Bar Harbor Project Center

Dark Sky: Assessing the Feasibility of Bar Harbor Becoming an International Dark Sky Community

Dark Sky 2017

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An Interdisciplinary Qualifying Project submitted to the faculty of Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor of Science.

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Abstract

The purpose of this project was for the Worcester Polytechnic Institute (WPI) 2017 Dark Sky team to assess the feasibility of the town of Bar Harbor applying for an International Dark Sky Community (IDSC) status. The team found it is possible for Bar Harbor to become an IDSC in future years. Recognition from the IDA will be mutually beneficial for the team's sponsor Acadia National Park and the town itself. Bar Harbor already meets approximately 46% of the IDSC guidelines. The biggest factors that need to be changed, are the town's lighting ordinances and implementation of fully shielded compliant street lights.

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- Humanities & Arts Professor Frederick Bianchi, *for guiding us in a direction that would be feasible for the time frame allowed.*
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Executive Summary

Man made light sources, especially when improperly shielded, produces light pollution. Large quantities of light pollution are detrimental to the local environment. Lights are primarily used for three purposes: safety, advertising, and decoration. Out of these uses, safety and advertising tend to give off the greatest pollution. Light pollution from Bar Harbor encroaches upon Acadia National Park's beautiful star filled night sky with increasing magnitude every year.

The International Dark-Sky Association (IDA) is an organization that strives to preserve the night sky and raise awareness about light pollution. The IDA has a few different applications denoting a status of being environmentally friendly. The designation this paper will focus on is the Dark Sky Community (IDSC). The IDA provides a set of guidelines consisting of eight minimum requirements for all communities. The full set of requirements can be seen in Appendix B.

Worcester Polytechnic Institute (WPI) enables a Dark Sky team to carry out an Interdisciplinary Qualifying Project (IQP) in Bar Harbor, Maine. The Dark Sky teams have a five-year history (2013-Present) working with Acadia National Park. Previous work dealt almost exclusively with helping Acadia apply for a provisional International Dark Sky Park (IDSP) status through the IDA. The primary mission of all Dark Sky teams is to provide updated data to the National Park Service concerning the current status of light pollution, the sources of light pollution, and ways to mitigate the problem. The 2017 Dark Sky team used the IDSC guidelines to help when it comes to seeing what lights are compliant and non-compliant.

The 2013 Dark Sky team based their work off the information gathered from a winter 2009 study that was done by two College of the Atlantic (CoA) students. The CoA students created a heat map of Mount Desert Island (MDI) using Sky Quality Meters (SQMs) and a geographic information system (GIS) software. The 2013 Dark Sky team created a more in-depth heat map consisting of 212 sky quality measurements. The 2014 Dark Sky team expanded the 2013 map by taking over 8,000 readings.

In addition to a much more accurate heat map, the 2014 Dark Sky team started a provisional IDSP application for ANP. For the provisional IDSP application requirements, the 2015 team inventoried all 928 lights in ANP to determine if they were compliant with IDA regulations. In 2016, the Dark Sky team finished the provisional IDSP application for ANP,

gathered sky quality measurements, and completed a community outreach in Southwest Harbor as a test run for Bar Harbor.

The 2017 Dark Sky team was tasked with updating the 28 points for the provisional IDSP application, assessing the feasibility of Bar Harbor potentially applying for an (IDSC) status. This assessment included: inventorying compliant and noncompliant municipal lights, generating a heat map of the town of Bar Harbor by taking sky quality measurements, creating a cost-benefit analysis for replacing non-compliant lighting fixtures, and building an outreach website to educate the public about Dark Sky efforts. The IDSC guidelines were used as the basis for the team's methodology. The team developed a complete lighting inventory of all 614 municipal lights in Bar Harbor. This was used to determine whether or not the lighting fixtures followed IDA shielding regulations. Only 34 out of 614 of the municipal lights were fully shielded.

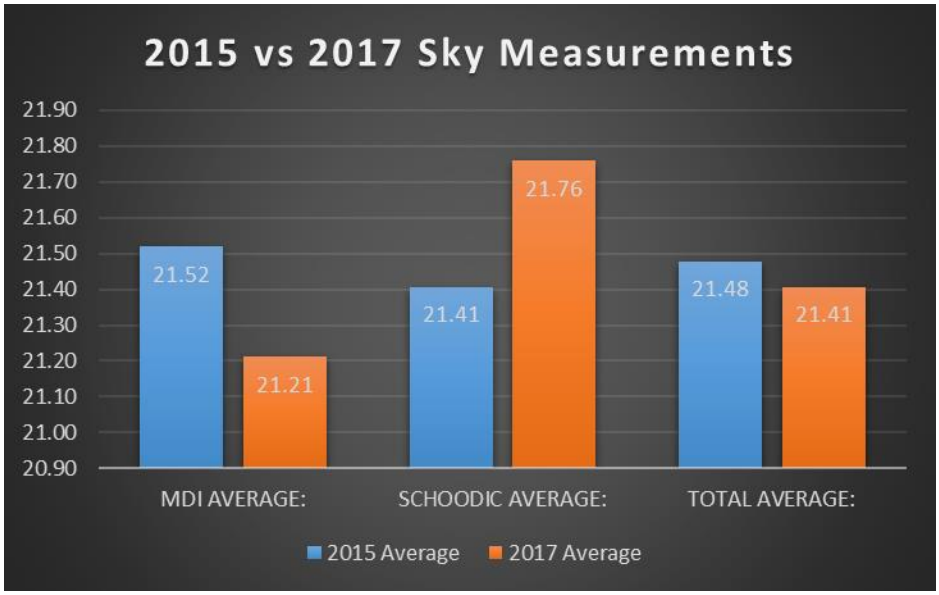

Table 1: The change in sky quality from 2015 to 2017

The team used the 2015 Dark Sky team's GPS coordinates of the 28 points that needed to be updated for the provisional IDSP application. A version of a Sky Quality Meter (SQM) known as a SQM-DU-DL was used to take measurements. These readings were then compared to the 2015 readings to track any change in the night sky. The sky quality of Schoodic increased by 1.65%, while Mount Desert Island decreased by 1.43%. The decrease on MDI is most likely caused by increased development in the surrounding communities such as Southwest Harbor and Bar Harbor.

A heat map of Bar Harbor was created using 87 sky quality measurement points. The map, Figure 1, was produced using the 87 measurements and a Geographic Information System (GIS) software called Arc GIS. The map shows a few problem areas. The brightest area on the map is the downtown Bar Harbor area, along with a bright spot occurring where the Mount Desert High School is. These bright spots are caused by a high concentration in unshielded lights. This heat map of the town of Bar Harbor shows where light pollution is the most intense and is a good visual add when presenting the data to the town and park officials.

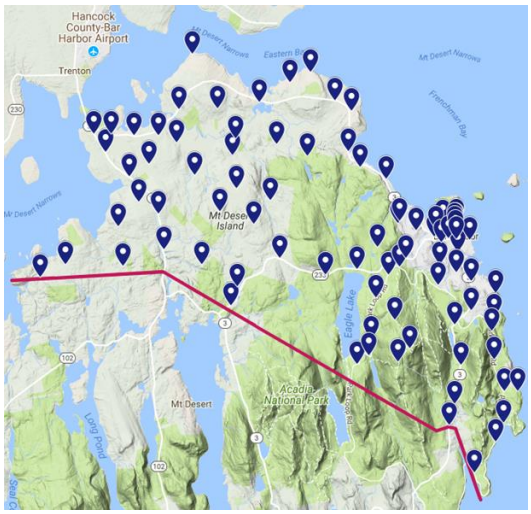

Figure 1: A map displaying all 87 locations where sky quality measurements were taken for the IDSC application and for the generation of the 2017 Bar Harbor heat map

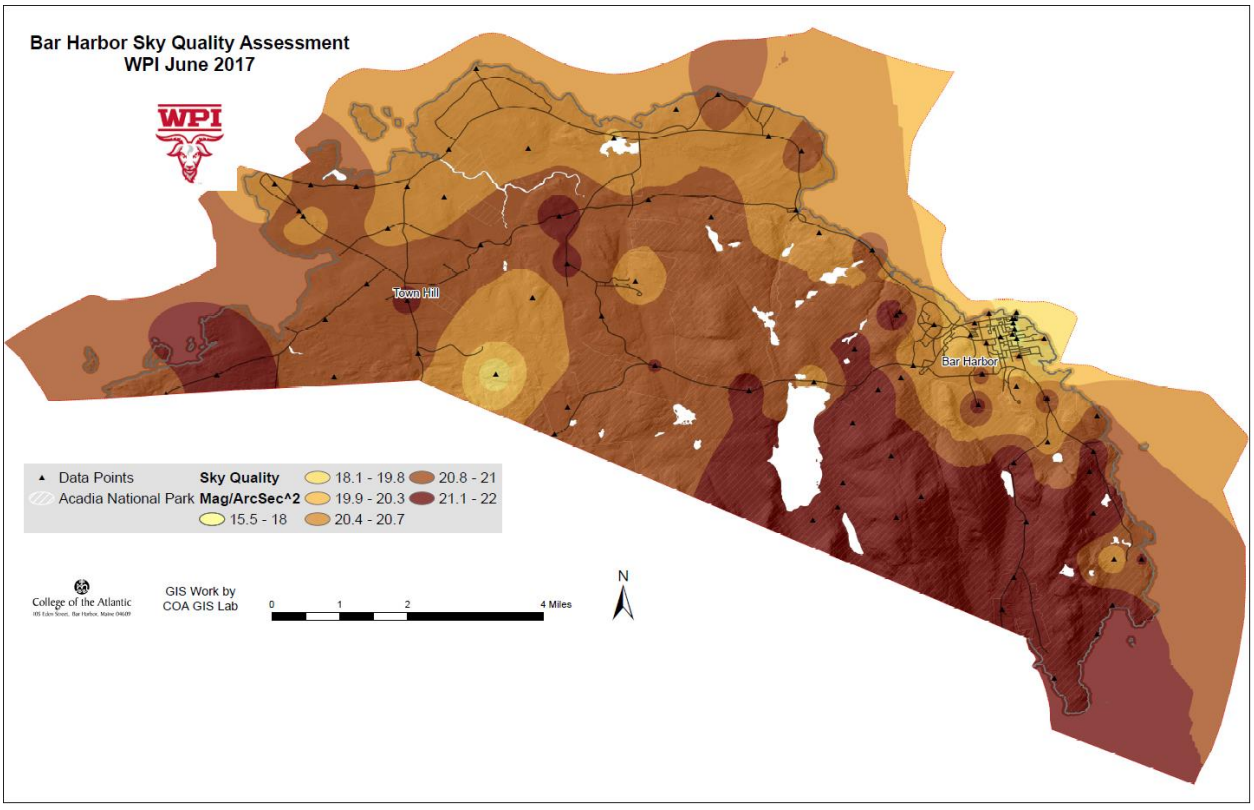

Figure 2: The 2017 heat map of the town of Bar Harbor.

The team also went into downtown Bar Harbor to assess the contribution of local businesses to light pollution. Downtown Bar Harbor was established as the area in between Kebo

Street, Cromwell Harbor Road, and the coast. The analysis looked only at shielding of the light fixtures on the businesses. Only 27 businesses out of all 178 that were assessed were 67% or more compliant with their lights. The biggest section of downtown Bar Harbor can be seen in Figure 2, which shows each business colored based on lighting compliancy.

In the feasibility analysis, the team compared the required ordinances of the IDSC with those of Bar Harbor. Currently, Bar Harbor only encompasses 25% of the requirements in their ordinances. To fulfill one of the guidelines in the IDSC application, a website was developed for public outreach. The website serves as a place to inform the public and includes information for what they (the public) can do to improve their own homes and businesses in regards to light pollution. Information regarding light pollution, dark sky compliant lighting retailers, and the team's results and conclusions are examples of material that is accessible through the website.

The 2017 Dark Sky team recommends that future dark sky teams continue to take sky quality measurements for the provisional IDSP application and for the IDSC application in the future. All the raw data that was taken by the 2017 team are in Appendix F and Appendix E, respectively. All 614 municipal lights and coordinates are in Appendix G. Future WPI Dark Sky teams will use this data to track any changes the town makes to the municipal lights. It is strongly recommended to stay in good contact with the Conservation Commission, Acadia National Park, and Friends of Acadia. The team’s main contacts for each of these are listed in the Acknowledgments section.

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Introduction

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Understanding the Causes and Extent of Light Pollution

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Introduction

Gazing at the night sky in any downtown urban area, you will find it difficult to see the Big Dipper or pinpoint the North Star. It is not widely recognized how much light pollution affects the visibility of the night sky around the world. The International Dark-Sky Association has undertaken the task of raising awareness of light pollution and promoting the conservation of dark skies throughout the world (International Dark-Sky Association, 2016b). Currently, Acadia National Park is ready to submit a provisional application to become an International Dark Sky Park. The provisional application shows that Acadia is determined to become dark sky certified despite not holding full compliance yet. Acadia National Park is dedicated to preserving the natural beauty of the night sky.

Light pollution comes in multiple forms (Gallaway, Olsen, & Mitchell, 2010). **Sky glow** washes out the stars at night, and is the most obvious form of pollution (Gaston, Davies, Bennie Jonathan, & Hopkins, 2012). Predominantly in the form of sky glow, 30% of generated light is wasted as pollution (Sahin & Figueiro, 2013). The effects of light pollution are profound, including disrupting the circadian rhythm in humans. In addition to Sky Glow, other types of light pollution include **Glare**, which can reduce visibility, and **Light Trespass**, which occurs when unwanted light enters a private property (Gaston et al., 2012; Ho & Lin, 2015). All of these forms of light pollution indirectly feed into the global climate change problem by generating carbon dioxide and wasting energy (Gaston, Gaston, Bennie, & Hopkins, 2015).

National parks across the United States struggle to allow people to enjoy the natural landscapes, but also keep these landscapes pollution free (National Park Service U.S. Department of the Interior, 2017). Whether the problem resides in physical pollutants on the ground or light polluting the night skies, the National Park Service strives to minimize negative human effects on the environment. Acadia National Park strives to lead the fight in reducing light pollution in surrounding areas. Despite Acadia's efforts, light pollution from Bar Harbor is the leading cause of light pollution in the park (Town of Bar Harbor, ME, 2014a).

Acadia National Park and the surrounding community have a deep admiration for the night sky. Acadia hosts many different festivals and programs throughout the year that are specifically focused on the public enjoying the night sky (Donnelly, 2017). In previous

referendums, the community of Bar Harbor has supported dark sky initiatives and legislature. The support and enjoyment of the night sky is promising (Bar Harbor Planning Board & Bar Harbor Town Council, 2007). However, the citizens of Bar Harbor may not be fully aware of the problem of light pollution despite their support of dark skies. If the residents and visitors are to continue enjoying the night sky, steps need to be taken to mitigate the problem.

Prior Dark Sky projects have focused on the light pollution coming from Acadia itself and performing education outreach programs in Southwest Harbor (Diamond, Jacobson, Reuter, & Shira, 2016). The 2014 Dark Sky team developed a detailed heat map of Mount Desert Island and Schoodic Peninsula (R. W. Carello, Carmichael, Hedberg, & Plenefisch, 2014). From this research, it became obvious that Bar Harbor is the biggest offenders of light pollution adjacent to Acadia National Park. This is because Bar Harbor is the largest adjacent town in terms of size and population.

The 2017 Dark Sky Team aimed to assist Acadia National Park in assessing the feasibility of the town of Bar Harbor applying for an International Dark Sky Community (IDSC) status. This was accomplished by identifying features of the town that do not qualify, enacting public outreach activities such as devolving a website, cataloging lighting elements throughout the town, assisting the town with developing dark sky friendly ordinances, and presenting a cost benefit analysis to town officials. The 2017 Dark Sky Team utilized information from past Interdisciplinary Qualifying Project (IQP) reports and examples from multiple Dark Sky communities. The data that was collected shows that there is still an abundant amount of light pollution near and around Acadia National Park. The problem will not go away on its own because light pollution is a phenomenon that increases annually (Falchi et al., 2016a; Gaston et al., 2012). The intent of this undertaking is to have the town of Bar Harbor eventually become an International Dark Sky Community and to educate the public on what light pollution is and how to reduce it. This will lead to the night sky in Acadia being enjoyable for decades to come.

Background

Understanding the Causes and Extent of Light Pollution

Light pollution is a man-made occurrence that illuminates an area larger than intended and alters the perception of the night sky (Firebaugh & Haynes, 2016; Gallaway et al., 2010). This alteration is created by emitted light particles that are reflected and refracted by gas molecules in the atmosphere, creating an illuminating, hazy area around the source of light (Gaston et al., 2012). Of the 4.054 million megawatt hours of light produced for outdoor illumination in the US, 30% of it is wasted as light pollution (Gallaway et al., 2010). Light pollution covers 19% of the land around the world and this percentage increases each year (Firebaugh & Haynes, 2016). The expansion of residential and nonresidential land areas causes this increase in light pollution (Ho & Lin, 2015).

Light pollution is composed of three main types: **sky glow, glare,** and **light trespass (Ho & Lin, 2015)**. **Sky glow** is a faint background illumination of a cloud that is hazy and hard to see through. Some cities produce a glow that can be seen from over one hundred miles away (Gallaway et al., 2010). Much of this glow is a result of streetlights, which use 114 Terawatt-hours of energy worldwide (Gaston et al., 2015). Another type of light pollution, **glare**, is when excess light causes visual discomfort to a direct observer. Finally, **light trespass** is light illuminating an unintentional area (Ho & Lin, 2015). For example, businesses that illuminate their storefronts but are located next to a residential area frequently contribute to light trespass in those residential areas (Falchi, Cinzano, Elvidge, Keith, & Haim, 2011; Ho & Lin, 2015). In general, advertising signs and streetlights are often the largest contributors to light pollution in densely populated urban areas (Ho & Lin, 2015).

Light pollution is a global issue that is rapidly rising and seems incapable of stopping. Light pollution has increased roughly 6% per year over the past half century in North America and Europe (Falchi et al., 2016b; Gabor, Gyorgy, Peter, & Bruce, 2009). Globally, one-third of people cannot see the Milky Way Galaxy at night (Falchi et al., 2016; Gaston et al., 2012). Shown in Figure 3 at least 83% of Earth's population is affected by light pollution, with more than 99% of Europeans and Americans affected (Panko & American Association for the Advancement of Science, 2016).

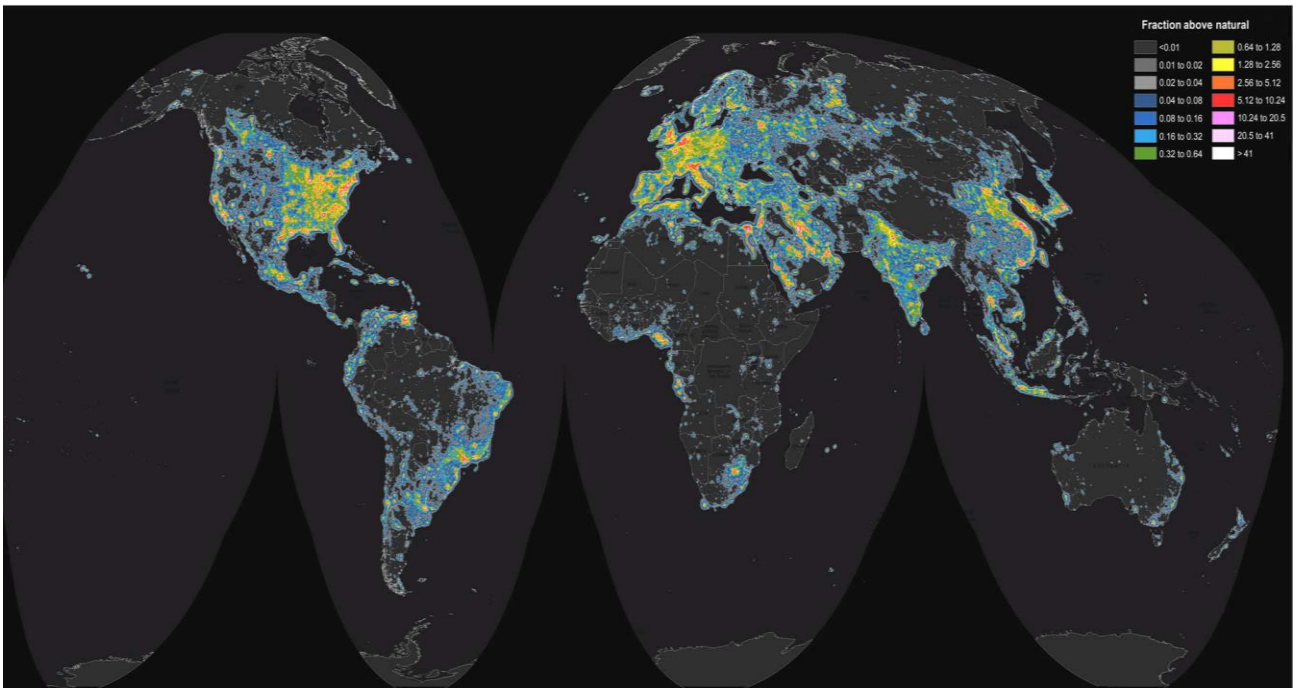

Figure 3: World map of artificial sky brightness the map shows, in twofold increasing steps, the artificial sky brightness as a ratio to the natural sky brightness (assumed to be 174 mcd/m2) (Panko & American Association for the Advancement of Science, 2016)

Singapore has the most polluted skies in the world, followed by Kuwait, Qatar, and the United Arab Emirates (Panko & American Association for the Advancement of Science, 2016). A similarity between these countries is high population density. As indicated in Figure 4, Madagascar has less polluted skies, but also has a lower population compared to Singapore (Panko & American Association for the Advancement of Science, 2016).

Economic journalists Terry Gallaway, Reed N. Olsen, and David M. Mitchell (2010) looked at 184 different countries and found urban density and economic activity is positively correlated with light pollution. The continent of Africa has the dimmest skies and the top 10 least populated countries (Panko & American Association for the Advancement of Science, 2016). However, Singapore has the most polluted skies in the world, followed by Kuwait, Qatar, and the United Arab Emirates (Panko & American Association for the Advancement of Science, 2016). These countries Have high population densities.

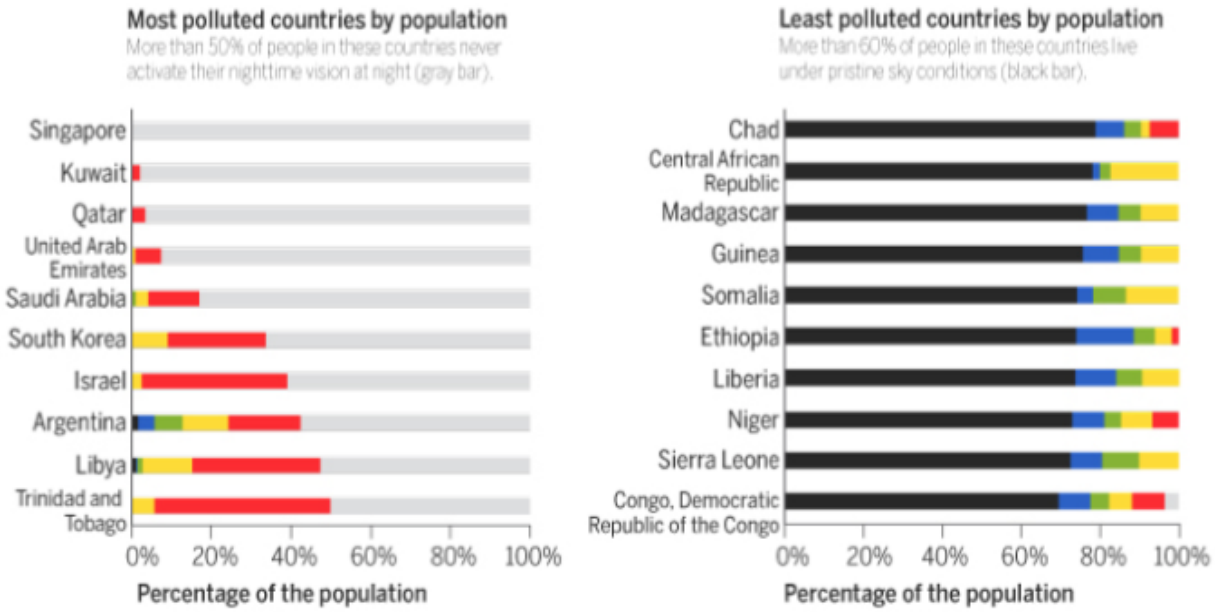

Figure 4: Comparison of countries with night sky visibility (light pollution) and population (Panko & American Association for the Advancement of Science, 2016)

The Negative Impact of Light Pollution

Light pollution has a negative impact on the environment, the human experience of the environment, animals, human health, and the economy. Light pollution is a waste of energy, costing the United States approximately 7 billion dollars annually (Gallaway et al., 2010). In addition to the 7 billion dollars in wasted light, the global impact caused by climate change requires significant global economic investment to reduce or limit (Gallaway et al., 2010). Roughly sixty-six million metric tons of carbon dioxide is produced from light pollution. These carbon emissions contribute to climate change as well. Experts suggest that minimizing light pollution will curb carbon emissions and energy cost (Gallaway et al., 2010). Similar to most environmentally friendly changes, limiting light pollution is beneficial in the long run but comes with short-term costs.

Light pollution affects the environment beyond limiting stargazers. Light pollution changes the naturally received light wavelengths throughout the day. In terms of circadian rhythm, the internal body clock, a higher concentration of blue light is more natural in the daytime and red / amber light is more natural in the evening (Gaston et al., 2012). This change occurs due to a process called Rayleigh scattering (Sahin & Figueiro, 2013). Since blue more

readily scatters, it is received in much higher concentrations during mid-day (Sahin & Figueiro, 2013). Red light, which is less easily scattered, is viewed more prominently before the sunset and immediately following sunrise (Quimby, 2006). Light pollution disrupts the natural light wavelengths, emitting blue wavelengths in the dark and consequently disrupting circadian rhythms (Sahin & Figueiro, 2013). This disruption of sensory input is pertinent because the circadian rhythm has been directly correlated with melatonin production in humans (Quimby, 2006). When disrupted, abnormal melatonin production can lead to life-threatening conditions.

The decrease of melatonin production in a human body has been traced back directly to light pollution (Falchi et al., 2011; Gallaway et al., 2010). A shortage of melatonin is primarily blamed on light pollution's effects on the circadian rhythm. The circadian rhythm works by receiving environmental cues and responding accordingly. When there is less light, especially blue light, the body produces melatonin to inform the person that it's time to go to sleep. Sleep disorders and disrupted circadian rhythms can lead to detrimental effects on the humans, such as irregular heartbeats or depression (Dovey & IBT Media Inc., 2014). Furthermore, it is found that women lacking melatonin have a higher risk of breast cancer (Gallaway et al., 2010; Ho & Lin, 2015). In addition, a shortage of melatonin due to artificial light exposure can lead to accelerate tumor growth (Nature Bright, 2015). The circadian rhythm may have trouble interpreting if it's nighttime if there is an excess of artificial light, leading to an absence of melatonin (Gallaway et al., 2010).

