	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone	004NV	208741	081300 Helstone	Opp. Helstone Nurseries	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Mini cell - 100% dusk-dawn
			084157 Laneast			Some uplight	1750K Dusk - Dawn Mini cell - 100% dusk-dawn
	*			, ,			
Buffer Zone	L001	227630	080550 Lewannick	Cottage Gardens:Entrance-Estate	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080464 Lewannick	Cottage Gardens: O/S No 20	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080520 Lewannick	Cottage Gardens:Opp No 10	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080489 Lewannick	Cottage Gardens:Opp No 12	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080537 Lewannick	Cottage Gardens: Side Of No. 2	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				F/P Car Pk/Hawks Tor Dr:S/O 25 Hawks Tor Drive	*		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080650 Lewannick		Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080420 Lewannick	·	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone			080402 Lewannick	Harpers Meadow: O/S No 13	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone			080394 Lewannick		Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn Mini cell - 100% dusk-dawn
Buffer Zone				·	Evolo 45W Cosmopolis 2018 LP		2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St. Martins Close	Evolo 45W Cosmopolis 2018 LP		
Buffer Zone				St. Martins Close St. Martins Close:On Gable End			2800K Dusk - Dawn Default CMS - 75% dusk-dawn  2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			080603 Lewannick	St. Martins Close:On Gable End	· ·	No uplight	2800K Dusk - Dawn CC Diffilling Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, oil at dawn
			073403 Longstone		<u> </u>	No uplight	
Buffer Zone			_	By Kiosk & Post Box		Some uplight	1750K         Dusk - Dawn         Mini cell - 100% dusk-dawn           1750K         Dusk - Dawn         Mini cell - 100% dusk-dawn
Buffer Zone			073420 Longstone			Some uplight	
Buffer Zone				O/S Church Gate		Some uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				On Post Office		Some uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		1	076774 North Hill		Evolo 45W Cosmopolis 2018 LP		2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				, -	Evolo 45W Cosmopolis 2018 LP		2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	H009	227201	076602 North Hill	By Kiosk O/S Torney Court	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming
			ing					Temp.		
Buffer Zone				North Hill	O/S 3 Church View	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				North Hill	O/S Blythes Farm	'	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				North Hill	O/S Georges Paddock	<u>'</u>	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				North Hill	O/S The Race Horse Inn	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				North Hill	Opp Higher Churchtown Barn	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				North Hill	Opposite No. 5 Lynher Way	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				North Hill North Hill	Opposite No. 9 Lynher Way	Evolo 45W Cosmopolis 2018 LP Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone Buffer Zone				Pensilva	Side Of No. 1 Lynher Way Penvale:Shute Lane:O/S Nos. 5-8.	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way:Between Nos. 25 & 44	Evolo 45W Cosmopolis 2018 LP Evolo 45W Cosmopolis 2020 LP	No uplight No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way:Between Nos. 4 & 6	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way: O/S No. 10 - Agan-Trl	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way:0/S No. 19	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way:0/S No. 20	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way:0/S No. 30	<u> </u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Amanda Way:O/S No. 38 - Stonelea	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Belmont Pk:Entrance-Estate		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Belmont Pk:O/S No 10		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Belmont Pk:O/S No 18	Evolo 45W Cosmopolis 2020 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Belmont Pk:O/S No 36		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Belmont Pk:O/S No 37	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Belmont Pk:Opp. Sweb Sub Station	Evolo 45W Cosmopolis 2020 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Caradon CI:O/S No 10	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	East Pk:Between Nos. 1 & 2	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	East Pk:O/S No. 9 Spring Wood	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K140	229218	069606	Pensilva	F/P Quarry Rd:O/S Hunters Lodge	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		228592	069652	Pensilva	Glen Pk:O/S No 56 In F/P		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K152	229638	069775	Pensilva	Golberton Rd:Opp 20 & 22	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	K149	229326	069757	Pensilva	Gooseberry L:O/S Quinoscar	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K150	229370	069780	Pensilva	Gooseberry L:O/S The Havlery	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K148	229256	069709	Pensilva	Gooseberry L:Opp Caradon View	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K089	228483	069695	Pensilva	Higher Glen Pk:Nr No 37	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Glen Pk:O/S No 41	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Glen Pk:O/S No 47	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Middle Hill:O/S Derelict Buildings	Evolo 45W Cosmopolis 2020 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Middle Hill:Opp Clover Cott	Evolo 45W Cosmopolis 2020 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Highfield Estate: O/S No. 19/Opposite No. 11	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Highfield Estate: O/S No. 4/Opposite No. 5	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill:Adj Courtland Cott	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill:O/S Stag Cott	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill: O/S Trehaven	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill: O/S Wilena	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill:Opp No 5	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill:Opp Springfield Hse	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Lower Middle Hill:Pensilva - O/S Sunnymead	Evolo 45W Cosmopolis 2020 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Pensilva Ind Est:On Ent S/O Unit 1E	•	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Pensilva Ind Est:On Road-Units 1A - 1E	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Pensilva Ind Est:Opposite Unit 1E	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva Pensilva	Pollards CI:O/S Otterden	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Pollards CI:O/S Stanford	Evolo 45W Cosmopolis 2020 LP	No uplight			Mini cell - 100% dusk-dawn
Buffer Zone					Quarry Rd: Below Stanford		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone Buffer Zone				Pensilva Pensilva	Quarry Rd:O/S Higher Woolston Farm Quarry Rd:O/S Hill View		No uplight No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Quarry Rd:O/S fill View  Quarry Rd:Opp Garden Of Homeland		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	School Rd:By 30Mph Signs		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	School Rd:By 30Mph Sighs School Rd:Jnt Caradon Close		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	School Rd:O/S Almarphil	· ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	School Rd:O/S Old Tarnwell	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn  CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Durier Zone	1033	2230/3	007740	i ciisiiva	School Ru.0/3 Old Tarriwell	L voio 43 vv Cosinopolis 2020 LP	ino apligit	2000K	Dusk - DaWII	CC Diffilling Folicy - 75% from dusk, 50% from 00.30, 75% from 03.30, 011 dt ddWll

	Te	F	N 1	II*:	I	Te	6-1	Contraktion Discouries
Core or Buffer?	Lamp Ref.		North- Settlement ing	Location	Lamp	Focus	Temp.	Switching Dimming
Buffer Zone			069893 Pensilva	School Rd:O/S Thor Cottage	Evolo 45W Cosmopolis 2020 LP	No unlight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	_		069864 Pensilva	School Rd:Opp Health Centre	Evolo 45W Cosmopolis 2020 LP		2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	_		069764 Pensilva		Evolo 45W Cosmopolis 2020 LP		2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069768 Pensilva	Trelawney Gardens: O/S No. 10	Evolo 45W Cosmopolis 2020 LP		2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069792 Pensilva		Evolo 45W Cosmopolis 2020 LP		2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069836 Pensilva	Higher Rd:EntSchool Road	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K049	228985	069822 Pensilva	Higher Rd: Jct. Of East Park	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
								dawn
Buffer Zone			069826 Pensilva	Higher Rd: Jct. With Belmont Park	Evolo 60W Cosmopolis 2018 LP			Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K064	228410	069814 Pensilva	Higher Rd:O/S Claremount	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K061	228512	069799 Pensilva	Higher Rd:O/S Higher Glen Park	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K055	228750	069800 Pensilva	Higher Rd:O/S Kenwyn	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K053	228829	069818 Pensilva	Higher Rd:O/S No 27 Belmont Park	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
Buffer Zone	K054	228788	069808 Pensilva	Higher Rd:O/S No. 19 Belmont Park	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K058	228634	069772 Pensilva	Higher Rd:O/S No. 81 Glen Park	Evolo 60W Cosmopolis 2018 LP		1	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K067	228297	069800 Pensilva	Higher Rd:O/S No.21Trelawney Grd.	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K050	228968	069834 Pensilva	Higher Rd:O/S Plymouth House	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K046	229121	069835 Pensilva	Higher Rd:O/S Sunny View	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K044	229192	069840 Pensilva	Higher Rd:On Drake Cottage	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069790 Pensilva	Higher Rd:Opp Caradon House	Evolo 60W Cosmopolis 2018 LP			
Buffer Zone	K066	228324	069810 Pensilva	Higher Rd:Opp No 26Trelawney Grd	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		069816 Pensilva	Higher Rd:Opp No. 2 Trelawney Grd	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K060	228560	069791 Pensilva	Higher Rd:Opp No. 2Higher Glenpk	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K057	228676	069785 Pensilva	Higher Rd:Opp No. 5 Lower Glen Pk	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K059	228596	069789 Pensilva	Higher Rd:Opp No. 85 Glen Park	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069812 Pensilva	Higher Rd:Opp No.10Higher Glen Pk	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
					•			dawn
Buffer Zone	K062	228475	069805 Pensilva	Higher Rd:Opp No.2 Higher Glen Pk	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at dawn
Buffer Zone	K047	229078	069834 Pensilva	Higher Rd: Opp.Jct. Highfield Est.	Evolo 60W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone	K051		069830 Pensilva	Higher Rd: Opp.Junct. Wesley Road	Evolo 60W Cosmopolis 2018 LP	No uplight		
Buffer Zone				Princess Rd:O/S Eastleigh	Evolo 60W Cosmopolis 2018 LP			Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069855 Pensilva	Princess Rd:O/S Eastleigh Terr	Evolo 60W Cosmopolis 2018 LP			Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069850 Pensilva	Princess Rd:O/S Milton Cottage	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069848 Pensilva	Princess Rd:Opp Toilets (Pc)	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069844 Pensilva	·	Evolo 60W Cosmopolis 2018 LP		2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069718 Pensilva	Glen Pk:Nr No 21 Lower Glen Pk	•	Some uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069801 Pensilva	Church Hill:Opp No 1 Church Hill		No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069772 Pensilva	Church Hill: Opp No 5 Church Hill	-	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone Buffer Zone			069738 Pensilva 069690 Pensilva	Church Hill:Opp Village Hall	-	No uplight	2800K 2800K	Dusk - Dawn Default CMS - 75% dusk-dawn  Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	_		069628 Pensilva	Fore St:O/S Chequers Fore St:O/S Heather Lea	'	No uplight No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069622 Pensilva	Fore St:O/S fileather Lea	•	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069682 Pensilva	Fore St:O/S Methodist Church		No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069675 Pensilva	Fore St:O/S Rose Villa/Wesleyrd	,	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069649 Pensilva	Fore St:O/S Sunny View	-	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069660 Pensilva	Fore St:O/S The Cottage	-	No uplight	2800K	Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069619 Pensilva	Fore St:O/S The Cottage	·	No uplight		Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069638 Pensilva	Fore St:O/S The Firs	i	No uplight	1	Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone			069699 Pensilva	Fore St:Opp Bowercottage		No uplight		Dusk - Dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone			069718 Pensilva	Fore St:Opp Valley View	-	No uplight		

