Bar Harbor Project Center

Dark-Sky 2016

Student Authors:

Greg Jacobson

Tim Reuter

Ian Diamond

Griffin Shira

Faculty Advisor:

Professor Frederick Bianchi

Sponsor:

Acadia National Park

Abstract

The purpose of this project was to protect Acadia National Park's night sky through quantitative and qualitative analysis of the Mount Desert Island lightscape. The Project updated the park's external lighting inventory, performed a lighting audit of Southwest Harbor, and completed an application to gain international dark sky recognition for Acadia National Park. The project culminated in providing Acadia National Park with a completed provisional International Dark-Sky Association application as well as presenting the findings of our lighting audit at the Southwest Harbor library.

Acknowledgments

The team would like to thank John Kelly, Abe Miller-Rushing, Phil Church, Clay Gilley and Mack Weaver for their help and the invaluable information they have provided in order for us to complete this project. We would also like to thank the Southwest Harbor Library for hosting our presentation. Lastly, the team would like to that Professor Frederick Bianchi, our project advisor.

Executive Summary

The night sky over Acadia National Park is in jeopardy. This is due to light pollution caused by tourism and from surrounding towns. The 2016 Dark-Sky project sought to protect the night skies by analyzing the problems contributing to light pollution in the area. This was done by inventorying, collecting data in an unobtrusive manner, by taking sky quality data and lastly by performing community outreach in Southwest Harbor.

The primary focus of this project was to complete and submit an application to the International Dark-Sky Association. This was done through the creation of a Lightscape Management Plan, creating a comprehensive lighting inventory and by proposing a detailed plan of action for the park to follow. The lighting inventory contains information such as lumen output, fixture shielding, bulb color/temperature, the use of timers and motion sensors as well as recommendations on what to do with each non-compliant light found in the park. This information will be used to grant the park provisional Dark-Sky status as well as be used as a guide for future lighting retrofits.

It is believed that the surrounding towns of Acadia National Park heavily influence the ambient light pollution within park boards. Due to this assumption, the team conducted a lighting audit in Southwest Harbor to determine its overall impact on the light pollution in the park. This was done by collected sky quality data and creating a heat map of the light pollution that Southwest Harbor contributes to surrounding areas. Additionally, light fixtures were survey and recommendations were made to the town about how they can further reduce their impact on the night sky. Lastly, the team gave a detailed presentation at the Southwest Harbor library to present their findings with community members and to raise awareness about light pollution.

Results from the inventory show that Acadia National Park currently contains 921 light fixtures and has an overall compliance of 39.31% with dark sky compliant lighting. A multi-part action plan was drafted and presented to the park about how they can bring inventory compliance up to 67.0%. The project culminated in the submission of a Provisional Dark-Sky application to Acadia National Park.

Future WPI teams should continue efforts to spread awareness and perform community outreach. Our Southwest Harbor outreach program will be invaluable in performing similar studies in the surrounding towns of Acadia National Park. Retrofits to the lighting inventory should be completed by Acadia National Park in order to reach full-fledged Dark-Sky status. The lighting inventory should be monitored and kept up to date as retrofits are performed. Sky quality data should be gather routinely in order to monitor any changes in light pollution of the night sky.

Table of Contents

Abstract 2
Acknowledgments 3
Executive Summary 4
Tables of Figures 7
1.0 Introduction 8
2.0 Background/ Literature Review 11
2.1 The National Park service 11
2.2 Acadia National Park 12
2.3 Light pollution and the Environment 12
2.4 The International Dark-Sky Association 13
2.4.1 Measuring Sky Brightness 14
2.4.2 IDA Lighting Recommendations 16
2.5 Provisional application 17
2.5.1 Lightscape Management Plan 17
2.6 Previous work in Acadia National Park 18
2.7 Outreach 18
2.7.1 Outreach goals 19
2.7.2 Examples of Successful Outreach 20
I. Globe at Night 20
II. Acadia Night Sky Festival 20
3.0 Methodology 22
3.1 Data Collection 22
3.2 Criteria for Measurement 23
3.2.1 Moon Phase Cycles 24
3.3 Location of Collection 24
3.4 Lighting Inventory 25
3.5 Outreach Timeline 25
3.5.1 Educational Workshop 26
3.5.2 Dark-Sky Website 26
3.5.3 Lighting Audit and Recommendations 26
3.6 Provisional application 27
4.0 Results 29

4.1 International Dark Sky Application 29
4.1.1 Sky Quality Measurements 29
4.1.2 Light Scape Management Plan 30
4.1.3 Lighting Inventory 30
4.1.4 Action Plan 33
4.2 Community Outreach 33
5.0 Recommendations 35
5.1 Acadia National Park 35
5.2 Southwest Harbor 36
5.3 Future Work 44
6.0 Conclusion 45
References 46
Appendix: IDA Application 49

Tables of Figures

Figure 1 Sky Quality tiers (Barentine, 2015 pg6) 15
Figure 2 Data Logging Hub (Unihedron, 2016) 22
Figure 3 SQM-LU-DL (Unihedron, 2016) 22
Figure 4 the Zenith (Mosby-Year book, 1995) 23
Figure 5 SQM lens comparison (Unihedron, 2016) 23
Figure 6 July 2016 Moon Phases (Astronomy Club of Akron, 2016) 24
Figure 7 Location of lights in lighting inventory 31
Figure 8 Breakdown of lighting within Acadia National Park 32
Figure 9 statistic of lighting based on location 32
Figure 10 compliancy 33

Figure 11 Southwest Harbor heat map 33

Authorship

1. Introduction: Greg Jacobson

2. Background/ Literature Review

Sections 2.1-2.6 written by Greg Jacobson and Ian Diamond with collaborative editing from the rest of the team.

Sections 2.7 written by Tim Reuter with collaborative editing from the rest of the team.

3. Methodology

Sections 3.1-3.4 &3.6 written by Greg Jacobson with collaborative editing from the rest of the team.

Sections 3.5 written by Tim Reuter and Griffin Shira with collaborative editing from the rest of the team.

4. Results

Written by Tim Reuter and Greg Jacobson.

5. Recommendations

Written by Tim Reuter and Greg Jacobson

6. Conclusion

Written by Tim Reuter

Final editing done by Greg Jacobson

7. Appendix (IDA Application)

Greg Jacobson: Lightscape management plan, Action plan

Griffin Shira: Designed and completed exterior lighting inventory

Tim Reuter: Data collection process for sky quality measurement and Southwest Harbor

Ian Diamond: Education and outreach for Acadia National Park

1.0 Introduction

On August 25th, 1916, President Woodrow Wilson signed the Organic Act, thus creating the National Park Service (NPS). 2016 marks the 100th anniversary of this act and Acadia National Park (ANP), which was established in the same year, will be holding a yearlong celebration (A Call to Action, 2015). The centennial will be an important time for ANP and the NPS to reflect on a century's worth of effort providing protection for, and preservation of our nation's natural beauty. The 2016 Dark-Sky Team will continue the legacy of integrity and utmost love and care for the natural beauty that is Acadia National Park. The purpose of this project is to continue the multi-year survey of light pollution in ANP and the surrounding towns that contribute to the sky glow in the area. This includes expanding the project to new towns with a community outreach program. Due to the growth of Maine's coastal tourism industry, the skies above ANP have come under direct assault from light pollution. Action must be taken to preserve the night sky above ANP.

To accomplish this, the 2016 Dark-Sky team developed an outreach program targeting the location of Southwest Harbor. Due to close proximity with ANP, Southwest Harbor was thought to be a main contributor to the sky glow within the park. It was our task to educate community members on the work being done within the park to preserve the night sky. The goals of the outreach program were meeting with members of the public, developing a website to provide educational material and procedural information, conduct sky glow audits, take lighting inventory within the town, as well as direct analysis of the sky quality within and immediate to Southwest Harbor. It was determined that Southwest Harbor was not in fact a main contributor to sky glow in ANP.

Secondly, the Dark-Sky team assisted ANP with the submission of an application for a provisional International Dark-Sky certification. If granted, provisional status will allow the park the necessary leverage to gain funding to meet requirements for full-fledged Dark-Sky Park (DSP) status. The International Dark-Sky Association will then grant ANP a 3-year timeframe to meet a goal of 67% compliance of lighting fixtures within the park. Currently, ANP needs to retrofit a large portion of its inventory to reach this goal. Attaining DSP status will bring a new level of prestige and allow ANP to be recognized world-wide as a premier park for night sky viewing.

2.0 Background/ Literature Review

This section provides the reader with necessary information to understand the history of the NPS and ANP. It will also serve as a means to introduce the reader to the organizations relevant to this report.

2.1 The National Park service

The mission statement of the National Park Service, the Organic Act of 1916, reads as follows, "the Service thus established shall promote and regulate the use of Federal areas known as national parks, monuments and reservations…by such means and measures as conform to the fundamental purpose of the said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." (A Call to Action, 2015) To ensure that the national parks remain unimpaired, the general public must be aware of what resources are to be conserved and they must be educated in ways of preserving the park for future generations to come.

To reach this goal, the National Park Service put together a plan called *A Call to Action*. The plan details stewardship through 2016 and beyond. The NPS would like to continue further engagement and continue the objectives set forth by the Organic Act. The objectives for the second century are four-fold. They include: (1) developing a connection with people and the parks; (2) advancing education; (3) preserving measures for the parks; and (4) strengthening professional and organizational excellence (A Call to Action, 2015). By implementing new measures, the strategy emphasizes three things: choice; stability; and creativity. *A Call to Action* has 36 points encompassing all four objectives of the NPS leading into the second century of the organization.

The 2016 Dark-Sky team worked towards the goals outlined by points 27 and 28. Point 27; “Starry, starry night”, classifies natural light as a precious resource that must be protected. Point 28; “Park pulse”, serves to “Assess the overall status of park resources and uses this information to improve park priority setting and communicate complex park condition information to the public in a clear and simple way” (A Call to Action, 2015).

2.2 Acadia National Park

Acadia National Park was originally established July 8th, 1916 by President Woodrow Wilson under the name “Sieur de Monts National Monument”. Located on Mt Desert Island, in the state of Maine, it was a gift to the American people of 5,000 acres. Now the Park spans a vast 47,000-acre area marked by sprawling rocky beaches, woodlands and glacier-scoured granite peaks (Hartford, 2015). ANP is home of Cadillac Mountain, which is the highest peak on the Eastern coast. It is inhabited by many different mammals, amphibians and sea life and is prized as one of the darkest skies on the east coast. Perfect for camping and hiking, ANP has become a destination for those looking for the peace and purity that only Mother Nature can deliver. In recent years this has been seen as a double-edged sword of prosperity, but also harm. Due to growth within the tourism industry, an increase in sky glow has been observed.