Humans are not the only animals affected by light pollution. Wildlife migration, reproduction, and natural food chains are also affected by light pollution (Gallaway et al., 2010). One of the many examples of light pollution's effect is a study conducted on a group of fireflies, *Photinus Pyralis,* which showed that light pollution reduced the courtship and mating success by 69.69%, suggesting that light pollution negatively impacts firefly populations (Gaston et al., 2012). Animal's use reflected light as a source for information gathering. This information helps nocturnal animals forage at night by the light of the stars and moon (Gaston et al., 2015). Pools of oil, gravestones, asphalt and other such surfaces are highly reflective polarizing surfaces, similar to water's polarizing surface. These polarizing surfaces confuse aquatic insects that believe that these surfaces are water (Gabor et al., 2009). This confusion affects the reproductive success, which reduces the number and diversity of species over time. In addition to significantly impacting the environment through carbon emissions, expert and amateur astronomers are

having an increasingly difficult time seeing the stars in the night sky due to light pollution (Gallaway et al., 2010). Sixty-six percent of the United States population reported that they could no longer view the Milky Way (Gallaway et al., 2010).

Opposing View of Why Lights are an Important Resource

Sufficient lighting is vital to the way the society operates. Economically booming areas such as big cities are constantly lit up by either natural or artificial light. Due to this eternal brightness, many cities have claimed the title: “The City that Never Sleeps” (International Dark-Sky Association, 2017g). However, big cities that are always illuminated are the biggest contributors to light pollution (Matus, 2017). The lights contributing to pollution in cities are not pointless. A lot of the lights that are on at night are used for two main purposes: safety and advertisement. Businesses need to have some way of showing that they are open to possible customers during the night. They shine bright colorful lights on the place of business to draw people in. Unfortunately, a lot of that light ends up as light pollution.

People tend to feel safer when they can see their surroundings, which is one of the reasons why streets and walkways are always brightly lit up. This light can often go unused for hours in the middle of the night when people are not out utilizing it. This contributes to light pollution as well as wasting electricity. People do not want to live in darkness to fix this though, which is why the International Dark-Sky Association (IDA) recommends using motion sensors or timers on outdoor lighting fixtures (Kane, 2016). Having a timer or a motion sensor on lights will allow them to activate when needed or desired, but then also allow them to turn off when the light would otherwise be wasted.

Implementing large-scale changes when it comes to fixing light pollution can be expensive. When looked at on a town or city wide scale, there are a lot of factors to consider that all cost money such as retrofitting street lamps, replacing bulbs, or replacing whole fixtures. Not every place has the budget to go through such an overhaul of replacing current lighting methods. The process can be and will probably need to be stretched out over multiple years.

International Dark-Sky Association (IDA)

The International Dark-Sky Association (IDA), originally founded in 1988, is a

worldwide leading authority on light pollution (International Dark-Sky Association, 2016). The IDA's mission is to preserve the night sky for the current and future generations. The IDA's goal is to "advocate for the protection of the night sky, educate the public and policymakers about night sky conservation, promote environmentally responsible outdoor lighting, and empower the public with the tools and resources to help bring back the night" (International Dark-Sky Association, 2016). The IDA runs a conservation program known as the International Dark Sky Places, which locations around the globe can apply to become designated as one of their five designations (International Dark-Sky Association, 2015c). An International Dark Sky Place is an area, recognized by the IDA that meets certain dark sky requirements and engages in community outreaches to protect the night sky. There is a designation for communities, parks, reserves, sanctuaries, and developments of distinction. Acadia National Park is in the process of submitting its own application for an International Dark Sky Park in partial thanks to past WPI Dark Sky teams.

Sky glow is one of the most recognizable effects of light pollution. The more sky glow there is, the less the night sky is visible and the worse the other side effects of light pollution get (International Dark-Sky Association's Practical Guide 1: Introduction to Light Pollution, 2009). The International Dark-Sky Association (IDA) uses a three-tier system to rank the quality (or darkness) of the night sky (International Dark-Sky Association, 2015). See Table 1. Areas with the best night sky quality receive a gold tier designation, while the worst areas do not receive any tier designation at all. The bronze tier is the lowest tier, but it is still given to areas that connect "people with the many aspects of the night sky" (International Dark-Sky Association, 2015b).

GOLD, SILVER, AND BRONZE TIER DESIGNATION

Indicator	Gold	Silver	Bronze
Philosophy	Nighttime environments that have negligible to minor impacts from light pollution and other artificial light disturbance, yet still display outstanding quality night skies and have superior nighttime lightscapes.	Nighttime environments that have minor impacts from light pollution and other artificial light disturbance, yet still display good quality night skies and have exemplary nighttime lightscapes.	Areas not meeting the requirements of *Silver*, yet still offering people, plants, and animals a respite from a degraded nocturnal environment and suitable for communicating the issue of light pollution and connecting people with the many aspects of the night sky.
Artificial Light and Skyglow	Typical observer is not distracted by glary light sources. Light domes are only dim and restricted to sky close to horizon.	Point light sources and glary lights do not dominate nighttime scene. Light domes present around horizon but do not stretch to zenith.	Areas with greater artificial light and skyglow than *Silver*, but where aspects of the natural sky are still visible.
Observable Sky Phenomena	The full array of visible sky phenomena can be viewed—e.g. aurora, airglow, Milky Way, zodiacal light, and faint meteors.	Brighter sky phenomena can be regularly viewed, with fainter ones sometimes visible. Milky Way is visible in summer and winter.	Many sky phenomena cannot be seen. Milky Way is seen when pointed out to the average person, as is the Andromeda Galaxy.
Nocturnal Environment	Area is devoid of obvious lights that can cause wildlife disorientation. Artificial light levels are thought to be below the threshold for plant and animal impact. Ecological processes related to nocturnality are unaltered. No lighting atop towers or buildings within Park boundary.	Areas that have minor to moderate ground illumination from artificial skyglow. Lights that may cause disorientation to wildlife are distant. Disruption of ecological processes is minor with no impairment to plants or wildlife.	Areas with greater nocturnal impact than *Silver*, but where ecosystems are still functional.
Visual Limiting Magnitude	Equal or greater than 6.8 under clear skies and good seeing conditions	6.0 to 6.7 under clear skies and good conditions	5.0 to 5.9 under clear skies and good seeing conditions
Bortle Sky Class	1-3	3-5	5-6
Unihedron Sky Quality Meter	> 21.75	21.74-21.00	20.99-20.00

Table 2: A detailed chart of the three IDA tiers for sky designation (International Dark-Sky Association, 2015.

Measuring the quality of the night sky is a simple task that is a crucial indicator of the level of light pollution in an area. The Unihedron Sky Quality Meter (SQM) is one of the most common tools used to measure sky quality, and previous Dark Sky IQP teams also used it (International Dark-Sky Association, 2016d). To use the SQM, the user points the photometer at the zenith and holds down the button until the audible noise stops. According to the IDA, a reading of 20.00-20.99 is a bronze tier designation, a reading of 21.00-21.74 is a silver tier designation, and anything higher than 21.75 is a gold tier designation (Academo, 2016;

International Dark-Sky Association, 2015). A more qualitative way to measure the brightness of the night sky is by using the Bortle Scale, which is a nine level numerical system where 1 is the absolute best sky quality and 9 is the worst sky quality (Bortle, 2006). This scale uses the clarity of common night sky objects, to gauge the approximate brightness of the night sky (Bortle, 2006).

International Dark Sky Communities

A Dark Sky Community helps promote awareness about light pollution and are leaders in protecting the night skies. Similar to Dark Sky Parks the International Dark-Sky Association has a set of guidelines to follow to become a certified International Dark Sky Community (IDSC) (International Dark-Sky Association, 2017e). There are 11 United States certified IDSCs out of the 15 total communities that are qualified. Arizona has three dark sky communities, Flagstaff 2001, Sedona 2014, and Village of Oak Creek 2016 (International Dark-Sky Association, 2017a; International Dark-Sky Association, 2017c; International Dark-Sky Association, 2017j).

As an International Dark Sky Community, each designated community has to throw at least two events in regarding to raising awareness of light pollution. As an International Dark Sky Community one thing that Flagstaff does is they hold a weekend festival that they call Lights Out Flagstaff (City of Flagstaff, 2017). At this event a free astronomy program is run and the city and business buildings turn off their lights for two nights (City of Flagstaff, 2017). Downtown businesses were asked to turn off their non-essential exterior lights, as a result 36 businesses in the year 2017 pledged to turn off their lights for the weekend event (City of Flagstaff, 2017).

In addition to holding events to raise awareness about light pollution, the community that is requesting for the status of International Dark Sky Community, has to have specific light ordinances in place or a plan to implement them with three years (International Dark-Sky Association, 2017). Horseshoe Bay Texas was recently designated in 2016, and one of the rules in their light ordinances that they described in their application to the IDA was about lumens (International Dark-Sky Association, 2015a). The light ordinance stated that residential zones are not allowed to go above 10,000 lumens per acre in the Horseshoe Bay area (International Dark-Sky Association, 2015). Another example of a light ordinance is in Big Park / Village of Oak Creek; they have a restriction about what time commercial business lights are allowed to stay on.

After 10:00 p.m. or once a business is no longer open the light will remain off (International Dark-Sky Association, 2017)

Benefits of Becoming an International Dark Sky Community

Bar Harbor's economy is based largely off of tourism due to the town's ideal location. People wanting to see the night sky within Acadia National Park cause part of that tourism. If the town makes public changes to reduce light pollution, then it could bring more tourists to the town and therefore boosting its' economy. When Kaibab Paiute Indian Reservation was designated an International Dark Sky Community in 2015, they reported an increase in tourists coming to the area specifically for the night sky within the first year alone. This reservation is located in Arizona where there are lot of other communities which offer a similar level of night sky. However, if Bar Harbor made the effort to become and an International Dark Sky Community (IDSC) as well, they would be the only one in the eastern United States, and would likely see an even greater increase in tourism related to the night sky.

National Parks that have International Dark Sky Park Status

The National Park Service has a mission to preserve, and inform the public about the natural resources here on the Earth (National Park Service U.S. Department of the Interior, 2017). The night sky falls under the natural resource category to protect and supply reading material about to the general public. The National Park Service celebrated their centennial year by creating a report called *A Call to Action* in 2016 (National Park Service U.S. Department of the Interior, 2015). Based off the report *A Call to Action,* the night sky point 28 is a relevant issue that can be reduced (National Park Service U.S. Department of the Interior, 2015).

There are a total of 16 National Parks currently that have International Dark Sky Park (IDSP) status from the International Dark-Sky Association (International Dark-Sky Association, 2017f). Grand Canyon National Park and Waterton-Glacier International Peace Park are currently the only two that have provisional status form the IDA (International Dark-Sky Association, 2017d; International Dark-Sky Association, 2017k). Of the 16 certified Dark Sky Place status, there are five National Parks that are in the State of Utah (International Dark-Sky Association, 2017). To get a better picture of the numbers and which states hold parks that have

IDA status see Figure 5. The first National park to be awarded the status of a Dark Sky Place is Natural Bridges National Monument in Utah on 2007(International Dark-Sky Association, 2017h).

Figure 5: National Parks that Have IDA Certification shows the number of national parks in certain states that have IDA status

The State of Utah is a great role model when it comes to Dark Sky Place certification. As previously mentioned Natural Bridges National Monument was the first National Park to become an IDA approved park (International Dark-Sky Association, 2017). Most recently in 2017, Cedar Breaks National Park in Utah has now been awarded the designation of a Dark Sky Place, showing that Utah State is a leader in spreading the idea about reducing light pollution at night (International Dark-Sky Association, 2017b).

Acadia National Park's Night Sky Festival

Launched in 2009, the Acadia Night Sky Festival was developed to gain awareness and protect Acadia National Park's dark, starry sky. Originally, Acadia National Park was created to preserve cultural and historical land for the appreciation of future generations. Acadia was founded in 1919 and covers more than 48,000 acres on Mount Desert Island (30,500 acres), the Schoodic Peninsula, Isle Au Haut, and many small coastal islands (Alsoby, Muntz, Ogren, & Sinkler, 2015). There are 10,156 acres of Acadia that are within Bar Harbor's boundary lines. This close proximity to Bar Harbor is dangerous to Acadia's night sky, as it allows light pollution from the surrounding towns to worsen the quality of the night sky in the park (Town of

Bar Harbor, ME, 2014).

Millions of people visit Acadia every year, with the most popular season being summer. People visit because the stars are and have been an important aspect to Acadia National Park. A particularly popular attraction in Acadia called Stars Over Sand Beach is being ruined by light pollution. According to the Wabanaki people, whose ancestors lived on Mount Desert Island, the stars are a source of salvation and they guide a spirit's journey through the afterlife (Town of Bar Harbor, ME, 2014b).

In 2008, Acadia created a Dark Sky Initiative to set forth guidelines to measure, promote, and protect the park's dark sky and nocturnal ecosystem (Donnelly, 2017). That is also the reason for Acadia' stargazing parties and annual Night Sky Festival, the annual three-day festival that takes place in the month of September. The festival is a great time for all ages to come and enjoy the beautiful night sky. Participants are informed of current scientific research to reduce the light pollution in Acadia throughout the festival. There are several activities for all participants that include workshops, guest speakers, and stargazing. Over 1000 participants have climbed the summit of Cadillac Mountain for the climax of the festival, where participants are able to view the night sky from one of the darkest places in Acadia National Park (Gaston et al., 2012; International Dark-Sky Association's Practical Guide 1: Introduction to Light Pollution, 2009).

Globe at Night

"Globe at Night" is a citizen scientist campaign, launched in 2006, that was designed to gain awareness about light pollution globally (International Dark-Sky Association, 2017). It is an interactive outreach program that allows citizens to upload sky glow measurements via cell phone application or website. Since its launch in 2006, Globe at Night has collected over 100,000 data points in over 115 countries. The fact that over 23,000 data points were collected in 2015 alone proves this is a useful and successful campaign.

Report on Addressing the Problem: Light Ordinances in Maine

In Maine, the state government has enacted a series of steps to drastically cut down on light pollution and the negative effects associated with light pollution. The state of Maine created

a committee to advise legislators on ways to limit light pollution in natural areas (International Dark-Sky Association, 2015). Hancock County created a handbook that details all the hazards of light pollution, and includes ways to mitigate the negative effects (National Conference of State Legislatures, 2016).

The towns within the state control the main legislation on light pollution. This type of governance gives towns the ability to solve their issues case by case. For instance, in Hancock County there are laws that state lighting cannot be a direct nuisance to your neighbor. A nuisance defined in this law predominantly includes causing light trespass on adjoining properties. In addition, there are cursory outlines for the towns and cities in the county to set up their own ordinances. These cursory outlines do not necessarily need to be enacted by the towns. The towns within Hancock County, like Bar Harbor, tailor ordinances to their respective populations (Maine State Planning Office et al., 2013).

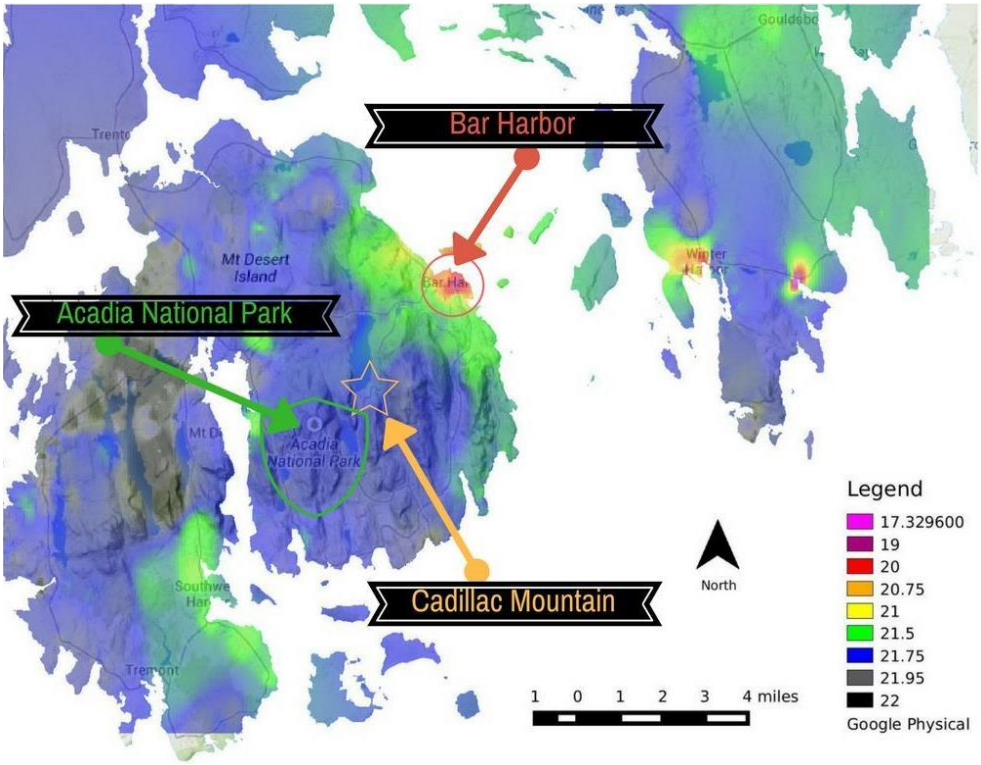

Figure 6: A modified version of the IQP 2014 heat map generated from over 8000 sky quality measurements during the 2014 Dark Sky IQP (R. Carello, Carmichael, Hedberg, & Plenefisch, 2014)

Bar Harbor borders Acadia National Park and contributes to most of the light pollution experienced in the park as seen in Figure 6. Bar Harbor produces all three types of light pollution in the sky, which affects every citizen and causing a serious environmental concern (Trotter &

BDN Staff, 2008). Bar Harbor is the largest of the towns around Acadia with a population of 5,235 people according to a 2010 census (International Dark-Sky Association's Practical Guide 1: Introduction to Light Pollution, 2009). Bar Harbor has new lighting ordinance requirements for all buildings constructed after 2008 (Larsen, Morse, Rolon, & Roth, 2013). The 2007 drafts of General Code updates included sections directly related to dark sky management and planning (Carello et al., 2014). In 2009 the public voted on the changes to the lighting ordinances in the town of Bar Harbor and passed them by an overwhelming margin. Almost all of the lighting change proposals passed by 1,400-2,000 votes in a town with a little over 5,000 people (Bar Harbor Planning Board & Bar Harbor Town Council, 2007). The new plans were a step above the county's suggestions for town ordinances. It limited sign heights that included lights, severely limited the number of lumens that a light could emit without shading, and continues to make the sky of Bar Harbor a darker, healthier place (Trotter & BDN Staff, 2008). Past evidence has shown the public may not be fully aware of the problem of light pollution (Carello et al., 2014). However, the margin of passage of lighting ordinances shows the public is supportive of dark sky initiatives once they become aware of the problem (General Code, 2016).

How Past WPI Dark Sky Teams Assessed the Night Skies

Unihedron sky quality meters, specifically the SQM-LU-DL, were used in the past to measure the night sky's quality around Acadia (including the perimeter of Bar Harbor) and inside Southwest Harbor. The measurements were made within a few days on either side of the new moon (Carello et al., 2014; Diamond et al., 2016). The sky meters have a full width half maximum (FWHM) of 20 degrees. FWHM is a standard used in the photonics industry; it is the point on a light distribution chart from which the intensity is half of the maximum. The FWHM encompasses the majority of a light's total output regardless of the type of light distribution (Quimby, 2006). With the limited FWHM (beyond 20 degrees the influence of outside lights only registers 3.3% on the meters) the past Dark Sky teams were able to keep their distance from streetlights to take measurements

Figure 7: Unihedron SQM-DL-LU device

(Diamond et al., 2016).

Fixing light pollution is relatively quick and simple compared to other forms of light pollution; the changes are immediate, and can often save money over time. The International Dark-Sky Association provides lighting recommendations to reduce light pollution. Many people are familiar with the types of indoor lighting fixtures and the types of bulbs that are commonly used. However, outdoor lighting usually utilizes different types of bulbs. The majority of outside lighting use **low-pressure sodium** ("LPS"), **high-pressure sodium** ("HPS"), **metal halide** and **light emitting diodes** ("LEDs") (Unihedron & Tekatch). LPS bulbs are the recommended source of lighting bulbs for use near areas where preserving the environment is a concern. This is mainly because LPS bulbs produce a soft orange glow, which is less harsh on the eyes. However, some find the color that LPS bulbs produce to be unattractive and not bright enough for some applications. HPS bulbs still emit an orange glow, but it is not as soft a color, and is not quite as environmentally friendly as the LPS bulbs as a result.

Metal halide and LEDs are often used in outside lighting when a lot of light is needed. LEDs in particular have become more common in recent years due to their longevity (Farahat, Florea, Martinez Lastra, Branas, & Azcondo Sanchez, 2015). Unfortunately, LEDs are not great for environmentally sensitive areas, but they have the unique ability to have their light intensity lowered when necessary. One way to reduce light pollution is to reduce the amount of light produced by LEDs or turn them off entirely when they are not needed, only bringing them back to full brightness when necessary (International Dark-Sky Association, 2016a).

Community Motivation

A website in conjunction with the Conservation Committee will be very informative on how the community of Bar Harbor can reduce the use of lights. Informing the town of Bar Harbor about the effect they have on the park with light pollution will be a jumping off step, but to see full progression and success the community has to be involved (International Dark-Sky Association, 2016c). Even intelligent people will make dumb decisions without the right motivation. One of the key ways to motivate the community to reduce light pollution is cost. Artificial lighting on a global scale consumes 19% of all electrical power production and annually costs over $360 billion to produce (International Dark-Sky Association, 2017). Since the global financial crisis there has been a lot of pressure on local, regional, and national

governmental bodies to reduce the costs of public lighting (Gaston et al., 2015). Strategic attempts have been made all over the world to reduce the costs. For example, after a certain time of night many regions have agreed to switch off part-time lighting or dim select lighting devices. Improving internal and external lights locally would not only save energy but would also save a lot of money. On a global note, “Installing quality outdoor lighting could cut energy use by 60–70 percent, save billions of dollars and cut carbon emissions.” (International Dark-Sky Association, 2017; International Dark-Sky Association, 2017i).

The Cost of Artificial Lighting

There are many different fixtures that can produce artificial light. Likewise, each product comes at its own cost. The average price for a motion sensor light fixture is $90 and the average price for an LED fixture is $35.95 (CostHelper, 2017; Eartheasy.com, 2014). The average price for a Low Sodium Light bulb fixture is $69.24 (homedepot, 2017). Based off the average prices, it is easy to see that a town or city might want to lower the amount of money they spend to fuel said fixtures.

The Main Public Utilities Commission (MPUC) is responsible for the distribution of the electrical services to residential and commercial buildings in Maine (Maine.gov, 2012b). There are three main electrical companies that the MPUC use: Central Maine Power Company, Eastern Maine Electric Cooperative, and Emera Maine (Maine.gov, 2012a). The Town of Bar Harbor Maine falls under the district of Emera Maine - Bangor Hydro District (Maine.gov, 2012). The standard offer that the MPUC uses for Emera Maine is 6.32 cents per kWh according to a table on the Maine government website (Maine.gov, 2012).

Methodology

This project aimed to assess the feasibility of the town of Bar Harbor applying for an International Dark Sky Community status through identifying features of the town that do not qualify, enacting public outreach activities and cataloging lighting elements throughout the town. The sky quality was measured throughout Bar Harbor, an inventory of all municipal lighting was taken, a cost-benefit analysis was completed, and a website which is accessible to the public was produced.

Objectives:

1.) Assess the Impact of Light Pollution in Bar Harbor
    a.) Analyzing Sky Quality Measurements
    b.) Statistical Data Analysis of Sky Quality Reading Done on Municipal Lights
    c.) Conduct Direct Inventorying of Light Fixtures to Track Long-Term Changes
2.) Evaluating Changes Needed for Bar Harbor to be Considered an International Dark Sky Community
    a.) International Dark-Sky Community Guidelines and How they are Applied
    b.) Assessing the Benefits of Businesses
3.) Distributing Materials on Strategies that Reduce Light Pollution
    a.) Bar Harbor Website on Reducing Light Pollution
    b.) Working with the Conservation Commission Committee
    c.) Presenting to Stakeholders

Objective 1: Assess the Impact of Light Pollution in Bar Harbor

Analyzing Sky Quality Measurements

Figure 8: Unihedron Sky Quality Meter -LU-DL (Welch & Tekatch, 2017b)

All sky quality measurements were taken during night hours. The specific times were determined using multiple factors. One of these factors is the glow from the moon, which negatively affects the measurements from the SQM. All of the measurements were taken while the moon was below the horizon or within 48 hours of the new moon phase. The light from the Sun is only truly absent from the sky once the Sun is less than 18 degrees below the horizon (Unihedron & Tekatch,). By cross-referencing these two factors, the team was able to determine the ideal times for sky quality measurements. See appendix D for the full list of times. With permission from the advisor and a research permit from Acadia National Park, measurements were taken. The team used Google My Maps to plan out the relative locations of measurements. This cursory map maximized the effectiveness of the measurements during the ideal recording times.

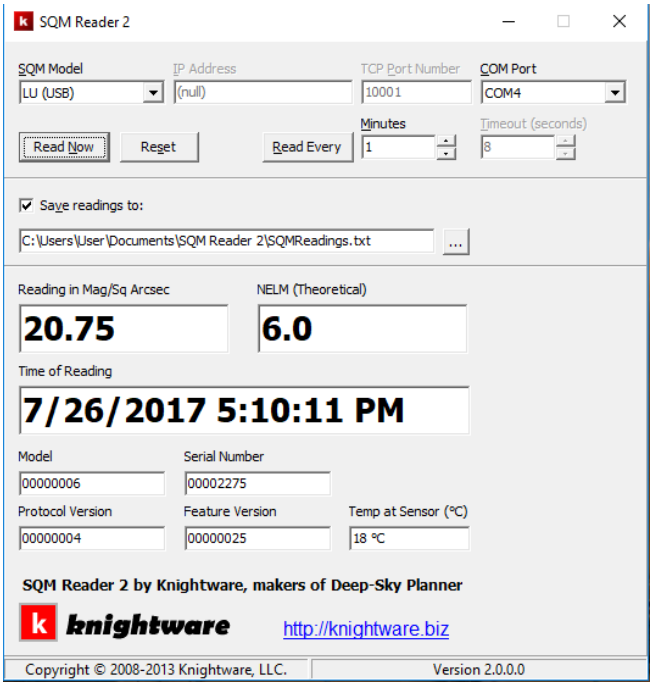

Figure 9: A screenshot of the Nightware SQM Reader 3 program

The quantitative measurements were taken with a sky quality meter made by Unihedron. Unihedron provides six variations of sky quality meters which all have slightly different capabilities. The Unihedron SQM-LU-DL was the specific model used to measure and data-log the sky brightness. Figure 9 is what the Unihedron displays for the SQM-LU-DL device. The combination of this SQM and Knightware™ SQM Reader 3 allowed the

team to easily record data. In addition, the GPS coordinates were recorded from either a team member's mobile phone or from the Garmin Etrex GPS down to one tenth of a second. Past teams have used both the SQM-LU-DL (shown in Figure 8) and the SQM-L (shown in Figure 10).

Figure 10: Unihedron Sky Quality Meter -L (Welch & Tekatch, 2017a)

Using the SQM-LU-DL, a measurement can be taken instantaneously. The user holds the device straight up in the air and points the sensor towards the zenith. Then the user simply pushes the "Read Now" button, and the data is recorded. This can be done many times a second. The data is then stored in a text file. The program records the time, temperature, and magnitude per square arcsecond of the sky along with other values not relevant to the project.

Since the SQM-LU-DL takes the measurements within a 20-degree FWHM of where they are pointed, sources of light and error such as street lamps can be avoided with a fair degree of ease. In order to avoid any sources of error, the team stood no closer than 10 feet to any overhead light sources or obstacles such as trees. This method allowed nearby sources of light such as street lights to become negligible concerning errors to the SQM's reading if the measurement is taken 10 feet away. This is the same method used by past Dark Sky IQP teams when taking measurements in populated areas. In order to get a detailed assessment of the night sky, the team took 87 measurements evenly spread throughout the entire town.