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming
			ing					Temp.		
Buffer Zone				Pensilva	Glen Pk:O/S No 31 Lower Glen Pk	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Glen Pk:O/S No 40	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Glen Pk:O/S No 42	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Glen Pk:O/S Nos 3/5 Lwr Glen Pk	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Glen Pk: O/S Nos 49/50	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Glen Pk: O/S Nos 69/70	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva Pensilva	Glen Pk: O/S Nos 75/76	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone Buffer Zone				Pensilva	Glen Pk:O/S Nos 83/84 Gooseberry L:Jnt Quarry Rd	ZX1 45W Cosmopolis 1543 LP ZX1 45W Cosmopolis 1543 LP	No uplight No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Glen Pk:O/S No 10	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Glen Pk:O/S No 13	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Glen Pk:O/S No 35	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Higher Glen Pk:O/S Nos 2/4	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Jubilee Rd:Fway-Glenn Park	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Jubilee Rd:O/S Mount Pleasant	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Jubilee Rd:O/S Trelawney Cottage	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Jubilee Rd:Opp Dunsvale	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Jubilee Rd:Opp Pyramid House	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Jubilee Rd:Opp Salt Box	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Middle Pk:Between Nos. 24 & 26	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Middle Pk:Between Nos.30 & 32	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Princess Rd:O/S Victoria Hotel	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Quarry Rd:O/S Pendre	ZX1 45W Cosmopolis 1543 LP	No uplight	_		Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Quarry Rd:Opp Chwarreldy O/S Hollytree C	ZX1 45W Cosmopolis 1543 LP	No uplight	_		Default CMS - 75% dusk-dawn
Buffer Zone		229070	069696	Pensilva	Shute L:Jct. Shute Lane/Fore St	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Shute L:O/S Aquarius	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		229081	069652	Pensilva	Shute L:O/S Four Seasons	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	K031	229088	069619	Pensilva	Shute L:O/S Peace Haven	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	K027	229122	069479	Pensilva	Shute L:O/S Respryn	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	K030	229091	069590	Pensilva	Shute L:O/S Treetops	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Shute L:O/S Trevanion	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Shute L:Opp B.B. Cottage	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Shute L:Opp No 19 Penvale	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Shute L:Opp Redcot	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Shute L:Opp Redcot Garage	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Shute L:Opp Rickety Nook		No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Slade Park Rd:Btwn 2 & 3	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Slade Park Rd:Opp The Post Office	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Wesley Rd:O/S Kleinfontein Tce	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Wesley Rd:Opp East Park House	ZX1 45W Cosmopolis 1543 LP	No uplight	_		Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Wesley Rd:Opp Lower Wesley Tce	ZX1 45W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Penharget Close; O/S No 14	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone	_			Pensilva	Penharget Close; R/O No 14	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone				Pensilva	Penharget Close; S/O No 1	ZX1 45W Cosmopolis 1543 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	Penharget Close; S/O The Fairways	ZX1 45W Cosmopolis 1543 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone	KU48	229024	069835	Pensilva	Higher Rd:O/S Shangri-La	ZX1 60W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	Major Road Dimming - 75% from dusk, 50% from 10:00, 75% from 05:30, off at
Puffor Zono	V12E	220450	060770	Pensilva	Ct Ivo Ddi Py Carago Chy Voan	ZV1.60W Cosmonolis 1542 LD	No unlight	20001/	Duck Dawn	CC Dimming Policy 750/ from duck 500/ from 00120, 750/ from 05120, off at dawn
Buffer Zone Buffer Zone				Pensilva	St Ive Rd:By Garage-Chy Vean St Ive Rd:O/S Morice House	ZX1 60W Cosmopolis 1543 LP ZX1 60W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	St Ive Rd:O/S Monice nouse St Ive Rd:O/S Stoneleigh	ZX1 60W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	St Ive Rd:0/S Stoneleigh	ZX1 60W Cosmopolis 1543 LP	No uplight No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Pensilva	St Ive Rd:Opposite Heather Cott	ZX1 60W Cosmopolis 1543 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		228793			Belmont Pk:Side Of No 17	-	No uplight			Mini cell - 100% dusk-dawn
Buffer Zone		228582			Glen Pk:Side Of No 85	ZX1 45W Cosmopolis 1543 LP	No uplight			Mini cell - 100% dusk-dawn
Buffer Zone				Polyphant	Serpells Meadow:In F/P S/O Jasmine Cott		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Polyphant	Serpells Meadow:In Turning Head By No 24	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				Polyphant	Serpells Meadow: O/S No 11 - opp No 2	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Serpells Meadow: O/S No 16		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Daniel Zoile		220134	002131	· Oiy Pilalit	Serpens ricadow.0/S NO 10	27010 1511 C031110p0113 2010 LF	ito apiigiit	200010	Dask Dawii	25 2

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming
Buffer?	-		ing	Settiement	Location	Lamp	locus	Temp.	Switching	
Buffer Zone				Polyphant	Serpells Meadow: O/S No 7 - opp No 8	Evolo 45W Cosmopolis 2018 LP	No upliaht		Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Penvorder Cottages:On Ent	Beta 5 35W Sox	Some uplight			Mini cell - 100% dusk-dawn
Buffer Zone				St Breward	Church Rd:O/S Penivey		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Church Rd:Opp Somerville		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Church Rd:Opp The Old Inn	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Church Rd:Opp Village Hall	•	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Church Rd:Opp. Kiosk - S/O No. 12	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Chyryn Dr:Btwn Nos 6 & 8		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Chyryn Dr:O/S Murrell EngineerOpp No 2	1	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Chyryn Dr:Opp No 4					CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Coombe Rd:O/S Rock Cottage		No uplight No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Coombe Rd:Opp Tor Cottage		'			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
						·	No uplight	_		
Buffer Zone				St Breward	Higher Penguite: Adj Hazelmere	•	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Higher Penquite:Btwn Hawkhill & Penquite Farm	•	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Higher Penquite: O/S No 4	<u> </u>	No uplight		ł	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Higher Penquite: O/S Penquite Farm	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Higher Penquite: O/S Tremore	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Higher Penquite:Opp Dunster	Evolo 45W Cosmopolis 2018 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill CI:O/S Fresh Fields	· '	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill CI:O/S Westwinds/Ravens Cry	· '	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill:Adj Hill Farm S/O Dossouse	· ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill:O/S Alfresco	<b>'</b>	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill:O/S Hill Farm Bungalow	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill:O/S Mor-Ray	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill:Opp Hill Farm - Ent-Hill Cl	· '	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone					Hill:Opp Westbourne	· '	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Hill:S/O Castellyon	· ·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:Approaching Ailsa	·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:Btwn Brooklands & Osbourne Hse	Evolo 45W Cosmopolis 2018 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:By O/H Transformer	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Avalon	•	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Bartons Brook	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Brambles	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Harley Cottage	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Lyndale	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Tipton Cott	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Torview	· '	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Treglenes	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:O/S Westerley Views		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:Opp Band Room & Chyryn Drive		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:Opp Hillside	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:Opp Kennel Cottage	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:Opp Meth Sunday School		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Lime Head:S/O Jubilee	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A056	209090	075301	St Breward	Lower Lank:O/S Moderna Cott (Guides H.Q.)		No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		209052	075030	St Breward	Lower Lank:Opp De Lank Hse		No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A054	209133	075186	St Breward	Lower Lank:Opposite De Lank Farm	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A035	209788	076782	St Breward	Lower Penquite:Lower Penquite	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A053	208976	075555	St Breward	On Road Island:Opposite Homelands R/O Kiosk	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Penpont:Opposite The Barn	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A001	209535	075880	St Breward	Penvorder:O/S No 3	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Mini cell - 100% dusk-dawn
Buffer Zone	A037	209599	076526	St Breward	Row:O/S Fairview	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A038	209589	076460	St Breward	Row:O/S Providence House	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A039			St Breward	Row:Opp Bodvean	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A036	209589	076567	St Breward	Row:Opp Post Office	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Rylands Tce:O/S No 1		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Rylands Tce:O/S No 3		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Rylands Tce:O/S No 7	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
	i				•	· · · · · · · · · · · · · · · · · · ·			1	