2.3 Light pollution and the Environment

Light pollution, which is defined as, scattering of light in the atmosphere; is an issue that must be tackled for a number of reasons. Bright skies have a physiological effect on people and local wildlife. Exposure to increased amounts of artificial lighting, often result in a decrease of melatonin and other hormones within the body. (Navara, 2007). These hormones play a part in controlling metabolic, immune, and endocrine balance resulting in sleep deprivation and increased difficulty getting to and staying asleep throughout the night. Animal migration patterns

and hunting methods can be affected as well (Chepesiuk, 2009). With the increase of tourism into Acadia National Park and its surrounding areas, care must be taken to preserve the night sky quality and minimize sky glow for future generations.

The IDA Lighting Code Handbook lists three reasons for outdoor lighting: general illumination, security, and decorative. General illumination allows pedestrians to navigate nearby areas safely. Security lighting improves the sense of safety, but doesn't necessarily reduce or deter criminal behavior. Decorative lighting enhances appearances of an area (Outdoor Lighting Code Handbook, 2002). All three types of lighting can contribute to what is known as "sky glow", which is considered to be brightening of the night sky due to artificial lighting. Precautionary measures must be taken such as using shielded lights, which do not allow light to be directed upward into the night sky.

2.4 The International Dark-Sky Association

Light pollution, as well as, creating dark skies is the main concern of the International Dark-Sky Association. Originally founded in 1988 the IDA recognizes locations internationally that meet their requirement for certification. There are three tiers of certification: bronze; silver; and gold. These named certifications are based on sky glow measurements within a park and in this case Acadia National Park. In addition to meeting sky glow requirements all parks must also achieve a certain percentage of compliance of lighting fixtures within the park. Compliant lighting must properly shield light from the night sky. Acadia National Park must be able to achieve a compliance level of 67% with lighting fixtures in order to be considered for certification (Barentine, 2015).

Dark-Sky park recognition would be beneficial for ANP in various ways. Most notably, becoming an IDA DSP would increase exposure for ANP internationally. IDA hosts all DSP

locations on its website and works closely with certified DSPs. This would generate interest in ANP and bring in greater amounts of revenue, furthering the park's ability to carry out lighting retrofits to reach 90 % compliance in five years after being granted DSP status (Barentine, 2015). ANP would also be able to erect a new park sign stating that they are DSP certified, thus creating a more prestigious view of the park for travelers seeking natural sky darkness and for conservation groups looking to support the park in its goals.

2.4.1 Measuring Sky Brightness

As previously stated, the IDA has three tiers of certification. An in-depth explanation can be found in the chart below (Barentine, 2015).The chart also introduces two systems used to measure sky brightness: the Bortle Sky Class; and the Unihedron Sky Quality Meter (USQM) systems. Although the team will be using the Unihedron system, the Bortle system is often used by astronomers to quantify light pollution. More information about Sky Quality Meters can be found in the methodology section.

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

Figure 1 Sky Quality tiers (Barentine, 2015 pg6)

2.4.2 IDA Lighting Recommendations

Most people are familiar with home lighting fixtures and what type of bulbs are commonly used, such as fluorescent and incandescent bulbs. Lighting used in outdoor fixtures is often different. Low-pressure sodium (LPS), high-pressure sodium (HPS), metal halide and light emitting diode (LED) sources are commonly utilized for outdoor lighting. LPS are very efficient and great in situations where astronomical friendly lighting is required. On the other hand, LPS lighting emits a narrow spectrum of pumpkin colored light that is often seen as undesirable for small businesses in need of security lighting. HPS lighting is often used in street lighting and produces the familiar "warm glow" style of light. When white light is desired, LED and metal halide lights are often used (Outdoor Lighting Basics, 2015)

Recently there has been a large increase in the use of LED lighting. This is due to the fact that LED lighting is energy efficient. Many people also view the use of LED's as environmentally conscientious due to the fact that they require less energy to run. Most energy is created through the burning of fossil fuel, which pollutes the environment. Another positive feature of LEDs is that during times when less light is required an LED can be dimmed, further increasing efficiency while simultaneously decreasing light pollution. Although there are many benefits, one important negative is that blue light is emitted by many common LED's. Blue light has been known to brighten the night sky more than any other color in the visible spectrum. For this reason the IDA recommends using light with a temperature of 3000 Kelvin or less(Outdoor Lighting Basics, 2015). This temperature of light gives off a warm glow and is much less harmful to wildlife and light pollution. If LED lighting is desired, care must be taken to use low temperature or filtered LED lighting.

Although lighting is necessary for various reasons such as safety, commerce and decoration, the IDA lists five recommendations for lighting fixtures. They include: (1) lights

should only be on when needed; (2) should illuminate only areas that require lighting; (3) use a degree of light no brighter than necessary; (4) minimize blue light emission; and (5) should be fully shielded, ensuring that only the area requiring light is illuminated (Outdoor Lighting Basics, 2015).

2.5 Provisional application

In order to submit an application for provisional status, the 2016 Dark-Sky team worked closely with representatives from ANP. Applications are generally lengthy and can consist of 100 pages or more of detailed information about a park and its current lighting situation. The International Dark-Sky Association has a number of minimum requirements for parks that are seeking Dark-Sky status; these include (1) measurements of sky glow; (2) a comprehensive Lightscape Management Plan; (3) commitment to outreach and education and (4) a detailed lighting inventory. The 2016 Dark-Sky team worked carefully to fully detail a Lightscape Management Plan and to complete the lighting inventory within ANP (Barentine, 2015). For all lighting that is deemed non-compliant, a detailed action plan must be created to show how the park will update and bring the lighting fixture in question up to compliance in the future.

2.5.1 Lightscape Management Plan

Every Dark-Sky Park is required to have a completed Lightscape Management Plan (Barentine, 2015). This document serves as a standard for outdoor lighting within a park and is used evaluate current lighting inventory as well as future inventory and retrofit projects to update lighting that is deemed non-compliant. Lightscape Management Plans are required by the IDA to follow a strict set of guidelines. These guidelines are listed in a document created by the IDA and the Royal Astronomical Society of Canada and include information such as when and where lighting fixtures will be on motion sensors or timers, the types of bulbs used, the temperature/color of bulbs used, what type of shielded lights are recommended based on their

intended use, and special case lighting such as historic buildings to name a few (Dick, R, 2012). In essence the Lightscape Management Plan is a set of regulations written by the park for the park to use in the future and for current evaluation.

2.6 Previous work in Acadia National Park

The Dark-Sky Project has been ongoing since 2013. The first two years of the project were dedicated to accumulating raw data on sky quality in Acadia National Park. A heat map of Mt Desert Island was constructed with GIS computer software and shows all of the different measurements of sky glow within the park. Data was accurately taken with a sky quality meter equipped with a lens capable of capturing light within a small 20-degree cone (Carello, Carmichael, Hedberg, & Plenefisch, 2014). It was found that Acadia national park achieves an average darkness in the silver tier with some locations in the park qualified for gold tier (Carello et al, 2014). In 2015, WPI students conducted a lighting audit within the park and found that the lighting fixtures within the park were 55% compliant. Results from this study allowed for a draft of a provisional application to be completed (Alsoby et al, 2015). The 2016 team will be completing and updating the 2015 team's work.

2.7 Outreach

Under point 28 of *A Call to Action* it is the team's task to educate the public on matters related to conservation of our national parks (A Call to Action, 2015). Southwest Harbor is a bordering town of Acadia National Park and is not only an excellent place to develop an outreach program with the intent of informing the public of the work WPI is doing within the park, but also to inform citizens of effective and meaningful solutions to the problem that Acadia National Park is trying to solve. The public must be educated about the light output of their town and also what is defined as compliant lighting by the International Dark Sky Association. If surrounding

towns can be educated, and as a result, become conscientious of light output within their respective towns, the sky glow within Acadia National Park can be reduced further.

2.7.1 Outreach goals

The goal of the 2016 Dark-Sky community outreach program was to educate the general public about light pollution and what actions they can take as citizens to minimize the impact of their community. Successful community outreach programs have three major stages: awareness and education; accessible information; and community integration. Awareness and education are vitally important to catching the attention of the populace that is involved in the community outreach program. In order for the community to understand why the community outreach program is taking place, they must first understand why it is relevant to them as well as understand how they can be aware of the consequences of not taking action. Education allows for the people to have a greater understanding of the context of the information being presented. A lack of education creates a knowledge gap between the community and the effectiveness of the outreach program.

Ease of access to relevant information provides the community with a way to continue to gain understanding of the topic being presented as well as creating a way for the community to spread the concern by word of mouth. This access provides the vital ability for citizens of the community to have sources for, and evidence of the existing problem. The 2016 Dark sky project has access to web technology and the local library, both of which are effective means to provide the community with accessible information.

The last step of community outreach is community integration. Integrating the problem awareness into the everyday lives of community members gives the outreach program significance to the community. If the community does not have reminders that an elusive problem, such as light pollution, is continuing to affect them daily, then it is easy for the problem

to be ignored. In order to integrate fully with a community, the outreach program should take part in community events and actively become integrated within the community itself.

2.7.2 Examples of Successful Outreach

The 2016 Dark-Sky team created an outreach program with the hope of inspiring the people of Southwest Harbor to preserve the night sky. There are a number of public outreach programs that have been widely successful and are great examples for the Dark-Sky team to draw upon for information.

I. Globe at Night

Launched in 2006, "Globe at Night" is a citizen-scientist campaign designed to bring awareness of light pollution to the public. It is an international outreach program with the intent of collecting measurements of sky glow from the entire globe. Citizens can upload measurements to Globe at Night from a cell phone app or computer. Globe at Night has collected over 100,000 data points since its birth and 115 countries have participated. Approximately 23,000 data points were collected in 2015 alone (Globe at Night, 2014). This shows that Globe at Night is still relevant and a largely successful campaign.

II. Acadia Night Sky Festival

Originally launched in 2009, the Acadia Night Sky Festival aims to promote the protection of ANP's skies. The festival takes place annually in the month of September and spans three nights. It is a great time for friends and family to share the wonder and awe of the night sky. During the celebration festival participants are informed of scientific research and current efforts to improve lighting within ANP. Experiences include workshops, guest speakers, and stargazing with a focus on education and prevention of light pollution. The festival ends with the climax of the event being a trip to the summit of Cadillac Mountain to view the stars in one of the darkest locations in the park. Up to 1000 people have attended for the opportunity to peer

through telescopes and chat with festival organizers about the night sky (Acadia Night Sky Festival, 2014).

3.0 Methodology

3.1 Data Collection

One of the main components of the 2016 Dark-Sky project is data collection in the region around Southwest Harbor. This task was accomplished using light meters from Unihedron. The purpose of this device is to measure sky glow on a scale of magnitudes/square arc-second. All previous dark-sky teams have used the same SQM (sky quality meter). In choosing this option, the 2016 team was consistent with previous dark-sky teams in keeping measurement techniques constant.