Creating a Heat Map to Measure Long-Term Changes

In order to track the long-term changes of the night sky over Bar Harbor, the team created an updated heat map of the sky over Bar Harbor. The team used the 87 sky quality measurements taken throughout the entire town of Bar Harbor in order to create this map. In Figure 11, you can see the location of each of these points. The location of each of these points can be found in list form with the corresponding values in appendix F. To create this map, the team used a lab that specializes in global information system (GIS) software located at the College of the Atlantic.

This lab currently runs ArcGIS Desktop 10.0 to process and model all GIS images and models. With the help of the lab manager Gordon Longsworth, the team was able to produce a sky quality assessment map of Bar Harbor.

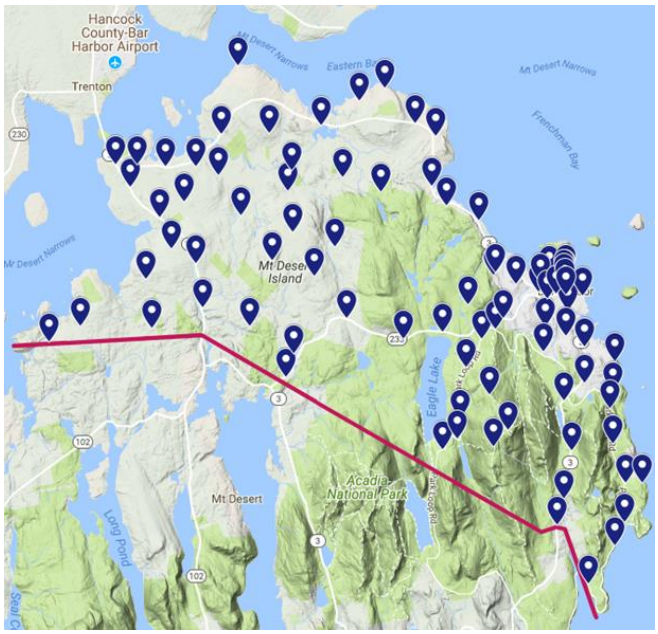

Figure 11: A map displaying all 87 locations where sky quality measurements were taken for the IDSC application and for the generation of the 2017 Bar Harbor heat map

Conduct Direct Inventorying of Light Fixtures to Track Long-Term Changes

Bar Harbor was inventoried in order to determine how many municipal lights needed to be changed to fit the IDSC guidelines. The team went into downtown Bar Harbor and utilized the technique of "divide and conquer." Each member took a few different streets of Bar Harbor.

An Excel spreadsheet was created and Google My Maps was used to store all the data including light fixture type and location. The Excel spreadsheet showed all the individual different light fixture types. The Excel spreadsheet also provided whether said fixture is compliant. If the fixture is non-compliant, the Excel document gives the recommendation. As for the Google My Maps tool, it cataloged the location of each of the lights and illustrated the density of lights throughout Bar Harbor.

In addition to looking at municipal streetlights, the outdoor lighting on business buildings in downtown Bar Harbor was also observed. The perimeter of the inventory was West St, Main St, Kebo St, and Cromwell Harbor Rd. The team used 2015 tax maps found on the Bar Harbor Town Hall website. The sections that were covered are labeled as follows: 102, 104, 107, 110, 111, 108, and 105. Each individual on the team was given one section except for section 104. For section 104, each team member completed a few assigned streets. This was accomplished in just a few nights.

Each team member went around and counted the number of lights that were compliant and noncompliant on business buildings according to shielding on the lights. In conjunction with

the tax maps, an Excel file of which businesses had been assessed and the ratio of their complaint to non-compliant lights. The data was recorded on a colored map of the businesses. The colors on the map correspond to the level of compliancy of each business. This work exposed the correlation between noncompliant lighting and the light pollution that the downtown businesses produce.

Objective 2: Evaluating Changes Needed for Bar Harbor to be Considered a Dark Sky Community

International Dark-Sky Community Guidelines and How they are Applied

The International Dark-Sky Association has a set of guidelines that a community must adhere to in order to become an International Dark Sky Community (IDSC). The goal of this project is to assess the feasibility of Bar Harbor applying for an International Dark Sky Community status. The team compared local ordinances and local appeasement of ordinances with the IDSC required ordinances. Other sections of the IDSC guidelines were also evaluated to determine where Bar Harbor currently stands in their application status. The application will work in tandem with the cost analysis and light inventories.

The second aspect that was assessed was where Bar Harbor stood in community commitment to the night sky. The three main points of this section revolved around determining support from municipalities, the town government, and the public. The team evaluated the commitment based on the willingness to work with the team and the past actions of these entities.

One of the many requirements that needed to be fulfilled was there needs to be at least two awareness events per year. The team created an educational website that completed this application requirement. The other event is the Acadia Night Sky Festival, which was in place before the first dark sky team arrived.

Assessing the Benefits of Businesses

The data collected from the downtown business' exterior lighting was first analyzed in order to assess the benefits of businesses in Bar Harbor. The team used the data as well as

research to develop several benefits for small and large businesses in downtown Bar Harbor. One benefit was found using research done by Thunder Mountain Pootsee Night Sky, a dark sky community in Arizona, to show trends of increased tourism as a benefit for businesses in a dark sky community (International Dark-Sky Association, 2017k). It was found that these benefits were monetary as well as non-monetary.

Objective 3: Distributing Materials On Strategies That Reduce Light Pollution

Bar Harbor Website on Reducing Light Pollution

The team intended to use online media as a means to disseminate information on light pollution. The primary purpose of the informational media was to include suggestions to minimize polarized light pollution. Other suggestions included on the website target both municipalities and the general public.

One part of the process would be to develop a website populated with information regarding light pollution and strategies for alleviating light pollution in and around Bar Harbor. The first step was producing a flow chart that outlined the design of the webpage. This design was implemented using Wordpress, creating a website hosted by WPI. The team posted the inventory and other completed information to the website.

Working with the Conservation Commission

During one of the team's first meetings with Acadia National Park, the Manager Assistant of Acadia National Park, John Kelly, suggested getting in contact with the Conservation Commission. The team was able to get in contact and have a face to face with Jesse Wheeler, the Conservation Commission Chair. During conversation, Jesse brought up a plan that the Commission was currently working on called the Open Space Plan (OSP). The OSP can be found in appendix C; it talks about encouraging the preservation of the night skies and goes over different strategies to do so. Jesse asked the team to look over the OSP and give any more suggestions that could be included. The team utilized the International Dark-Sky Association’s website that held the International Dark Sky Community (IDSC) guidelines to help recommend

more ways to preserve the night sky. By working with the Conservation Commission, the team was able to reach out to people that it could not have previously.

Presentation to Stakeholders

When it comes to the distribution of information on light pollution, a presentation for the town officials, park officials, park rangers, and representatives of Friends of Acadia, at the end of the tenure in Bar Harbor. At this meeting, the team's findings on the feasibility of Bar Harbor applying to become an IDSC was presented. The team discussed the current status of Bar Harbor as well as numerous ways that the town and community of Bar Harbor could become more dark sky friendly. This presentation included the assessment of light pollution, and possible next steps that the town officials, future WPI Dark Sky teams, and Friends of Acadia could take to reduce light pollution in Bar Harbor and therefore improve the quality of the night sky throughout Acadia.

Findings

Data from the Sky Quality Readings

The team took sky quality measurements throughout Mount Desert Island and Schoodic Peninsula for two separate purposes. The 2015 Dark Sky team took 28 points in Acadia National Park to measure the sky quality of the park for provisional IDSP application. These 28 points can be found in appendix E. These points must be updated at least every two years, which is why the 2017 Dark Sky team has this task. The measurement taken at each of these points is in units of magnitudes per square arcsecond. A square arcsecond is an area of the dome of the night sky. The term magnitude refers to the brightness of the sky. These units are inverse of the common way people think. The higher the values are, the darker the night sky is. For example, a value of 22 is much better than a value of 15. Eighteen of the 28 points were located in the park on Mount Desert Island. The other 10 points were located in the park on the Schoodic Peninsula section. In 2015, the average values were 21.52, 21.41, and 21.48 magnitudes per square arcsecond on Mount Desert Island, Schoodic Point, and both combined, respectively. The current values in 2017 are 21.21, 21.76, and 21.41 magnitudes per square arcsecond in the same respective categories. With a little bit of calculations, the team was able to calculate that the values decreased by 1.43 percent on Mount Desert Island, increased by 1.65 percent on Schoodic Point, and decreased by 0.33 percent overall.

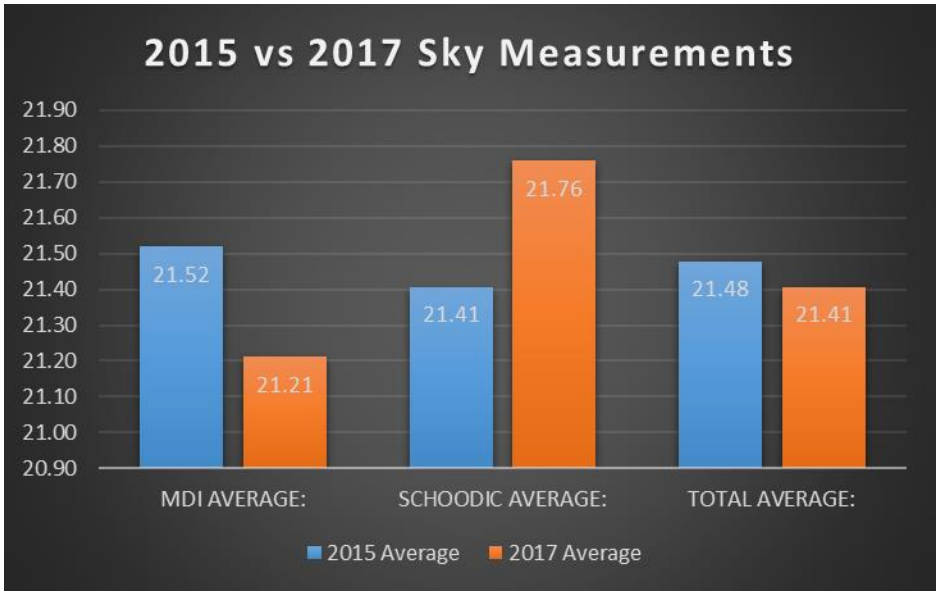

Table 3: The change in sky quality from 2015 to 2017

The silver category set up by the IDA is the total average in a park that falls between

21.00 and 21.74 magnitudes per square arcsecond, so the park still sits in this category. However, the rate at which the night sky is brightening is worrisome. There is a relatively low amount of room for Schoodic Point to improve at the moment. Assuming that they remain at the level they are at, and assuming Mount Desert Island continues on the same trend as it did over the past two years, then as soon as 2021, the park may fall into the bronze tier category. Immediate action is needed to preserve the night sky, and prevent this from happening.

In addition to taking the 28 sky quality measurements for the IDSP provisional application, the team also took 87 measurements of the night sky throughout the entire town of Bar Harbor. This set of points was taken for the International Dark Sky Community application for Bar Harbor to fulfill requirement F. The full list of these points can be seen in appendix E, but they range from 15.50 to 22.04 magnitude per square arcsecond. By looking at the heat map in Figure 12, one can easily tell that the brightest spot is the downtown area, which is to be expected from previous research. Another bright spot on the map was where the Mount Desert High School is. Both spots have a large number of unshielded bright lights. The downtown area has many more lights spread out over a larger area, which is why that area has a much bigger impact on the rest of the island.

All of these measurements were taken using the exact same steps. The team broke out into two groups of three and took a certain number of points. The group drove to each GPS location and set up. In order to take a recording, each group had a laptop with a Knightware™ SQM Reader 3. The team used a SQM-DU-LU connected to the laptop through a series A/B USB cable. In order to take accurate readings, the SQM-DU-LU device is held at arm's length straight up into the sky. At this point the “Read Now” button is clicked, and the data is recorded.

The Heat Map

The team created a heat map of the sky quality throughout the town of Bar Harbor. This map used 87 points evenly spread out in order to get a detailed map. There are more data points in highly populated areas such as downtown Bar Harbor. This was done to get a higher level of detail in areas with more sources of light. As you can see in Figure 12, there are clearly some areas of the town that have a better night sky than others.

The worst sky quality measurements occurred in downtown Bar Harbor. Main Street in particular had the absolute worst readings. This supports previous Dark Sky team's finding that

downtown Bar Harbor is one of the biggest sources of light pollution on Mount Desert Island, if not the biggest source. The light from this area contaminates the sky for surrounding areas, including Acadia. The glow can be easily seen from a large portion of the island.

The other bright spot on the map is where the Mount Desert Island High School is

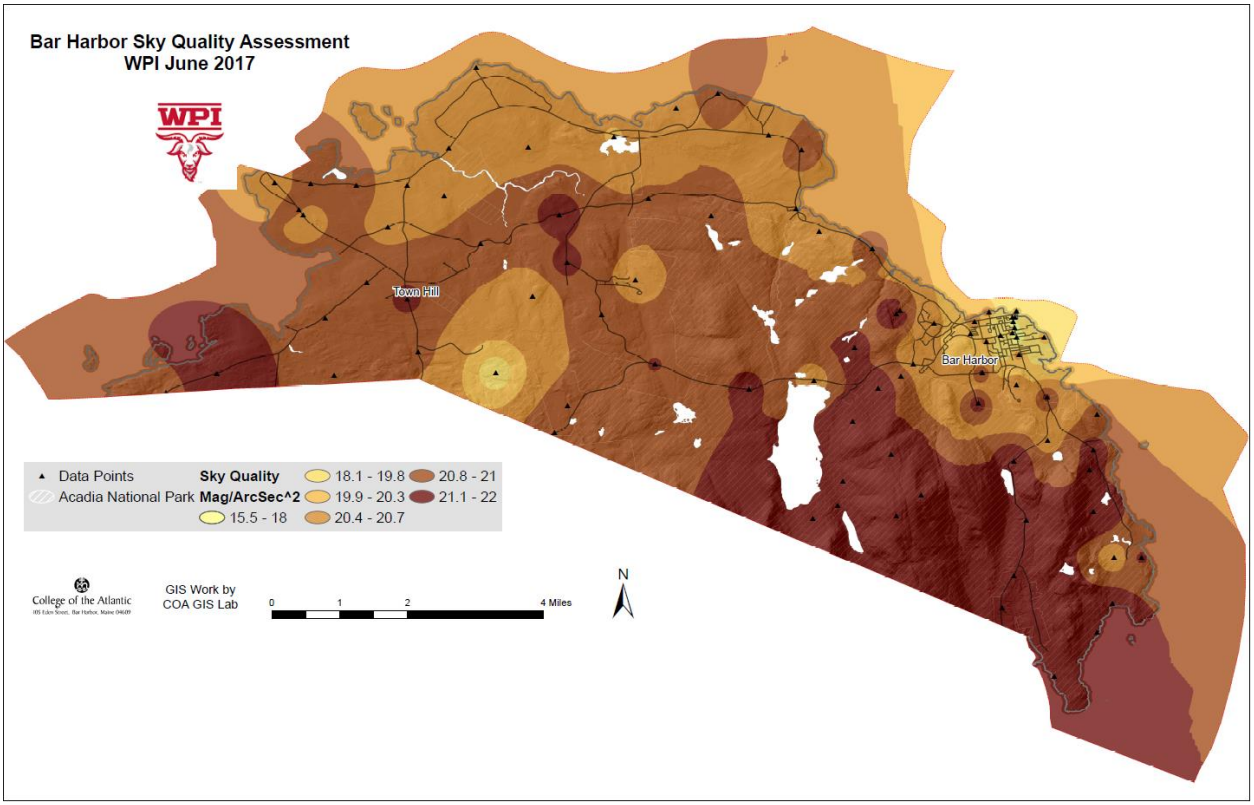

Figure 12: The 2017 heat map of the town of Bar Harbor.

located. The high school leaves many of the lights on during the night, and none of those lights are compliant. Having dozens of bright non-compliant lights on all night leads to a lot of light pollution for the surrounding areas. With the high school in such close proximity to Acadia, it is important for the International Dark Sky Park designation to help reduce this pollution.

Compliancy of Bar Harbor to an International Dark Sky Community

In order to be compliant with the International Dark Sky Community (IDSC) standards, Bar Harbor needs to have compliant ordinances, have broad community commitment to the night sky and have educational and outreach resources. By comparing the light ordinances of Bar

Harbor with the guidelines for the International Dark Sky Community, the team was able to conclude that the town of Bar Harbor meets only a quarter of the requirements in regards to a lighting code. The lighting ordinances of Bar Harbor can be seen in Appendix G. The requirements for the designation of an IDSC can be seen in Appendix B. By comparing these two sections: it is clear that Bar Harbor ordinances are lacking the sufficient lumen limit for shielded lights. The Bar Harbor code specifies 1800 lumens instead of the required 1500 lumens; Bar Harbor does not have a limit on the coloration of the lights nor on the overall brightness of an area. To meet these needs the ordinances would need to specify a 3000 kelvin limit on lighting fixtures and should would set an appropriate lumen/acre cap on both shielded and unshielded lights; finally, a section on new buildings would just need to include specifications regarding adaptive controls. Although Bar Harbor is only a quarter compliant, it is believed that the town has potential to change its ordinances to be compliant based off the public support of previous ordinance revisions.

In the general category of broad community commitment, public support is only a single factor. The other two factors include municipal support and town support. Municipal support for dark skies would include gestures from the local electric company, in this case Emera Maine, offering incentives to change over to compliant lighting or at least a letter of support for dark skies. Currently Bar Harbor is lacking in that regard. However, Bar Harbor does have town support. Town support would include arms of the town government showing support for the IDSC application. Currently the Conservation Commission of Bar Harbor has showed support and worked with the team. The town manager of Bar Harbor has showed interest in replacing streetlights with IDSC approved fixtures. Currently the town is in the middle of a rate request for new fully shielded LED lights. The town manager offered to discuss compliance issues after Emera Maine responded with the cost of new lights. Overall, community commitment is around 66% complete in terms of an IDSC application.

An Inventory of Municipal Lights in Bar Harbor

Based off the inventory for the downtown area there are 248 round non-shielded street lights, 114 non-shielded street lights, 63 colonial style street lights, 53 colonial style 2 lights, 28 drop lens exposed bulb fixtures, 7 colonial style 3 donut lights and 101 other miscellaneous lighting fixtures.

Figure 13: The six most common type of street lights

There are 614 municipal lights in total, including different fixtures like double flood lights. Buildings such as the Post Office and the High School were considered in the lighting inventory because they are town owned. There are 580 lights that are improperly shielded, and there are 34 compliant lights that are fully shielded in the town. All of this data for the lighting inventory can be found in Appendix G.

Compliancy of Public Outreach and Education in Regards to IDSC

The final section for the IDSC application is public outreach and education. Previously, Acadia National Park and the Town of Bar Harbor host an annual Night Sky Festival. This is an event that celebrates the night sky in and around Acadia National Park, but is also an educational opportunity for the public and tourists. Another education opportunity was created this year by the dark sky team. The WPI based website is an education and outreach tool that can be used by the public of Bar Harbor to learn more about the plight of the night sky and how to be more night sky friendly. With the website and the Night Sky Festival, Bar Harbor is complete in the category of public outreach and education.

In the general terms aforementioned, Bar Harbor has reached full compliancy in the sector of public outreach and education, it is only a quarter compliant in terms of the lighting code, and the town is 66% compliant in terms of broad support. Overall, taking every

specification in the IDSC application into account, Bar Harbor meets the requirements for 46% of the application.

WPI 2017 Dark Sky Website

The 2017 Dark Sky website was constructed in order to satisfy one of the requirements on the International Dark Sky Community Guidelines. Section D of the ISDC talks about how two dark sky awareness events that must be met. See Appendix B for the full set of guidelines. Bar Harbor already hosts the Acadia Night Sky Festival during the year, which is a dark sky awareness event, while the website qualifies for the second event and it counts as an outreach, which satisfies the document requirement.

The website can be navigated to through the host page *barharborpc.org* or directly with

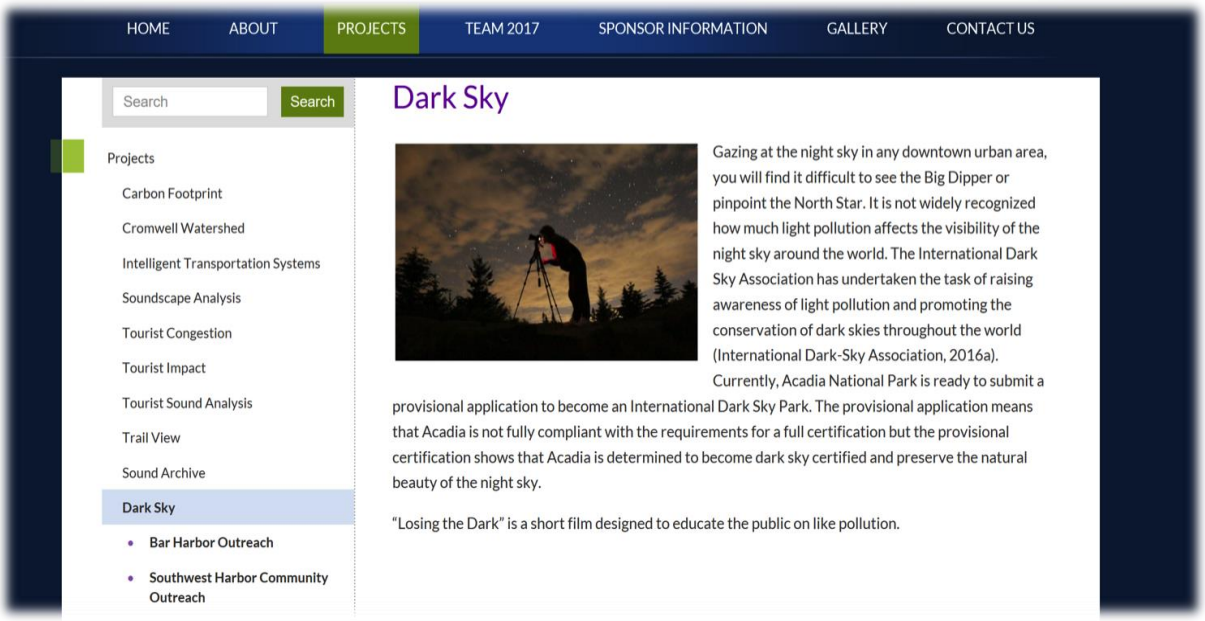

Figure 14: The front page of the 2017 Dark Sky website

http://wp.wpi.edu/barharbor/projects/dark-sky/. The main page informs the reader all about the dark sky and what the project aims to achieve.

There is a short film called “Losing the Dark” that was taken directly from the IDA’s website. This resource explains light pollution and why the dark sky is important. There are also six images of Mount Desert Island’s night sky at its best on the main web page.

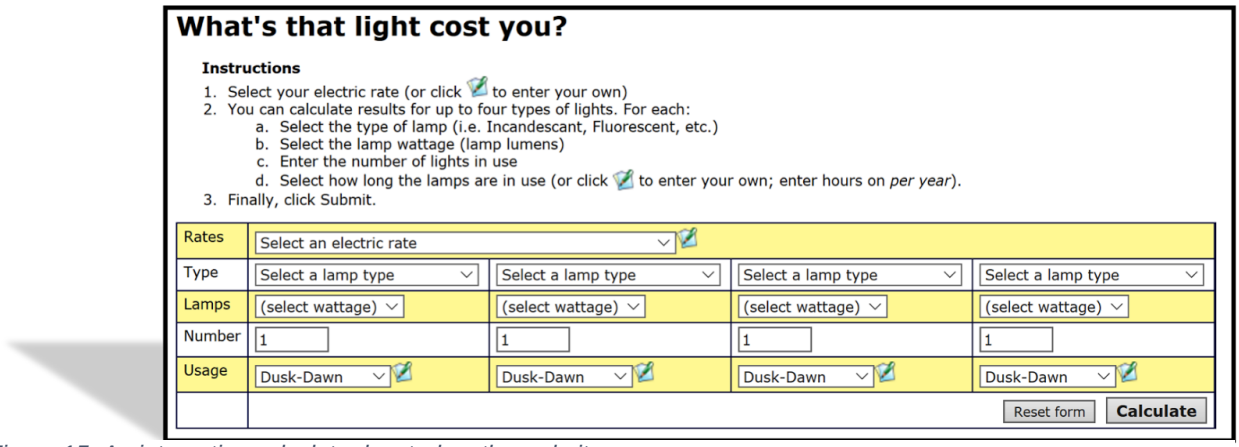

Figure 15: An interactive calculator located on the website

Two sub-tabs under *Dark Sky* are *Bar Harbor Outreach* and *Southwest Harbor Outreach.* The *Southwest Harbor Outreach* tab is an informative web page created by the 2016 Dark Sky team. The *Bar Harbor Outreach* tab was created by the 2017 Dark Sky team to include brief information on the past five years that the Dark Sky teams have done. There are pictures and other forms of information that have been put in by each past team. The *Compliancy* tab and the *What You Can Do* tab are two sub- web pages under the *Bar Harbor Outreach* tab. There is information on both the municipal and small business levels in the compliancy web page. The 2017 Dark Sky website is a focal point for the Bar Harbor community and its visitors to access. Information regarding protecting the night sky can be found on the website. There is a link to the Dark Sky Community Guidelines and an image taken from the IDA’s website that clearly

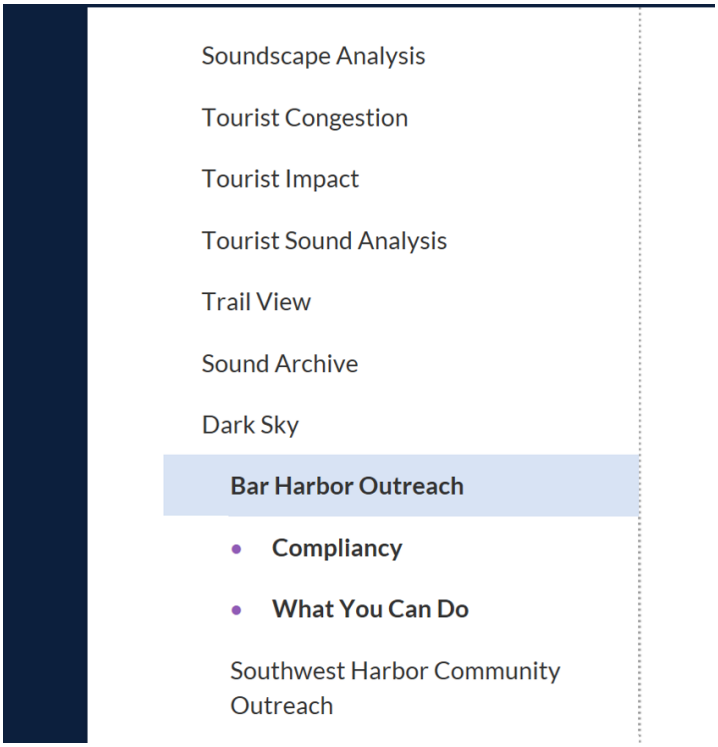

Figure 16: One of the drop down menus on the website

shows examples of acceptable versus unacceptable lighting fixtures as well. For better visuals on the page, there are three street lights that make up 85% of the non-compliant lighting in Bar Harbor.