Core or	Lamp	East-	North-	Settlement	Location	Lamp	Focus	Colour	Switching	Dimming
Buffer?	-		ing				. 5545	Temp.		
Buffer Zone				St Breward	Rylands Tce:Opposite No. 15	Evolo 45W Cosmopolis 2018 LP	No uplight		Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Breward	Rylands Tce:Opposite Nos. 18 & 19	· · · · · · · · · · · · · · · · · · ·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A047	209298	076003	St Breward	Lime Head:Nr A5/A6 opp Ailsa Cott	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A040	209583	076330	St Breward	Row:Opp Wide Horizon	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	059KL	224787	068197	St Cleer	Car Park	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	L038	225136	068187	St Cleer	Barnecut CI:Opp No 8	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	L041	225042	068216	St Cleer	Baynes Cl:Between Nos. 10 & 11	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225055			Baynes CI:Between Nos. 16 & 17	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225078			Baynes CI:O/S No. 3	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Diggorys Field: O/S No 15 - opp No 28	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225155			Diggorys Field: O/S No 28	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	L050	225153	068238	St Cleer	Diggorys Field: O/S No 8	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225076			Diggorys Field:O/S No. 9	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225166			Diggorys Field: O/S Nos 16 & 18	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225094			Diggorys Field:On Entrance-Estate	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225110			Diggorys Field:Opposite No. 2	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225146			Gwelmeneth Pk:Entrance-Tremar Lane	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225079			Gwelmeneth Pk:O/S No 10	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225071			Gwelmeneth Pk:O/S No 22	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225083			Gwelmeneth Pk:O/S No 25	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225065			Gwelmeneth Pk:O/S No 29	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225043			Gwelmeneth Pk:O/S No 32	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225047			Gwelmeneth Pk:O/S No 39	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225009			Gwelmeneth Pk:O/S No 45	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225175			Gwelmeneth Pk:O/S No 7	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225103			Gwelmeneth Pk:Opp No 18 Penedlow	<u>'</u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Gwelmeneth Pk:Opp No 19	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225062			Gwelmeneth Pk:Opp No 30	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Gwelmeneth Pk:Opp No 6	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225575			Highview CI:O/S No 12	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225576			Highview CI:O/S No 16	'	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225596			Highview CI:O/S No 3 Highview CI:O/S No 7	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone Buffer Zone		225103		St Cleer	Jopes CI:Btwn Nos 7 & 8	Evolo 45W Cosmopolis 2018 LP Evolo 45W Cosmopolis 2018 LP	No uplight No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225103			Jopes CI:Btwii Nos / & 8  Jopes CI:Opp S/O 21 Diggorys Field	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224659			Penhale Meadow: O/S No 36 opp No 71	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224674			Penhale Meadow: O/S No 57 opp No 24		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224672			Penhale Meadow: O/S No 63 opp No 30		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Penhale Meadow: O/S No 75 opp No 42		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225652			Rosecraddoc View:O/S No. 10		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225627			Rosecraddoc View: O/S No. 2		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225610			Rosecraddoc View: O/S No. 4	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225625			Rosecraddoc View: O/S No. 8	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225600			Rosecraddoc View:S/O No 7	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224983			Tom Nicolls CI:O/S No 14 Nr Footpath		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225005			Tom Nicolls Cl:O/S No 24 - opp Nos 10 & 11		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225219			Trenouth CI:O/S No 15		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Trenouth CI:O/S No 17	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225177			Trenouth CI:O/S No 24	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225136			Trenouth CI:O/S No 4 Diggorys CI - opp Sub	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225217			Trenouth CI:O/S No 9 In F/P		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224960			Trethevy CI:By Garages R/O 5 - opp No 21		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Trethevy CI:O/S No 17 By Cattle Crossing		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224955			Trethevy CI:O/S No 24	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224945			Trethevy CI:O/S Nos 13 & 14 - opp No 20	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224970			Trethevy CI:O/S Nos 6 & 7 - opp No 11	-	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Trethevy CI:Opp Jnt Btwn Ivanhoe & No 1		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225675			Venland Cl:Adj No 21		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
				l			1 1 3			5 ,

	-		_	Settlement	Location	Lamp	Focus	l	Switching	Dimming
			ing	CL CL	V. L. LCIALIN 25	E 1 45W C 1: 2010 I B	N. P. L.	Temp.	D 1 D	CC D: D  :
Buffer Zone				St Cleer	Venland Cl:Adj No 25	· '	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		225705		St Cleer	Venland Cl:Adj No 6	· '	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224785			Venland CI:Btwn No 11 & 12	<u>'</u>	No uplight	-		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone Buffer Zone		224765			St. Cleer: O/S Toilets Jasper Pc: O/S Nos 5 & 7	K-Lux 45W Cosmopolis	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224759			Lanyon Crt:Near Ashleigh/In Turning Head	K-Lux 45W Cosmopolis	Some uplight Some uplight	-		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224695			Penhale Meadow:Between Nos. 10 & 12	K-Lux 45W Cosmopolis	Some uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224760			Penhale Meadow:O/S No 1 - opp Emerdale	K-Lux 45W Cosmopolis	Some uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224697			Penhale Meadow:O/S No. 45	K-Lux 45W Cosmopolis	Some uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224718			Penhale Meadow: O/S Nos 35 & 37	K-Lux 45W Cosmopolis	Some uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224669			Penhale Meadow:S/O 18 & Garages - opp 51	K-Lux 45W Cosmopolis	Some uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		224727			Penhale Meadow:S/O No 2 Jasper Parc	K-Lux 45W Cosmopolis	Some uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Cleer	Penhale Meadow:Side Of No. 14	K-Lux 45W Cosmopolis	Some uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218414			Car Park	Alpha 8 150W SON T	Some uplight			Mini cell - 100% dusk-dawn
Buffer Zone		218338			Great Meadow:O/S No 2	<u> </u>	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218345			Great Meadow:Opp Parking Area For No 1		No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218470			Lampen Rd:O/S No 3 Lampen Terrace	·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218530			Lampen Rd:O/S No 4 Church View	Evolo 45W Cosmopolis 2018 LP	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218547			Lampen Rd:Opp. No. 10 Church View	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A003	218741	067566	St Neot	Loveny CI:Between Nos. 5 & 6	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A004	218733	067516	St Neot	Loveny CI:Curlew Cottage/Rangipai	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218743			Loveny CI:O/S 17 Nookyville	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A001	218768	067639	St Neot	Loveny CI:S/O Bosweethan	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218713			Loveny Rd:O/S No. 2 Beech Close	Evolo 45W Cosmopolis 2018 LP	No uplight			Default CMS - 75% dusk-dawn
Buffer Zone		218757	067685	St Neot	Loveny Rd:Opposite Beech Leaves Garage	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A009	218459	067849	St Neot	Tripp Hill:By Bridge/Opp Old Smithy	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A008	218430	067813	St Neot	Tripp Hill:O/S Coppins/Opp Inst	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A005	218212	067783	St Neot	Tripp Hill:O/S Goonzion House	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	A012	218586	067820	St Neot	Tripp Hill:O/S No 3 Market View	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	Default CMS - 75% dusk-dawn
Buffer Zone	A006	218310	067789	St Neot	Tripp Hill:Opp. Private Housing Est	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218542			Tripp Hill:Opposite The London Inn	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K	Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218355			Bush Hill:H/S/O Great Meadow Ent	Evolo 60W Cosmopolis 2018 LP	No uplight		Dusk - Dawn	CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		218365			Bush Hill:Opp Holwood	Evolo 60W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206660			Chestnut CI:On Ent opp Gwavas	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206686			Normans Way:O/S No 8	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone				St Tudy	Normans Way:Opposite Pen Forlas	Evolo 45W Cosmopolis 2018 LP				CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206561			Oak Pk:On Ent O/S No 2	Evolo 45W Cosmopolis 2018 LP	· · · · · ·			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206644			St Teath Rd:O/S Bronsley	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206652			St Teath Rd:O/S No. 4 Wayside	Evolo 45W Cosmopolis 2018 LP	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206636		-	St Teath Rd:O/S Penn Haven	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206652			Near Bordean Cottage	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206677			Near Spare Hill House	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206881			O/S Hooters Cottage	· '	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206655			Opp. Jnt-Wadebridge	·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206664			Opposite Burleigh House	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206692			Opposite Cornish Arms	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206570			Wadebridge Rd:Bodinnick:R/O No: 6 in footpath	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206567			Wadebridge Rd:Opp Chippings	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206829			Chapel Rd:By Church	·	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206705			Chapel Rd:O/S Bosvean		No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206687			Chapel Rd: O/S Cornish Arms	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206791		-	Chapel Rd:O/S Fradds Meadow	·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206745			Chapel Rd:Opposite Sunny Corner	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206835			O/S Methodist Church	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206637			Opposite Hill View	· '	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206598			Wadebridge Rd:O/S Penistone	•	No uplight			CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone		206628			Wadebridge Rd:O/S Virginia	·	No uplight	_		CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone	AUUZ	206607	0/6699	St ruay	Bodinnick Pk:O/S No 5	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K	usk - Dawn	Default CMS - 75% dusk-dawn

Core or Lar	mp	East-	North- Settlement	Location	Lamp	Focus	Colour Switching Dimming
Buffer? Ref	ef.	ing	ing				Temp.
Buffer Zone A00	03	206604	076658 St Tudy	Bodinnick Pk:O/S No 9	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone A00	01	206642	076691 St Tudy	Bodinnick Pk:S/O No 6	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone A19	95	211344	083755 Tregoodwell	Roughtor Rd:Opp No 17	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone A31	19	211321	083675 Tregoodwell	O/S 6	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone A31	18	211371	083702 Tregoodwell	Opp 26	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone A31	17	211392	083748 Tregoodwell	By Letter Box	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone L06	61	225426	069307 Tremar	On Jnt opp Water Hydrant	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
			Coombe				
Buffer Zone 004	4KF	225402	069284 Tremar	O/S No 8 Suncrest	Evolo 45W Cosmopolis 2018 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
			Coombe				
Buffer Zone L00	01	228417	072152 Upton Cross	Christa Court Est:Bottom Of Steps	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone L00			-		Evolo 45W Cosmopolis 2020 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn
Buffer Zone L00	05	228432	072134 Upton Cross	Christa Court Est: O/S No 11	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone L00	04	228489	072145 Upton Cross	Christa Court Est: O/S No 5	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone L00	03	228456	072154 Upton Cross	Christa Court Est:Side Of No 1	Evolo 45W Cosmopolis 2020 LP	No uplight	2800K   Dusk - Dawn   CC Dimming Policy - 75% from dusk, 50% from 00:30, 75% from 05:30, off at dawn
Buffer Zone 003	3KQ	227986	072050 Upton Cross	Carnedon:O/S 6	ZX1 45W Cosmopolis 1543 LP	No uplight	2800K Dusk - Dawn Default CMS - 75% dusk-dawn