Figure 3 SQM-LU-DL (Unihedron, 2016)

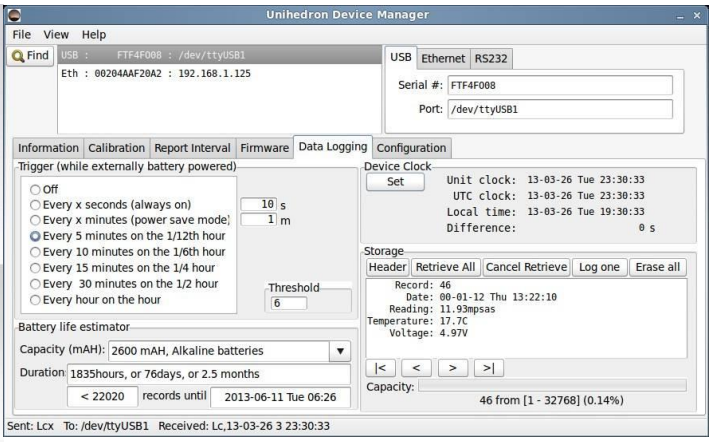


Figure 2 Data Logging Hub (Unihedron, 2016)

The SQM-LU-DL is an automated data logging device that can be run off of a USB platform and transfer data to a laptop for further data compilation. The main benefits of using the SQM-LU-DL is that the meter can be used manually or it can be automated to take measurements at certain intervals without human interaction (Sky Quality Meter-LU-DL, 2016). This will be pivotal in development of sky quality measurements over a sustained period of time

without the need to physically take a reading. Additionally the SQM-LU-DL is equipped with a narrow 20-degree lens used for capturing light (Sky Quality Meter-LU-DL, 2016). This provides much more accurate readings than the standard SQM by averaging sky glow magnitude in a smaller portion of the sky, effectively filtering out most of the light that is close to the ground. Since the team will be taking measurements from the ground, using this meter will ensure that only sky glow near the zenith is captured.

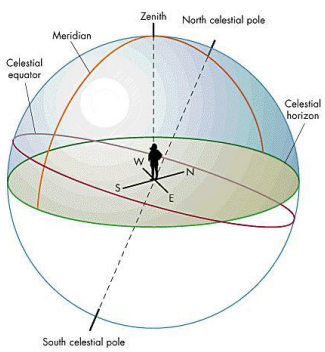


Figure 4 the Zenith (Mosby-Year book, 1995)

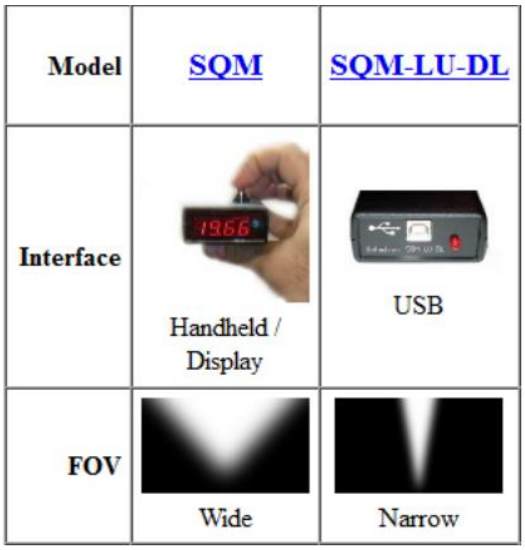


Figure 5 SQM lens comparison (Unihedron, 2016)

3.2 Criteria for Measurement

To keep data collection methods consistent with previous dark-sky teams, certain criteria were used to take measurements.

- Schedule readings around lunar phase
- Point meter directly at zenith
- Keep a minimum distance from artificial lighting fixtures
- Readings taken on clear nights with minimal to no cloud cover
- Open locations (no tree coverage where readings would be taken)

3.2.1 Moon Phase Cycles

In the presence of a new moon, sky glow readings will be unaffected by moonlight. Thus, the team will not need to compensate for higher sky glow. For best results, measurements need to be taken between two days before the new moon, and two days after the new moon. As shown in figure 1, the dates in which data can be taken are July 2nd through July 6th.

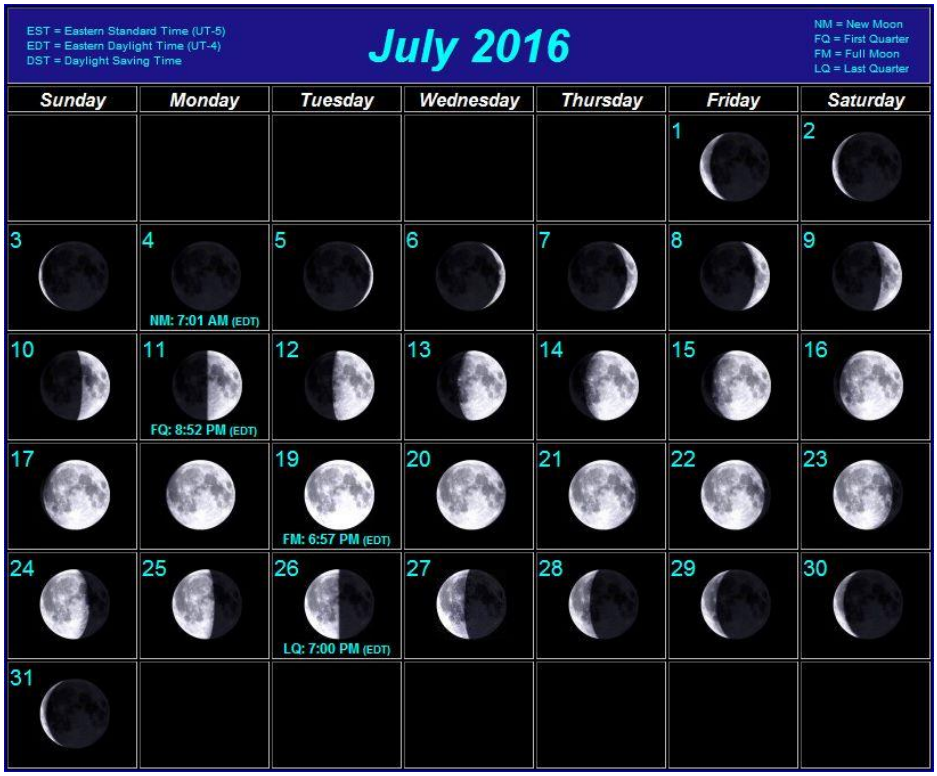


Figure 6 July 2016 Moon Phases (Astronomy Club of Akron, 2016)

3.3 Location of Collection

The 2016 Dark-Sky team took measurements in the region of Southwest Harbor. Starting from the center of town, the team worked its way radially outward in small increments, taking measurements in locations such as streets and clearings in the woods. Southwest Harbor is located on the coast, which allowed the team a more manageable area to gather data. Upon collecting this data a heat map was created using GIS software. The map will look similar to a

bullseye with the brightest location at the center of town; slowly making way to darker locations upon moving outward. This information can be used to show the overall effect of light pollution on ANP, due to the lighting of Southwest Harbor. The team will also be going into town to conduct a light survey, pointing out compliant vs. non-compliant lighting and citing places where the town can improve upon current lighting fixtures.

3.4 Lighting Inventory

In order to collect and update ANP's lighting inventory, ANP management had to be consulted. The 2015 Dark-Sky team only focused on fixture shielding which meant that our team would have to address additional concerns such as bulb type, color, lumen output and the use of motion sensors and timers in order for our application to be considered for acceptance. Bulb information was gathered from ANP maintenance at park headquarters as well as the Schoodic Research Institute. Our main points of contact were Mack Weaver and Phil Church from ANP. Through meetings, e-mail and our own personal experience surveying the 921 lights within the park, we were able to fully construct a lighting inventory that met all guidelines for an IDA DSP application.

3.5 Outreach Timeline

The Dark-Sky outreach program has three major components: an educational workshop which was hosted by the Southwest Harbor Library; a website that provided easily accessible information on light pollution and Acadia National Park; and a lighting audit meant to provide valuable feedback to the people of Southwest Harbor. The website is meant to be completed as soon as data collection is finalized and the data are ready for presentation. The lighting audit will be our final collection of data and a finished list of recommendations for the town to use.

3.5.1 Educational Workshop

The purpose of this educational workshop is to give the populace of Southwest Harbor a general description of the project. Ideally this part of the team's outreach program will also provide inhabitants of Southwest Harbor a way to voice questions, concerns, or find a way to get involved with other aspects of our project. To accomplish this task, the Dark-Sky team blended past years' data and our own research to create a comprehensive workshop. The team was in contact with the Southwest Harbor library to decide on a presentation day that had the most effectiveness in the community. Once the date was set the Dark-Sky team presented and engaged as many community members as possible.

3.5.2 Dark-Sky Website

The purpose of the website was to provide a central location for people of Southwest Harbor and neighboring communities to research important information about light pollution in Acadia national park, thereby creating a hub for people interested in preserving the night sky. This portion of the project is of vital importance, as it will be the legacy of the Dark-Sky team and will promote light conscience decisions for years to come. The first part of this process was to approach the WPI web design and marketing team for assistance in creating the structure of the site. After this step, the team populated the site with its research and collected data. Finally the team worked closely with the Southwest Harbor library and friends of Acadia to keep the website updated (Olson, Arvai, & Thorp, 2011).

3.5.3 Lighting Audit and Recommendations

Upon completion of the Southwest Harbor lighting audit, strategies were recommended to implement new lighting solutions. Lights within the towns surrounding Acadia National Park have a significant contribution to the overall sky glow in this area. Since Acadia National Park has no control over any light fixtures within these towns, consulting with contributors of light

pollution in Southwest Harbor should have an impact on the overall quality of the night sky. In order to give suggestions, the team will need to identify lighting fixtures of various businesses and classify them, as compliant fixtures or noncompliant fixtures. A compliant fixture, is a fixture that has proper shielding. Shielding is defined as an opaque barrier above a downward-facing light fixture that prevents light from escaping upwards toward the sky. Another important aspect to consider for business lighting is the purpose of the lighting. If the lighting is for decorative use, it may be harder to effectively change the light to reduce the light's impact on the night sky while also providing the business with its desired effects. Therefore the classification and the purpose of the light will be recorded, so that it can be properly considered.

In addition to gathering data concerning the lighting, basic data will be collected so that the lighting can easily be identified when presented for consideration. Such data include a picture and location of the light. Once the data concerning the current light fixtures are taken, we may then use these data to create our recommendations for each light. Recommendations may include increasing shielding on the light fixture, replacement of the light fixture, removal of the fixture, or even reducing the use of the fixture during hours when the business is not in operation.