The *What You Can Do* tab aims directly to residents and small business owners in the town. Both residents and small business owners do not have to comply with the IDSC guidelines, but if they have any interest in becoming compliant this web page will help them. This interactive web page allows the viewer to calculate how much their lights are costing them by using the light cost calculator, which was taken from the IDA's website. The web page gives recommendations once all of the provided questions are answered. With the calculator, it is very clear that if someone were to convert to compliant lighting they would undoubtedly save money.

Figure 17: An example of a section of the website displaying the work completed this summer

The *What You Can Do* tab also shows five 2015 tax maps of downtown Bar Harbor that were filled in and color coded green, yellow, and red representing whether the business is 100%-66% compliant (green), 66%-33% compliant (yellow), and 33%-0% compliant (red).

Downtown Bar Harbor Business Lighting Inventory

We found that many of the local businesses had improperly shielded lights on at night. The average business had 15 improperly shielded lighting fixtures. Figure 18 is a modified version of the 2015 tax maps the team used to illustrate the compliancy of each business. The results show that hotels and inns were by far the worst when it came to noncompliant lights in Bar Harbor. For example, the West Street Hotel has spotlights shooting straight up illuminating the side of the wall and the trees and bushes next to them. Businesses were split into four categories based on the percentage of fully shielded lighting fixtures. The green colored

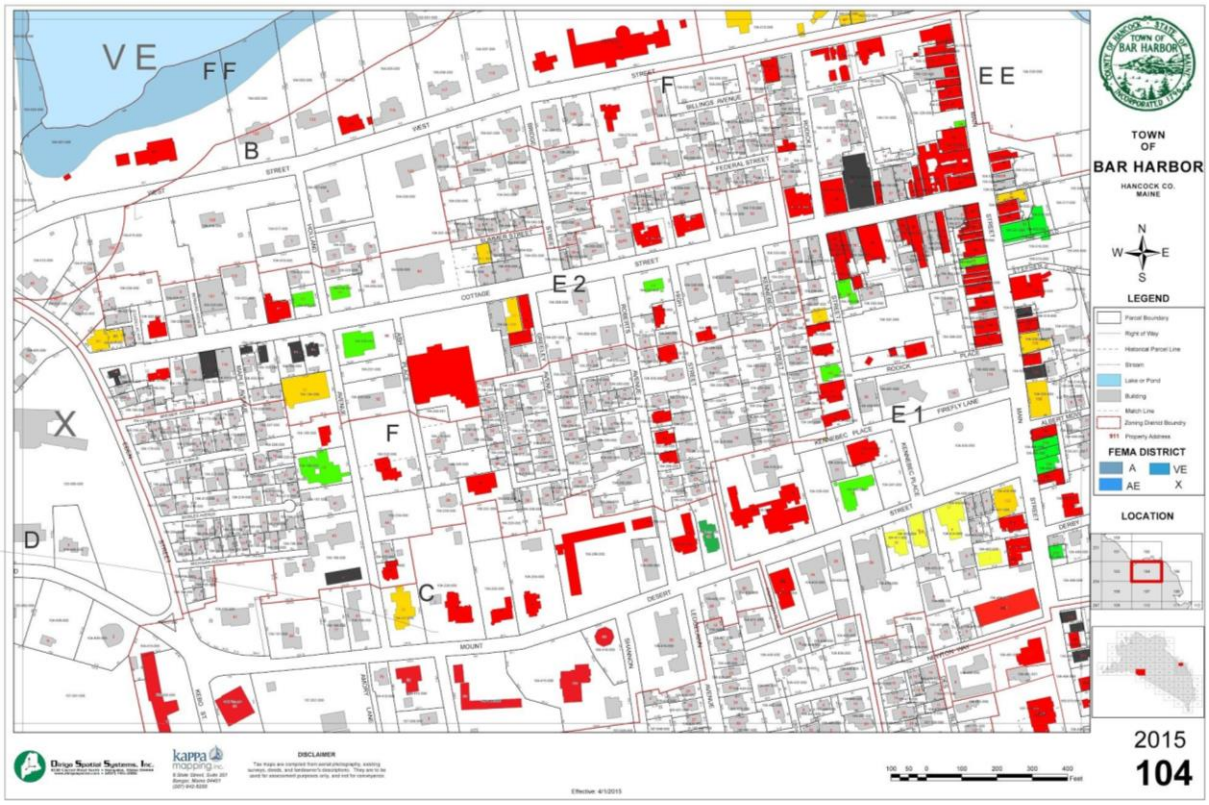

Figure 18: A colored in tax map to determine the percent of fully shielded lighting each business has

businesses were 67% or above compliant with their lighting. Only 27 of the businesses fell into this category. The yellow colored businesses were between 33% and 67% compliant. A total of 31 businesses fell into this category. The red colored businesses were at a level of 33% or lower compliance level with their lighting. This was the biggest category with 112 businesses in it. The dark gray colored business had no exterior lighting. Only 8 of the businesses in downtown Bar Harbor had all of their lights off at night. The rest of the buildings that were not colored in are residential or other non-business related buildings.

From this map it is clear that the large majority of businesses in downtown Bar Harbor do not have dark sky friendly lighting. Nearly two-thirds of the businesses fell into the red category. Some of the businesses such as large hotels had hundreds of non-compliant lighting. It is important to note that these tax maps do not take into account the number of non-compliant lights, but only the percentage of each business. For example, a large hotel with 150 noncompliant lights and no compliant lights would be in the same category (red) as a business with only 5 noncompliant lights and no compliant lights.

Data for Assessing the Benefits of Businesses

Using the downtown business compliancy map, the team calculated that on average a business in downtown Bar Harbor has 15 exterior non-compliant lights on their structure. Using this figure and using the cost of an average, compliant LED fixture from Home Depot, which is $49.99, it was found that changing light fixtures would cost a business around $749.95 to convert to LED fixtures (Home Depot Product Authority, LLC, 2017). The total savings on electricity costs if a business were to make the switch were calculated and found to save $689.85 per year. That is 75% of any business's exterior lighting electricity costs. This means that even with that high installation fee a business would recoup their money within 2 years, and continue to save for years to come. Below is an example of a similar LED lighting fixture available at Home Depot.

Another benefit of LED lighting fixtures is the lighting arrays last up to 20 years, whereas a standard incandescent bulb lasts an average of 5 years (PassMark Software, 2017). This means there will be less maintenance cost for businesses that switch over. The team found that in Thunder Mountain Pootsee Night Sky, a dark sky community in Arizona, had research suggesting that after their designation in 2015 they showed an increase in tourism related directly to the night sky (International Dark-Sky Association, 2017). Another benefit is increased public relations for businesses that comply with dark sky community guidelines. Switching to LED lighting fixtures reduces the amount of light pollution they produce, they can brand themselves as an eco-friendly business. The team found a study stating that 55% of consumers would pay more for a product if they knew it was being sold from an eco-friendly business (FranchiseHelp Holdings, 2017). This study shows a trend that consumers will be more likely to frequent a business if they are branded as being eco-friendly.

Figure 19: An example of a fully shielded lighting fixture

Recommendations

Light Ordinances and the Conservation Commission

As previously mentioned, the team met with Jesse Wheeler the chairman of the Conservation Commission. He provided insight on how the Committee works with the Town Hall and discussed the Open Space Plan (OSP). The Open Space Plan can be found in appendix C and was looked over by the 2017 Dark Sky team. The team edited the Open Space Plan in order to incorporate the International Dark Sky Community (IDSC) guidelines into it. For future teams it is recommended to continue to work with Jesse Wheeler and the rest of the Conservation Commission to get the town in agreement with the Dark Sky initiative. One of the first steps for the next team would be to reach out to Jesse Wheeler at jessewheeler13@hotmail.com to gauge how the revised Open Space Plan was integrated into the community guidelines. The next team would also want to continue communications with Jesse Wheeler and the Conservation Commission. From there the next team could ask if there are any current plans for changing the Municipal lighting fixtures, and whether the town has considered lumens and color as a factor to change over.

Light Fixture Recommendations

There are a multitude of different fixtures that the team came across, all of which can be found in appendix G. A small recommendation was given next to each type of light fixture, but future work is needed to fully recommend an exact change. The exact lumen output and temperature of the bulb needs to be found to determine whether or not each light is compliant with IDSC guidelines, and thus the change that might be needed. However, using the information available, recommendations for the three most common types of municipal lights in the town was developed.

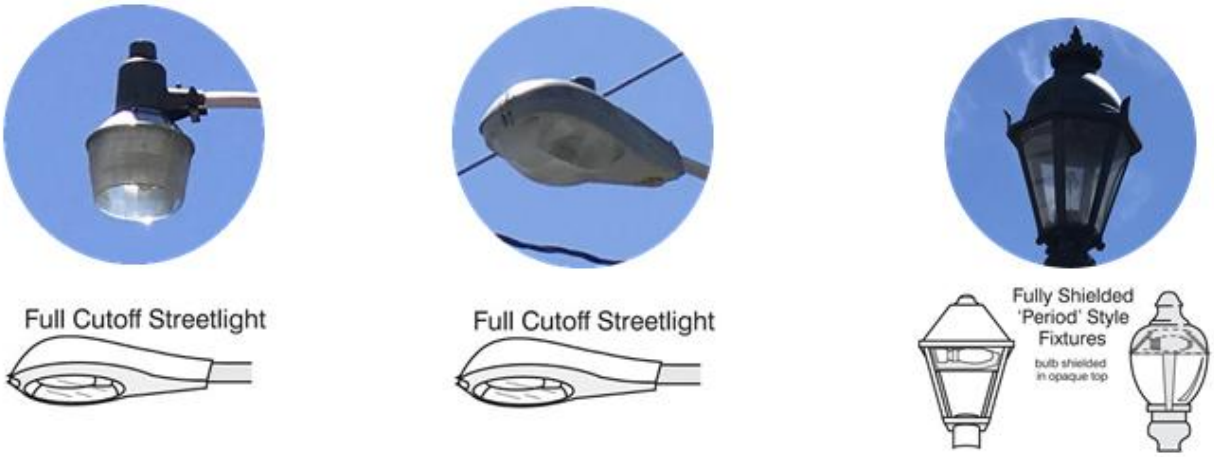

Figure 20: The current street lights (top) versus what each could potentially be replaced with (bottom) while still keeping the same aesthetic level

For the all street lights excluding the colonial style lighting fixtures, the team recommends replacing these with Full Cutoff LED street lights such as the ones shown in Figure 20. These LED lights need to be under the 3000 Kelvin limit in the IDSC guidelines. This change would not only create dark-sky friendly lighting, but also reduce the energy costs of the town. The Colonial Style fixtures should be replaced with IDSC compliant colonial style lighting fixtures. This would allow the town to keep the historic aesthetic feel these lights bring to the town, but also help reduce the excess light coming from the current fixtures. These changes would reduce the light pollution coming from the town of Bar Harbor, as well as help WPI's long term goal of recognizing Bar Harbor as an IDSC.

Educational Based Recommendations

Acadia National Park offers opportunities for visitors to learn about the park's night sky and its importance in maintaining the natural environment. The most well-known example is the Acadia Night Sky Festival, a four-day event in late September that celebrates the night sky's role in the national park through education, astronomy, and even artistic perspectives.

While Acadia National Park has some activities that focus on the dark sky, there are pros and cons with each of them. While the Acadia Night Sky Festival attracts the attention of locals, the information is only available four days a year.

The events that Acadia provides are good starting resources for educational based learning, but the team recommends flyers on how to reduce light pollution in addition to all these

resources. Educational materials such as stickers, flyers, posters, and other forms of social media trend with locals. The informational material would cover what light pollution is, how to combat it, and examples of what non-compliant and compliant sources of light look like.

Business Benefits Recommendations

Both small and corporate businesses in downtown Bar Harbor can benefit from converting their exterior lighting to fully shielded LED lighting fixtures. The team recommends that businesses purchase these lighting fixtures from Home Depot or a lighting retailer that offers similar prices. If businesses follow these recommendations, they will reap many benefits. Firstly, a reduction in exterior lighting electricity costs by up to 75%. Another benefit is increased public image within the town from branding as an eco-friendly business. Finally, Bar Harbor should continue to work toward a dark sky community designation as this will lead to an increase in tourism in the town.

In the years to come the team recommends that future dark sky teams go out into the community and do complete energy audits for small businesses and residents. This will provide businesses with all necessary information and knowledge to both reduce their electrical costs and become eco-friendlier. These will allow WPI to continue integrating the dark sky community guidelines into not only the town ordinance through the conservation commission but also directly through businesses.

Recommendation for Future Teams

Future teams are recommended to continue work with the Conservation Commission Chair, Jesse Wheeler. To stay in contact with John Kelly, john_t_kelly@nps.gov, who is the Manager Assistant of Acadia National Park. Additionally, Candy Emlen, the director of the Southwest Harbor Public Library, will prove helpful in getting in contact with other town officials. Candy Emlen can be reached at candy@swharbor.lib.me.us.

The lighting inventory of all municipal lights in Bar Harbor should be expanded. Primarily, the lumens, wattage, and temperature of each light need cataloging. The lumen and temperature information is vital in assessing compliance with the International Dark Sky Community guidelines.

Future teams will need to update sky quality measurements for both the IDSP and the IDSC. Information regarding measurements should be prepared before arriving at the project center. Examples of preparation would involve prior knowledge of moon phases and calibrating the sky quality meters.

Conclusion

The culmination of work leads the 2017 Dark Sky Team to believe that it is very possible for Bar Harbor to become an International Dark Sky Community (IDSC) in future years. An application for IDSC will be made possible through the work of future WPI Dark Sky Teams. The designation will make Bar Harbor the first IDSC on the east coast of the United States.

The goal of the dark sky movement is to decrease light pollution around the world. This movement was pioneered by the International Dark-Sky Association (IDA). The IDA is a steward for the night sky and works worldwide in combatting light pollution. The IDA designates institutions that are also protectors of the night sky. Previous work by dark sky teams from WPI have led to a provisional application for Acadia National Park (ANP) to be designated as an International Dark Sky Park. Past research has shown that the outlying towns adjacent to ANP contribute the majority of the light pollution that is degrading the quality of the night sky within the park. To preserve the night sky, these outlying towns need to reduce their light pollution. To achieve this goal, this year's team worked in Bar Harbor to assess the feasibility of Bar Harbor becoming an IDSC. If Bar Harbor follows the IDSC guidelines, it will help limit the production of light pollution within the town, and therefore increase the quality of the night sky in the surrounding areas.

To complete the assessment of Bar Harbor, the team inventoried all of the municipal lights, assessed the lighting of businesses in the downtown area, helped update the Conservation Commission’s Open Space Plan, measured quality of the night sky, and created an educational website focused on dark-sky friendly changes and behaviors.

The inventory of all municipal lights in Bar Harbor shows that 31 out of 614 of the municipal lights were fully shielded as specified in the IDSC guidelines. The IDSC guidelines also have specifications and lumen output and temperature of the bulb but future teams will address this issue. Once the ordinances for the town of Bar Harbor are changed to meet IDSC guidelines, the town will have 5 years to change noncompliant lights to compliant lights. The change from noncompliant to compliant will decrease the amount of light pollution given off by the town and thus improve the quality of the night sky in the surrounding areas.

The team assessed the outdoor lighting of the businesses in the downtown area of Bar Harbor. A tax map was used and color coded according to how the percentage of fully shielded

lights they had. It was found that a majority of businesses had many improperly shielded lighting fixtures. Less than 10% of all businesses inventoried had all fully shielded lighting fixtures.

The team worked closely with the Conservation Commission of Bar Harbor to update the Open Space Plan for Bar Harbor. The Open Space Plan is the future plan for Bar Harbor's conservation goals. The updates to the plan included ordinances that would need to be passed in order to qualify for the IDSC status. Future teams will continue working with the Conservation Commission in order to ensure that these ordinances are passed.

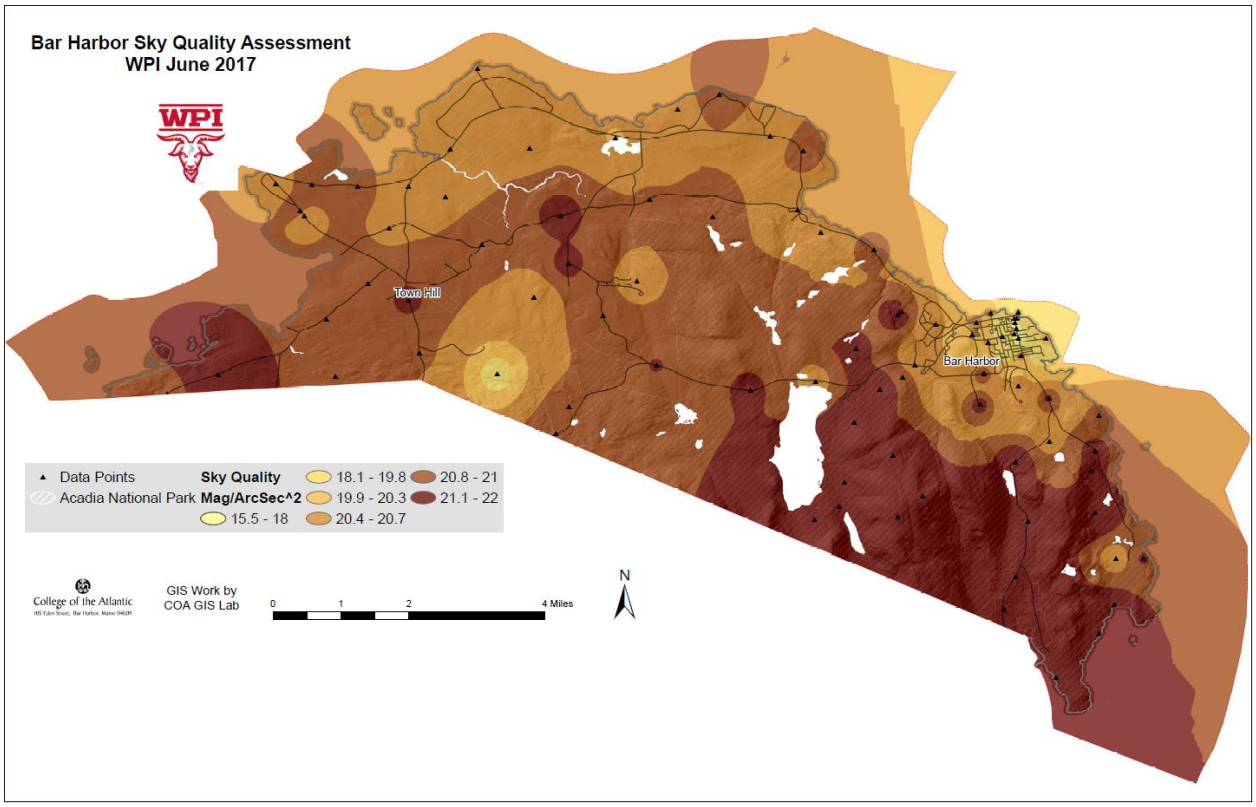

Figure 21: The 2017 heat map of the town of Bar Harbor

To assess the current quality of the night sky over Bar Harbor, the team took sky quality measurements throughout the town. The team used a type of sky quality meter known as a SQM-LU-DL, developed by Unihedron, to take these measurements. These measurements were then combined with the corresponding GPS coordinates to create a heat map of Bar Harbor. The heat map, shown in Figure 21 shows the brightest and darkest areas of the night sky in the town of Bar Harbor. As shown in Figure 21, the downtown area of Bar Harbor has the highest concentration of light pollution thus is the brightest spot. The bright spot in middle of the map is the location of Mount Desert Island High School; which is the second brightest area on the map.

Similar to downtown Bar Harbor, there are bright improperly shielded lights at the high school.

Additionally, the team created a website that can be used to educate the public about the causes and concerns regarding light pollution as well as what they can do to help. For example, one section of the website has an interactive calculator showing cost savings for homeowners and small businesses if they theoretically switched to compliant lighting. It also includes information such as what is a fully shielded light. This website will be a permanent solution and qualifies as one of the education requirements for the future IDSC application.

The issue of light pollution is not limited to Mount Desert Island. It is not limited to Acadia National Park. It is not limited to national parks in general. Light pollution is a worldwide phenomenon that increases every single year. It affects the beauty of the night sky and can possibly lead to deadly effects on both humans and animals. This is an issue that needs to be addressed. To address this issue in ANP, The WPI 2017 Dark Sky team went into the town of Bar Harbor to assess whether or not the town could qualify as an International Dark Sky Community. After assessing Bar Harbor, it was found to be a near perfect candidate. With future work from WPI and town officials, Bar Harbor will join the ranks of stewards for the night sky. With continual effort, people will be able to enjoy a pristine night sky for generations to come.

References

Academo. (2016). Bortle scale. Retrieved from https://academo.org/demos/bortle-scale/

Acadia Park Kayak Tours. (2012). Night tours. Retrieved from http://www.acadiaparkkayak.com/Night_Tours.html

Alsoby, R. A., Muntz, L. J., Ogren, L. M., & Sinkler, C. (2015). *Dark sky 2015*. Worcester: Worcester Polytechnic Institute.

Bar Harbor Planning Board, & Bar Harbor Town Council. (2007). Comprehensive plan update bar harbor, maine. Retrieved from http://digitalcommons.library.umaine.edu/towndocs/134/

BestEnergyProviders. (2015). 04609, bar harbor | electricity providers by zip code. Retrieved from http://www.bestenergyproviders.com/04609-zipcode-energy-providers.html

Bortle, J. E. (2006). Gauging light pollution: The bortle dark-sky scale. Retrieved from http://www.skyandtelescope.com/astronomy-resources/light-pollution-and-astronomy-the-bortle-dark-sky-scale/

Carello, R. W., Carmichael, R. T., Hedberg, K. L., & Plenefisch, P. H. (2014). *Dark sky 2014*. Worcester: Worcester Polytechnic Institute.

Carello, R., Carmichael, R., Hedberg, K., & Plenefisch, P. (2014). *A heatmap generated from over 8000 sky quality measurements during the 2014 dark sky IQP*. Worcester: Worcester Polytechnic Institute.

City of Flagstaff. (2017). Lights out flagstaff. Retrieved from http://www.flagstaff.az.gov/index.aspx?nid=3336

CostHelper, I. (2017). Motion sensor light cost Retrieved from http://home.costhelper.com/motion-sensor-lights.html

Diamond, I. M., Jacobson, G. S., Reuter, T. I., & Shira, G. D. (2016). *Dark sky 2016*. Worcester: Worcester Polytechnic Institute.

Donnelly, S. A. (2017). Why stargazers are flocking to mount desert island and looking up. Retrieved from http://downeast.com/starstruck/

Dovey, D., & IBT Media Inc. (2014). Too much light? cancer among the adverse effects caused by light pollution. Retrieved from http://www.medicaldaily.com/too-much-light-cancer-among-adverse-effects-caused-light-pollution-284354

Eartheasy.com. (2014). LED light bulbs: Comparison charts. Retrieved from http://eartheasy.com/live_led_bulbs_comparison.html

Falchi, F., Cinzano, P., Duriscoe, D., Kyba, C. C. M., Elvidge, C. D., Baugh, K., . . . Furgoni, R. (2016a). *The new world atlas of artificial night the advancement of science. distributed* doi:10.1126/sciadv.1600377

Falchi, F., Cinzano, P., Duriscoe, D., Kyba, C. C. M., Elvidge, C. D., Baugh, K., . . . Furgoni, R. (2016b). *The new world atlas of artificial night the advancement of science. distributed* doi:10.1126/sciadv.1600377

Falchi, F., Cinzano, P., Elvidge, C. D., Keith, D. M., & Haim, A. (2011). Limiting the impact of light pollution on human health, environment and stellar visibility. *Journal of Environmental Management, 92*(10), 2714-2722. doi:10.1016/j.jenvman.2011.06.029

Farahat, A., Florea, A., Martinez Lastra, J. L., Branas, C., & Azcondo Sanchez, F. J. (2015). Energy efficiency considerations for LED-based lighting of multipurpose outdoor environments. *IEEE Journal of Emerging and Selected Topics in Power Electronics, 3*(3), 599-608. doi:10.1109/JESTPE.2015.2453231

Firebaugh, A., & Haynes, K. J. (2016). Experimental tests of light-pollution impacts on nocturnal insects courtship and dispersal. *Oecologia, 182*(4), 1203-1211. doi:10.1007/s00442-016-3723-1
Gabor, H., Gyorgy, K., Peter, M., & Bruce, R. (2009). Polarized light pollution: A new kind of ecological photopollution. *Frontiers in Ecology and the Environment, 7*(6), 317-325. Retrieved from http://www.jstor.org/stable/25595173?pq-origsite=summon&seq=1#page_scan_tab_contents
Gallaway, T., Olsen, R. N., & Mitchell, D. M. (2010). The economics of global light pollution. *Ecological Economics, 69*(3), 658- 665. Retrieved from http://dx.doi.org/10.1016/j.ecolecon.2009.10.003
Gaston, K. J., Davies, T. W., Bennie Jonathan, & Hopkins, J. (2012). REVIEW: Reducing the ecological consequences of the night-time light pollution: Options and developments. *Journal of Applied Ecology, 49*(6), 1256-1266. doi:10.1111/j.1365-2664.2012.02212.x
Gaston, K. J., Gaston, S., Bennie, J., & Hopkins, J. (2015). Benefits and costs of artificial nighttime lighting of the environment. *Environmental Reviews, 23* doi://dx.doi.org/10.1139/er-2014-0041
General Code. (2016). Town of bar harbor, ME site plan review. Retrieved from https://ecode360.com/8375391
Ho, C. Y., & Lin, H. T. (2015). Analysis of and control policies for light pollution from advertising signs in twain. *Lighting Research & Technology, 47*(8), 931-944. doi://doi.org/10.1177/1477153514559795
homedepot. (2017). Showing results for "low sodium lights". Retrieved from http://www.homedepot.com/s/low%2520sodium%2520lights?NCNI-5
International Dark-Sky Association. (2015a). *Horseshoe bay (city)*
International Dark-Sky Association. (2015b). IDA sky tier designations. Retrieved from http://darksky.org/wp-content/uploads/2015/08/IDA_sky_brightness_tiers.png
International Dark-Sky Association. (2015c). International Dark-Sky Association dark sky park program guidelines. Retrieved from http://darksky.org/wp-content/uploads/bsk-pdf-manager/IDSP_Guidelines_Oct2015_23.pdf
International Dark-Sky Association. (2016a). 5 popular myths about LED streetlights. Retrieved from http://darksky.org/5-popular-myths-about-led-streetlights/
International Dark-Sky Association. (2016b). About IDA. Retrieved from http://darksky.org/about
International Dark-Sky Association. (2016c). Education and outreach. Retrieved from http://darksky.org/our-work/education-and-outreach/
International Dark-Sky Association. (2016d). How to conduct A sky quality survey. Retrieved from http://darksky.org/idsp/sky-quality-survey/
International Dark-Sky Association. (2017a). Big park / village of oak creek, arizona (U.S.). Retrieved from http://www.darksky.org/idsp/communities/bigpark/
International Dark-Sky Association. (2017b). Cedar breaks national monument (U.S.). Retrieved from http://darksky.org/idsp/parks/cedarbreaks/
International Dark-Sky Association. (2017c). Flagstaff, arizona (U.S.). Retrieved from http://www.darksky.org/idsp/communities/flagstaff/
International Dark-Sky Association. (2017d). Grand canyon national park (U.S). Retrieved from http://darksky.org/idsp/parks/grandcanyon/
International Dark-Sky Association. (2017e). International dark sky communities. Retrieved from http://www.darksky.org/idsp/communities/

International Dark-Sky Association. (2017f). International dark sky parks. Retrieved from http://darksky.org/idsp/parks/
International Dark-Sky Association. (2017g). Light pollution wastes energy and money. Retrieved from http://darksky.org/light-pollution/energy-waste/
International Dark-Sky Association. (2017h). Natural bridges national monument (U.S.). Retrieved from http://darksky.org/idsp/parks/naturalbridges/
International Dark-Sky Association. (2017i). Outdoor lighting basics. Retrieved from http://darksky.org/lighting/lighting-basics/
International Dark-Sky Association. (2017j). Sedona, arizona (U.S.). Retrieved from http://www.darksky.org/idsp/communities/sedona/
International Dark-Sky Association. (2017k). Waterton-glacier international peace park (canada / U.S.). Retrieved from http://darksky.org/idsp/parks/waterton-glacier/
International Dark-Sky Association's Practical Guide 1: Introduction to Light Pollution. (2009). Dark skies awareness: Light pollution - what is it and why is it important to know? Retrieved from http://www.darkskiesawareness.org/faq-what-is-lp.php
Kane, S. (2016). These incredible maps show the most light-polluted places in the world. Retrieved from http://www.businessinsider.com/worst-light-pollution-skyglow-map-2016-6/#a-new-global-atlas-of-light-pollution-isnt-comforting-1
Larsen, A. J., Morse, J. B., Rolon, M., & Roth, S. A. (2013). *Dark sky project*. Worcester: Worcester Polytechnic Institute.
Maine State Planning Office, Hancock County Planning Commission, Acadia National Park, The Island Astronomy Institute, Kennebec Valley Council of Governments, & Washington County Council of Governments. (2013). Technical assistance bulletin lighting manual promoting quantity outdoor lighting in your community. Retrieved from https://www1.maine.gov/dacf/municipalplanning/docs/lightingmanual.pdf
Maine.gov. (2012a). Electric utilities in maine. Retrieved from http://www.maine.gov/meopa/utilities/electric/delivery.html
Maine.gov. (2012b). Electricity supply. Retrieved from http://www.maine.gov/meopa/utilities/electric/supply.html
Matus, D. (2017). Top 5 cities that never sleep. Retrieved from http://traveltips.usatoday.com/top-5-cities-never-sleep-109183.html
National Conference of State Legislatures. (2016). State shut out light pollution. Retrieved from http://www.ncsl.org/research/environment-and-natural-resources/states-shut-out-light-pollution.aspx
National Park Service U.S. Department of the Interior. (2015). A call to action. Retrieved from https://www.nps.gov/calltoaction/
National Park Service U.S. Department of the Interior. (2017). About us. Retrieved from https://www.nps.gov/aboutus/index.htm
Nature Bright. (2015). 5 ways light pollution affects your health. Retrieved from http://www.naturebright.com/research-news/5-ways-light-pollution-affects-your-health/
Panko, B., & American Association for the Advancement of Science. (2016). Nighttime light pollution covers nearly 80% of the globe. Retrieved from http://www.sciencemag.org/news/2016/06/nighttime-light-pollution-covers-nearly-80-globe
Quimby, R. S. (2006). *Photonics and lasers*. Hoboken, NJ: Wiley-Interscience.