# Appendix 6: Schedule of Current Highways England Highways Lighting

Core or	Lamp	l			E	T	T_	Colour	Switching	
Buffer?	Ref.	Easting	Northing	Settlement	Location	Lamp Type	Focus		(Pecu Lux)	Dimming
Core Area	T009	222451	080414	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Core Area	T011	222451	080414	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Core Area	T012	222440	080451	Altarnun/Five Lanes	117/8 Altarnum A30 W.B On, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Core Area	T013	222440	080448	Altarnun/Five Lanes	117/8 Altarnum A30 W.B On, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Core Area	T014	222440	080451	Altarnun/Five Lanes	117/8 Altarnum A30 W.B On, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T002	222591	080471	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T001	222591	080471	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T003	222504	080452	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T004	222504	080452	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T005	222491	080426	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T006	222523	080420	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T007	222487	080454	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T008	222486	080434	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone	T015	222504	080452	Altarnun/Five Lanes	117/6 Altarnum A30 W.B Off, side of road	ZX3 150W SON/T FG	No uplight	3000K	On 70, off 55	None
Buffer Zone			080261	Altarnun/Plusha	119/0 Plusha, central reserve	Estilo 140W CPO/TW LP		1	On 55, off 28	
Buffer Zone	TW21		080261	Altarnun/Plusha	119/0 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone		1	080222	Altarnun/Plusha	119/0 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone		1	080255	Altarnun/Plusha	119/0 Plusha, side of road	Estilo 140W CPO/TW LP		1	On 55, off 28	None
Buffer Zone		1	080251	Altarnun/Plusha	119/0 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	None
Buffer Zone		1	080252	Altarnun/Plusha	119/0 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone			080259	Altarnun/Plusha	119/0 Plusha, side of road	Estilo 140W CPO/TW LP		1	On 55, off 28	
Buffer Zone			080293	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP		1	On 55, off 28	
Buffer Zone		1	080283	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP		1	On 55, off 28	None
Buffer Zone	TE024		080281	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP		1	On 55, off 28	
Buffer Zone		1	080276	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone		1	080272	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP	Some uplight	1		None
Buffer Zone	TE031		080274	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP	Some uplight			None
Buffer Zone	TE032		080279	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP	Some uplight			None
Buffer Zone		1	080282	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP		1	On 55, off 28	
Buffer Zone		1	080292	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
	TW022		080293	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone			080283	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	None
Buffer Zone			080281	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone			080276	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
				Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone		1		Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone				Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
			080282	Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
				Altarnun/Plusha	119/6 Plusha, central reserve	Estilo 140W CPO/TW LP			On 55, off 28	
			080292	Altarnun/Plusha	119/6 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	
			080287	Altarnun/Plusha	119/6 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	
Buffer Zone			080287	Altarnun/Plusha	119/6 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	
			080287	Altarnun/Plusha	119/6 Plusha, side of road	Estilo 140W CPO/TW LP			On 55, off 28	
			081691	Lewannick/Two Bridges	122/2 Twobridges, central reserve	ZX3 150W CDM-T FG	No uplight		On 55, off 28	
			081691	Lewannick/Two Bridges	122/2 Twobridges, central reserve	ZX3 150W CDM T FC	No uplight		On 55, off 28	
		1	081621	Lewannick/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight		On 55, off 28	None
Buffer Zone		1	081607	Lewannick/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight		On 55, off 28	
		1	081594	Lewannick/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight	1	On 55, off 28	
				Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	1	On 55, off 28	
				Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	1	On 55, off 28	
Buffer Zone				Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	1	On 55, off 28	
Buffer Zone	T005W	227096	081838	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None

Core or Buffer?	Lamp Ref.	Easting	Northing	Settlement	Location	Lamp Type	Focus		Switching (Pecu Lux)	Dimming
Buffer Zone	T006E	227080	081812	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	_	On 55, off 28	None
Buffer Zone	T006W		081812	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight		On 55, off 28	
Buffer Zone	T007E	227061	081779	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T007W	227061	081779	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T008E	227039	081749	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T008W	227039	081749	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T010E	227023	081714	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T010W	227023	081714	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T011E	227006	081680	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T011W	227006	081680	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T014E	226957	081609	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T014W	226957	081609	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T015E	226936	081583	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T015W	226936	081583	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T016E	226913	081553	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T016W	226913	081553	Polyphant/Two Bridges	122/2, central reserve	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T009	227050	081721	Polyphant/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T012E	227011	081654	Polyphant/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T012W	227011	081654	Polyphant/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T018	226902	081522	Polyphant/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T019	226979	081668	Polyphant/Two Bridges	122/2, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T017	227015	081744	Polyphant/Two Bridges	122/6 Blackhill Quarry, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T020	227015	081744	Polyphant/Two Bridges	122/6 Blackhill Quarry, side of road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None
Buffer Zone	T021	227048	081839	Polyphant/Two Bridges	122/8 Twobridges Yard, slip road	ZX3 150W CDM-T FG	No uplight	3000K	On 55, off 28	None

# **Appendix 7: Planned Cornwall Council Street Lighting Improvements**

	Current						Details after change (2017)				
Unit Refs	Lamp	Focus	Colour Temp.	Switching	Dimming?	Action	Lamp	Focus	Colour Temp.	Switching	Dimming?
J003, J004, J005, J006, J008	Abbey 45W Cosmopolis	Some uplight	2800K	Dusk - Dawn	Yes	Apply black paint to further reduce uplight (bulb is already in the top of the lamp)	Abbey 45W Cosmopolis	Further reduced uplight	2800K	Dusk - Dawn	Yes
082KL	Alpha 8 150W SON T	Some uplight	2000K	Dusk - Dawn	No: Mini cell - 100% dusk-dawn	Switch to lamp without uplight	ZX1 70W Son	No uplight	c. 2000K	Dusk - Dawn	No: Mini cell - 100% dusk-dawn
005NM, 04NH, A022, C001, C002, C003, H001, H002, H003, H004, H005, H006, L001, L002	Beta 5 35W Sox	Some uplight	1750K	Dusk - Dawn	No: Mini cell - 100% dusk-dawn	Switch to lamps without uplight	ZX1 70W Son	No uplight	c. 2000K	Dusk - Dawn	No: Mini cell - 100% dusk-dawn
001KF, 002KF	Gamma 6 35W Sox	Some uplight	1750K	Dusk - Dawn	No: Mini cell - 100% dusk-dawn	Switch to lamps without uplight	ZX1 70W Son	No uplight	c. 2000K	Dusk - Dawn	No: Mini cell - 100% dusk-dawn
T016, K083	ZX1 45W Cosmopolis 1317	Some uplight	2800K	Dusk - Dawn	Yes	Change refractor to remove uplight	ZX1 45W Cosmopolis 1317	No uplight	2800K	Dusk - Dawn	Yes

## **Appendix 8: Letters of Support**

- i. Camel Valley and Bodmin Moor Protection Society
- ii. Campaign to Protect Rural England, Cornwall Branch
- iii. Campaign to Protect Rural England, National Office
- iv. Commission for Dark Skies
- v. Professor Helen Couper, CBE
- vi. Paul Kemshall
- vii. Liskeard Chamber of Commerce
- viii. Liskeard School
- ix. Liskeard Town Council
- x. Natural England
- xi. Roseland Observatory
- xii. Royal Astronomical Society
- xiii. South West Lakes Trust
- xiv. Tolcarn Research and Educational Observatory
- xv. Visit Cornwall
- xvi. XRT-C (Exeter Radio Telescope at Caradon)

#### i. **Camel Valley and Bodmin Moor Protection Society**

## CAMEL VALLEY AND BODMIN MOOR PROTECTION SOCIETY

President: Sir David Brewer KG CMG CVO JP

www. camel-bodminprotect.org

From: Richard Vyvyan-Robinson MBE Mellingey Mill House St Issey Wadebridge PL277QU

> Tel: 01841 540511 e-mail: mellingey@btinternet.com

**Emily Rubin** Senior Planning Policy Officer Cornwall Council Room 4a, Pydar House Pydar Street TRURO TR1 1XU

13th October 2016

Dear Ms Rubin

I refer to your recent telephone call requesting the Camel Valley and Bodmin Moor Protection Society to send a letter supporting the bid for Dark Sky Status for Bodmin Moor.

At the society's Annual General Meeting last November our speaker was Dr Wayne Thomas and his subject was an illustrated talk on "The Caradon Observatory and Dark Sky Status for Bodmin Moor". He easily convinced all our members present how important Dark Sky Status for Bodmin Moor would be, and two of our Trustees also attended Cornwall Council's meeting held at Jamaica Inn last April, as representatives of the Society.

Subsequently we encouraged our members to submit to Cornwall Council the consultation form provided (darksky@cornwall.gov.uk).

There are many reasons why Dark Sky Status for Bodmin Moor is important. They include the obvious ones such as benefit to wildlife, energy saving resulting from reduction of light pollution, and the public's enjoyment of improved night sky vision, particularly in view of the international importance of the Caradon Observatory.

You may recall that I have previously written a letter of support for the Dark Sky Project, but hope this further letter will go some way to emphasise the Society's belief in this important project.

Yours sincerely

literal Vyrgan- hob moon Richard Vyvyan-Robinson Chairman, CVBMPS

> Registered charity No. 1157589 and a company limited by guarantee in England and Wales No. 7952741 Registered Office: 41 Foxdown, Egloshayle, Wadebridge, Cornwall, PL27 6BD

#### ii. Campaign to Protect Rural England, Cornwall Branch



CPRE Cornwall c/o 2 Akankoo Cottages New Road Stithians TR3 7BW

Tel: 0845 269 4501 Email: anita@cprecornwall.org Web: www.cprecornwall.org

21 February 2017

To whom it may concern,

Support for an International Dark Sky Park for Bodmin Moor, Cornwall

The Campaign to Protect Rural England, Cornwall Branch, campaigns for a beautiful and living countryside. We work to protect, promote and enhance our towns and countryside to make them better places to live, work and enjoy, and to ensure the countryside is protected for now and future generations. As part of this work we have, for many years, campaigned against light pollution.

Darkness at night is one of the key characteristics of rural areas. An unpolluted sky enables appreciation of the stars and a healthier environment for better sleep and reduced stress. Not only is a dark night sky important to people's experience of the countryside but there is an evidence of its role in supporting wildlife's migration, reproduction and feeding patterns.