3.6 Provisional application

The first step towards the completion of a provisional application was to create a Lightscape management plan. No other work could be completed until this document was created. The Lightscape Management Plan detailed the standards for outdoor lighting within ANP and essentially is what determines if a light fixture is compliant or not. Once created, the team used the Lightscape Management Plan to evaluate the park's lighting inventory. While the 2015 team had done a lighting inventory, due to policy changes at the IDA, a more specific set of data needed to be collected such as the type/temperature of bulbs used, the use of motion sensors

or timers and the amount of foot traffic in areas of the park will also need to be evaluated. This will help determine what lights in the park are required to remain lit for safety purposes. Additionally, it was determined if there is unnecessary or redundant lighting that is not needed in the park. Currently there are 921 light fixtures within the park and one way to reduce sky glow is to remove some of those fixtures that are deemed unnecessary. The 2016 team took a much deeper and more intimate look at the current lighting situation in ANP. The lighting inventory taken by the 2015 team was updated with new findings and an overall percentage of compliance was determined by the 2016 team.

Upon completion of the Lightscape Management Plan and park lighting inventory, the 2016 team combined previous work form other WPI IQP teams and our own work to create a comprehensive provisional application. Additionally, an action plan was created detailing the best course of action for the park to update non-compliant lighting. The application will then be handed over to ANP. The only components left to gather will be a letter of nomination from a certified IDA member as well as letters of recommendation from park management and town council.

4.0 Results

The purpose of this chapter is to highlight the accomplishments and data analysis of the 2016 Dark Sky team. The results will be expanded and explained in order to show the advancements provided for Acadia National Park in its effort to become a Dark Sky Park.

4.1 International Dark Sky Application

The team 2016 Dark Sky has completed and provided Acadia National Park with a provisional application to the International Dark Sky association. The team has addressed all key components for the provisional application; these include (1) measurements of sky glow; (2) a comprehensive Lightscape Management Plan; (3) commitment to outreach and education and (4) a detailed lighting inventory and action plan to reach 67 percent compliance. Many of the components of the provisional application were completed by previous teams' work, such as sky quality measurements done by the 2014 Dark Sky Team or a preliminary inventory created by the 2015 Dark Sky team. The 2016 Dark Sky team has taken the work completed by previous teams, complied it into a provisional application, and updated or collected information needed to complete the provisional application. Please see appendix () for the complete provisional application.

4.1.1 Sky Quality Measurements

In order to submit a provisional application to the IDA a park must provide sky quality measurements taken by Unihedron SQM-LU-DL meters. Over 8000 sky quality measurements were taken by the 2014 Dark Sky team. Additionally the 2015 Dark Sky team took 28 sky quality measurements. The culmination of the data provided by these teams and their measurements was implemented by the 2016 Dark Sky team to show that Acadia National Park has an average sky quality reading of 21.3Mpas or better. Using the data implemented and the heat map of Mount Desert Island created by the 2014 Dark Sky team the provisional application

will show that Acadia National Park qualifies for a silver status as a Dark Sky Park. Sky quality data can be found in appendix ()

4.1.2 Light Scape Management Plan

In order to submit a provisional application and complete a full lighting inventory for Acadia National Park a Light-Scape Management Plan (LMP) was provided to the park. The purpose of the LMP is to serve as a guide for future lighting retrofits as well as a tool to evaluate the current lighting inventory within the park. Good lighting practices require a close look at how light is used, the types of bulbs used, the use of control devices such as switches and motion sensors, and fixture shielding. There are additional concerns when placing new or evaluating current permanent fixtures such as redundant use or areas that are over lit, the angle that light is scattered, glare, light trespass and atmospheric conditions due to the fact that light scatters easily on heavily clouded nights. The goal of the LMP is to provide safety and security for pedestrians while mitigating light pollution as much as possible. The team met with park officials and made sure that this LMP will be adopted and used as the lighting guide for Acadia National Park in their effort to become a DSP. The full Lightscape Management Plan can be found in appendix ().

4.1.3 Lighting Inventory

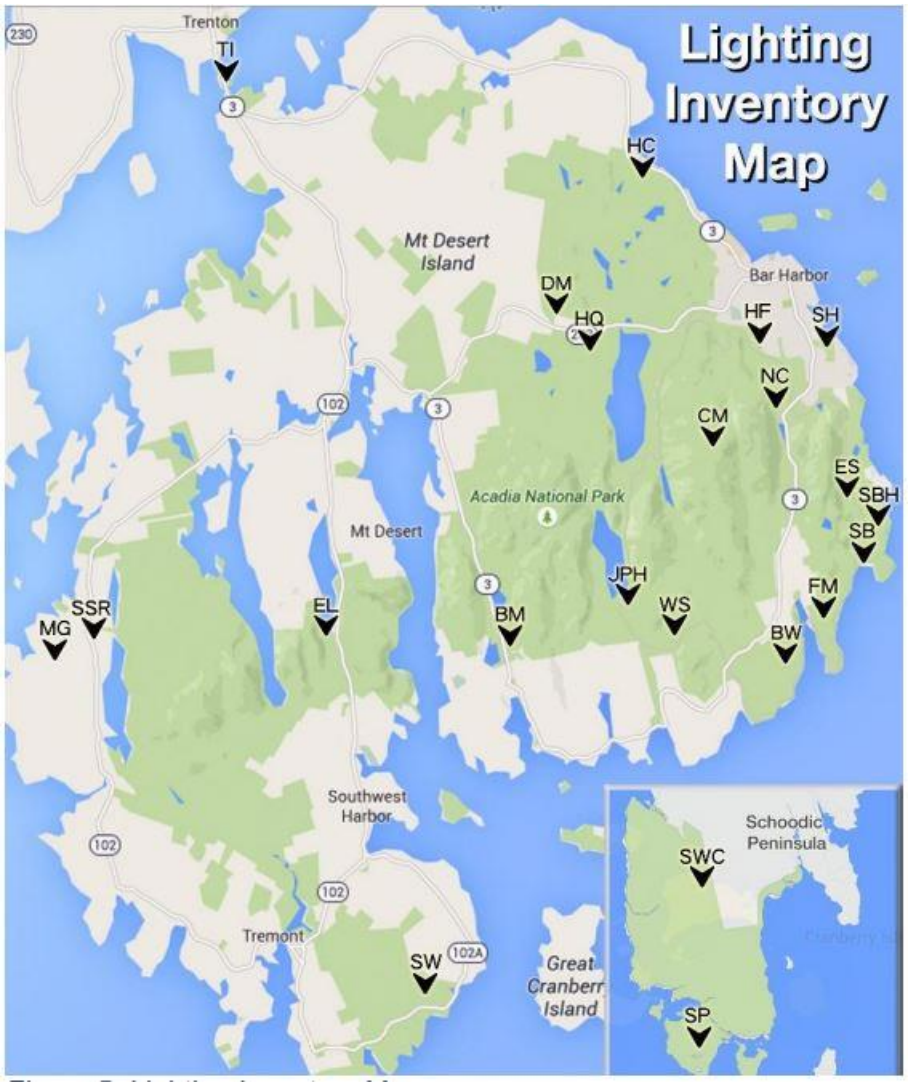


Figure 7 Location of lights in lighting inventory

A comprehensive lighting inventory is required by the IDA as a structural component of a DSP application as it provides a clear outline of the park's current lighting compliance. The 2015 Dark Sky team provided an updated lighting inventory based off of previous lighting audits of Acadia National Park. Due to the changing regulations of the IDA, it was required by the 2016 team to update the lighting inventory to current lighting standards. The new lighting standards reflect the LMP that was implemented by the 2016 team and the park staff, which include changes to lighting color, fixture compliance, and how the lighting is controlled. Sections were

Figure 8 Breakdown of lighting within Acadia National Park

added to our inventory giving recommendations and comments on each light fixture that was determined to be non-compliant. It was the discovery of the team that the park has a total of 921 lights throughout the park. A total of 362 lights were found to be complaint to new standards, leaving 559 lights as non-compliant. This lighting inventory provided Acadia National Park with a final compliancy of 39.31 percent. Additional statistics of compliant vs non-compliant lighting were provided on a location basis to the park. The completed lighting inventory can be found in appendix ().

	Number of Fixtures	Compliant Fixtures	Non-compliant Fixtures	% Compliant	# LED to Replace	# Bulb to Replace	# Fixtures to Replace
BW	66	22	44	33.33%	33	4	7
BM	4	4	0	100.00%	0	0	0
CM	4	1	3	25.00%	0	0	3
DH	4	4	0	100.00%	0	0	0
EL	7	1	6	14.29%	0	0	6
ES	14	3	11	21.43%	0	4	7
FM	3	0	3	0.00%	0	0	3
HF	16	8	8	50.00%	0	0	8
HQ	91	28	63	30.77%	1	1	61
HC	44	19	25	43.18%	0	9	16
IH	8	0	8	0.00%	0	0	8
IF	4	0	4	0.00%	0	0	4
JPH	108	10	98	9.26%	22	18	58
MG	1	0	1	0.00%	0	0	1
NC	5	1	4	20.00%	0	0	4
SB	5	1	4	20.00%	0	0	4
SBH	4	0	4	0.00%	0	0	4
SP	319	127	192	39.81%	1	74	117
SWC	89	86	3	96.63%	0	0	3
SW	78	25	53	32.05%	17	4	32
SSR	2	0	2	0.00%	0	0	2
SH	3	0	3	0.00%	0	0	3
TI	22	18	4	81.82%	0	2	2
WS	20	4	16	20.00%	0	5	11

Figure 9 statistic of lighting based on location

Total Fixtures	921
Total Compliant Fixtures	362
Total Non-Compliant Fixtures	559
Total Compliancy	39.31%
Needed for 67%	256
Needed for 90%	467

Figure 10 compliancy

4.1.4 Action Plan

In order for Acadia National Park to reach DSP status it must have a compliancy of 67 percent three years after the acceptance of the provisional application. The action plan is meant to be a course of action for the park to take in retrofitting their lighting inventory. A best course of action was suggested to the park based on feasibility and cost efficiency of reaching the intended goal of 67 percent compliance. The action plan can be found in chapter () of the Dark-Sky application.