Sahin, L., & Figueiro, M. G. (2013). Alerting effects of short-wavelength (blue) and long-wavelength (red) lights in the afternoon. *Physiology & Behavior, 116-117*, 1-7. Retrieved from http://dx.doi.org/10.1016/j.physbeh.2013.03.014
Town of Bar Harbor, ME. (2014a). Acadia national park | bar harbor, ME -official website. Retrieved from http://www.barharbormaine.gov/225/Acadia-National-Park
Town of Bar Harbor, ME. (2014b). Town of bar harbor signage - frequently asked question section 125-67(BB). Retrieved from http://www.barharbormaine.gov/DocumentCenter/View/650
Trotter, B., & BDN Staff. (2008). Bar harbor adopts cell-tower rules, dark-sky lighting. Retrieved from http://bangordailynews.com/2008/11/05/politics/bar-harbor-adopts-celltower-rules-darksky-lighting/
Unihedron, & Tekatch, A.Sky quality meter. Retrieved from http://www.unihedron.com/projects/darksky/
Welch, D., & Tekatch, A. (2017a). Sky quality meter -L. Retrieved from http://www.unihedron.com/projects/sqm-l/
Welch, D., & Tekatch, A. (2017b). Sky quality meter -LU-DL. Retrieved from http://www.unihedron.com/projects/sqm-lu-dl/

Appendix A: IDSP Guidelines

INTERNATIONAL DARK-SKY ASSOCIATION

3223 N First Ave - Tucson Arizona 85719 - 520-293-3198 - www.darksky.org

TO PRESERVE AND PROTECT THE NIGHTTIME ENVIRONMENT AND OUR HERITAGE OF DARK SKIES THROUGH ENVIRONMENTALLY RESPONSIBLE OUTDOOR LIGHTING

International Dark-Sky Association
Dark Sky Park Program Guidelines

October 2015

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DEFINITION OF AN IDA DARK SKY PARK

An IDA Dark Sky Park (DSP) is a land possessing an exceptional or distinguished quality of starry nights and a nocturnal environment that is specifically protected for its scientific, natural, educational, cultural heritage, and/or public enjoyment. The land may be publicly owned, or privately owned provided that the landowner(s) consent to the right of permanent, ongoing public access to specific areas included in the IDA designation.

GOALS OF DARK SKY PARK CREATION

- To identify, restore, and protect public lands (national, state, provincial, and other parks and notable public lands), and publicly accessible private lands, with exceptional commitment to, and success in implementing, the ideals of dark sky preservation and outstanding night skies.
- To promote eco- and astro-tourism;
- To promote protection of nocturnal habitat and human health, public enjoyment of the night sky and its heritage, and/or areas ideal for professional and amateur astronomy;
- To encourage park administrators to recognize dark skies as a valuable resource in need of proactive protection;
- To provide international recognition for such parks;
- To encourage parks and similar public entities to become environmental leaders on dark sky issues by communicating the importance of dark skies to the general public and surrounding communities, and by providing an example of what is possible with proper stewardship.

BENEFITS

Achieving this designation brings recognition of the efforts a park has made towards protecting dark skies. It will raise the awareness of the park, staff, visitors, and the surrounding community. A DSP designation entitles the park to display the IDA DSP logo in official park publications and promotions, and use of this logo by commercial or other groups within the community when identifying the park area itself (e.g. an organization can say "located in Cherry Springs State Park, an IDA Dark Sky Park" or other words to the same effect). IDA will maintain a web page identifying and describing all DSPs. The park agency may also identify IDA as a park partner and must erect a public sign in the park announcing the Dark Sky Park status.

ELIGIBILITY

To be eligible for consideration as a DSP, a candidate Park must meet all of the following requirements:

A) All protected public lands, whether managed by national, state, provincial, or local agencies, are eligible. These may include parks, refuges, forests, wilderness areas, monuments, protected rivers, or other categories of protected lands; **AND**

B) Private lands whose owners consent to regular nighttime public access to designated areas of their property in perpetuity are also eligible. In order to ensure accessibility, the landowner(s) must allow the public to transit any part(s) of the property not included in the formally declared DSP as required to reach designated viewing areas. Public access to public or private lands may be subject to a nominal entry fee, but must not be contingent on the required paid use of any other product, service, program or facility available at the site. Collectively, all public or private lands contemplated in items (A) and (B) of this section are hereafter referred to as "parks;" **AND**

C) Regular visitation by the public is essential to meet the goals of the IDSP program. The Park must provide the opportunity for public nighttime access, with or without supervision. A portion of designated land may meet this requirement, or access must be available for a fraction of the length of the night. In some cases, such as when working with areas that protect endangered wildlife, this requirement may be adjusted; **AND**

D) The Park must provide an exceptional dark sky resource, relative to the communities and cities that surround it. Core night sky quality must fit in one of the three tier qualifications Gold, Silver, or Bronze. See Sky Quality Tiers Section.

MINIMUM REQUIREMENTS FOR ALL PARKS

A) A quality comprehensive Lightscape Management Plan (LMP) with the following minimum standards (see "Lightscape Management Plan Guidelines" section for more details):

   i. New, current, and retrofitted lighting must meet the Park's LMP (which must meet the "Lightscape Management Plan Guidelines" included in this document). The RASC/IDA Guidelines for Outdoor Lighting (GOL) should be consulted in creating the Park's LMP. These guidelines may be found on IDA's website (http://bit.ly/1NYjY9D); **AND**

   ii. Included policy for determining whether an area should or should not be lighted, at what times an area should or should not be lighted, and appropriate illumination levels; **AND**

   iii. Fully shielded fixtures are standard throughout the Park. 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; **AND**

   iv. Methods for determining the appropriate type of lamp (color, 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 color temperature (CCT) of lamps installed in the Park shall not exceed 3000 K, and a CCT of 2000 K or less is recommended to minimize the impact on most wildlife; **AND**

   v. The LMP should conform to or surpass applicable policy in the appropriate local jurisdiction concerning lighting and dark sky protection as well as other applicable guidance and laws (e.g. environmental leadership programs, agency orders, wilderness act, energy management guidelines).

B) The Park's commitment to dark skies and lightscape management, as shown by:

i. The Park recognizes dark skies as an important natural, cultural, and/or scientific resource value as demonstrated by inclusion in approved management documents (e.g. General Management Plan, Resource Management Plan, Facility Development Plan), **AND**

ii. At least two-thirds (67%) of existing outdoor lighting fixtures within Park boundaries conform to the Park's LMP at the time of IDA DSP application (or an alternative fraction approved by the IDA Dark Sky Places Committee (DSPC) **AND**;

iii. Lighting Inventory and a plan to bring 90% of outdoor lighting into compliance with the Park's LMP within five (5) years of receiving an IDA designation, as well as a written commitment to bring the Sanctuary into 100% compliance within ten (10) years of designation; **AND**

iv. A measurement program must be maintained either by the Park, private landowner(s), or by another public or private organization (university, research center, IDA chapter, astronomy club, etc.) to follow the evolution of light pollution in the DSP and assert that the night sky quality does not degrade; **AND**

v. The Park has set a leadership example in the restoration of dark skies by implementing at least one of the following:

(1) Producing at least one "night sky friendly" lighting project that is publicly visible and interpreted, **OR**

(2) Involving at least two external partners in dark sky restoration efforts (e.g. chamber of commerce, power utility, university research, tribal nations, environmental groups, conservation groups, natural history association), **OR**

(3) Cooperation with at least two nearby municipalities that results in adoption of lighting codes that improve sky conditions in the Park, **OR**

(4) Inventorying and monitoring night sky quality and using results to educate the public, **OR**

(5) A combination of the above or an alternative restoration project may be suggested.

C) The Park's commitment to public education.

i. The importance of dark skies/natural darkness and the benefits of good lighting should be part of Park interpretation/outreach programs. (Dark skies education refers not only to astronomy education but also education about wildlife, energy efficiency, safety, and human health.) If Park typically provides interpretive programs, then dark skies must be one of the central themes communicated through on-site interpretation. If interpretive programs are not typically offered, then extensive publications, flyers, press releases, media, social media, or other outreach are appropriate substitutes, **AND**

ii. Dedicated programming must occur at least four times per year, however, more events are preferable. These events may highlight the dark night sky in any appropriate way (e.g. cultural or historic value, importance to wildlife, astronomical or stargazing events, and a portion of the event must include dark sky awareness or preservation specifically including reference to the IDA and what it means to be an DSP).

D) IDA reserves the right to request stronger or alternative requirements if deemed appropriate and deny DSP status if these requirements are not met. Any requests by IDA will be made through direct contact and communication with the Park.

E) Once established, the Park must erect and maintain a sign indicating the IDA Dark Sky Park designation along a roadway entrance, along a footpath entrance if no roadway exists, or a visitor contact center. Sign must include DSP text and logo. With Dark Sky Places Committee (DSPC) approval, an alternative wording may be used, such as Dark Sky Wilderness, Night Sky Refuge, or similar. The Park may include the awarded tier if desired. Once the sign is erected a picture documenting this sign must be taken and sent to IDA for records along with a description of its location.

F) A DSP designation is subject to regular review by IDA and possible revocation if minimum requirements are not maintained. More details may be found in the "Reassessment of IDA DSP designation" section.

G) The Park will submit an annual report to IDA by 1 October of each year detailing activities and progress towards fulfilling IDA DSP goals during the previous year. The report~~s also~~ serves to document that Parks continue to meet minimum program requirements, are sustaining partnership, outreach, and interpretive efforts, and are making adequate progress toward at least 90% compliance with LMPs. The report should include dates and brief descriptions of interpretive events, lighting retrofit projects, community outreach, etc. It should also provide information on any new lands acquired since designation and/or the most recent prior report, as well as any potential future sale of land that may result in reassessment of DSP status (see "Sale or Transfer of Land Ownership," below). Samples of printed materials and press articles should also be included. The annual report should not require a lot of time to produce, as it should be a compilation of information generated during the previous year. A form will be provided to aid in the compilation of these details. Electronic submission of these documents is required in MS Word or PDF format. If the annual report is not sent in a timely fashion, IDA may suspend the IDA DSP's status until the annual reporting requirements have been met.

H) Sky Quality Tiers

   i. Once the minimum requirements have been met, an IDA DSP is designated by IDA at one of three levels – Gold, Silver, or Bronze indicating the estimated sky quality of the site.

   ii. Gold corresponds to natural, non-polluted or near-natural night.

   iii. Silver corresponds to nighttime environments that have minor impacts from light pollution and other artificial light disturbance, yet still display good quality night skies and has exemplary nighttime lightscapes.

   iv. Bronze corresponds to areas not meeting the requirements of Silver, yet still offering people, plants, and animals a respite from an otherwise degraded nocturnal environment.

   v. The determination of whether the minimum sky quality standard has been met and what tier will be awarded will be decided by IDA based on submitted information.

   vi. For a breakdown of requirements for each tier designation, see the table on the next page:

GOLD, SILVER, AND BRONZE TIER DESIGNATION

Indicator	Gold	Silver	Bronze
Philosophy	Nighttime environments that have negligible to minor impacts from light pollution and other artificial light disturbance, yet still display outstanding quality night skies and have superior nighttime lightscapes.	Nighttime environments that have minor impacts from light pollution and other artificial light disturbance, yet still display good quality night skies and have exemplary nighttime lightscapes.	Areas not meeting the requirements of *Silver*, yet still offering people, plants, and animals a respite from a degraded nocturnal environment and suitable for communicating the issue of light pollution and connecting people with the many aspects of the night sky.
Artificial Light and Skyglow	Typical observer is not distracted by glary light sources. Light domes are only dim and restricted to sky close to horizon.	Point light sources and glary lights do not dominate nighttime scene. Light domes present around horizon but do not stretch to zenith.	Areas with greater artificial light and skyglow than *Silver*, but where aspects of the natural sky are still visible.
Observable Sky Phenomena	The full array of visible sky phenomena can be viewed—e.g. aurora, airglow, Milky Way, zodiacal light, and faint meteors.	Brighter sky phenomena can be regularly viewed, with fainter ones sometimes visible. Milky Way is visible in summer and winter.	Many sky phenomena cannot be seen. Milky Way is seen when pointed out to the average person, as is the Andromeda Galaxy.
Nocturnal Environment	Area is devoid of obvious lights that can cause wildlife disorientation. Artificial light levels are thought to be below the threshold for plant and animal impact. Ecological processes related to nocturnality are unaltered. No lighting atop towers or buildings within Park boundary.	Areas that have minor to moderate ground illumination from artificial skyglow. Lights that may cause disorientation to wildlife are distant. Disruption of ecological processes is minor with no impairment to plants or wildlife.	Areas with greater nocturnal impact than *Silver*, but where ecosystems are still functional.
Visual Limiting Magnitude	Equal or greater than 6.8 under clear skies and good seeing conditions	6.0 to 6.7 under clear skies and good conditions	5.0 to 5.9 under clear skies and good seeing conditions
Bortle Sky Class	1-3	3-5	5-6
Unihedron Sky Quality Meter	> 21.75	21.74-21.00	20.99-20.00

LIGHTING INVENTORY

A) When there are numerous outdoor lights it is acceptable to group lights by facility or area. Whether the fixtures are fully shielded, are special purpose fixtures under 500 initial lumens, and what the lighting application is should be noted for each fixture or group of fixtures.

B) The Lighting Inventory should also include a plan or stated commitment to bring all outdoor lights into compliance with the Lightscape Management Plan (LMP).

C) Daytime photographs or manufacturer diagrams of each fixture type may also accompany the inventory.

A sample table from portion of a Lighting Inventory:

Location	Fixture	Fully-Shielded	Special Purpose <500 lumens	Application	Conformity with LMP
Visitor Center	12 fixtures on 14' pole, 70 W HPS	YES	NO	Parking log, timer off at 10pm	YES
	2 door lights, 100 W MH	YES	NO	Building egress	YES
	6 bollard (post) lights, 32 W CFL	NO	NO	Walkway	NO – see plan
Historic Cabin	2 carriage style lights at doorways, 40 W incandescent	NO	YES	Historic Preservation, egress	YES
Maintenance Yard	6 wall packs, 250 W MH	NO	NO	Occasional night operations	NO – see plan
	8 Glarebusters, 11 W CFL	YES	NO	Egress, security	YES

Lamps of 500 lumens output and less include: 33 watt incandescent and less; 25 watt tungsten (quartz) halogen and less; 8 watt linear fluorescent and less; 10 watt compact fluorescent and less.

LIGHTSCAPE MANAGEMENT PLAN GUIDELINES

The LMP should embody good lighting ethics and recognized best practices such as:

A) Meet or exceed policies regarding outdoor lighting of the appropriate local jurisdiction.

B) Only use light when it is needed, where it is needed, and in the appropriate amount for a specific task.

C) Outdoor lighting fixtures should be fully shielded and make appropriate use of timers and motion sensors.

i. Lighting of less than 500 initial lumens may be unshielded for special purposes, such as historical preservation. The approved special uses should be stated in the LMP. IDA will scrutinize these uses to ensure that Park lighting is a suitable example of good lighting for the public and protects the nighttime environment to the maximum practical extent. IDA may request additional descriptions, photographs, or drawings of these lights. These lights are not exempt from the lighting guidelines, and must still be designed to minimize impact to the lightscape.

IDA has collaborated with the Royal Astronomical Society of Canada to develop the RASC/IDA Guidelines for Outdoor Lighting (GOL; http://bit.ly/1NYjY9D). The principles embodied in these guidelines should be adopted as part of the LMP for the Park. If there are provisions of the GOL that are not appropriate for the Park, the GOL may be amended or substituted with more suitable guidelines. IDA will review the modifications or substitution and determine on a case-by-case basis if the changes are acceptable for the individual Park.

PROVISIONAL STATUS

A) In some cases, a Park interested in being designated may lack the resources to make a successful application. If minimum sky quality criteria and appropriate outreach requirements have been met, a Park may apply for Provisional status. Provisional status recognizes the Park's ongoing work to become an IDA DSP and is intended to be used as a leverage point to enable the necessary lighting upgrades or retrofits and policy changes.

B) To be considered for a Provisional status, send a nomination package to support the following needed information:

   i. Initial sky quality measurements;
   ii. The minimum quality night sky described under "Eligibility" must be met in order to attain at least a Bronze DSP designation.
   iii. Documented intent to create and support a DSP;
   iv. An action plan describing how the aspiring Park will meet minimum requirements.

C) Provisional status expires after three (3) years. At any time before the end of its Provisional status, a Park may reapply for full status. Material submitted for the removal of Provisional status may be an addendum to the initial application as long as the material includes a current assessment of night sky quality, goals, outreach, and programs listed in the original application.

GUIDELINES ON DSP PROCESS

NOMINATION

The nomination may be initiated by an IDA qualified nominator who has personally reviewed a Park's outdoor lighting and commitment to natural lightscapes, or by a member of the Park staff who maintains an IDA membership. An IDA qualified nominator is an IDA member whose nominator status is approved in advance by the IDA Dark Sky Places Program Manager. The nomination may be a joint effort between Park administration/ownership and the qualified nominator. Nominators are encouraged to correspond with IDA staff and the Park throughout this process—from first consideration of a DSP through the final submission package.

DSP APPLICATION PROCESS

STEPS FOR APPLICANT

A) Initial contact with IDA by phone or email to discuss the process and make recommendations followed by regular contact to consult with IDA staff and to review progress;

B) A formal contact person is designated and their phone, address and email information is forwarded to IDA staff. Before and after designation, any changes to the designated contact person, or person's contact information, must be communicated to IDA in order to ensure timely communication;

C) Upon completion, the Park sends the application to IDA staff for review of the document. IDA staff confirms that the application is complete and ready for submission. The application must be transmitted electronically to IDA in PDF and/or Microsoft Word format.

D) Submit in plenty of time for IDA staff to review and prepare your application to make the bi-monthly deadline that you prefer, as found on http://darksky.org/idsp/parks/. Requests to rush applications will **NOT** be accepted; planning ahead is essential if the Park wishes to meet a specific deadline.

TO BE INCLUDED IN AN IDA DSP SUBMISSION

A) Map(s) of area to be designated. (For larger parks with a minimum total size of 1,000 square km, 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.)

B) Letter of nomination from a qualified IDA member nominator.

C) Letter of support from appropriate Park administrator.

D) Any management documents supporting dark skies and/or natural lightscapes as a valued resource.

E) If it exists, agency/departmental/municipal policy on outdoor lighting and dark sky

protection.

F) Documentation of sky quality, light pollution measures, satellite pictures, maps, photographs, or other evidence that demonstrates the noteworthiness of the resource. Measurements of night sky brightness using an approved night sky brightness meter (NSBM), such as the Unihedron Sky Quality Meter or Dark Sky Meter iPhone app, showing at least twelve (12) locations within the Park. Measurements should document the approximate darkest and brightest areas of the Park. Data included in the application must contain an updated survey of the Park completed no more than two years before the application's submission along with any other relevant surveys. Learn more about creating a night sky quality survey on IDA's website http://darksky.org/idsp/sky-quality-survey/.

G) Lightscape Management Plan.

H) Documentation signed by Park administrator showing a Lighting Inventory of the Park and a plan to bring 90% of outdoor lighting into compliance with the IDA-DSP-GOL within five (5) years.

I) Description of a restoration project (e.g. lighting project, community outreach, etc.).

J) Description of interpretive program or interpretive products related to dark skies/natural darkness. Any related examples of successful education (photos, documentation of student projects, etc.)

K) Future plans

L) Proposed alternative wording for DSP (e.g. Dark Sky Wilderness, Dark Sky Refuge, etc.), if desired.

M) If the candidate DSP is a privately held property, documentary evidence of legal covenants ensuring public access and transit outlined in the section "Eligibility", Item (B).

Examples of completed, successful past applications are available on http://darksky.org/idsp/parks/.

IDA REVIEW PROCESS

A) Applications are sent to the DSPC on a bi-monthly basis. Applications not ready for submission by the current deadline for committee consideration will be considered at the following regular committee meeting.

B) IDA staff forwards application to the DSPC for review at the deadline. Approval of application by DSPC is by a 2/3-majority vote, or denial with reasons and recommendations. The DSPC committee may consider the application for up to two months after a regularly scheduled meeting before releasing a decision.

C) Determination of sky quality tier (Gold, Silver, Bronze) takes place in consultation with the DSPC.

D) The decision of the DSPC on a pending DSP application is forwarded to the IDA Board of Directors and is subject to a 10-day period in which the Board has the formal right to veto the designation should it perceive a problem with the application. Failure of the Board to act

within 10 days shall constitute tacit endorsement of the DSPC recommendation. This effect shall be binding on all parties involved.

E) If approved by the DSPC the location will be notified and the Program Manager will develop a media announcement plan with the location. The Park has the right to choose when DSP designation is made public but must organize its announcement to coincide with IDA's unless otherwise discussed and agreed upon by both parties.

F) If approved, the Park is awarded the DSP designation and listed along with their application on the IDA website. By submitting the application the Park consents to have their complete application and all supporting materials posted to IDA's website unless otherwise stated. IDA realizes that certain circumstances surrounding a DSP application may cause some potential authors of letters of support (or opposition) to feel uneasy about publicly declaring their opinions about the IDA designation. In the interest of providing the Dark Sky Places Committee with as full a picture of community sentiment about applications as possible, it is possible for some letters to be suppressed from online publication if it is felt that making the letters publicly available will subject their authors to retaliation or harassment. A prospective DSP seeking this protection for letter writers must make a formal written request to that effect. The Program Manager must approve suppression of publication of any part of an application. Note that suppression of online publication does not prevent either the Committee or the IDA Board of Directors from reading all submitted letters.

G) If denied, a letter is sent to applicant outlining elements of the application that need improvement and specific recommendations for ways to remedy them. Applications can be resubmitted for future consideration after remediation is complete. Prior rejection shall not prejudice an applicant against future consideration by IDA for the same or an alternate category of Dark Sky Places designation.

H) IDA will make periodic checks after the designation is granted in order to ensure that the minimum Program standards are being upheld by the DSP and to ensure adequate progress is made toward the end of achieving the Program objectives.

REASSESSMENT OF IDA DSP DESIGNATIONS

A DSP designation is intended to represent the beginning of an ongoing relationship between the Park and IDA to our mutual benefit. IDA will periodically review the nature of that relationship in the required annual reports (see "Minimum Requirements For All Parks", Item G). From time to time, IDA also receives comments from visitors to DSPs that raise concerns about the veracity and timeliness of information provided to IDA by DSPs. IDA may, at its discretion, investigate claims in which it is alleged that DSPs are not living up to commitments made to IDA and the public in their applications to the Program. This section details the IDA procedure for carrying out such investigations, and the rights of DSPs in such matters.

Investigation and Due Process

An allegation of impropriety concerning any of the elements of participation in the Program outlined in this document is subject to IDA investigation and potential remedial action including temporary suspension and/or permanent revocation of the DSP designation. IDA staff shall perform due diligence in gathering facts concerning such allegations it deems credible, and will

prepare a report of its findings for consideration by the DSPC. The DSPC commits to weighing the evidence fairly and impartially, and to seek to resolve disputes whenever possible through dialog. A DSP subject to an investigation shall be notified in a timely manner and solicited for evidence contrary to the specifics of the allegation at hand. The resolution manner of dialog shall be emphasized from the beginning, and the DSP will be given an opportunity to correct any deficiencies with regard to the Program guidelines established by the IDA investigation within a reasonable time period to be prescribed by the DSPC.

Failure to achieve consensus through these means risks a DSPC recommendation for suspension or revocation of the DSP designation. If made, such a recommendation will be forwarded to the IDA Board of Directors for formal ratification before coming into force. The Board's decision on any disciplinary matters involving a DSP shall be considered definitive and binding.

Any DSP so investigated has the right to review the allegations against it and all factual information collected by IDA pertinent to the allegations.

Reinstatement Following Suspension

If the DSPC recommends a suspension of a DSP's IDA designation, and the Board ratifies the suspension, the DSP shall be immediately notified. The status of a suspended DSP shall be changed to "Provisional" in all IDA communications until the designation is reinstated or revoked; however, the process of obtaining reinstatement of a designation is not the same as that outlined in the "Provisional Status" section of these guidelines.

To obtain reinstatement of a suspended designation, the DSP must provide evidence to the DSPC 's satisfaction that the specific issues identified by the DSPC as grounds for the suspension have been corrected and that all Program guidelines are once again met. The DSPC will consider the evidence presented by the DSP and render a judgment to either

- Accept the reinstatement petition, OR
- Reject the petition and recommend revocation, OR
- Return the petition with further instructions and a defined deadline for a DSP response.