Our Night Blight study has identified Cornwall as the fourth darkest county in England. Even within Cornwall, Bodmin Moor stands out as the largest continuous area of very dark conditions. We believe that this quality should be protected for its own value, as well as for the example it offers to other locations where reductions in light pollution would be beneficial. Such is the scarcity of an unpolluted sky, all too often people do not know what they are missing and many children are now growing up who will never see the Milky Way.

The application for recognition of Bodmin Moor as an International Dark Sky Park seeks to increase awareness of the importance and wonder of this natural resource as well as encouraging good lighting practice. We therefore wish to endorse an international designation as a means of bolstering the dark night sky and demonstrating what can be achieved,

Yours faithfully,

Anita Grice-Goldsmith

An. Com. Com.

Director

#### iii. Campaign to Protect Rural England, National Office



Emily Rubin
Dark Sky Bid
Cornwall Council Local
Plan Team
Pydar House
Pydar Street
Truro
TR1 1XU

23 February 2017

To whom it may concern,

Bodmin Moor application for International Dark Sky Park status.

On behalf of the Campaign to Protect Rural England (CPRE), I am writing to support Cornwall Council's initiative to secure protected dark sky status for 80 square miles of spectacular open countryside on Bodmin Moor.

CPRE exists to promote the beauty, tranquillity and diversity of rural England by encouraging the sustainable use of land and other natural resources in town and country. Formed in 1926, we are one of the longest established and most respected environmental groups in England. A registered charity, we have almost 60,000 members and supporters living in our cities, towns, villages and the countryside. CPRE is a network of over 200 district groups; there is a branch of CPRE in every county, a group in every region, as well as a national office in London.

CPRE welcomes the International Dark-Sky Association's Dark Skies Programme and the opportunities it brings to recognise and protect the darkest skies across the United Kingdom and the rest of the world. We believe that darkness at night is one of the key characteristics of the countryside and makes it so different from towns and cities. A moonlit rural landscape and the chance to appreciate a star-filled sky, free of the intrusion of artificial lighting, are precious and increasingly endangered things.

Last summer, CPRE published interactive *Night Blight* maps<sup>1</sup>. These are the most detailed ever of Britain's night skies and are based on satellite data captured at 1.30am throughout September 2015. Detailed maps were created for all English counties, districts, National Parks and AONBs, showing the percentage of each area that falls under nine brightness categories. The mapping revealed that only 22% of England has pristine night skies, free of any light pollution. By comparison, 63% of the skies above Cornwall AONB fall in this category, with Bodmin Moor offering exceptionally dark skies (fig 1).

Registered Office 5-11 Lavington Street London SE1 ONZ

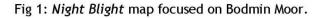
Telephone 020 7981 2800 Fax 020 7981 2899 info@cpre.org.uk

www.cpre.org.uk

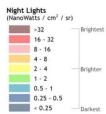
Working locally and nationally for a beautiful and living countryside

Patron
Her Majesty The Queen
President
Emma Bridgewater CBE
Chief Executive
Shaun Spiers
A company limited by guarantee
Registered in England number 4302973
Registered charity number 1089685

<sup>&</sup>lt;sup>1</sup> The interactive map can be viewed: <a href="http://nightblight.cpre.org.uk/maps/">http://nightblight.cpre.org.uk/maps/</a>







Our mapping found that 53% of England's pristine night skies, free of light pollution, are in National Parks and AONBs. When this map<sup>2</sup> is focused on the South West it shows a large area of pristine night skies over Bodmin Moor (fig 2). This illustrates the extraordinary quality of dark skies in the area and suitability for Dark Sky designation.

<sup>&</sup>lt;sup>2</sup> The *Night Blight* maps were created by LUC. The full map of England's darkest skies and designated landscapes can be viewed on page 9 of their 'Background report and methodology': <a href="http://nightblight.cpre.org.uk/images/resources/Englands\_Light\_Pollution\_and\_Dark\_Skies\_LUC\_Report.pdf">http://nightblight.cpre.org.uk/images/resources/Englands\_Light\_Pollution\_and\_Dark\_Skies\_LUC\_Report.pdf</a>

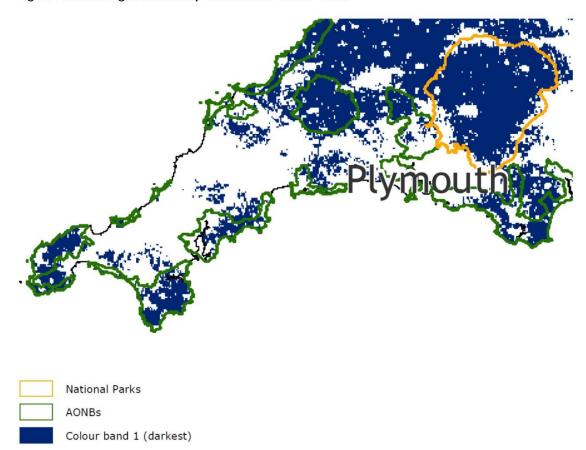


Fig 2: Pristine night skies map focused on South West

CPRE would like to take this opportunity to place on record our full support for Bodmin Moor to attain International Dark Sky Park status. The designation of this area would help ensure that these remarkable dark skies will remain protected for future generations to enjoy.

If you would like further information please do get in touch.

With best wishes,

Emma Marrington

Senior Rural Policy Campaigner

#### iv. Commission for Dark Skies



The British Astronomical Association's Commission for Dark Skies - working towards star-quality lighting

www.britastro.org/dark-skies

Bob Mizon MBE FRAS CfDS Co-ordinator 38 The Vineries, Colehill Wimborne, Dorset BH21 2PX

01202 887084

e-mail: bob.mizon@yahoo.co.uk

Dr Wayne Thomas Caradon Observatory, Upton Cross, Liskeard, Cornwall.

February 23 2017

Dear Dr Thomas.

The British Astronomical Association, and especially its Commission for Dark Skies section (CfDS), is particularly interested in the progress and eventual success of the Bodmin Moor dark-sky initiative, within the context of the International Dark-Sky Association's scheme. The dark skies over places such as Bodmin Moor are a national asset, a rare treasure that must be preserved and promoted. An International Dark Sky Designation would help ensure the future protection of the beauty of the Bodmin Moor area for both people and wildlife.

The CfDS has worked with Exmoor, the South Downs National Park, Galloway Forest Park, the Elan Valley and the island of Sark on similar schemes, and is currently assisting other areas in their preparations for IDA status. The CfDS believes that, while pursuing its aim to secure the optimum night sky for all Britons, wherever they live, it is also important to foster centres of excellence where astronomers, authorities and local residents work together to preserve existing very dark night skies.

We therefore wish you and your group all success in your aim to secure dark-sky status for a designated area of Bodmin Moor. Please let us know if we can help in any way.

Yours sincerely,

Bob Mizon
Coordinator BAA CfDS
IDA Dr David L Crawford Lifetime Achievement Award
IDA Lifetime Member
IDA Galileo Award
IDA Executive Director's Award

# v. Professor Heather Couper, CBE (email sent to Caradon Observatory, 06 August 2014)<sup>71</sup>

With the arrival of the spaceprobe Rosetta at 'Comet C-G' today - and the fly-by of NASA's 'New Horizons' craft at Pluto in July 2015 - interest in things heavenly is running at an all-time high. And in March next year, almost all of the UK will be awed by a near-total eclipse of the Sun.

With better streetlighting in urban areas, people are becoming aware of the dark skies so enjoyed by our forbears. Now, many are flocking to dark sky sites - like the world's first Dark Sky Island, Sark - to enjoy glorious skies, and glorious countryside.

Bodmin Moor is a magnet for country-lovers. It's also an ideal dark-sky site, uncontaminated by light pollution. In short - a place where people can once again feel they can touch the stars, and love the natural world that surrounds them.

I believe that Bodmin Moor deserves Dark Sky Status, and thoroughly support the initiatives of the Caradon Observatory.

Sincerely

**Professor Heather Couper** 

<sup>&</sup>lt;sup>71</sup> Professor Couper's full title is Prof Heather Couper CBE, BSc, DSc (Hon), DLitt (Hon), FInstP, CPhys, FRAS. She is an international broadcaster and writer on astronomy, space and science. She is past-President of both the British Astronomical Association and the Society for Popular Astronomy: <a href="http://hencoup.com/heather/">http://hencoup.com/heather/</a>

# vi. Paul Kemshall (email sent to Caradon Observatory, 31 January 2015)

Dear Steve,

I am delighted to add my support to the work that Caradon Observatory is doing in supporting Cornwall Council's bid for "International Dark Sky Status" for Bodmin Moor.

This status shows the value of Dark Skies for ongoing generations and deserves to be preserved and promoted by the community and schools and colleges for the generations to come. To be able to view our Milky Way without onerous light pollution is bound to excite the imagination of all especially the young.

I Have had a good look at the website images and am blown away by the quality of the Orion Nebula photo. Compared to the Hubble photo from the net the Caradon Observatory is far superior.

It does truly emphasize the fact that the skies have to be unpolluted to be able to produce such a high quality image of the night sky around Bodmin Moor.

I understand their main mission at the Observatory is to inspire the young to consider the sciences for a career by the early introduction to astronomy.

The small but exceptional team at the observatory all wish to make a positive influence on Astro Tourism that the dark sky status will give, and will to some degree, benefit the Cornish economy, therefore focusing peoples minds to the importance of nurturing this important accolade.

Yours Faithfully,

Paul Kemshall

Kemshall Design Ltd Lead Designer Beagle 2 entry descent and Landing System

#### vii. Liskeard Chamber of Commerce



3.West Street, Liskeard PL14 6BW

FAO. Emily Rubin, InternationalDark Night Sky Status Bid. Cornwall Council]Local Plan Team. Pydar House Pydar Street. Truro TR1 1XU

August 19th 2016

Dear Madam,

#### Re: Bodmin Moor International Dark Night Sky Park Status Bid

I am writing on behalf of the members of Liskeard Chamber of Commerce to convey their strong support for the bid for Dark Night Sky status on Bodmin Moor.