4.2 Community Outreach

Acadia National Park has already been implementing many of their own programs to promote awareness and education about the night sky. This community outreach was researched and written into the provisional application showing that Acadia meets the requirements of a DSP. The team also assisted by completing a lighting audit of Southwest Harbor which both provided Acadia National Park with a more robust community outreach program and allowed for a case study to be performed on the effects of light pollution form the towns

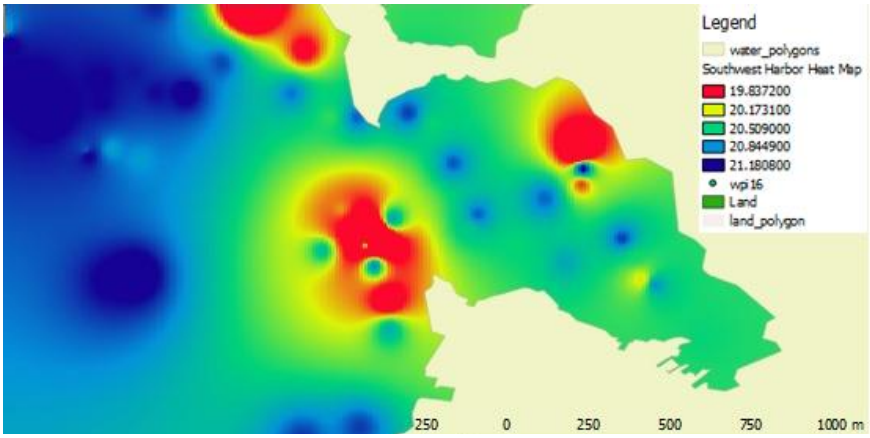


Figure 11 Southwest Harbor heat map

surrounding Acadia National Park. The goal of the case study was to understand the relationship between light pollution in the town and the level of ambient lighting within the park bounds. Using the method that was produced to collect data points throughout the entire park the team was able to make a high resolution heat map of Southwest Harbor and the surrounding areas. The heat map provided valuable data that was used to identify areas of the town that have the largest negative affect on ambient lighting pollution. This information was presented to members of the town with recommendations on how to reduce the towns over all light pollution and help preserve the night sky within the park. The team also was able to illustrate the relationship between the town center lighting and the level of light pollution within the park with greater detail. The town center, while averaging a sky quality of 19.8Mpas, impacts the quality of the night sky drastically less as points were taking farther from the town center. The level of ambient lighting returned to a stable 21.2 just outside of the town boundaries. This shows that the town may not have a direct geographical effect on the ambient light in the surrounding area but more likely lowers overall sky quality of a greater area by a smaller margin. The recommendations made to the town by the team should provide a better quality night sky in the surrounding areas and in the park.

5.0 Recommendations

The work completed by the 2016 Dark Sky team has advanced Acadia National Park in its effort to obtain dark sky status. The recommendations are listed in this section both as to how Acadia National Park can use the tools provided by the team to reach Dark Sky Status and recommendations for the direction of the project in following years.

5.1 Acadia National Park

Recommendations for Acadia National Park are listed in a three step process. Currently compliance is 39.31 percent with a target compliance of 67 percent in three years. In order to reach this goal, the 2016 Dark-Sky team developed a method which is believed to be the most cost effective option for reaching the intended goal of 67 percent compliance.

Step 1: Replacement of 74 LED packs and 121 Bulbs

Acadia National Park should first remove all non-compliant bulbs and LED packs and replace them with compliant luminaires. The lightscape management plan should be consulted in this process in order to determine the proper bulbs and LEDs to be used. This will grant Acadia an additional 195 compliant fixtures for a total of 557 compliant fixtures and a compliance of 60.47%. This is a huge jump in compliance without having to replace an entire fixture. In many cases a simple $5 CFL can be swapped out to gain compliance. More complicated will be the replacement of LED luminaires, which may require the replacement of a fixture in order to reach compliance. Previously contracted companies should be contacted to fully understand the best course of action for replacing LED packs.

Step 2: Replace pathway lighting at Jordan Pond House

Currently, Jordan pond house has 41 non-compliant pathways lights. This lighting is non-compliant due to the fact that it is not shielded and is in need of a complete fixture replacement. Fully shielded pathway bollards should be used to replace the current pathways lights at Jordan Pond House. The light from the bollards should be aimed in a manner in which only the pathway is illuminated and not the surrounding areas. Replacing the pathway lighting at Jordan pond house to fully shielded bollards will grant an additional 41 compliant lights for a total of 598 compliant lights and an overall compliance of 64.92%.

Step 3: Remove lighting that is not in use, disconnected, or has missing bulbs

One of the main guidelines of the lightscape management plan states that lighting should only be used when needed. This means that lighting that is considered redundant is of concern and should be eliminated entirely. The 2016 team found that 25 fixtures within the park can be removed due to having disconnected bulbs, not in use or redundant. 1 fixture at Jordan Pond House can be aimed properly for compliance. Removing 25 fixtures will drop the total fixtures to 896 and gaining one complaint light will bring the total compliant lights to 599. Overall park compliance will be 66.85%. In addition, park management should scrutinize lighting fixtures at park headquarters and determine if additional lighting fixtures could be removed. There are many lights at park headquarters and not all of them are necessary to adequately light park headquarters. When removing fixtures that are in an area where lighting is satisfactory, non-compliant lighting should be removed instead of compliant lights. One of the best ways to bring up compliance would be to lower the overall amount of lights in the park.

5.2 Southwest Harbor

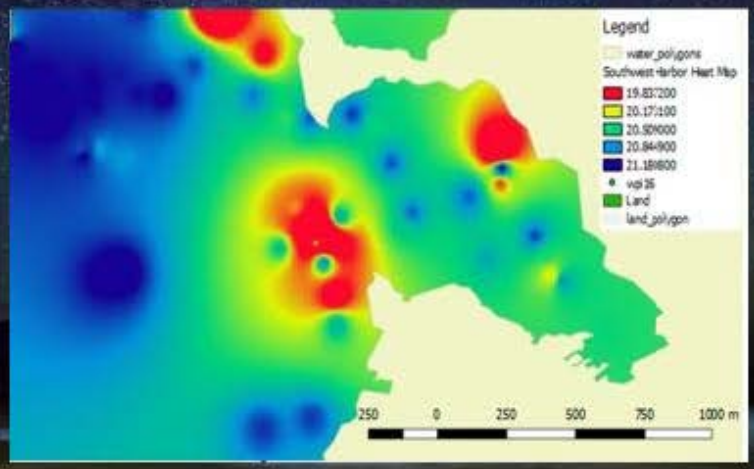
The culmination of our efforts in Southwest Harbor resulted in a presentation at the town library. Data collection from around the area allowed for us to create a heat map and a deeper

look at the effect of outdoor lighting in the area. We determined that ultimately Southwest Harbor does not have a significant impact on the amount of light pollution in Acadia National Park. Sky quality in the area of Southwest Harbor averages in the range of bronze or silver tier dark sky designation. Only areas such as Main Street, Seal Cove road and around the medical center have increased ambient lighting pollution due to a dense amount of lights in those areas. Recommendation were made to the town during our presentation. Currently the town uses a multitude of night lighting that is non-shielded such as street lights and area lighting. Additionally, businesses leave their lights on all night long in some cases. Our main recommendation was the enactment of a town lighting curfew. This would greatly reduce light pollution in the area.

Southwest Harbor Presentation:

Southwest harbor Outreach

- Southwest Harbor Community Outreach

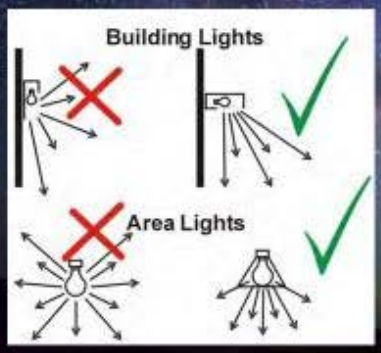


Southwest Harbor Outreach

- Southwest Harbor Community Outreach Results

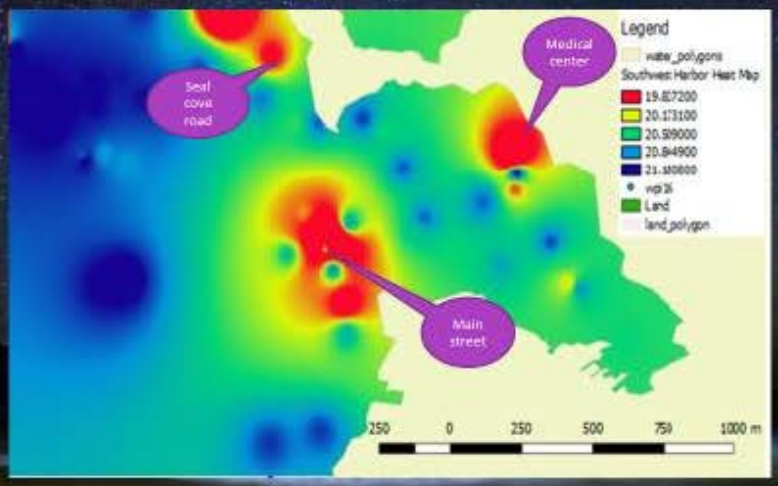
- Average sky quality: 20.5Mpas – 21.1Mpas
- Comparable to Bronze or Silver Tier
- Does not greatly affect light pollution

Southwest Harbor Outreach



- Outdoor lighting should be shielded, and let no light pass from the horizontal or upwards.
- Blue light spectrum should be minimized.
- Light should only be on WHEN needed.
- Only light the NEEDED area.
- Light should be no brighter than necessary.

Southwest Harbor Outreach



Southwest Harbor Outreach

Main Street: Examples of non-shielded lighting

- Allows excess light to escape upwards into the sky and causes excessive light pollution

Southwest Harbor Outreach

Main Street: Sign Lighting

- Illuminating signs causes large amounts of light pollution due to the upward facing nature of the luminaire.
- Causes glare for motorists passing by.

Southwest Harbor Outreach

Main Street: Interior Lighting

- Interior light spills out into surrounding areas and causes higher levels of light pollution
- Establish a lighting curfew.
- lighting a store does NOT reduces theft.

Southwest Harbor Outreach

Seal Cove:

- Over lighting an area causes excessive light pollution.
- Lights mounted under an overhang.
- Night blindness.

Southwest Harbor Outreach

Medical Center:

- Excessively bright lighting.
- White and blue light scatters further.
- Dim excessively bright LEDs.

Southwest Harbor Outreach

Examples of Good Lighting:

Southwest Harbor Outreach

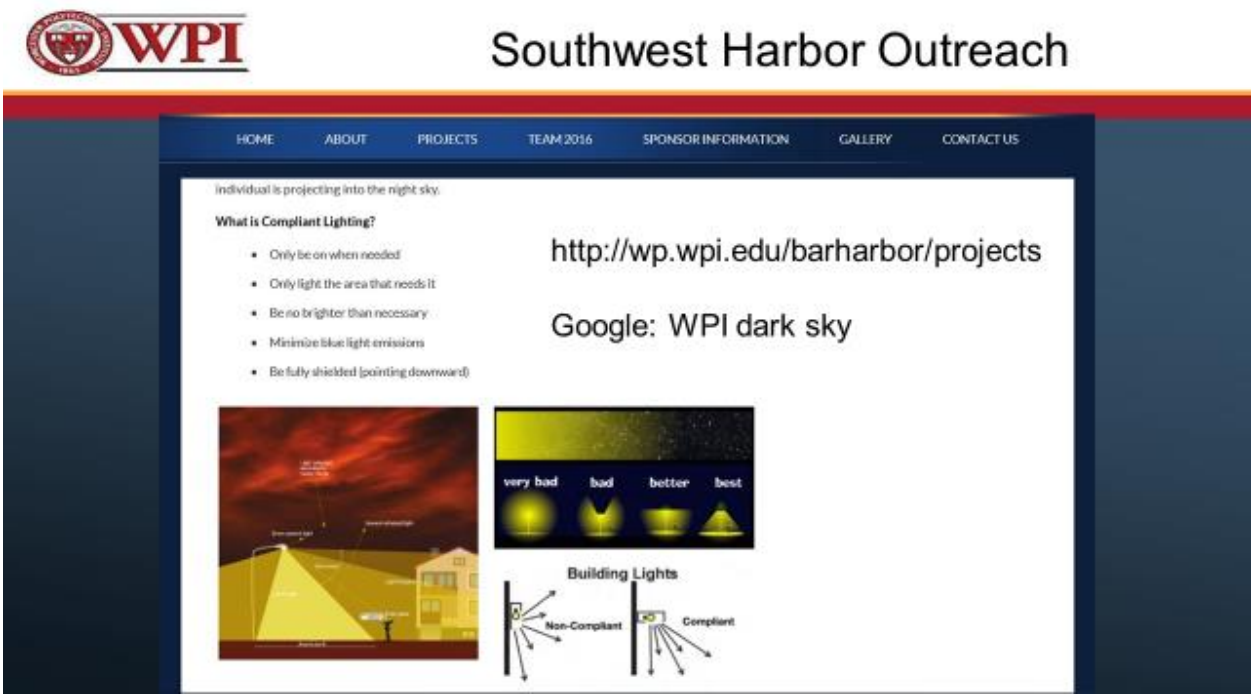
Recommendations:

1. Outdoor lighting should always be SHIELDED.
2. Light should only be on WHEN needed.
3. MINIMIZE the use of white and blue light spectrum lighting.
4. Use only the necessary AMOUNT of light.
5. Only entrance ways to buildings should to be illuminated.