A suspension left unresolved after one (1) year from the date of the Board's assent to the suspension automatically becomes a permanent revocation. Revocation entails removal of the DSP from IDA's roll of approved Dark Sky Places, and from mention on the IDA website and in member and external communications. IDA reserves the right to take legal action against any former DSP whose designation is duly revoked but continues to use the IDA name/logo in advertising, communications, and/or signage.

Sale or Transfer of Land Ownership

IDA considers the rights and privileges outlined here in association with DSP status to be simultaneously permanent and revocable. Furthermore, IDA requires that the responsibilities and obligations of the landowner at the time DSP status is achieved are incumbent upon all future landowner(s) if a participating Park is sold or its title is otherwise transferred to any other public or private owner. A new owner or owners may unilaterally withdraw from participation in the program at any time by indicating these wishes in writing; otherwise, IDA will hold a new owner or owners accountable to the provisions of these guidelines in perpetuity. Any failure of

new ownership to abide by the conditions for continued participation in the program laid out in this document, whether indicated by withdrawal or abandonment of responsibilities, will cause IDA to take action as described above ('Investigation and Due Process') which may result in the permanent revocation of DSP status.

Appendix B: IDSC Guidelines

INTERNATIONAL DARK-SKY ASSOCIATION

3223 N first Ave - Tucson Arizona 85719 - 520-293-3198 - www.darksky.org

TO PRESERVE AND PROTECT THE NIGHTTIME ENVIRONMENT AND OUR HERITAGE OF DARK SKIES THROUGH ENVIRONMENTALLY RESPONSIBLE OUTDOOR LIGHTING

International Dark-Sky Association
Dark Sky Community Guidelines

October 2015

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DEFINITION OF AN IDA DARK SKY COMMUNITY

An IDA Dark Sky Community (DSC) is a town, city, or municipality that has shown exceptional dedication to the preservation of the night sky through the implementation and enforcement of quality lighting codes, dark sky education, and citizen support of dark skies.

GOALS FOR IDA DARK SKY COMMUNITY CREATION

- To identify communities with exceptional commitment to and success in pursuing dark sky preservation and restoration, and their promotion of quality outdoor lighting
- To promote ecotourism
- To promote protection of human health, nocturnal habitats, public enjoyment of the night sky and its heritage, and/or areas ideal for professional and amateur astronomy;
- To provide local, national, and international recognition for such communities
- To promote the ideals of International Dark-Sky Association (IDA) by encouraging communities to identify dark skies as a valuable community asset and goal

BENEFITS

Achieving this designation brings recognition of the efforts made by the Community council, the local government authorities (police department, planning and zoning, etc.), the citizens, and any other public and private organization to protect the night sky and the environment dependent on it. This designation will enhance awareness of dark sky matters to all residents and visitors of the Community.

Designation as an DSC entitles the Community to display the IDA Dark Sky Community logo in official publications, promotions, signs at the entrance or within the Community, and retain the use of this logo by other groups within the Community when identifying the area itself (i.e. a Community can say "Flagstaff, the world's first IDA Dark Sky Community" or in other words to the same effect, for example, an organization within the Community can say "located in Star City, an IDA Dark Sky Community"). IDA will maintain a web page identifying and describing all DSCs available on www.darksky.org.

ELIGIBILITY

Community must have some type of legal organization that is officially recognized by outside groups. This can be in the form of a town, city, municipality, or other legally organized community (such as a urban neighborhoods and subdivisions).

MINIMUM REQUIREMENTS FOR ALL COMMUNITIES

A) A quality comprehensive lighting code like the IDA/IES Model Lighting Ordinance (MLO) with the following minimum standards for permanent lighting installations (more on developing a lighting code and guidelines may be found on our website http://www.darksky.org/outdoorlighting/mlo):

   i) Fully-shielded or full-cutoff standard for all lighting fixtures over 1500 lumens initial lamp output (or equivalent wattages), AND;

   ii) Establishes a threshold of 3000 Kelvins for the allowable correlated color temperature of all lighting fixtures, AND;

   iii) Restrictions on total amount of unshielded lighting, such as a limit on lumens per acre or total site lumens in unshielded fixtures (or equivalent wattages), AND;

   iv) A policy to address over-lighting, such as energy density caps, lumens/acre caps, or maximum illuminance specifications, AND;

   v) A provision that clearly: (1) indicates where, when, and under what circumstances new public outdoor lighting (street lighting and lighting on other public property and rights-of-way) is warranted and will be permitted, and (2) requires that adaptive controls and curfews be employed in all future installations of public outdoor lighting.

B) Community commitment to dark skies and quality lighting as shown by:

   i) City owned lighting conforming with, or committed to conforming with, the lighting code (if the latter, a published plan with a timeline for completion in no more than 5 years), AND;

   ii) Municipal support of dark skies and good lighting as indicated through city publications, flyers, public service announcements, funding of lighting upgrades, etc.

C) Broad Support for dark skies from a wide range of community organizations such as:

   i) Chamber of Commerce

   ii) Local electrical utility

   iii) Local IDA Chapter

   iv) Lighting retailers

   v) Home Owners Association

   vi) Business Improvement Associations

   vii) Others

D) Community commitment to dark skies and education as shown by at least one of the following:

i) Planning and execution of at least two community dark sky awareness events per year. This may be organized through a local astronomy club, municipality, school, etc. AND/OR;

ii) Inclusion of dark sky awareness documents (IDA brochures or Community-created brochures) with other Community informational documents for residents and visitors, AND/OR;

iii) Inclusion of dark sky education in Community schools and curriculum.

E) Success in light pollution control. At least one of the following conditions must be demonstrated:

i) Examples of a minimum of ten projects built under the lighting code, demonstrating effective application of the local lighting code, AND/OR;

ii) Alternative demonstration of success in light pollution control, to be discussed with IDA for compliance.

F) A sky brightness measurement program must be maintained either by the Community or by another public or private organization (university, research center, IDA chapter, astronomy club, etc.) to follow the evolution of light pollution in the DSC.

G) Designation is permanent, but is subject to regular review by IDA and possible revocation if minimum requirements are not maintained. More details may be found in the "Reassessment of DSC designation" section.

H) Periodic checks, through the submission of the annual report due October 1st, will be preformed to ensure that minimum standards and objectives of the program are being upheld and adequate progress is being made. This report is a short 1 to 2-page synopsis of the Community's activities and initiatives throughout the last year. The Borrego Springs, CA report is included on the website for reference http://darksky.org/idsp/communities/.

PROVISIONAL STATUS

- In some cases, a Community interested in the program may lack all of the resources required to achieve a designation outright. If resource unavailability otherwise hinders the progress of a Community's application, that Community may apply for and be granted Provisional status at the discretion of the IDA Board of Directors. Provisional status recognizes the Community's ongoing work to become an IDA Dark Sky Community and is intended as a leverage point to successfully enable actions such as lighting upgrades/retrofits and policy changes.
- Provisional status expires after three (3) years. At any time before the end of this period, a Community may reapply for full status. Material submitted for the removal of provisional status may be an addendum to the initial application as long as the material includes a current assessment of the goals, outreach efforts, and lighting policy listed in the original application and clearly demonstrates that any program requirements left unmet at receipt of the Provisional status have been satisfied.
- To be considered for a provisional status, send a nomination package that includes the following information:

- Documented intent to create and support an IDA Dark Sky Community;
- A description of the circumstances that currently prevent the Community from meeting the minimum Dark Sky Community requirements; and
- An action plan describing steps the aspiring Community will take to meet all program requirements in the specified Provisional status period

GUIDELINES ON THE DSC PROCESS

NOMINATION

The nomination may be initiated by an IDA qualified nominator who has personally reviewed a Community's outdoor lighting and commitment to night sky preservation. To become an IDA qualified nominator, you must be an IDA member and be approved by the IDA Dark Sky Places manager. The nomination may be a joint effort between Community and the qualified nominator. Nominators are encouraged to correspond with IDA staff and the Community throughout this process—from first consideration of a DSC through the final submission package.

DSC APPLICATION PROCESS

STEPS FOR APPLICANT

A) Initial contact with IDA by phone or email to discuss the process and receive recommendations followed by continued contact to update IDA staff on progress and receive continued recommendations;

B) A formal point of contact (POC) person is designated and their phone, address and email information is forwarded to IDA staff. Before and after designation, any changes to this POC, or their information, must be communicated to IDA in order to ensure accurate communication at all times;

C) Official supporting letter for the nomination from elected representatives of the Community, such as the mayor and/or council of a municipality. Any additional letters of support from organizations, clubs, groups, universities, etc.;

D) Upon completion, the Community sends the application to IDA staff for review of the document. IDA staff confirms that the application is complete and ready for submission;

E) Completed application packet in PDF and/or MS Word .doc format sent electronically to International Dark Sky Places committee (DSPC) by IDA staff for review.

F) Submit in plenty of time for IDA staff to review and prepare your application to make the bi-monthly deadline that you prefer, find the deadlines at http://darksky.org/idsp/communities/. Requests to

rush applications will NOT be accepted; meaning that planning ahead is essential if the Community is planning to meet a deadline.

TO BE INCLUDED IN DSC SUBMISSION

A) Map of Community and factual information, i.e. population, number of schools, etc.

B) Letter of nomination support by IDA qualified nominator and elected representatives of the Community such as the mayor and/or council.

C) The Community's lighting code and guidelines must meet the minimum requirements as stated in the minimum requirements section.

D) Documentation of examples of Community support and projects.

E) Proposed alternative wording for a DSC (e.g. Dark Sky Village, Starry Sky City, etc.), if desired.

F) An outline of a completed application is available and may be used upon request.

IDA REVIEW PROCESS

A) Applications are sent to the committee on a bi-monthly basis.

B) Before the Community's final application is submitted it is highly recommended that the Community be in regular conversation with IDA staff to perfect the application before the next application deadline. Applications not ready for submission by the deadline for committee consideration will be considered at the next committee meeting.

C) IDA staff forwards application to Dark Sky Places Committee for review at the deadline.

D) Approval of application by DSPC is by a 2/3-majority vote, or denial with reasons and recommendations. The DSPC committee may consider the applications for up to two months before a decision is released to the applicant. If approved the location will be notified and the program manager will organize a press release with the location during a 10-day waiting period during which the Board of Directors will have the formal right to veto should they perceive a problem with the application. The Community has the right to choose when the press release is made public but must organize the announcement to be made at the same time as the IDA press release unless otherwise discussed and agreed upon by both parties.

E) If approved the Community is awarded the DSC designation and listed along with their application on the IDA website. By submitting the application, the Community agrees to have the application posted to the website unless otherwise stated;

F) If denied, a letter is sent to applicant outlining elements of the application that need improvement and specific recommendations for ways to remedy them. Applications can be resubmitted for future consideration after remediation is complete.

G) IDA realizes that certain circumstances surrounding a DSC application may cause some potential authors of letters of support (or opposition) to feel uneasy about publicly declaring their opinions about the IDA designation. In the interest of providing the Dark Sky Places Committee with as full a picture of Community sentiment about applications as possible, it is possible for some letters to be

suppressed from online publication if it is felt that making the letters publicly available will subject their authors to retaliation or harassment. A prospective DSC seeking this protection for letter writers must make a formal written request to that effect. The Program Manager must approve suppression of publication of any part of an application. Note that suppression of online publication does not prevent either the Committee or the IDA Board of Directors from reading all submitted letters.

REASSESSMENT OF DSC DESIGNATIONS

To ensure that Communities continue to be exemplary in their protection and restoration of natural lightscapes, IDA will periodically reevaluate each site in the Dark Sky Places Program. This is done to confirm that the Community continues to meet the minimum requirements and is making adequate progress toward LMP compliance goals outlined in this document.

To this end, the Community will submit an annual report to IDA by October 1st detailing activities and progress towards meeting DSC requirements during the previous twelve months. The report should include dates and brief descriptions of any interpretive events, lighting retrofit projects, outreach efforts, etc. Samples of printed materials and press articles should also be included. The annual report should not require a lot of time to produce, as it should be a compilation of information generated during the year. Electronic submission of the report and supporting documentation is required in PDF or Microsoft Word format. If the annual report is not sent in a timely fashion, IDA may suspend the site's DSC status until the annual reporting requirement has been met (see the following section).

Investigation and Due Process

A DSC designation is intended to represent the beginning of an ongoing relationship between the Community and IDA to our mutual benefit. IDA will periodically review the nature of that relationship in the required annual reports as described in the previous section. From time to time, IDA also receives comments from visitors to Communities that raise concerns about the veracity and timeliness of information provided to IDA by site administrators. IDA may, at its discretion, investigate claims in which it is alleged that DSCs are not living up to commitments made to IDA and the public in their applications to the Program. This section details the IDA procedure for carrying out such investigations, and the rights of DSCs in such matters.

An allegation of impropriety concerning any of the elements of participation in the Program outlined in this document is subject to IDA investigation and potential remedial action including temporary suspension and/or permanent revocation of the DSC designation. IDA staff shall perform due diligence in gathering facts concerning such allegations it deems credible, and will prepare a report of its findings for consideration by the DSPC. The DSPC commits to weighing the evidence fairly and impartially, and to seek to resolve disputes whenever possible through dialog. A Community subject to an investigation shall be notified in a timely manner and solicited for evidence contrary to the specifics of the allegation at hand. The resolution manner of dialog shall be emphasized from the beginning, and the Community will be given an opportunity to correct any deficiencies with regard to the Program guidelines established by the IDA investigation within a reasonable time period to be prescribed by the DSPC.

Failure to achieve consensus through these means risks a DSPC recommendation for suspension or

revocation of the DSC designation. If made, such a recommendation will be forwarded to the IDA Board of Directors for formal ratification before coming into force. The Board's decision on any disciplinary matters involving a DSC shall be considered definitive and binding.

Any DSC so investigated has the right to review the allegations against it and all factual information collected by IDA pertinent to the allegations.

Reinstatement Following Suspension

If the DSPC recommends a suspension of a Community's IDA designation and the Board ratifies the suspension, the Community administration shall be immediately notified. The status of a suspended DSC shall be changed to "Provisional" in all IDA communications until the designation is reinstated or revoked; however, the process of obtaining reinstatement of a designation is not the same as that outlined in the "Provisional Status" section of these guidelines.

To obtain reinstatement of a suspended designation, the DSC must provide evidence to the DSPC's satisfaction that the specific issues identified by the DSPC as grounds for the suspension have been corrected and that all Program guidelines are once again met. The DSPC will consider the evidence presented by the DSC and render a judgment to either

- Accept the reinstatement petition, OR
- Reject the petition and recommend revocation, OR
- Return the petition with further instructions and a defined deadline for a DSC response.

A suspension left unresolved after one (1) year from the date of the Board's assent to the suspension automatically becomes a permanent revocation. Revocation entails removal of the DSC from IDA's roll of approved Dark Sky Places, and from mention on the IDA website and in member and external communications. IDA reserves the right to take legal action against any former DSC whose designation is duly revoked but continues to use the IDA name/logo in advertising, communications, and/or signage.

Appendix C: Conservation Commission Open Space Plan

GOAL 3: ENCOURAGE PRESERVATION OF DARK NIGHT SKIES

STRATEGIES:

a) Educate residents on appropriate lighting application and design through participation in Acadia Night Sky Festival, Dark Sky community signage,

Support ANP in becoming a International Dark Sky Park or Preserve and monitor Bar Harbor's impact on sky quality in ANP, taking corrective actions where feasible.

- Applies to Section D 1-3 of the Dark Sky Community minimum requirments
- Add in that there must be at least two community driven dark sky awereness events annually, and or inclusion of dark sky awereness documents with community documents(handing out a dark sky awereness brochoure at the visitors center), and or inclusion of dark sky education in local school curriculums

b) Convert lighting on municipal facilities and streetlights to dark-sky compliant lighting.

- Applies to section A 1-5 and section B 1-2 of the Dark Sky Cummunity minimum requirments
- Dark sky Community minimum requirements for lighting fixtures are as follows
- Full shielded or full cut off lighting fixtures over 1500 lumens initial output or equivilent wattage, and establishes a threshold of 3000 kelvins for allowable correlated color temperature for all light fixtures, and restrictions of totall amount of unshielded lighting, such as a limit on lumens per acre or total site lumens in unshielded fixtures or equivilent wattage, and a policy to address over-lighting, such as energy density caps, lumens per acre caps, or maximum illuminance specifications.
- City owned lighting conforming with or committed to conforming with the lighting code, if the ladder the city must publish a timeline for completion in no more than 5 years, and municipal support of dark skies and good lighting as indicated through city publications, flyers, public service announcments, funding of lighting upgrades, etc.

c) Review and enforce the existing lighting ordinance.

d) Continue to monitor new technologies and signage styles and proactively establish lighting and signage guidelines.

e) Collaborate with surrounding communities on dark sky protection efforts through the League of Towns and other area organizations, for example the effort to use Dark Sky compliant lighting on Rt 3.

- Applies to section C 1-7 of the Dark Sky Community minimum requirments
- Examples of collaborators that must demonstrate broad support are chamber of commerce, local electrical utility, local IDA chapter, lighting retailers, home owners assosiation, business improvement assosiation, or other entities.

f) Draft dark-sky compliant ordinances for the town of Bar Harbor.

g) Alert local businesses to the benefits of becoming dark-sky compliant. (Reduced electricity costs, increase in tourism, improved public image)

h) Monitor new projects being built in Bar Harbor to demonstrate effective aaplication of lighting code.

- Applies to section E 1-2 of the Dark Sky Community minimum requirments
- Must be examples of at least ten projects build under the lighting code, demonstrating effective aaplication of the local lighting code, and or alternative demonstration of success in light pollution control, to be discussed with the IDA for compliance.

A) A quality comprehensive lighting code like the IDA/IES Model Lighting Ordinance (MLO) with the following minimum standards for permanent lighting installations (more on developing a lighting code and guidelines may be found on our website http://www.darksky.org/outdoorlighting/mlo):

i) Fully-shielded or full-cutoff standard for all lighting fixtures over 1500 lumens initial lamp output (or equivalent wattages), AND;

ii) Establishes a threshold of 3000 Kelvins for the allowable correlated color temperature of all lighting fixtures, AND;

iii) Restrictions on total amount of unshielded lighting, such as a limit on lumens per acre or total site lumens in unshielded fixtures (or equivalent wattages), AND;

iv) A policy to address over-lighting, such as energy density caps, lumens/acre caps, or maximum illuminance specifications, AND;

v) A provision that clearly: (1) indicates where, when, and under what circumstances new public outdoor lighting (street lighting and lighting on other public property and rights-of-way) is warranted and will be permitted, and (2) requires that adaptive controls and curfews be employed in all future installations of public outdoor lighting.

B) Community commitment to dark skies and quality lighting as shown by:

i) City owned lighting conforming with, or committed to conforming with, the lighting code (if the latter, a published plan with a timeline for completion in no more than 5 years), AND;

ii) Municipal support of dark skies and good lighting as indicated through city publications, flyers, public service announcements, funding of lighting upgrades, etc.

C) Broad Support for dark skies from a wide range of community organizations such as:

i) Chamber of Commerce

ii) Local electrical utility

iii) Local IDA Chapter

iv) Lighting retailers

v) Home Owners Association

vi) Business Improvement Associations

vii) Others

D) Community commitment to dark skies and education as shown by at least one of the following:

i) Planning and execution of at least two community dark sky awareness events per year. This may be organized through a local astronomy club, municipality, school, etc. AND/OR;

ii) Inclusion of dark sky awareness documents (IDA brochures or Community-created brochures) with other Community informational documents for residents and visitors, AND/OR;

iii) Inclusion of dark sky education in Community schools and curriculum.

E) Success in light pollution control. At least one of the following conditions must be demonstrated:

i) Examples of a minimum of ten projects built under the lighting code, demonstrating effective application of the local lighting code, AND/OR;

ii) Alternative demonstration of success in light pollution control, to be discussed with IDA for compliance.

F) A sky brightness measurement program must be maintained either by the Community or by another public or private organization (university, research center, IDA chapter, astronomy club, etc.) to follow the evolution of light pollution in the DSC.

G) Designation is permanent, but is subject to regular review by IDA and possible revocation if minimum requirements are not maintained. More details may be found in the "Reassessment of DSC designation" section.

H) Periodic checks, through the submission of the annual report due October 1st, will be preformed to ensure that minimum standards and objectives of the program are being upheld and adequate progress is being made. This report is a short 1 to 2-page synopsis of the Community's activities and initiatives throughout the last year. The Borrego Springs, CA report is included on the website for reference http://darksky.org/idsp/communities/.

Appendix D: Ideal Sky Quality Measurement Times

	Date		Best SQM Reading Times		Total Time [h:mm]
	June	11 to 12	-	-	-
		12 to 13	-	-	-
		13 to 14	10:52 PM	11:14 PM	0:22
		14 to 15	10:53 PM	11:48 PM	0:55
		15 to 16	10:53 PM	12:20 AM	1:27
		16 to 17	10:54 PM	12:50 AM	1:55
		17 to 18	10:55 PM	1:20 AM	2:24
		18 to 19	10:55 PM	1:50 AM	2:54
		19 to 20	10:55 PM	2:17 AM	3:22
		20 to 21	10:56 PM	2:17 AM	3:21
		21 to 22	10:56 PM	2:17 AM	3:21
		22 to 23	10:56 PM	2:18 AM	3:22
New Moon at 10:30pm		23 to 24	10:56 PM	2:18 AM	3:22
		24 to 25	10:56 PM	2:19 AM	3:23
		25 to 26	10:56 PM	2:19 AM	3:23
		26 to 27	10:55 PM	2:20 AM	3:25
		27 to 28	11:09 PM	2:21 AM	3:12
		28 to 29	11:42 PM	2:22 AM	2:40
		29 to 30	12:12 AM	2:23 AM	2:11
	June/July	30 to 1	12:40 AM	2:24 AM	1:44
	July	1 to 2	1:07 AM	2:25 AM	1:18
		2 to 3	1:35 AM	2:26 AM	0:51
		3 to 4	2:04 AM	2:27 AM	0:23
		4 to 5	-	-	-
		5 to 6	-	-	-
		6 to 7	-	-	-
		7 to 8	-	-	-
		8 to 9	-	-	-
		9 to 10	-	-	-
		10 to 11	-	-	-
		11 to 12	-	-	-
		12 to 13	-	-	-
		13 to 14	10:39 PM	10:54 PM	0:15
		14 to 15	10:37 PM	11:23 PM	0:46
		15 to 16	10:36 PM	11:53 PM	1:17
		16 to 17	10:34 PM	12:24 AM	1:50
		17 to 18	10:33 PM	12:58 AM	2:25
		18 to 19	10:31 PM	1:37 AM	3:06
		19 to 20	10:29 PM	2:22 AM	3:53
		20 to 21	10:27 PM	2:55 AM	4:28
		21 to 22	10:26 PM	2:57 AM	4:31
New Moon at 5:45am		22 to 23	10:24 PM	2:59 AM	4:35
		23 to 24	10:22 PM	3:01 AM	4:39
		24 to 25	10:22 PM	3:03 AM	4:41
		25 to 26	10:18 PM	3:04 AM	4:46
		26 to 27	10:16 PM	3:06 AM	4:50
		27 to 28	10:41 PM	3:08 AM	4:27
		28 to 29	11:09 PM	3:10 AM	4:01

Appendix E: International Dark Sky Park Data

2017 International Dark Sky Park Data Accumulation

Point #	Location	Data 1	Data 2	Data 3	Data 4	Data 5	Data 6	Data 7	Data 8	Data 9	Data 10	Average [mag/arcsec^2]	Time	Temperature (°C)	Cloud Cover
1	44.375653, -68.2336106	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	1:14 AM	22.2	0% - 5%
2	44.3782027, -68.2287363	20.74	20.74	20.74	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.91	1:18 AM	21.5	0% - 5%
3	44.3599067, -68.1882377	21.06	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.43	21.26	1:26 AM	22.2	0% - 5%
4	44.3298488, -68.1837037	21.09	21.09	21.09	21.09	21.09	21.09	21.09	21.09	21.09	21.30	21.11	1:34 AM	22.5	0% - 5%
5	44.3143356, -68.1960952	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.27	21.27	21.27	21.08	1:44 AM	21.9	0% - 5%
6	44.3029621, -68.2027713	21.15	21.35	21.35	21.35	21.35	21.35	21.35	21.35	21.35	21.49	21.34	1:49 AM	21.9	0% - 5%
7	44.3198806, -68.2532924	21.50	21.50	21.50	21.50	21.50	21.50	21.47	21.47	21.47	21.47	21.49	1:58 AM	22.5	0% - 5%
8	44.3115794, -68.2853811	20.59	20.93	20.93	20.93	20.93	20.93	20.93	20.93	20.93	21.18	20.92	12:52 AM	22.8	0% - 5%
9	44.3639737, -68.3061702	20.15	20.63	20.63	20.63	20.63	20.63	20.63	20.63	20.63	20.63	20.58	1:01 AM	22.5	0% - 5%
10	44.3755419, -68.2610955	20.92	20.92	20.92	20.92	20.92	21.11	21.11	21.11	21.11	21.11	21.02	1:07 AM	22.8	0% - 5%
11	44.2370400, -68.3022360	21.04	21.30	21.30	21.30	21.51	21.51	21.51	21.51	21.68	21.68	21.43	11:15 PM	21.0	0% - 5%
12	44.2336580, -68.3203580	20.87	20.87	21.14	21.14	21.14	21.14	21.14	21.14	21.14	21.35	21.11	11:27 PM	18.3	0% - 5%
13	44.2824880, -68.3863360	20.61	20.61	20.61	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.78	11:45 PM	19.6	0% - 5%
14	44.2789000, -68.3818390	20.32	20.80	20.80	20.80	20.80	20.80	20.80	20.80	20.80	20.80	20.75	11:48 PM	19.6	0% - 5%
15	44.2777240, -68.3741730	21.74	21.74	21.74	21.74	21.74	21.74	21.74	21.74	21.74	21.74	21.74	11:52 PM	19.6	0% - 5%
16	44.3329700, -68.4038580	21.05	21.05	21.05	21.29	21.29	21.29	21.29	21.29	21.29	21.47	21.24	12:04 AM	20.9	0% - 5%
17	44.3320360, -68.3868530	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.93	21.89	12:12 AM	20.3	0% - 5%
18	44.3136670, -68.3368300	21.56	21.56	21.56	21.56	21.56	21.58	21.58	21.58	21.58	21.58	21.57	12:32 AM	20.9	0% - 5%
19	44.3802724, -68.0677388	21.59	21.59	21.59	21.59	21.59	21.59	21.59	21.59	21.59	21.59	21.59	12:13 AM	18.0	0% - 5%
20	44.3820293, -68.0629590	21.65	21.65	21.65	21.65	21.65	21.79	21.79	21.79	21.79	21.79	21.72	12:17 AM	18.0	0% - 5%
21	44.3844873, -68.0655339	21.43	21.43	21.43	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.55	12:21 AM	17.7	0% - 5%
22	44.3743998, -68.0711435	21.72	21.72	21.71	21.71	21.71	21.71	21.71	21.71	21.71	21.69	21.71	12:26 AM	17.7	0% - 5%
23	44.3653747, -68.0762110	21.57	21.56	21.56	21.56	21.56	21.56	21.55	21.55	21.55	21.55	21.56	12:30 AM	17.7	0% - 5%
24	44.3427967, -68.0599993	21.54	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	12:37 AM	17.7	0% - 5%
25	44.3331055, -68.0610641	21.27	21.27	21.37	21.37	21.37	21.37	21.37	21.37	21.46	21.46	21.37	11:47 PM	21.2	0% - 5%
26	44.3389776, -68.0452531	21.46	21.46	21.46	21.46	21.46	21.55	21.59	21.59	21.59	21.59	21.52	11:52 PM	18.6	0% - 5%
27	44.3465582, -68.0457081	22.64	22.64	22.64	22.64	22.64	22.64	22.47	22.47	22.29	22.07	22.51	11:57 PM	18.0	0% - 5%
28	44.3628210, -68.0393110	22.45	22.45	22.45	22.52	22.52	22.52	22.52	22.52	22.52	22.59	22.51	12:02 AM	18.3	0% - 5%