Liskeard is within the 2 mile buffer zone of the park and the Chamber recognises the potential benefits to the local economy that may be achieved in the locality from Astro Tourism.

The Dark Night Sky Park coupled with the close proximity of the World Mining Heritage site which , due to the successful Man Engine project, has recently been highlighted in the National press will assist in creating a distinctive identity for this beautiful part of Comwall.

The Chamber of Commerce has close links to Liskeard School and Community College are presently involved in projects regarding the Engineering and Technology departments.

The Caradon Observatory also share their facilities and knowledge with our local students and Universities from afar, together with the Dark Night Sky Park, Liskeard Community College could become an interesting seat of learning with many unique advantages.

It would be very much appreciated if you could keep us informed of any progress with the Bid. Yours faithfully,

Jon Pollard
Chairman Liskeard Chamber of Commerce

## viii. Liskeard School and Community College



1st December 2016

Dear Sirs

#### Support for International Dark Sky Park for Bodmin Moor

Liskeard School and Community College is in full support of an International Dark Sky Park designation for Bodmin Moor.

Our school is located just outside the proposed two mile buffer zone. We have 1000 students on roll between the ages of 11-18 and work directly with nine partner primary schools. Our astronomy club is very popular with students from every year group attending. We offer our students a continuing opportunity to take GCSE Astronomy and over the years have established an enduring link with Caradon Observatory to assist our students with their practical astronomy work. Also, the observatory's links with Exeter University in the siting of a radio telescope will also be of benefit to our A Level Physics students.

An International Dark Sky Park designation would not only help protect and enhance the darkness but also help facilitate further educational activities and inspire wider interest in the night sky. We look forward to playing our part in fulfilling the potential for the night sky above Bodmin Moor by engaging our current students and future generations.

Yours faithfully

Alex Lingard Head Teacher

















#### ix. Liskeard Town Council

# LISKEARD TOWN COUNCIL

Mr Steve Vinson, Town Clerk, 3/5 West Street, Liskeard. PL14 6BQ Tel 01579 324420. Fax 01579 324429

e-mail; townclerk@liskeard.gov.uk

Website; www.liskeard.gov.uk



Dark Sky Park Bid, Cornwall Council, Local Plan Team, Pydar House, Pydar Street, Truro, TR1 1XU.

Dear Sir/Madam,

#### **BODMIN MOOR – INTERNATIONAL DARK SKY PARK BID**

I am writing on behalf of Liskeard Town Council to express our strong support for the proposed bid for Bodmin Moor to be designated as an International Dark Sky Park.

It is felt that should such a status be achieved there would be a wide range of potential benefits to Bodmin Moor and the surrounding rural hinterland including Liskeard.

The main potential benefits are seen as being economic, educational, leisure and environmental.

It would be appreciated if you could keep us updated as to progress with the Bid.

Yours faithfully,

Steve Vinson

Stephen Vinson Town Clerk

#### x. Natural England

Date: 13 March 2017 Our ref: 210410

Your ref: Bodmin Moor Dark Sky Park application

FAO Emily Rubin
Senior Planning Policy Officer
Local Planning Team
Planning, Housing and Regeneration Service
Cornwall Council

Emily.rubin@cornwall.gov.uk

#### BY EMAIL ONLY

Dear Emily

#### Consultation:

Prospective application by Cornwall Council to the 'International Dark Sky Association' to designate, as a non-statutory designation, Bodmin Moor as an 'International Dark Sky Park'.

Thank you for your consultation on the above dated 30 January 2017 which was received by Natural England on the same date.

#### Natural England's Role

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

We are the government's adviser for the natural environment in England, helping to protect England's nature and landscapes for people to enjoy and the services they provide.

#### Application for non-statutory designation of 'International Sky Park'

We note that one of the special qualities of the Bodmin Moor Area of Outstanding Natural Beauty (AONB) as set out in the AONB Management Plan 2016 to 2021 is 'an overall sense of wilderness and tranquillity' and that the area is of 'particular importance for its dark night skies'. We therefore welcome this application in that such a non-statutory designation would give further recognition to the special qualities and characteristics of the Bodmin Moor AONB.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us.

For any queries relating to the specific advice in this letter <u>only</u> please contact Carol Reeder on 0208 225 6245 / 07721 108902 or carol.reeder@naturalengland.org.uk. For any new consultations, or to provide further information on this consultation please send your correspondences to <u>consultations@naturalengland.org.uk</u>.

We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and welcome any comments you might have about our service.

Yours sincerely



Customer Services Hornbeam House Crewe Business Park Electra Way Crewe Cheshire CW1 6GJ

T 0300 060 3900

Page 1 of 2

Carol Reeder Lead Adviser Sustainable Development Team – Devon, Cornwall & Isles of Scilly

## xi. Roseland Observatory



Office 92 Par Green Par, Cornwall PL24 2AG 01726 813602 15.10.16 Observatory Court Farm St Stephen Cornwall PL26 7LE 07804036959

## **Dark Skies for Bodmin Moor.**

Letter of support.

In this modern world there is an increasing need for areas of darkness away from town and factory lighting. So far as Cornwall is concerned Bodmin Moor is an ideal location as it is situated in the middle of the county.

In recent years a number of complimentary projects have developed. The Stone Circles which for many years have remained unrecognised by the general public are now known to be simple "astronomical observatories" linking the landscape to the skyscape.

Famous astronomer John Couch Adams was born on the moor and went to Cambridge University and there made the calculations that would allow Neptune to be discovered.

Both these projects are being progressed to be accessible to both locals and tourists alike.

The Observatory therefore supports the current application for Dark Sky Park status.

Brian Sheen FRAS, FRGS – Director RAS Education & Outreach Committee 2010 - 16

#### xii. Royal Astronomical Society



#### ROYAL ASTRONOMICAL SOCIETY

Burlington House, Piccadilly London W1J 0BQ, UK T: 020 7734 4582/3307 F: 020 7494 0166 info@ras.org.uk www.ras.org.uk Registered Charity 226545

Cornwall Council

24th January 2017

Dear Sir or Madam,

#### Designation of Bodmin Moor as an International Dark Sky Park

As President of the Royal Astronomical Society (RAS), I would like to add our support to the designation of Bodmin Moor as an International Dark Sky Park.

Founded in 1820, the RAS is the leading UK-based body for professional astronomy, space science, Solar system science, and geophysics. We have 4,000 members, predominantly in the UK, with a diversity of occupations. Some are employed as professional astronomers in universities, observatories and research laboratories, and others pursued a career in research and now work in other areas such as science writing, teaching and public engagement, or private industry.

As an organisation, our key aim is to advance the sciences we represent. We recognise the immense value of public engagement with astronomy in bringing people to pursue careers in science and engineering in general, and that direct views of a dark night sky are a vital component of that effort. A dark night sky is also a key part of the natural landscape, and of human heritage.

These reasons alone make up a strong case for Bodmin Moor receiving an official dark sky designation. Located in Cornwall, the Moor is also the 4th darkest county in England, and stands out as a haven of darkness in visual maps of light pollution produced by the Campaign for Rural England. (See e.g. https://nightblight.cpre.org.uk/maps and https://nightblight.cpre.org.uk/images/resources/Night Blight cpre.pdf)

If Bodmin Moor becomes an International Dark Sky Park, it will not only control light pollution, and enhance the view of the night sky, but also provides opportunities for education and outreach, will support the wellbeing of wildlife (see e.g. http://darksky.org/light-pollution/wildlife/), and allows the development of an 'astrotourism' industry seen in places like Kielder Forest in Northumberland. (Tourism case studies are included in our recent publication on the wider impact of astronomy http://www.ras.org.uk/images/stories/Publications/other/AstronomyMeansBusiness.v2.pdf)

We are therefore happy to endorse this application, and are happy to provide further information to those responsible for assessing the bid.

Yours faithfully,

Professor John Zarnecki

President, Royal Astronomical Society

#### xiii. South West Lakes Trust



the South West's largest conservation, access and recreational charity

Emily Rubin Cornwall Council Local Planning Team Pydar House Pydar Street Truro TR1 1XU

REF: SIB/DS/JP

27 January 2017

Dear Emily

DARK SKY PARK PROPOSAL.

South West Lakes Trust is a conservation and recreation charity which promotes the health giving benefits, both mental and physical, of being outside along with conserving and explaining the natural and built heritage for all to enjoy, the night sky is a key part of our natural heritage.

We already have a dark sky site at Wimbleball Lake on Exmoor and can readily see how Siblyback Lake on Bodmin Moor has similar potential.

Siblyback currently has the necessary visitor infrastructure to be promoted as viewing site. We would be happy to accommodate visitor information and Dark Sky promotional material at our centre and to work with the local planning team in support of their application.

Yours sincerely

JAMES PLATTS
Planning and Development Director

conservation and leisure - working together

Trustees: David Robertson (Chairman), Malcolm Bell, Peter Briens, Jacqui Edwards, Laura Jones, John Lee OBE, Dinah Nichols CB, Roger Preston, Monica Read Patrons: Peter Bartlett MBE, Cairns Boston MBE, Keith Bungay,

Lady Mary Holborow DCVO

A COMPANY LIMITED BY GUARANTEE REGISTERED IN ENGLAND No 3946529 REGISTERED CHARITY No 1079966



Registered Office, please reply to: South West Lakes Trust

Telephone: 01566 771930
Facsimile: 01566 778503
Email: info@swlakestrust.org.uk
Web: www.swlakestrust.org.uk







#### xiv. Tolcarn Research and Educational Observatory

#### TOLCARN RESEARCH AND EDUCATIONAL OBSERVATORY.

St Stephen

Cornwall

**Director** 

Dr Grant Mackintosh

**Assistant Director** 

Mrs Kim Mackintosh

Support letter for Dark Sky Bid for Bodmin Moor.

We are writing in support of Cornwall Councils application for "International Dark Sky Park Status" for Bodmin Moor. The Tolcarn Research and Educational Observatory is extremely proactive in astronomy outreach and education.