Southwest Harbor Outreach

Where to Find Night Friendly Lighting:

- Darksky.org fixture seal of approval program
- Home Depot
- Starrynightlights.com



5.3 Future Work

The goal for the future Dark Sky teams should be to continue to assist Acadia National Park in its mission to continuing the preservation and improvement of the night sky. Future teams should focus on implementing the method used in the lighting audit of Southwest Harbor to other towns around Acadia National Park. This implementation will provide towns with recommendations and reduce the light pollution around Acadia National Park by a significant measure as well as increasing the general awareness and education about the night sky. Teams should also continue to take SQM reading in and around the park to understand how the night sky is developing over time. Finally any future teams should remain in contact with Acadia National Park and continue to assist them in their effort to move from a provisional DSP to a full-fledged DSP.

6.0 Conclusion

The results and observations of the 2016 Dark-Sky team show that Acadia National Park can obtain Dark Sky status if they use the tools and information provided to them. The provisional application provided to Acadia National Park will allow them to obtain provisional status. The action plan created by the team will allow Acadia National Park to reach a compliance level which will qualify them for silver status in the International Dark Sky Association. The data collected, both in Southwest Harbor and in the park, will provide the park with valuable data that will allow them to continue to preserve and improve the night sky. It has been the pleasure of the 2016 Dark Sky team to provide Acadia National Park with the resources they need to obtain Dark Sky status and continue the preservation of the beautiful natural resource that is the night sky.

References

A Call to Action: Preparing for a Second Century of Stewardship and Engagement. (2015) (1st ed., pp. 1-15). Retrieved from https://www.nps.gov/calltoaction/PDF/C2A_2015.pdf

Acadia Night Sky Festival. (2014). Retrieved April 4, 2016, from http://www.acadianightskyfestival.com/

Alsoby, R. A., Muntz, L. J., Ogren, L. M., & Sinkler, C. (2015). *Dark Sky 2015* (Undergraduate Interactive Qualifying Project No. E-project-072915-102701). Retrieved from Worcester Polytechnic Institute Electronic Projects Collection: http://www.wpi.edu/Pubs/E-project/Available/E-project-072915-102701/

Astronomy Club of Akron,. (2016). *Moon Phases July 2016*. Retrieved from http://www.acaoh.org/_MoonPhases/Calendars/2016/MoonPhase_2016-07.jpg

Barentine, J. (2015). *International Dark-Sky Association Dark Sky Park Program Guidelines* (1st ed., pp. 1-13). Tucson, Arizona: International Dark-Sky Association. Retrieved from http://darksky.org/wp-content/uploads/bsk-pdf-manager/IDSP_Guidelines_Oct2015_23.pdf

Carello, R. W., Carmichael, R. T., Hedberg, K. L., Plenefisch, P. (2014). *Dark Sky 2014* (Undergraduate Interactive Qualifying Project No. E-project-080614-220044) Retrieved from Worcester Polytechnic Institute Electronic Projects Collection: http://www.wpi.edu/Pubs/E-project/Available/E-project-080614-220044/

Chepesiuk, R. (2009). Missing the Dark: Health Effects of Light Pollution. *Environmental Health Perspectives*, *117*(1), A20–A27.

Dark Sky Society - Home. (n.d.). Retrieved April 17, 2016, from http://www.darkskysociety.org/

Dick, R. (2012). *Guidelines for Outdoor Lighting in RASC Dark-Sky Preserves and IDA Dark-Sky Parks* (1st ed., pp. 1-37). Royal Astronomical Society of Canada. Retrieved from

http://darksky.org/wp-content/uploads/bsk-pdf-manager/RASC-IDA_GOL_November_2012-Final_51.pdf

Folz, D. H., & Hazlett, J. M. (1991). Public participation and recycling performance: explaining program success. *Public administration review*, 526-532.

Globe at Night - About. (2016). *Globeatnight.org*. Retrieved 18 April 2016, from http://www.globeatnight.org/about.php

Haldeman, T., & Turner, J. W. (2009). Implementing a community-based social marketing program to increase recycling. *Social Marketing Quarterly*,*15*(3), 114-127.

Hartford, G. A. (2001-2015). Acadia National Park History. Retrieved April 01, 2016, from http://www.acadiamagic.com/acadia_national_park.html

Kyba, Christopher CM, et al. "Cloud coverage acts as an amplifier for ecological light pollution in urban ecosystems." *PloS one* 6.3 (2011): e17307.

Larsen, A. J., Morse, J. B., Rolon, M., Roth, S. A. (2013). Dark Sky Project (Undergraduate Interactive Qualifying Project No. E-project-080113-100852) Retrieved from Worcester Polytechnic Institute Electronic Projects Collection: http://www.wpi.edu/Pubs/E-project/Available/E-project-080113-100852/

Longcore, Travis, and Catherine Rich. "Ecological light pollution." *Frontiers in Ecology and the Environment* 2.4 (2004): 191-198.

Margai, F. L. (1997). Analyzing changes in waste reduction behavior in a low-income urban community following a public outreach program. *Environment and Behavior*, *29*(6), 769-792.

Mosby-Year book, Inc,. (1995). *the zenith and the celestial sphere*. Retrieved from http://hildaandtrojanasteroids.net/meridian.jpg

Navara, K. J., & Nelson, R. J. (2007). *The dark side of light at night: physiological, epidemiological, and ecological consequences.* Journal of pineal research, 43(3), 215 224.

O'Fallon, L. R., & Dearry, A. (2002). Community-based participatory research as a tool to advance environmental health sciences. *Environmental health perspectives*, *110*(Suppl 2), 155.

Olson, L., Arvai, J., & Thorp, L. (2011). Mental models research to inform community outreach for a campus recycling program. *International Journal of Sustainability in Higher Education*, *12*(4), 322-337

Outdoor Lighting Basics. (2015). *International Dark-Sky Association*. Retrieved 13 April 2016, from http://darksky.org/lighting/lighting-basics/

Sky Quality Meter-LU-DL. (2016). *Unihedron.com*. Retrieved 18 April 2016, from http://www.unihedron.com/projects/sqm-lu-dl/

Unihedron,. (2016). *SQM-LU-DL*. Retrieved from http://www.unihedron.com/projects/sqm-lu-dl/sqmludl_closeup.jpg

Unihedron,. (2016). *Data Logging Hub*. Retrieved from http://www.unihedron.com/projects/sqm-lu-dl/DLcontrols.jpg

United States National Park Service. (2015). National Park Service. Retrieved April 4, 2016, from http://www.nps.gov

Appendix: IDA Application

Acadia National Park

(Silver Tier Provisional)