Point #	Location	2015 Value [mag/arcsec^2]	2017 Value [mag/arcsec^2]	% Difference
1	44.375653, -68.2336106	21.14	21.60	2.18
2	44.3782027, -68.2287363	20.94	20.91	-0.15
3	44.3599067, -68.1882377	21.42	21.26	-0.76
4	44.3298488, -68.1837037	21.36	21.11	-1.17
5	44.3143356, -68.1960952	21.32	21.08	-1.12
6	44.3029621, -68.2027713	21.35	21.34	-0.03
7	44.3198806, -68.2532924	21.22	21.49	1.26
8	44.3115794, -68.2853811	21.21	20.92	-1.36
9	44.3639737, -68.3061702	21.25	20.58	-3.14
10	44.3755419, -68.2610955	21.22	21.02	-0.97
11	44.2370400, -68.3022360	21.87	21.43	-1.99
12	44.2336580, -68.3203580	21.65	21.11	-2.51
13	44.2824880, -68.3863360	21.49	20.78	-3.31
14	44.2789000, -68.3818390	23.04	20.75	-9.93
15	44.2777240, -68.3741730	21.77	21.74	-0.14
16	44.3329700, -68.4038580	21.69	21.24	-2.09
17	44.3320360, -68.3868530	21.56	21.89	1.51
18	44.3136670, -68.3368300	21.85	21.57	-1.28
19	44.3802724, -68.0677388	21.40	21.59	0.89
20	44.3820293, -68.0629590	21.46	21.72	1.21
21	44.3844873, -68.0655339	21.31	21.55	1.12
22	44.3743998, -68.0711435	21.40	21.71	1.45
23	44.3653747, -68.0762110	21.33	21.56	1.06
24	44.3427967, -68.0599993	21.42	21.56	0.64
25	44.3331055, -68.0610641	21.35	21.37	0.08
26	44.3389776, -68.0452531	21.49	21.52	0.14
27	44.3465582, -68.0457081	21.52	22.51	4.62
28	44.3628210, -68.0393110	21.38	22.51	5.27
MDI AVERAGE:		21.52	21.21	-1.43
SCHOODIC AVERAGE:		21.41	21.76	1.65
TOTAL AVERAGE:		21.48	21.41	-0.33

2017 International Dark Sky Park Raw Data

June 20 2017 Readings

Point 11

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Appendix F: International Dark Sky Community Data

2017 International Dark Sky Park Data Accumulation

Point #	Location		Data 1	Data 2	Data 3	Data 4	Data 5	Data 6	Data 7	Data 8	Data 9	Data 10	Average [mag/arcsec^2]	Time	Temperature (°C)	Cloud Cover
1	44.41940000	-68.36216000	20.50	20.50	20.50	20.50	20.50	20.50	20.50	20.50	20.50	20.50	20.50	11:39 PM	22.2	20-30%
2	44.42680556	-68.32500000	19.74	20.29	20.29	20.29	20.29	20.66	20.66	20.66	20.66	20.92	20.45	12:20 AM	14.8	10-20%
3	44.42922000	-68.28982700	19.53	20.00	20.00	20.00	20.33	20.33	20.33	20.59	20.59	20.79	20.25	12:26 AM	14.8	10-20%
4	44.40902778	-68.24611111	20.25	20.25	20.24	20.53	20.53	20.74	20.74	20.92	20.92	20.92	20.60	12:42 AM	14.0	10-20%
5	44.41611111	-68.28250000	20.22	20.22	20.57	20.57	20.83	20.83	20.83	21.04	21.04	21.04	20.72	12:34 AM	13.8	10-20%
6	44.40239700	-68.29987800	20.83	20.83	21.06	21.06	21.06	21.06	21.28	21.28	21.28	21.47	21.12	11:23 PM	19.0	10-20%
7	44.39458333	-68.33388889	21.77	20.94	20.94	21.05	21.05	21.05	21.05	21.05	21.07	21.07	21.10	12:06 AM	14.7	10-20%
8	44.37875000	-68.37444444	22.26	22.26	22.26	22.26	22.33	22.33	22.33	21.37	21.48	21.48	22.04	11:57 PM	14.5	10-20%
9	44.37841667	-68.34944444	20.35	20.35	20.72	20.72	20.72	20.99	20.99	20.99	20.99	21.22	20.80	11:47 PM	15.4	10-20%
10	44.36616667	-68.30250000	20.75	20.75	20.75	20.99	20.99	20.99	20.99	21.19	21.19	21.19	20.98	11:33 PM	17.7	10-20%
11	44.38075000	-68.28111111	20.81	20.81	20.94	20.94	20.94	21.06	21.06	21.06	21.20	21.20	21.00	11:14 PM	20.6	10-20%
12	44.37554190	-68.26109550	20.92	20.92	20.92	20.92	20.92	21.11	21.11	21.11	21.11	21.11	21.02	1:07 AM	22.8	10-20%
13	44.39155556	-68.22972222	21.67	21.67	21.67	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.65	11:03 PM	21.0	10-20%
14	44.38733333	-68.21388889	20.18	20.18	20.18	20.18	20.18	20.18	20.18	20.18	20.18	20.18	20.18	1:00 AM	21.9	10-20%
15	44.39188889	-68.21000000	20.68	20.66	20.66	20.66	20.66	20.66	20.66	20.66	20.66	20.66	20.66	12:55 AM	21.9	10-20%
16	44.39208333	-68.20416667	20.32	20.32	20.35	20.35	20.38	20.38	20.38	20.39	20.39	20.38	20.36	12:48 AM	23.2	10-20%
17	44.38750000	-68.20500000	19.86	19.86	19.90	19.95	19.95	20.00	20.02	20.02	20.01	20.01	19.96	12:43 AM	24.4	10-20%
18	44.38280556	-68.20361111	20.68	20.68	20.70	20.70	20.70	20.70	20.72	20.72	20.72	20.72	20.70	12:38 AM	25.4	10-20%
19	44.37374700	-68.19763500	20.79	21.02	21.02	21.02	21.02	21.02	21.02	21.23	21.23	21.23	21.06	10:55 PM	22.5	10-20%
20	44.36019444	-68.20472222	21.41	21.41	21.41	21.41	21.41	21.56	21.56	21.56	21.56	21.68	21.50	11:04 PM	22.5	10-20%
21	44.34941667	-68.18777778	21.45	21.45	21.45	21.45	21.53	21.53	21.53	21.53	21.53	21.53	21.50	11:12 PM	26.1	10-20%
22	44.32984880	-68.18370370	21.09	21.09	21.09	21.09	21.09	21.09	21.09	21.09	21.09	21.30	21.11	1:34 AM	22.5	10-20%
23	44.31433560	-68.19609520	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.27	21.27	21.27	21.08	1:44 AM	21.9	10-20%
24	44.33575000	-68.20472222	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	12:29 AM	26.9	10-20%
25	44.34788889	-68.24750000	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	12:12 AM	22.5	10-20%
26	44.36860100	-68.23903200	21.14	21.14	21.14	21.14	21.14	21.14	21.14	21.14	21.36	21.36	21.18	12:05 AM	22.8	10-20%
27	44.35291667	-68.22444444	21.15	21.15	21.15	21.15	21.34	21.34	21.34	21.34	21.50	21.50	21.30	11:47 PM	24.4	10-20%
28	44.37565300	-68.23361060	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	1:14 AM	22.2	10-20%
29	44.37820270	-68.22873630	20.74	20.74	20.74	20.98	20.98	20.98	20.98	20.98	20.98	20.98	20.91	1:18 AM	21.5	10-20%
30	44.38086111	-68.22611111	20.46	20.46	20.46	20.46	20.46	20.46	20.46	20.46	20.46	20.46	20.46	1:05 AM	21.5	10-20%
31	44.39227778	-68.22888889	20.75	20.75	20.75	20..84	20..85	20..86	20.92	20.92	20.92	20.92	20.85	11:02 PM	20.6	0-10%
32	44.38427778	-68.23861111	21.14	21.14	21.14	21.14	21.32	21.32	21.32	21.32	21.32	21.32	21.25	11:10 PM	19.9	0-10%
33	44.37894444	-68.21138889	20.93	20.93	20.93	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.06	11:20 PM	21.9	0-10%
34	44.37241667	-68.21222222	21.00	21.19	21.19	21.19	21.19	21.19	21.19	21.19	21.19	21.34	21.19	11:25 PM	21.7	0-10%
35	44.37641667	-68.20416667	20.63	20.63	20.63	20.63	20.63	20.63	20.63	20.89	20.89	20.89	20.71	11:32 PM	22.8	0-10%
36	44.37005556	-68.18694444	20.55	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.86	20.83	11:43 PM	19.3	0-10%
37	44.36263889	-68.18777778	21.10	21.10	21.10	21.10	21.10	21.29	21.29	21.29	21.29	21.29	21.20	11:51 PM	18.3	0-10%
38	44.36455556	-68.19750000	20.56	20.56	20.56	20.56	20.56	20.56	20.71	20.71	20.71	20.71	20.62	11:56 PM	18.3	0-10%
39	44.35825000	-68.18861111	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.04	12:04 AM	17.7	0-10%
40	44.33958333	-68.18333333	20.21	20.35	20.35	20.48	20.48	20.48	20.54	20.54	20.54	20.54	20.45	12:09 AM	17.4	0-10%
41	44.33955556	-68.17750000	20.74	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.04	21.01	12:18 AM	19.1	0-10%
42	44.32375000	-68.18694444	21.31	21.31	21.31	21.31	21.31	21.31	21.42	21.42	21.42	21.42	21.35	12:24 AM	19.4	0-10%
43	44.32894444	-68.20722222	21.43	21.43	21.43	21.43	21.43	21.43	21.43	21.43	21.43	21.43	21.43	12:32 AM	20.6	0-10%
44	44.34754700	-68.20204100	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.62	21.62	21.62	21.61	12:36 AM	19.6	0-10%
45	44.38653500	-68.19822700	20.15	20.15	20.15	20.15	20.15	20.14	20.14	20.14	20.14	20.14	20.15	12:46 AM	19.9	0-10%
46	44.39086111	-68.20444444	20.08	20.08	20.08	20.08	20.07	20.07	20.05	20.05	20.05	20.04	20.07	12:51 AM	19.9	0-10%
47	44.38986400	-68.21301700	20.61	20.61	20.61	20.61	20.70	20.70	20.70	20.70	20.70	20.70	20.66	12:55 AM	20.3	0-10%
48	44.38566500	-68.21053300	20.36	20.36	20.36	20.36	20.52	20.52	20.52	20.52	20.61	20.61	20.47	12:59 AM	19.9	0-10%
49	44.38683333	-68.20750000	19.87	19.87	19.98	19.98	19.98	20.03	20.03	20.03	20.03	20.06	19.99	1:02 AM	19.6	0-10%
50	44.36161111	-68.23083333	21.45	21.45	21.45	21.45	21.45	21.45	21.45	21.45	21.45	21.50	21.46	1:16 AM	19.3	0-10%
51	44.34861111	-68.22972222	21.40	21.40	21.40	21.40	21.40	21.40	21.40	21.40	21.40	21.40	21.40	1:20 AM	18.0	0-10%
52	44.35586111	-68.24111111	21.35	21.35	21.35	21.35	21.35	21.35	21.35	21.50	21.50	21.50	21.40	1:33 AM	17.7	0-10%
53	44.35063889	-68.24222222	21.06	21.06	21.42	21.42	21.42	21.42	21.56	21.56	21.56	21.56	21.40	1:38 AM	17.5	0-10%
54	44.39075000	-68.20500000	17.23	17.23	17.25	17.26	17.25	17.25	17.25	17.23	17.23	17.23	17.24	1:51 AM	19.6	0-10%
55	44.38980500	-68.20477700	16.87	16.87	16.85	16.83	16.82	16.83	16.84	16.84	16.84	16.84	16.84	1:53 AM	19.9	0-10%
56	44.38854000	-68.20447000	17.31	17.31	17.30	17.29	17.29	17.29	17.29	17.29	17.29	17.29	17.30	1:54 AM	19.9	0-10%
57	44.38658500	-68.20409100	15.58	15.57	15.56	15.54	15.54	15.52	15.50	15.50	15.50	15.19	15.50	1:56 AM	19.9	0-10%
58	44.38946900	-68.22166400	20.34	20.34	20.35	20.35	20.35	20.35	20.38	20.38	20.38	20.38	20.36	2:05 AM	20.6	0-10%
59	44.37194444	-68.29972222	20.78	20.78	20.78	20.83	20.83	20.84	20.84	20.84	20.84	20.84	20.82	11:56 AM	21.5	0-10%
60	44.37891667	-68.31500000	18.37	18.37	19.54	19.54	19.54	19.54	19.54	20.16	20.16	20.16	19.49	11:09 PM	20.6	0-10%
61	44.37479000	-68.38531000	20.37	20.37	20.37	20.76	20.76	20.76	20.76	21.03	21.03	21.03	20.72	11:22 PM	20.1	0-10%
62	44.39063889	-68.35138889	20.55	20.55	20.55	20.55	20.55	20.86	20.86	20.86	20.86	20.86	20.71	11:28 PM	18.3	0-10%
63	44.39816667	-68.34250000	20.73	20.73	20.73	20.95	20.96	20.96	21.15	21.15	21.15	21.15	20.97	11:32 PM	17.1	0-10%
64	44.41369444	-68.35694444	20.59	20.59	20.86	20.86	20.86	21.08	21.08	21.08	21.27	21.27	20.95	11:39 PM	16.7	0-10%
65	44.41925000	-68.35444444	20.52	20.82	20.82	20.82	20.82	20.82	21.05	21.05	21.05	21.05	20.88	11:44 PM	16.1	0-10%
66	44.41880556	-68.34472222	20.60	20.60	20.76	20.76	20.92	20.92	20.92	20.92	21.02	21.02	20.84	11:48 PM	15.4	0-10%
67	44.41877778	-68.33388889	20.02	20.02	20.33	20.33	20.33	20.33	20.33	20.56	20.56	20.76	20.36	11:52 PM	15.1	0-10%
68	44.40988889	-68.33805556	20.33	20.33	20.33	20.67	20.67	20.67	20.67	20.93	20.93	20.93	20.65	11:56 PM	15.4	0-10%
69	44.44402778	-68.31916667	20.46	20.72	20.72	20.96	20.96	20.96	20.16	20.16	20.16	20.16	20.54	12:05 AM	16.7	0-10%
70	44.41241667	-68.26916667	20.63	20.63	20.63	20.63	20.85	20.85	21.03	21.03	21.03	21.18	20.85	12:55 AM	20.9	0-10%

71	44.39866667	-68.28527778	20.19	20.19	20.19	20.59	20.59	20.59	20.59	20.85	20.85	20.85	20.55	1:06 AM	22.8	0-10%
72	44.39136111	-68.29250000	20.80	20.80	20.80	20.80	20.93	20.93	20.93	20.93	21.07	21.07	20.91	1:12 AM	21.2	0-10%
73	44.41264790	-68.30151750	21.20	21.21	21.21	21.21	21.21	21.21	21.27	21.27	21.27	21.27	21.23	11:07 PM	20.6	20-30%
74	44.40647900	-68.31826800	20.71	20.94	20.94	20.94	20.94	20.94	20.94	20.94	20.94	20.94	20.92	11:14 PM	22.5	20-30%
75	44.39521000	-68.30723000	21.08	21.08	21.08	21.08	21.08	21.08	21.08	21.08	21.08	21.08	21.08	11:22 PM	21.5	20-30%
76	44.39521000	-68.30723000	20.36	20.38	20.38	20.38	20.38	20.40	20.40	20.40	20.40	20.43	20.39	11:32 PM	22.5	20-30%
77	44.41658000	-68.32600000	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	20.65	11:46 PM	20.6	20-30%
78	44.37736000	-68.24724000	20.47	20.47	20.47	20.47	20.47	20.47	20.47	20.47	20.47	20.47	20.47	10:50 PM	20.6	20-30%
79	44.38337000	-68.33152000	20.74	20.74	20.74	20.74	20.74	20.74	20.74	20.74	20.74	20.74	20.74	11:04 PM	20.6	20-30%
80	44.41259590	-68.35601630	20.45	20.45	20.45	20.45	20.45	20.45	20.46	20.46	20.46	20.46	20.45	11:11 PM	20.6	20-30%
81	44.42706000	-68.30809000	20.60	20.60	20.60	20.60	20.61	20.61	20.61	20.61	20.61	20.61	20.61	11:22 PM	21.2	20-30%
82	44.43534000	-68.27659000	20.58	20.58	20.58	20.58	20.58	20.58	20.58	20.58	20.58	20.58	20.58	11:31 PM	24.1	20-30%
83	44.43834000	-68.26775000	20.87	20.88	20.88	20.88	20.89	20.89	20.89	20.89	20.89	20.88	20.88	11:36 PM	24.1	20-30%
84	44.42952000	-68.25691000	20.48	20.48	20.48	20.47	20.47	20.47	20.47	20.47	20.47	20.47	20.47	11:41 PM	22.5	20-30%
85	44.42637000	-68.24990000	20.87	20.87	20.87	20.87	20.87	20.87	20.87	20.88	20.88	20.88	20.87	11:48 PM	21.5	20-30%
86	44.41381000	-68.25108000	20.22	20.22	20.32	20.32	20.32	20.32	20.33	20.33	20.33	20.33	20.30	11:55 PM	20.3	20-30%
87	44.40531000	-68.23487000	20.83	20.83	20.83	20.83	20.93	20.93	20.93	20.93	20.93	20.97	20.89	12:01 AM	19.9	20-30%

2017 International Dark Sky Park Raw Data

June 22 2017 Readings A

(13)

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June 22 2017 Readings B
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Point 30 (44 22 51.1, 68 13 33.6)
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June 26 2017 Readings A
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Point 32 (44 23 3.4, 68 14 19.0) [44.38427778, -68.23861111]
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Point 33 (44 22 44.2, 68 12 40.6) [44.37894444, -68.21138889]
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2017/06/26,23:20:23,21.11,6.2,00002237,00000004,00000006,00000025,21.9,,,,
2017/06/26,23:20:24,21.11,6.2,00002237,00000004,00000006,00000025,21.9,,,,

Point 34 (44 22 20.7, 68 12 44.4) [44.37241667, -68.21222222]
2017/06/26,23:25:04,20.82,6.0,00002237,00000004,00000006,00000025,21.9,,,,
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2017/06/26,23:25:10,20.79,6.0,00002237,00000004,00000006,00000025,21.9,,,,
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2017/06/26,23:25:18,21.19,6.2,00002237,00000004,00000006,00000025,21.5,,,,
2017/06/26,23:25:19,21.19,6.2,00002237,00000004,00000006,00000025,21.5,,,,
2017/06/26,23:25:19,21.19,6.2,00002237,00000004,00000006,00000025,21.5,,,,
2017/06/26,23:25:20,21.19,6.2,00002237,00000004,00000006,00000025,21.5,,,,
2017/06/26,23:25:20,21.19,6.2,00002237,00000004,00000006,00000025,21.5,,,,
2017/06/26,23:25:20,21.19,6.2,00002237,00000004,00000006,00000025,21.9,,,,
2017/06/26,23:25:21,21.34,6.3,00002237,00000004,00000006,00000025,21.9,,,,

Point 35 (44 22 35.1, 68 12 14.8) [44.37641667, -68.20416667]
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2017/06/26,23:31:51,19.78,5.3,00002237,00000004,00000006,00000025,22.8,,,,
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2017/06/26,23:32:01,20.63,5.9,00002237,00000004,00000006,00000025,22.8,,,,
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2017/06/26,23:32:02,20.89,6.1,00002237,00000004,00000006,00000025,22.8,,,,
2017/06/26,23:32:03,20.89,6.1,00002237,00000004,00000006,00000025,22.8,,,,

Point 36 (44 22 12.2, 68 11 12.9) [44.37005556, -68.18694444]
2017/06/26,23:43:15,19.37,5.1,00002237,00000004,00000006,00000025,19.3,,,,
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2017/06/26,23:43:20,20.11,5.6,00002237,00000004,00000006,00000025,19.3,,,,
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2017/06/26,23:43:25,20.55,5.8,00002237,00000004,00000006,00000025,19.3,,,,
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2017/06/26,23:43:27,20.55,5.8,00002237,00000004,00000006,00000025,19.3,,,,
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2017/06/26,23:43:28,20.55,5.8,00002237,00000004,00000006,00000025,19.3,,,,
2017/06/26,23:43:28,20.86,6.0,00002237,00000004,00000006,00000025,19.3,,,,

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2017/06/26,23:43:30,20.86,6.0,00002237,00000004,00000006,00000025,19.3,,,,
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2017/06/26,23:43:30,20.86,6.0,00002237,00000004,00000006,00000025,19.3,,,,
2017/06/26,23:43:31,20.86,6.0,00002237,00000004,00000006,00000025,19.3,,,,
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Point 37 (44 21 45.5, 68 11 15.8) [44.36263889, -68.18777778]
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2017/06/26,23:51:21,19.98,5.5,00002237,00000004,00000006,00000025,18.3,,,,
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2017/06/26,23:51:34,21.1,6.2,00002237,00000004,00000006,00000025,18.3,,,,
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2017/06/26,23:51:35,21.1,6.2,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:51:35,21.1,6.2,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:51:35,21.1,6.2,00002237,00000004,00000006,00000025,18.3,,,,
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2017/06/26,23:51:38,21.29,6.3,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:51:39,21.29,6.3,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:51:39,21.29,6.3,00002237,00000004,00000006,00000025,18.3,,,,

Point 38 (44 21 52.4, 68 11 50.8) [44.36455556, -68.19750000]
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2017/06/26,23:56:22,19.64,5.2,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:56:23,19.85,5.4,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:56:24,19.85,5.4,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:56:24,19.85,5.4,00002237,00000004,00000006,00000025,18.3,,,,
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2017/06/26,23:56:33,20.56,5.9,00002237,00000004,00000006,00000025,18.3,,,,
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2017/06/26,23:56:36,20.71,5.9,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:56:36,20.71,5.9,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:56:36,20.71,5.9,00002237,00000004,00000006,00000025,18.3,,,,
2017/06/26,23:56:37,20.71,5.9,00002237,00000004,00000006,00000025,18.3,,,,

Point 39 (44 21 29.7, 68 11 18.8) [44.35825000, -68.18861111]
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2017/06/27,00:04:09,20.06,5.5,00002237,00000004,00000006,00000025,17.7,,,,
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2017/06/27,00:04:17,20.49,5.8,00002237,00000004,00000006,00000025,17.7,,,,
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2017/06/27,00:04:24,21.04,6.1,00002237,00000004,00000006,00000025,17.7,,,,
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2017/06/27,00:04:25,21.04,6.1,00002237,00000004,00000006,00000025,17.7,,,,
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2017/06/27,00:04:26,21.04,6.1,00002237,00000004,00000006,00000025,17.7,,,,
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Point 40 (44 20 22.5, 68 10 59.9) [44.33958333, -68.18333333]
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Point 41 (44 20 22.4, 68 10 38.7) [44.33955556, -68.17750000]
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Point 42 (44 19 25.5, 68 11 13.0) [44.32375000, -68.18694444]
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Point 43 (44 19 44.2, 68 12 26.4) [44.32894444, -68.20722222]
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Point 44 (44 20 53.4, 68 12 7.3) [44.347547, -68.202041]
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Point 45 (44 23 10.2, 68 11 58.4) [44.386535, -68.198227]
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2017/06/27,00:46:41,20.14,5.6,00002237,00000004,00000006,00000025,19.9,,,,

Point 46 (44 23 27.1, 68 12 16.1) [44.39086111, -68.20444444]
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2017/06/27,00:50:55,19.53,5.2,00002237,00000004,00000006,00000025,19.9,,,,
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2017/06/27,00:51:05,20.08,5.5,00002237,00000004,00000006,00000025,19.9,,,,
2017/06/27,00:51:05,20.08,5.5,00002237,00000004,00000006,00000025,19.9,,,,
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2017/06/27,00:51:06,20.07,5.5,00002237,00000004,00000006,00000025,19.9,,,,

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Point 47 (44 23 24.0, 68 12 46.1) [44.389864, -68.213017]
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Point 48 (44 23 8.2, 68 12 37.8) [44.385665, -68.210533]
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2017/06/27,00:59:55,20.52,5.8,00002237,00000004,00000006,00000025,19.9,,,,
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Point 49 (44 23 12.6, 68 12 26.6) [44.38683333, -68.20750000]
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2017/06/27,01:02:43,19.87,5.4,00002237,00000004,00000006,00000025,19.6,,,,
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Point 50 (44 21 41.8, 68 13 50.7) [44.36161111, -68.23083333]
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Point 51 (44 20 55.0, 68 13 47.0) [44.34861111, -68.22972222]
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Point 52 (44 21 21.1, 68 14 27.7) [44.35586111, -68.24111111]
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Point 53 (44 21 2.3, 68 14 32.2) [44.35063889, -68.24222222]
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Point 54 (44 23 26.7, 68 12 17.8) [44.39075000, -68.20500000]
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Point 55 (44 23 22.8, 68 12 18) [44.389805, -68.204777]
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Point 56 (44 23...) [44.38854, -68.20447]
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Point 57 (44 23 11.7, 68 12 14.5) [44.386585, -68.204091]
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Point 58 (44 23 21.5, 68 13 17.4) [44.389469, -68.221664]
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June 26 2017 Readings B
Point 59 [44.37194444, -68.29972222]
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Point 60 [44.37891667, -68.31500000]
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Point 61 [44.37479, -68.38531]
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Point 62 [44.39063889, -68.35138889]
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Point 63 [44.39816667, -68.34250000]
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Point 64 [44.41369444, -68.35694444]
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Point 65 [44.41925000, -68.35444444]
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2017/06/26,23:44:07,20.82,6.0,00002275,00000004,00000006,00000025,16.1,,,,
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Point 66 [44.41880556, -68.34472222]
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Point 67 [44.41877778, -68.33388889]
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Point 68 [44.40988889, -68.33805556]
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2017/06/26,23:56:05,19.13,4.9,00002275,00000004,00000006,00000025,15.7,,,,
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2017/06/26,23:56:09,19.85,5.4,00002275,00000004,00000006,00000025,15.7,,,,
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2017/06/26,23:56:13,20.33,5.7,00002275,00000004,00000006,00000025,15.4,,,,
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Point 69 [44.44402778, -68.31916667]
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Point 70 [44.41241667, -68.26916667]
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Point 71 [44.39866667, -68.28527778]
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Point 72 [44.39136111, -68.29250000]
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July 19 2017 Readings A
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July 20 2017 Readings A