Tolcarn observatory is heavily involved in educational work with the local schools. We are currently working with Camborne International Science Academy Nexus centre for gifted, Science Technology Engineering and Maths (STEM) students, delivering a GCSE in astronomy. We also run an astronomy group every second Saturday at the observatory, where the members can have full use of the research grade telescopes. The enthusiasm that we encounter from the members is second to none. The observatory is also carrying out research with frequent visits from scientists and university students contributing to our understanding of the universe.

To continue this important work, the unpolluted quality of the skies in Cornwall, not only around the moor, but in our adjacent part of Cornwall is extremely important for us to continue this work.

We are collaborating with the Caradon observatory to branch out into radio astronomy. Having radio telescopes working in conjunction with optical telescopes is a huge advantage in data collection for analysis.

Sky quality is paramount to us carrying out this important work. Light pollution is a major factor in hampering this. We fully support this bid for Bodmin moor. I have no doubt that this will encourage more scientists and universities to take full advantage of the amazing skies over Cornwall.

Grant Mackintosh

Director

Tolcarn Research and Educational Observatory.

#### xv. Visit Cornwall



12th September 2016

#### **Bodmin Moor International Dark Sky Park Designation**

I am writing on behalf of Visit Cornwall regarding the proposed designation for Dark Skies Park for the Bodmin Moor area

Visit Cornwall undertook a fundamental tourism strategic review in 2014/15; the importance of maintaining and improving the key touristic cultural and environmental assets was one of the highest priorities.

Keeping Cornwall special and unique is fundamental to keeping Cornwall the premier tourist destination in the UK and to directly help us to build the very importance and valuable overseas market to our region.

Having studied the plans for the proposed designation, I can state that Visit Cornwall fully and unequivocally supports this designation as it will assist in securing an increase in visitor spend and its associated contribution to the local economy through purchases of food & drink supplies, retail and activities.

Yours sincerely,

Malcolm Bell

Chief Executive

malcolm.bell@visitcornwall.com

Tel 07800 649178

## xvi. XRT-C (Exeter Radio Telescope at Caradon)



Mr. Samuel Morrell Exeter Radio Telescope at Caradon (XRT-C), Project Leader

Date: 9 November 2016

Dear Sir / Madam,

I am writing this letter in support of Cornwall Council's application for International Dark Sky Park Status for Bodmin Moor. XRT-C is a student-run project whose purpose is to build and operate a 4.5m radio telescope. We are a currently part of the Space:Exe society at the University of Exeter, which is a branch of UK Students for the Exploration and Development of Space (UKSEDS), the national student space society whose focus is to help students engage and involve the public with STEM subjects. It is this ethos for public outreach that has been one of the guiding principles for XRT-C. The project was set up as an outreach tool from the very beginning, aiming to allow amateur astronomers from around the country to perform their own 21cm radio observations with research grade equipment. To support our initial procurement and outreach activities, we applied for two grants from the University of Exeter, Catalyst funding in 2013 and the Annual fund in 2014, from which we received a total of £7500; a relatively small budget for this type of project. These grants allowed us to purchase most of the equipment we required to build the telescope and actively participate in public outreach activities that effectively communicate the science, engineering and mathematics involved in radio astronomy. Ample evidence of our outreach campaign is available on our dedicated project website (http://www.xrt-c.co.uk). We are currently working towards completing this project on a shoe-string budget, aided mainly by small contributions from our members. It's thanks to strong collaboration between Caradon observatory and our engineering team that we've managed to progress to this point. As well as purchasing equipment, we've also undertaken fabrications in house. This includes a custom built dish counterweight system and telescope mount constructed by Caradon observatory and a bespoke feed horn mount designed and built by a member of our engineering team.

Looking ahead, there are many potential avenues that this project could take. Current plans involve developing Caradon observatory and XRT-C together to be a world-class collaborative outreach project, engaging people, both young and old, in STEM subjects through the wonders of astronomy. By coordinating both optical and radio telescopes together we can simultaneously observe the same object at different wavelengths, creating many exciting opportunities for unique and inspiring views of the universe. To achieve this there are many engineering projects to complete. These range from computerised observatory control systems, to the electronics involved in developing new instruments for data acquisition and even fabricating the mountings to house them.

This project has a lot of potential and, since it and the observatory are run independent of outside influences, we have the freedom to make something truly exceptional. Through this collaboration between us we are building both an exceptional STEM outreach tool as well as a professional grade observatory.

Sincerely,

Sam Morrell XRT-C, Project Leader

Department of Physics and Astronomy, University of Exeter, Stocker Road, EX4 4QL • smorrell@astro.ex.ac.uk

# Appendix 9: Dark Skies: Bright Stars Cornwall Astronomy Creative Heritage Engagement Project Activities List

Funded by: Heritage Lottery Fund, Feast, Bournemouth Symphony Orchestra, Cornwall Heritage Trust Schedule prepared by: Joanne Mayes, Creative Director of Mayes Creative <a href="http://mayescreative.com">http://mayescreative.com</a>

NB Activities are confirmed but please see the Mayes Creative website in case of amended dates. Public events are free to attendees at the point of use.

When?	What?	Where?	Who is the activity for?	What will you achieve?
heritage				
visits  March-June 2017	Astronomy Heritage research for tours and leaflets on Couch Adams and Rev Haydon in preparation for guided walks and self-guided tour leaflets. Working with students from Truro Girls School	Local heritage astronomy sites: Launceston museum; Couch Adam's birthplace; Launceston library; Liskeard museum; Truro Cathedral (visits agreed); The Hurlers	preparation for delivery to general public/visitors to Bodmin Moor/artists and school children. Working with 10 students from Truro Girls School	Students learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt. Tours/leaflets important for helping families and individuals to have first-hand experience of heritage sites- Learn about the contribution of Cornwall Astronomers to worldwide astronomy and our heritage to place local astronomy heritage at the centre of Bodmin Dark Skies bid
March-June 2017	Astronomy Heritage tours project: Couch Adams and Bodmin Moor astroarchaeology writing and production of self-guided tour leaflets	Cornwall	preparation for delivery to general public/visitors to Bodmin Moor/artists and school children. Working with 10 students from Truro Girls School	Students learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt. Tours/leaflets important for helping families and individuals to have first-hand experience of heritage sites - Learn about the contribution of Couch Adams and the builders of prehistoric sites to Astronomy heritage - Learn about the contribution of Cornwall Astronomers to worldwide astronomy and our heritage to place local astronomy heritage at the centre of Bodmin Dark Skies bid
March-Nov 2017	Astronomy Heritage Graphic Novels Project: Research and writing of graphic novels (updating of Couch Adams novel and generating new novel on the Heritage Astronomy Heroes of Cornwall). Couch Adams novel also translated into Cornish. Delivery of pdf version via Cornwall Schools Messenger and printed for delivery to local libraries and museums. A copy provided to all libraries in Cornwall.	Cornwall schools libraries and Bodmin Moor area museums	preparation for delivery to general public/visitors to Bodmin Moor/artists and school children. Delivered to an estimated 1000 pupils and print run of 1000 for each graphic novel	All Cornwall schools having the opportunity to share the astronomy heritage of Cornwall with their young people through the provision of high quality and engaging learning materials Chance to experience the Cornish language within an unusual and engaging context - Students learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt. Important for helping families and individuals to have first-hand experience of ideas which help us to understand our heritage better
March-Nov 2017	Cornwall Astronomy Heritage: Favourite things and places: The creation of an artist film to accompany the project, highlighting key astronomy heritage artefacts and places suggested by local heritage experts. For example, Brian Sheen shared the importance of Couch Adam's telescope (used for viewing the moon and comparing its mountains to the hills of Bodmin Moor). Artist and experimental filmmaker Jo Mayes will work with a range of local artists and makers from different disciplines (writing, painting, creative crafts, architecture) to bring these artefacts and places to life. Outcomes will be made into a film for sharing widely and creation as a digital asset (see below)	Bodmin Moor/Cornwall astronomy heritage sites	preparation for delivery to general public/visitors to Bodmin Moor/other artists and practitioners	Raise the profile of local astronomy heritage, to participants and audiences through visualising important heritage research and interpretation Learn about the contribution of Cornwall Astronomers to worldwide astronomy and our heritage to place local astronomy heritage at the centre of Bodmin Dark Skies bid a chance for the creative community to learn about and contribute in a practical way to the interpretation and understanding of their own local heritage
March-Sept 2017	Astronomy Heritage practical engagement activities for young people and families: Research and writing of	Liskeard School (agreed)	preparation for delivery to general public/visitors to Bodmin Moor/artists and	Students learning about heritage in an enjoyable, engaging and age-appropriate way