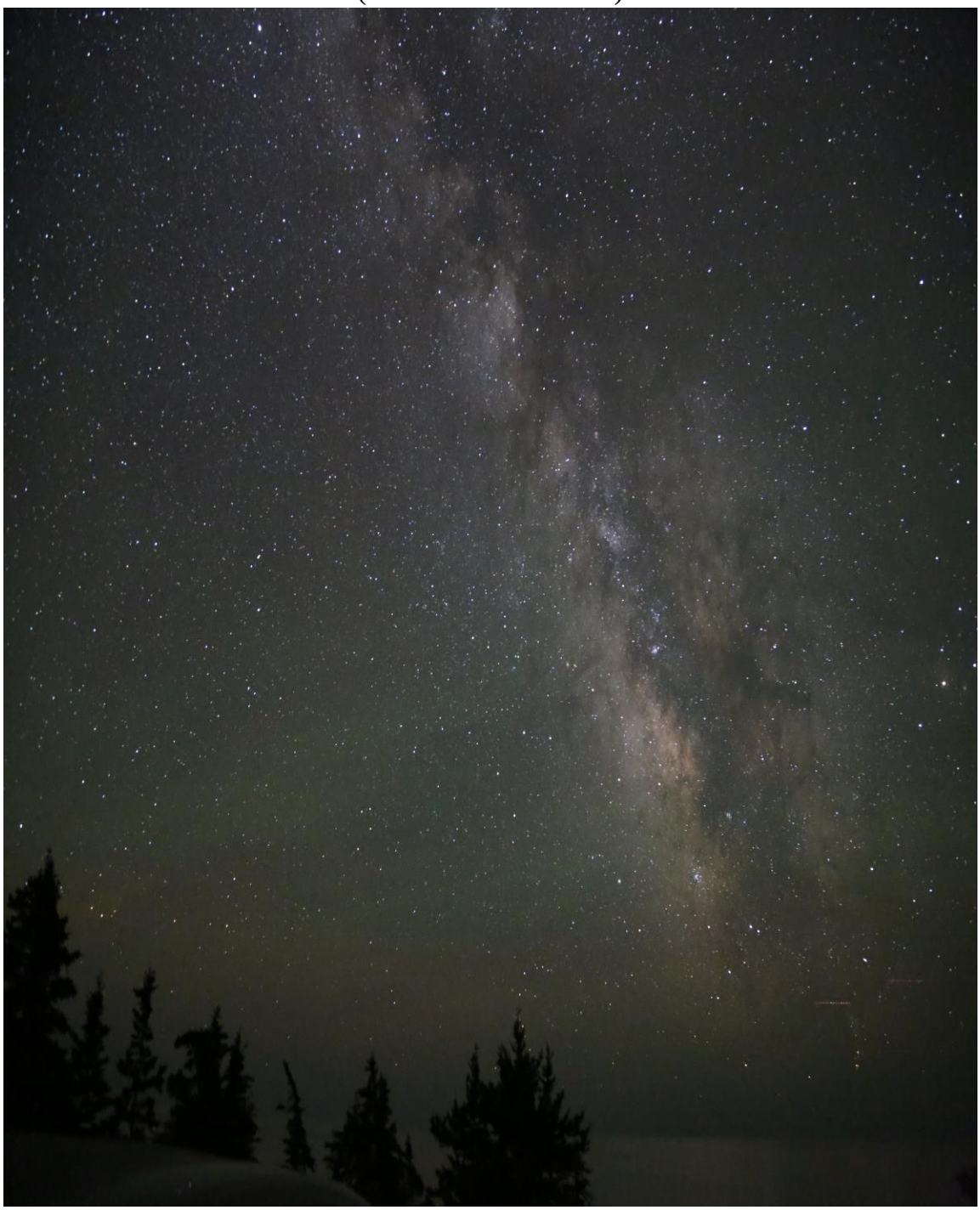


Table of Contents

1.0 Overview and Background 52

1.1 Location and Description of Acadia National Park 52

1.2 History 52

1.3 Public Access to the Night Sky 53

1.4 Plants and Wildlife 54

1.5 Weather and Climate 54

2.0 Maps of Acadia 57

3.0 IDA Nomination Letter 61

4.0 Acadia National Park Superintendent Letter 62

5.0 Friends of Acadia 63

6.0Educational Outreach and Interpretive Programs 64

6.1 Park Goals: 64

6.2 Stars over Sand Beach 64

6.3Acadia Night Sky Festival 65

6.4 Let There be Light 65

6.5 GLOBE at Night 66

6.6 Outreach to the Public 67

6.8 Past Policies, Current Work, and a Model Park 68

7.0 Sky Quality Measurements and Results 70

7.1 Data Collection Method 70

7.2 Acadia National Park and Surrounding Towns 72

7.3 Sky Quality Measurements 74

8.0 Lightscape Management Plan 77

8.1 NPS Management Policy 4.10 77

8.2 Light Pollution 78

8.3 Lightscape Management Plan Principals 78

8.4 General Guidelines for Park Lighting 79

8.5 Guidelines for outdoor lighting 80

8.5.1 Buildings 80

8.5.2 Administration buildings 80

8.5.3 Public buildings, Retail Outlets, Restaurants 81
8.5.4 Toilet and washroom facilities 81
8.5.5 Parking lots 82
8.5.6 Pathways 82
8.5.7 Historic Buildings 83
8.5.8 Acadia National Park Island Explorer 83
8.5.9 Signs and flag poles 84
8.5.10 Emergency lighting 84
8.5.11 Amphitheaters 84
9.0 Action Plan 84
9.1 Step 1: Establish park wide lighting curfew (Dark time) 85
9.2 Step 2: Lighting inventory compliance 85
9.3 Purposed solution to reach compliance in 3 years 86

Table of Figures

Figure 1: Town Distance and Population…….4
Figure 2: Average Temperature Per Month…….7
Figure 3: Average Precipitation Per Month…….7
Figure 4: Acadia National Park Map……...9
Figure 5: Acadia National Park Satellite Image……..10
Figure 6: Heat Maps of America and Mount Desert Island Ambient Lighting……..…11
Figure 7: Stars over Sand Beach: Kent Miller (A) and Sue Anne Hodges (B)……17
Figure 8: GLOBE at Night data from 2015……...19
Figure 9: ANP Junior Ranger Activity Book……..19
Figure 10: Mount Dessert Island Heat Map……..23
Figure 11: Data Point Location Chart (Mount Desert Island)……...23
Figure 12: Southwest Harbor Heat Map……25
Figure 13: Data Point Location Chart (Southwest Harbor)……...25
Figure 14: SQM Readings……26
Figure 15: 2015 Data Point Locations……...28

1.0 Overview and Background

1.1 Location and Description of Acadia National Park

Acadia National Park was originally established July 8th, 1916 by President Woodrow Wilson under the name "Sieur de Monts National Monument". Acadia National Park has been a popular site for tourists, boasting the largest mountain, Cadillac Mountain, on the east coast, as well as particularly dark skies.

Located on Mt Desert Island, in the state of Maine, it was a gift to the American people of 6,000 acres. Acadia now spans across 47,748 acres, including Mount Desert Island, Isle au Haut, and the Schoodic Peninsula. Neighboring towns include Bar Harbor, Southwest Harbor, and Northeast Harbor, each heavily influenced by the effects of tourism brought by the park. Acadia National Park is fairly isolated from many of the larger cities in Maine, while the closer towns and cities are relatively small and have minimal impact on the dark sky.

Figure 1: Town Distance and Population

CITY	DISTANCE(MI)	POPULATION
BAR HARBOR, ME	1	5235
BANGOR, ME	43	32673
PORTLAND, ME	169	66318
AUGUSTA, ME	116	18793
ELLSWORTH, ME	11	7875

1.2 History

Native Americans have been in Maine for 12,000 years, and have indications of being in Acadia for over 5,000. This group of Native Americans are now known as the Wabanaki, or the People of the Dawnland. They consisted of four major tribes, the Maliseet, the Micmac, the Passamaquoddy, and the Penobscot. Acadia was a center of the Wabanaki for thousands of years, as they hunted, fished, gathered berries, harvested clams, and traded with Wabanaki of other parts of Maine. The Wabanki called Mount Desert "Pemetic" or "The sloping land", referring to the vast mountains and hills within the area. Evidence shows that the Wabanaki may have lived on the coast during the winter to take advantage of

salmon, while they summer in the inland. The Wabanki today still hold a unique and spiritual relationship to the beautiful lands of Acadia.

Tourism in Acadia dates back to the mid-1800s with the rusticators. The rusticators were not concerned of harsh living conditions or lack of quality food, often surviving by paying local fishermen or farmers for accommodations (https://www.nps.gov/acad/learn/historyculture/history-of-acadia.htm). Rusticators returned summer after summer, some of them included artists. Thomas Cole and Fredric Church captured the beauty of the scenery using their brushstrokes. As a result of a growing group of summer people and a flock of new tourists inspired by the beauty and stories behind the paintings, a major tourism industry blossomed.

With the new found tourism, some very prominent people chose to spend their summers in Mount Desert Island. The Rockefellers, Morgans, Fords, Vanderbilts, Carnegies, and Astors all spent their summers here, and came to have a significant impact on the preservation of what is now Acadia National Park. George B. Dorr was one of these conservationists that came from this social strata. Dorr saw the creation of the portable saw mill, powered by gasoline, and thought that it posed a threat to the land. He created the Hancock County Trustees of Public Reservation to fight for preservation. By 1913 Dorr was able to acquire 6,000 acres. He offered this land to the federal government and in 1916 President Wilson established Sieur de Monts National Monument.

Dorr continued to acquire land and renewed attempts to make this land into a full national park. In 1919 his efforts were rewarded when President Wilson signed an act establishing Lafayette National Park, with Dorr as the first superintendent. In 1929 the name was changed to Acadia National Park. Today, Acadia consists of over 47,000 acres and continues to preserve the natural beauty and act as a connection with nature.

1.3 Public Access to the Night Sky

Acadia National Park is open to visitors at all times, allowing for viewing of the night sky. Night sky viewing can also be achieved through one of the campgrounds in Acadia, or one of the various night sky viewing programs offered by Acadia. Visitors interested in specific night sky viewing should check with park staff for availability.

1.4 Plants and Wildlife

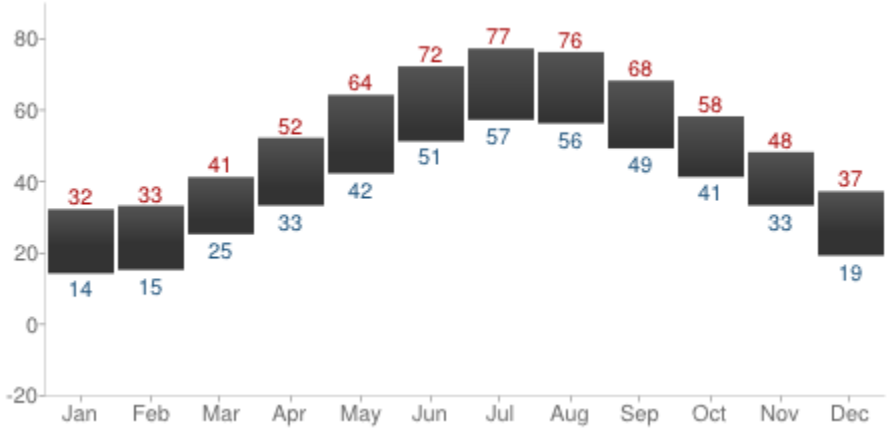
Acadia National Park contains 37 species of mammals including chipmunk, red and gray squirrel, shrew, moles, porcupine, mice, bat, black bear, raccoon, weasel, otter, fox, coyote, white-tailed deer, and moose (https://www.nps.gov/acad/learn/nature/species-list.htm). In addition to mammals, visitors of Acadia National Park can find 11 species of amphibians, 33 species of fish, and 7 species of reptile throughout the clear waters of Jordan Pond, or the various bodies of water within the park. If visitors prefer to look to the sky, 215 species of bird can be found, including the bald eagle. The bald eagle has been a symbol of America, and can be seen in high quantity in Acadia despite relatively low numbers nationally. The bald eagle previously faced extinction in parts of the United States, because of pesticides causing weakness in the eggs of the eagle. Although the bald eagle is now only listed as a least concern species, the preservation of the bald eagle is still of importance and can be viewed from many locations within the park.

Acadia contains 866 species of vascular plants, constituting over half the total species in Maine, despite only accounting for 1% of the land mass. All these species together offer much to see, between the vast supply of wildlife and the habitats in which they grow. For visitors looking for specific species, the species checklist should be consulted at https://www.nps.gov/acad/learn/nature/species-list.htm prior to visiting.

1.5 Weather and Climate

Acadia National Park weather can range from mid-40s to 90°F (7-32°C) in the summer while dropping down to lows around 14°F (-10°C). In the Fall and Spring temperatures tend to range between 30°F and 70°F (-1-21°C).

Figure 2: Average Temperature Per Month



(http://travel.usnews.com/Acadia_National_Park_ME/When_To_Visit/)

Acadia National Park gets an average of 4 in (10.16 cm) of precipitation per month in the form of thunderstorms and fog in the summer and snowfall in the winter. As a result, there are plenty of unique habitats and vegetation.

Figure 3: Average Precipitation Per Month

(http://travel.usnews.com/Acadia_National_Park_ME/When_To_Visit/)

Elevation in the park significantly varies due to the mountains in the park, and the proximity to the ocean. Cadillac Mountain is the highest location in the park at 1529 ft, while the lowest point is at sea level at the Atlantic Ocean. The lowest peak in Acadia is Flying Mountain at 284 ft. Acadia contains a total of 26 peaks that provide plenty of incredible views at all times of day and night. Cadillac

has access by road allowing for easy viewing at all times. Additional landmarks include bubble rock, beech hill fire tower, sand beach, thunder hole, or the various views available from the top of any peak. Acadia has unique attractions that are not easily accessible in other locations on the east coast.