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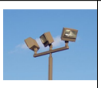
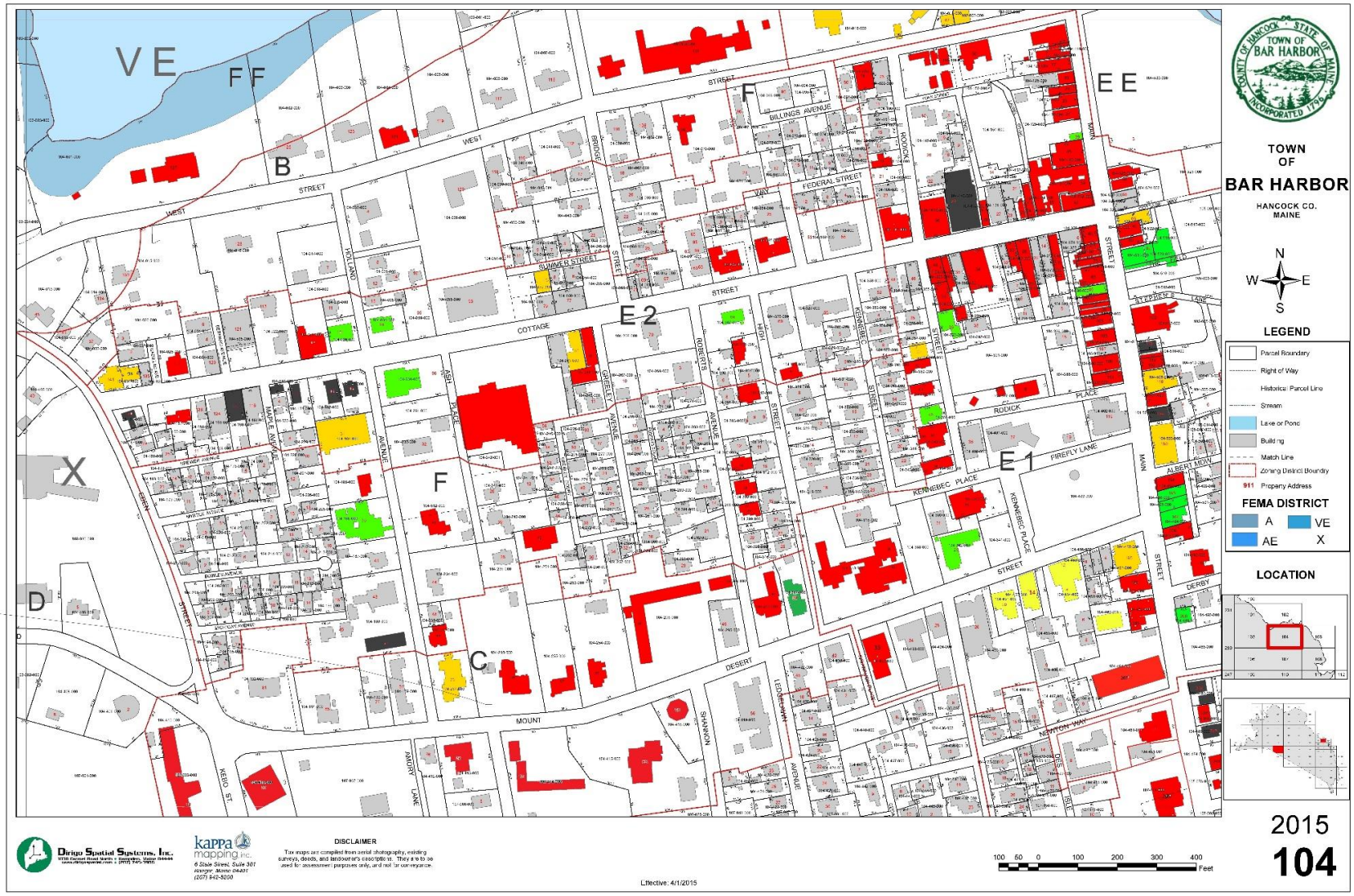
Appendix G: Municipal Lighting Inventory of Bar Harbor

Location	Photo	Fixture	Application	Fully-Shielded	Recommendation	Additional Comments
Main St and Cottage St		Colonial Street Light	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 63 total Colonial Street Lights between the streets of Main Street and Cottage Street
West St		Colonial Style 2 Doughnut Light	For safety and aesthetics	Yes	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 7 total Colonial Style 2 Doughnut Light Fixtures on West Street alone
Agamont Park, Village Green, Pier Dock,		Colonial Style 3	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 53 total Colonial Style 3 Lights
All over		Round Unshielded Street Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 248 Round Non-Shielded Street Lights
All over		Unshielded Street Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 114 Non-Shielded Street Lights
Cottage Way and Ferry Dock		Drop Lens Exposed Bulb	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 28 Drop Lens Exposed Bulb Fixtures
High School		Full Cutoff Fixture	For Safety	Yes	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 8 in total Full Cutoff Fixtures
Middle School		Full Cutoff Fixture LED	For Safety	Yes	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 7 in total Full Cutoff Fixture LED's
High School		Single Unshielded Flood Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 6 in total Single Unshielded Flood Lights
Middle School		Single Unshielded Flood Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 8 in total Single Unshielded Flood Lights
Agamont Park		Circle Ground Spot Light	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 8 in total Circle Ground Spot Lights
Agamont Park		Non-Shielded Circle Light	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 2 in total Non-Shielded Circle Lights
Fire Station		Non-Shielded Circle Light	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 9 in total Non-Shielded Circle Lights
Post Office		Fully Shielded Wall Mount Downwards face light	For Safety	Yes	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 6 in total Fully Shielded Wall Mount Downwards face lights
Post Office		Spot Light Upwards	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Spot Light Upwards
Agamont Park		Double Non-Shielded PAR Flood Light	For safety and aesthetics	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Double Non-Shielded PAR Flood Light
Post Office		Wall Mount Light Door light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1in total Wall Mount Light Door light

High School		Football Field Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 4 in total Football Field Lights
High School		Fully Shielded Wall Mount	For Safety	Yes	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 3 in total Fully Shielded Wall Mounts
High School		Double Pole Mount LED	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Double Pole Mount LED
High School		Pole Mount LED	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 4 in total Pole Mount LED's
High School		Double Non-Shielded PAR Flood Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 4 in total Double Non-Shielded PAR Flood Lights
High School		Single Non-Shielded PAR Flood Light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Single Non-Shielded PAR Flood Light
High School and Middle School		Drop Lens Canopy Fixture	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 3 in total Drop Lens Canopy Fixtures
Wastewater Treatment Plant		Tri Flood Light x3	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There are 2 in total Tri Flood Light x3's
Waldron Rd 1 & 2 GPS Location: 44.38328, -68.20936		Double Light both Flood Light fixtures	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Double Light both Flood Light fixtures
Parking Lot 1-2, 3, and 4 GPS Location: 44.39031, -68.20553		Non-Shielded Flood Light (x3)	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Non-Shielded Flood Light (x3)
Middle School 9 GPS Location: 44.38743, -68.21602		Non-Shielded Wall Back	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Non-Shielded Wall Back
Kebo Street 6 GPS Location: 44.38478, -68.21305		Double Light, one Non-shielded street light & the other Round non-shielded street light	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Double Light, one Non-shielded street light & the other Round non-shielded street light
High School 10 GPS Location: 44.37145, -68.30113		Tri-fixture all three floodlight fixtures	For Safety	No	Future teams will make reccomendation based off of the lumen output and temperature of bulb. Most likely needs to be replaced with IDSC compliant light fixture.	There is 1 in total Tri-fixture all three floodlight fixtures

Appendix H: Colored 2015 Tax Maps of Downtown Bar Harbor


TOWN OF BAR HARBOR
HANCOCK CO. MAINE
N
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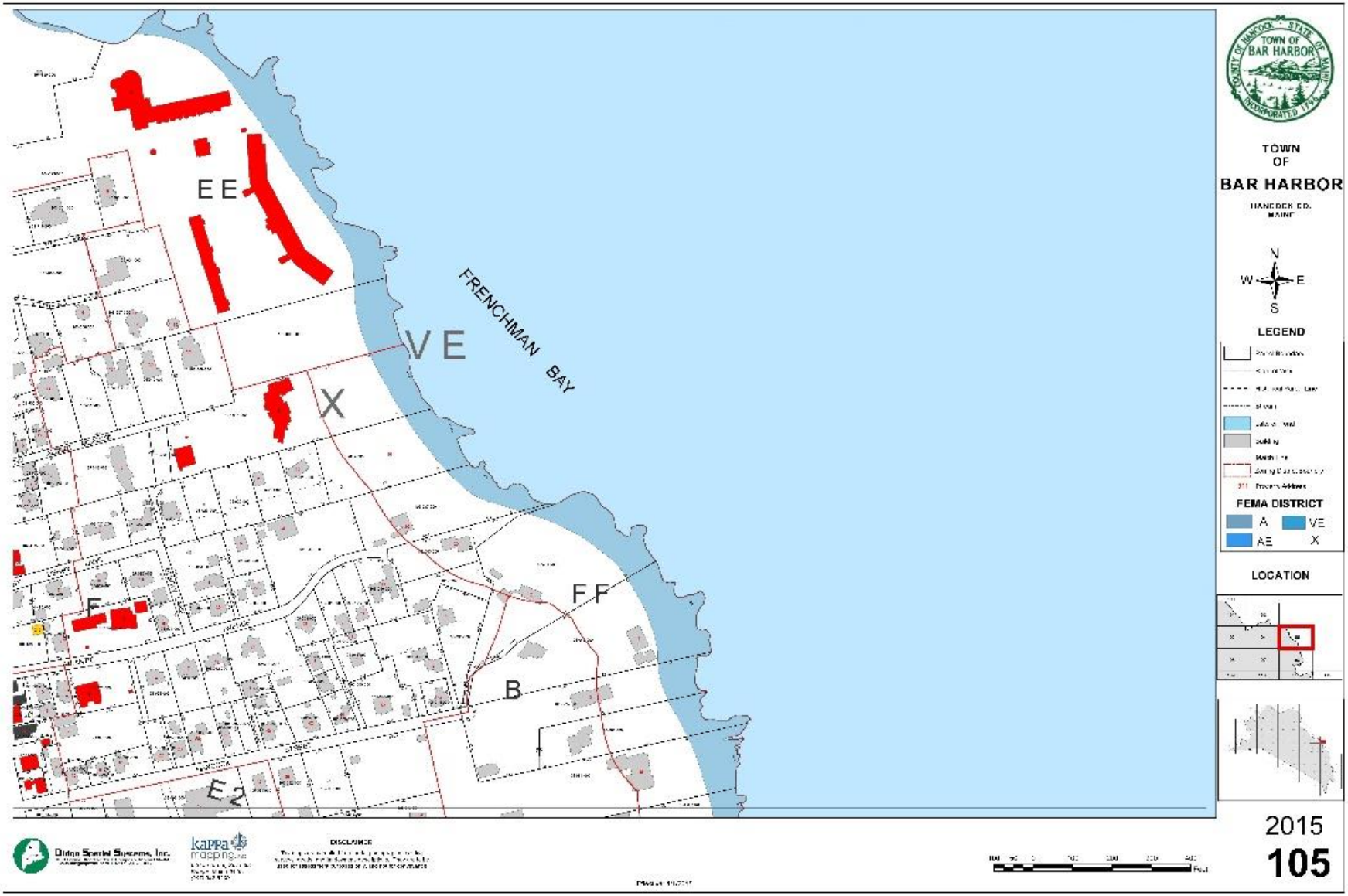
E
S
LEGEND
Parcel Boundary
Right of Way
Historical Parcel Line
Stream
Lake or Pond
Building
Match Line
Zoning District Boundry
911 Property Address
FEMA DISTRICT
A
VE
AE
X
LOCATION
2015
104
VE
FF
B
F
EE
E2
E1
X
D
C
WEST STREET
BILLINGS AVENUE
FEDERAL STREET
SUMMER STREET
COTTAGE STREET
ROBERTS AVENUE
HIGH STREET
KENNEBEC PLACE
RODICK PLACE
FIREFLY LANE
ALBERT MOW
DERBY STREET
DESERT
MOUNT
SHANNON
LEDGELAWN AVENUE
NEWTON WAY
AMORY LANE
KEBO ST.
MAPLE AVENUE
ASH PLACE
GREELEY AVENUE
HOLLAND AVENUE
BRIDGE
MAIN STREET
Dirigo Spatial Systems, Inc.
kappa mapping inc.
6 State Street, Suite 301
Bangor, Maine 04401
(207) 942-5200
DISCLAIMER
This maps are compiled from aerial photography, existing surveys, deeds, and landowners descriptions. They are to be used for assessment purposes only, and not for conveyance.
Effective: 4/1/2015
100 50 0 100 200 300 400
Feet



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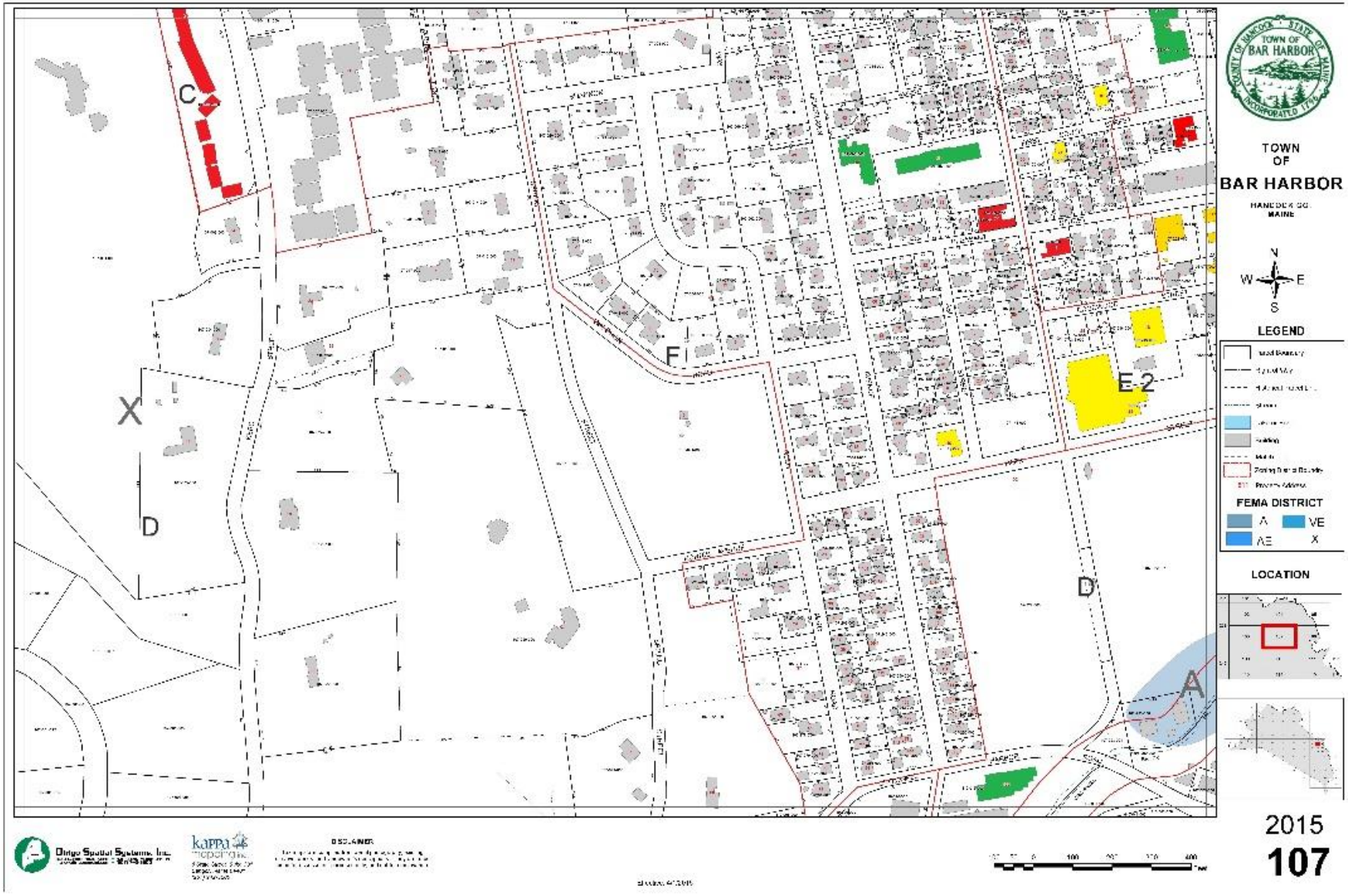
DISCLAIMER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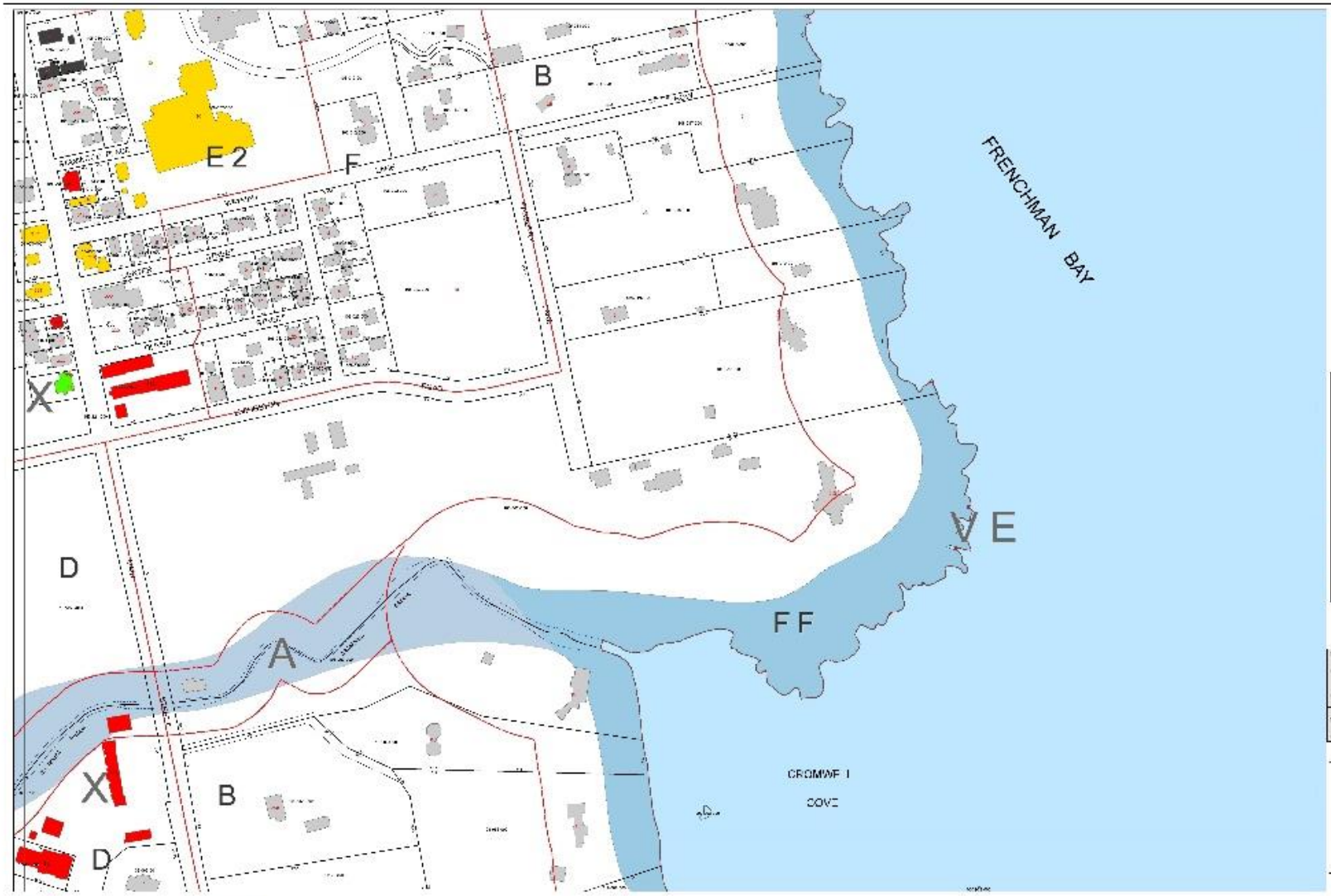

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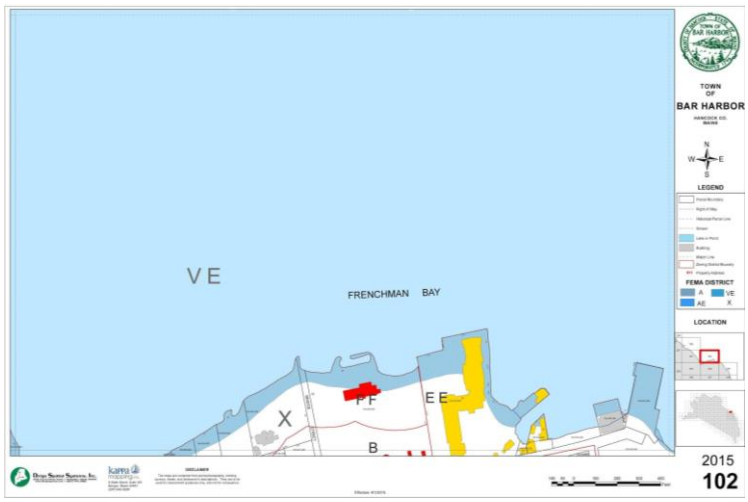
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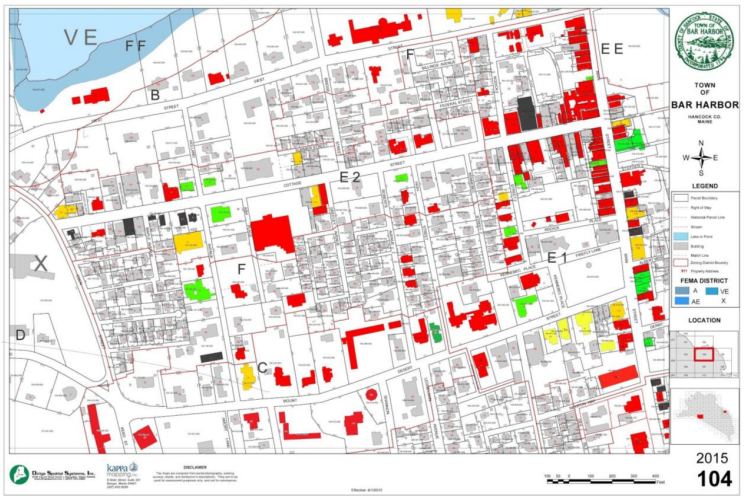
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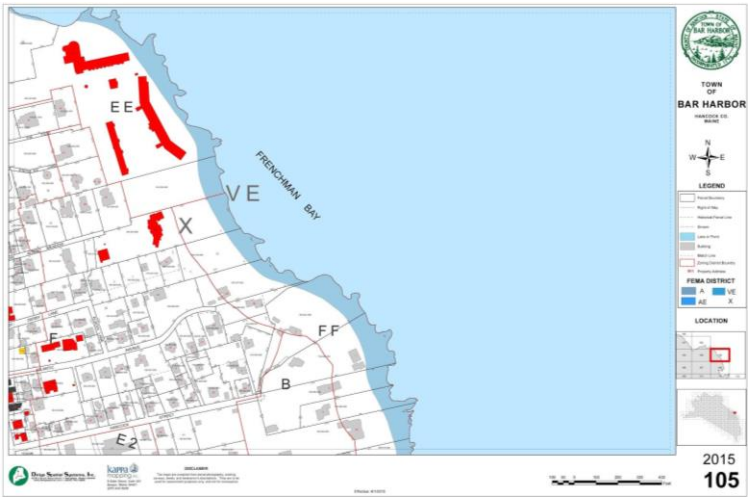
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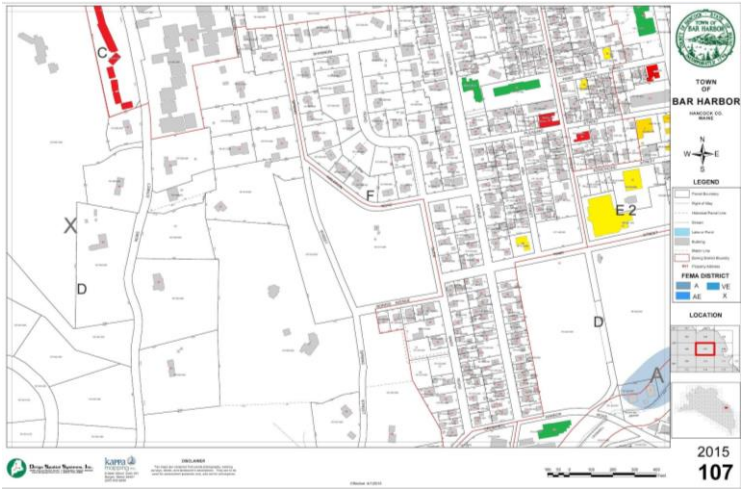
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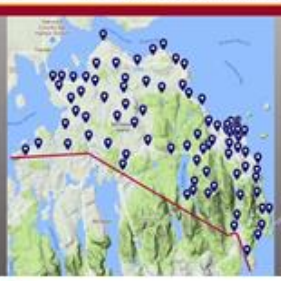
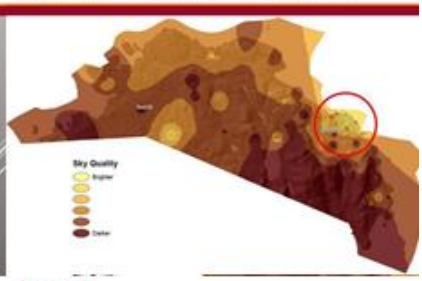
Appendix I: Final Presentation Dark Sky 2017

WPI Bar Harbor's Influence

WPI Heat Map of Bar Harbor



WPI Heat Map of Bar Harbor



WPI International Dark Sky Community

WPI What is an IDSC?

1. Comprehensive Lighting Code
2. Community Commitment
3. Dark Sky Education and Outreach

WPI What is an IDSC?

Could Bar Harbor become a Dark Sky Community?

WPI Lighting Ordinances

Comprehensive Lighting Code	Bar Harbor
• Fully shielded lights	• No
• Limit on coloration	• No
• Limit on brightness	• No
• Comprehensive light management plan	• Yes (In progress)

WPI Community Commitment

Commitment Needed	Bar Harbor
• Municipal Support	• No
• Town Support	• Yes (Partially)
• Community Support	• Yes

WPI Dark Sky Education and Outreach

Community Education	Bar Harbor
• Acadia Night Sky Festival	• Yes
• WPI developed website	• Yes

WPI Dark Sky Community Breakdown

1. Comprehensive Lighting Code (25%)
2. Community Commitment (66%)
3. Dark Sky Education and Outreach (100%)

WPI How Far to Go?

46% Complete

WPI Bar Harbor Dark Sky Website

Bar Harbor Dark Sky Website:
by Worcester Polytechnic Institute
BarHarborpc.org

WPI Bar Harbor Dark Sky Website

WPI Bar Harbor Dark Sky Website

WPI Bar Harbor Dark Sky Website

Bar Harbor Dark Sky Website

Bar Harbor Dark Sky Website

Current Efforts

- Town manager working with Emera Maine
- Planning for leasing or buying LED streetlights
- Town planning meetings for IDA compliancy
- Town working with Conservation Commission
- WPI Working with Conservation Commission

Going Green is Good for Business

Converting to compliant lighting

Going Green is Good for Business

Converting to compliant lighting

Going Green is Good for Business

Going Green is Good for Business

- Lower energy cost
- Small businesses could save 75% annually
- Eco-friendly adds value to businesses
- Increased tourism for the night sky

Future Work for WPI

Continue to:

- Work towards Dark Sky Community designation
- Annual updates of Acadia sky measurements
- Collaborate with Conservation Commission

Thank You

Any Questions?