April-June 2017	practical engagement leaflet for families by GCSE astronomy students and others from Liskeard School. Understanding the heritage of the stars: researching and writing a family leaflet with activities for investigating the changing way in which astronomy has been used to help understand our lives. 6 after-school sessions to create models of sundials and work out practical experiments which can be done at home which demonstrate and explain the history of thought around our relationship to the stars and planets. Results will be shared with feeder Junior Schools at a school visit. (6 x after school club)  Astronomy Heritage Research visits for Launceston-based groups to learn about Couch Adams. Cornwall Records Office will be bringing artefacts relating to Couch Adams to Launceston library for easy access by Launceston-based	Launceston museum; Couch Adam's birthplace; Launceston library (visits agreed)	school children. Working with 10 students from Liskeard School (GCSE and others). Sharing with 200 junior school children. 2000 leaflets produced.  Rosehip Adult & youth Community Dance Groups	- opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt. Leaflet important for helping families and individuals to have first-hand experience of ideas which help us to understand our heritage better - Learn about the contribution of Cornwall Astronomers to worldwide astronomy and our heritage to place local astronomy heritage at the centre of Bodmin Dark Skies bid  Learning about heritage in an enjoyable and engaging way - opportunity for members of the local community to become more involved with their heritage
	groups 2 x 0.5			- trickle-down effect of sharing with their families and communities about what they have learnt
April-June 2017	Astronomy Heritage and Community Dance Project: Consideration of ways in which to share what they have learnt about astronomy heritage and looking at ways of sharing this experience with others through performance. 2 x set of 6 engagement sessions. Sharing of creative outcomes: 2 x performance - one in Launceston library, especially relevant due to their holding part of the Couch Adams library and a bust of Couch Adams himself)	Rosehip Barn, near Launceston (booked). Heritage sharings will be linked to local venues in Launceston: Rosehip Barn and Launceston Library	Rosehip Adult Community Dance Group (20 participants) & Rosehip Youth Community Dance Group (20 participants)	Learning about heritage in an enjoyable, age- appropriate and engaging way - opportunity for members of the local community to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes Raise the profile of local astronomy heritage, to participants and audiences through performance, learning and Heritage interpretation.
April-June 2017	Astronomy Heritage Research Visit: Astronomy Heritage Manga Drawing Project: Research Skills & heritage interpretation Session for young people. Participants will learn how to make research from a site visit which they can then use as the basis for sharing through manga drawing (0.5 day)	Launceston museum; Couch Adam's birthplace; Launceston library (visits agreed)	Launceston College: 20 participants	Learning about astronomy heritage and Couch Adams in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes - potential credit towards Arts Award
April-June 2017	Astronomy Heritage Manga Drawing Project: Heritage interpretation Sessions for young people – Consideration of appropriate methods for documenting and sharing what they have learnt about astronomy heritage and looking at ways of sharing this experience with others through manga drawing (2 x 0.5 day).	Launceston College tbc	Launceston College: 20 participants	Learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes - potential credit towards Arts Award - Learn about the contribution of Couch Adams to Astronomy and place local heritage at the centre of creative engagement
April-June 2017	Astronomy Heritage and Community Creativity Project: Research visits 2 x 0.5 day research visit to The Hurlers learning about astro-archaeology and to Liskeard museum to learn about Rev Haydon. Cornwall Records Office will be bringing artefacts relating to Couch Adams to Liskeard museum/library for easy access by Liskeard-based groups	The Hurlers & Liskeard museum, possibly Caradon Observatory and library	Vital Spark community creativity group, Liskeard (20 participants).	Learning about heritage in an enjoyable and engaging way - opportunity for members of the local community to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes
April-Nov 2017	Astronomy Heritage and Community Creativity Project: Consideration of appropriate methods for documenting and sharing what they have learnt about astronomy heritage and looking at ways of sharing this experience with others through diverse creative practices. Participants will over the period develop Heritage learning into creative outcomes working individually and in groups: for example an individual artist might explore the instrumentation used by Hayden or a local quilting group might map the stars and archaeological sites in their work. Sharing of creative outcomes: 6 interpretation sessions, 2 x exhibitions and 2 x performance	Liskerrett Centre, Launceston (booked). Heritage sharings will be linked to local venues in Liskeard Exhibition at Stuart House Heritage Centre, performances at the local café and the Liskerrett Community Centre and 1 more TBC	Vital Spark community creativity group, Liskeard (20 participants). Exhibition visitors, friends and family (300 people)	Learning about heritage in an enjoyable and engaging way - opportunity for members of the local community to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes - Raise the profile of local astronomy heritage, to participants and audiences through performance, learning and Heritage interpretation.
April-June 2017	Astronomy Heritage Primary Schools talks: 4 primary schools: talks for the whole school about the astronomy heritage of Cornwall	Primary schools in the Bodmin Moor area	4 local primary schools: 400 participants	Learn about the contribution of Cornwall Astronomers to worldwide astronomy and our heritage to place local astronomy heritage at the centre of Bodmin Dark Skies bid

				- opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt
April-June 2017	Astronomy Heritage Junior Schools Research Visits: 4 junior schools 0.5 day research visit learning about astroarchaeology and the history of astronomy	The Hurlers & possibly Caradon Observatory	3 local junior schools: 90 participants	Learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt
April-June 2017	Astronomy Heritage Shadow Puppetry follow-on workshop: 3 junior schools 0.5 day workshop at their school (May/June), where children work on their interpretation of what they have learnt from their school talk and research visit.	Primary schools in the Bodmin Moor area	3 local junior schools: 90 participants	Learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes
April-June 2017	Astronomy Heritage Research Visit: Young People's Astronomy Heritage Film Project Research Skills & heritage interpretation Sessions for young people. Participants will learn how to make research from a site visit which they can then use as the basis for sharing through film (0.5 day)	The Hurlers	Liskeard School: 20 participants	Learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes - credit towards Arts Award
April-June 2017	Astronomy Heritage Young People's Film Project: Heritage interpretation Sessions for young people – Consideration of appropriate methods for documenting and sharing what they have learnt about astronomy heritage and looking at ways of sharing this experience with others through film 2 x 0.5 day.	Liskeard School (booked)	Liskeard School: 20 participants	Learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes - credit towards Arts Award
Sept-March 2017	Research Skills & heritage interpretation Sessions for community orchestra: Participants will learn how to make research from a site visit which they can then use as the basis for sharing through music followed by: Five Rehearsal/Devising sessions. Participants will learn how to create a musical piece from the heritage research carried out on the trains (20 participants & at least 100 listeners in passing).5 sessions followed by at least one sharing event	The Hurlers and Liskerrett Community Centre, Liskeard (booked), Sterts Theatre tbc	Sounds Vital community orchestral group (20 participants)	enjoyment of site visit and an opportunity to experience heritage first hand with expert creative skills guidance - learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes
May-Sept 2017	Community project engagement opportunities: A chance for the wider community to hear about the project and engage with their astronomy heritage through fun participation in badge-making and 'starry song-writing' activities.4 x Saturdays/school holidays and at project events.	Liskeard and Launceston museums and libraries	general public/visitors to libraries and museums: all visitors to hear about the project (footfall around 200 per event) and direct activities engagement with c. 40.	Members of the community learning about heritage in an enjoyable and engaging way - a chance to create a 'feeling engagement' through personal identification with our dark skies heritage
May-Sept 2017	Pilot Astronomy Heritage Tours: Couch Adams places tour & Bodmin Moor astro-archaeology tour. 4 pilot tours	Local heritage astronomy sites: Launceston museum; Couch Adam's birthplace; Launceston library; Liskeard museum; Truro Cathedral (visits agreed); The Hurlers	general public/visitors to Bodmin Moor	Members of the community learning about heritage in an enjoyable, engaging and age-appropriate way - opportunity for young to become more involved with their heritage - trickle-down effect of sharing with their families about what they have learnt. Tours/leaflets important for helping families and individuals to have first-hand experience of heritage sites - piloted tours will be handed over to Roseland Observatory to continue as paid tours if successful bringing continued benefit to sharing Cornwall's astronomy heritage
Sept 17-24 2017	Autumnal Equinox Heritage Immersion Camp: Research Skills & heritage interpretation Session for filmmakers. Participants will learn how to make research from immersion in a heritage site, with specific heritage learning from our specialist interpreter. Research learnt can then use as the basis for sharing through filmmaking. Discussion of appropriate methods for documenting an immediate experience of a heritage site and looking at ways of sharing this experience with others. Based around The Autumnal Equinox on 22nd September 2017	Cheesewring Farm (booked) and The Hurlers	Visiting international Filmmakers (10 participants). Plus 20 local filmmakers/artists	Learning about heritage in an enjoyable, immersive and engaging way - opportunity for Cornwall astronomy heritage to be shared worldwide through the filmmaking & screening networks - opportunity for local filmmakers to benefit from Robert Schaller's internationally recognised site immersion and interpretation filmmaking skills
Sept 22-24	Singing Up the Stones: Heritage astronomy Immersion	Cheesewring Farm (booked) and The	Dancers (10 participants) Pop-up Community	Learning about heritage in an enjoyable, engaging and

2017	weekend: Research Skills & heritage interpretation immersion weekend for singers and dancers. Participants will learn how to make research from immersion in a heritage site, with specific heritage learning from our specialist interpreter. Research learnt can then use as the basis for sharing through performance. Discussion of appropriate methods for documenting an immediate experience of a heritage site and looking at ways of sharing this experience with others.	Hurlers	Choir (25 participants)	age-appropriate way-enjoyment of site visit and an opportunity to experience heritage first hand with expert creative skills guidance - opportunity for young to become more involved with their heritage -increased self-esteem and sense of purpose from learning and achieving creative outcomes
September 23-24 2017	Autumnal Equinox Heritage Astronomy sharing weekend: evening event/sharing/star gazing and interpretation if the weather allows! (2 x 0.5 day plus evening event). Event providing guided access to The Hurlers, an open event at Caradon Observatory and a Sky Viewing session at Cheesewring Farm. Telescopes provided by Roseland Observatory, along with Couch Adams' own telescope through which he used to compare the moon's mountains to the hills of Bodmin Moor!	Cheesewring Farm, Bodmin Moor, The Hurlers, possibly Caradon Observatory	Film camp participants & Audience/stargazing participants of 50	Raise the profile of local astronomy heritage, to participants and audiences through performance, learning and Heritage interpretation. Also to the wider Cornwall community through press involvement
Sept 24th 2017	Singing Up the Stones high profile live research event/sharing (0.5 day)	The Hurlers and Minions Village Hall (pencilled) if wet	Community Choir (25 participants), Dance Camp participants (10), and audience of 40	Raise the profile of local astronomy heritage, to participants and audiences through performance, learning and Heritage research and interpretation Learn about the contribution of Cornwall Astronomers to worldwide astronomy and our heritage to place local astronomy heritage at the centre of Bodmin Dark Skies bid a chance for the community to contribute in a practical way to the interpretation and understanding of their own local heritage site
April 2017 - March 2018	Production of digital recordings of creative processes and outcomes. Also production of project documentation/film. Turning into digital assets for sharing on social media, YouTube and our website. Also for offering to Caradon Hill App update and any potential Bodmin Moor visitor centre.		For sharing widely with the Cornwall, UK and international communities	Raise the profile of local astronomy heritage, to participants and audiences through sharing the local community's performance, learning and Heritage interpretation. Also to the wider Cornwall community through press involvement. Promoting the inclusion of astronomy heritage in Bodmin Dark Skies initiative