2.0 Maps of Acadia

Figure 4: Acadia National Park Map

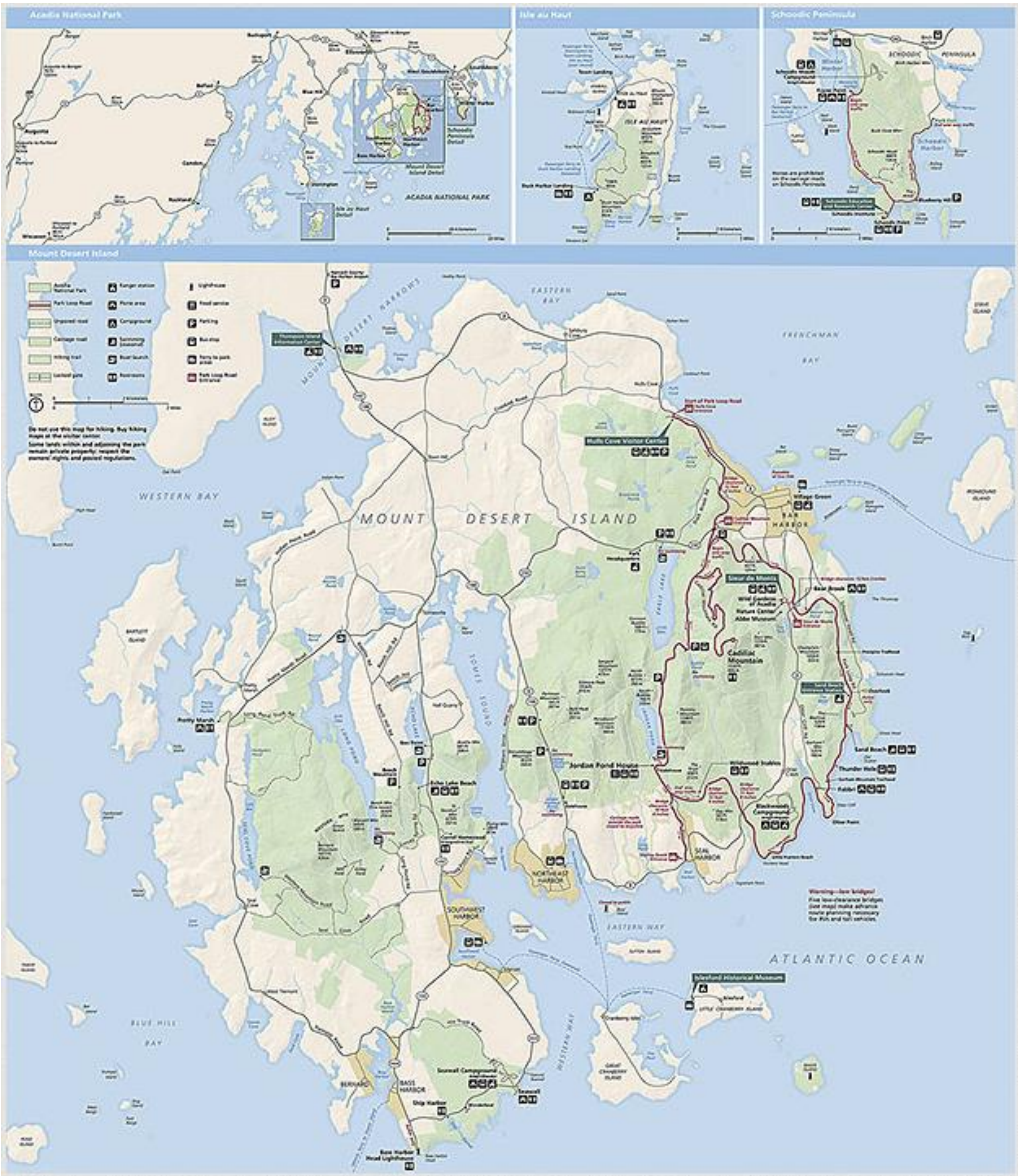
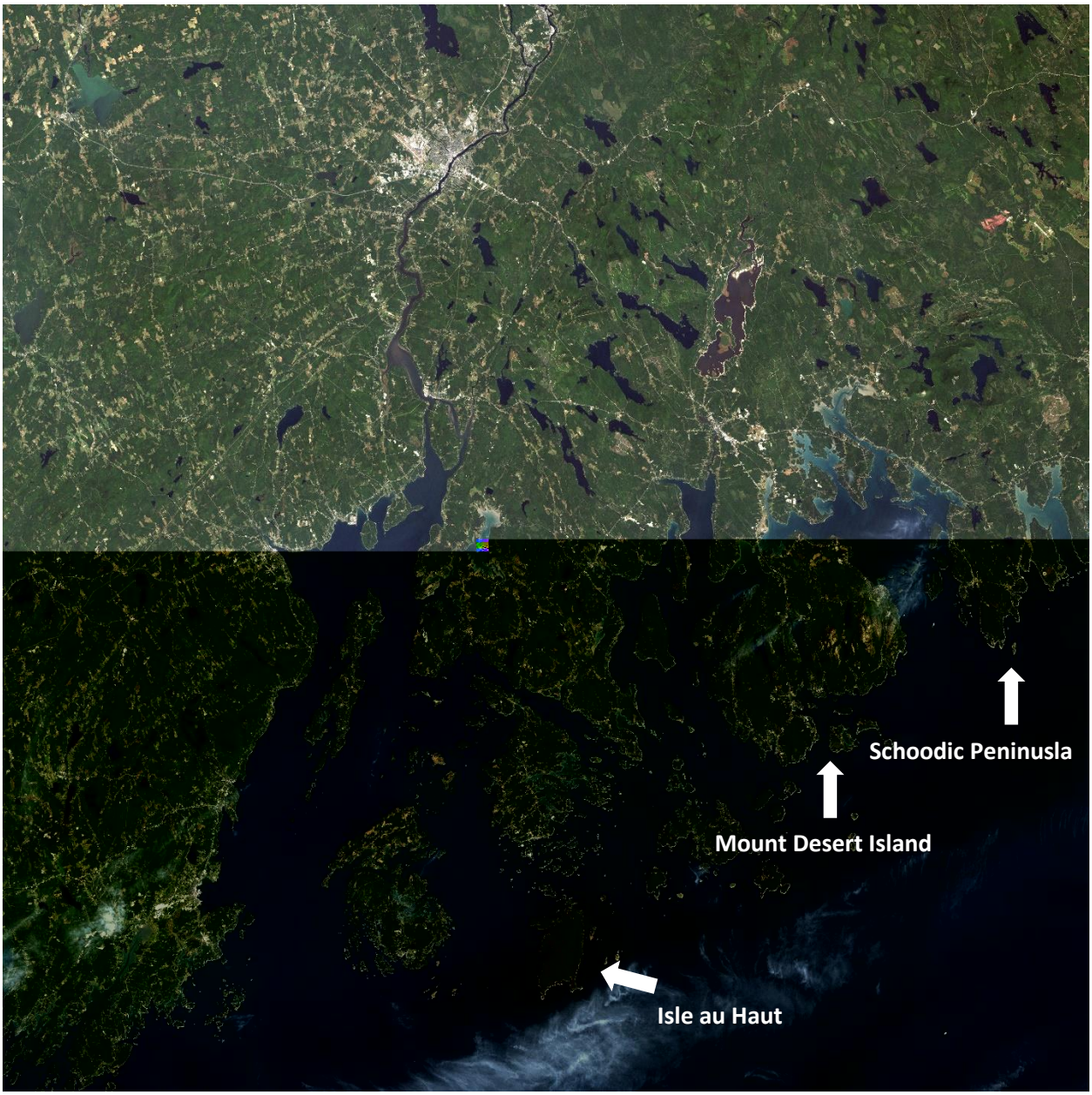
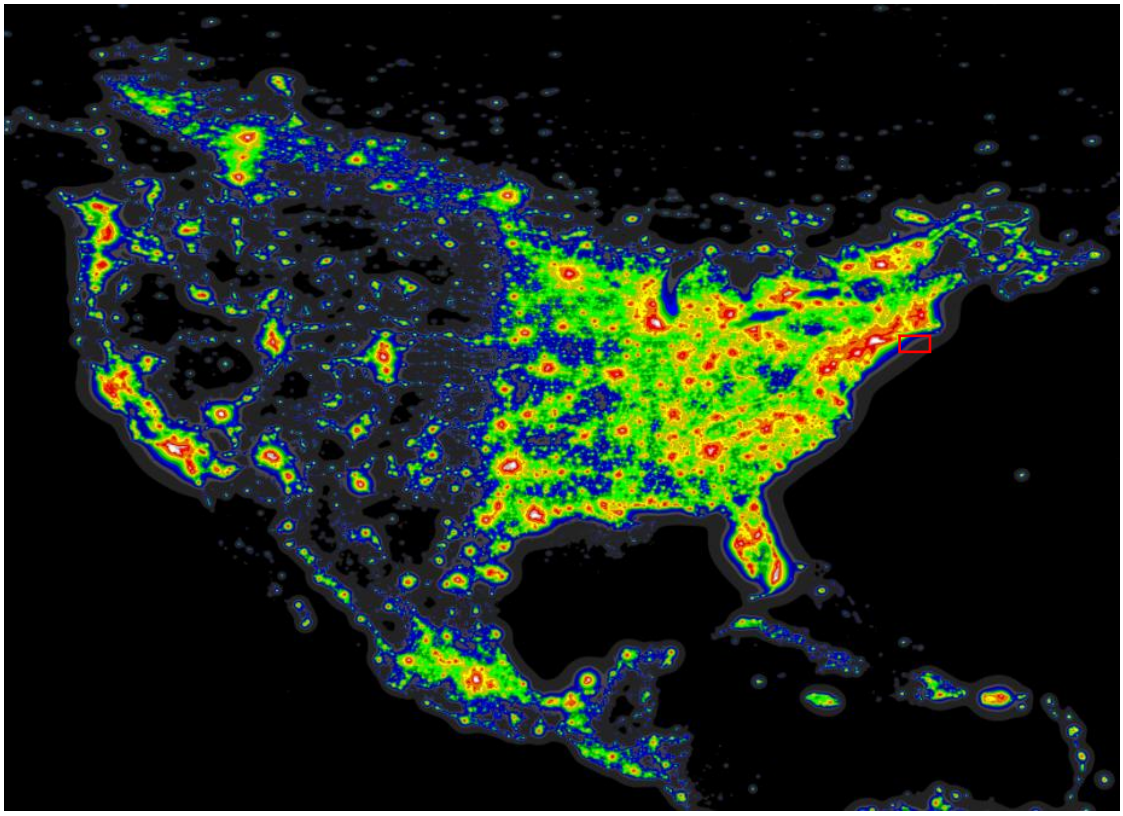


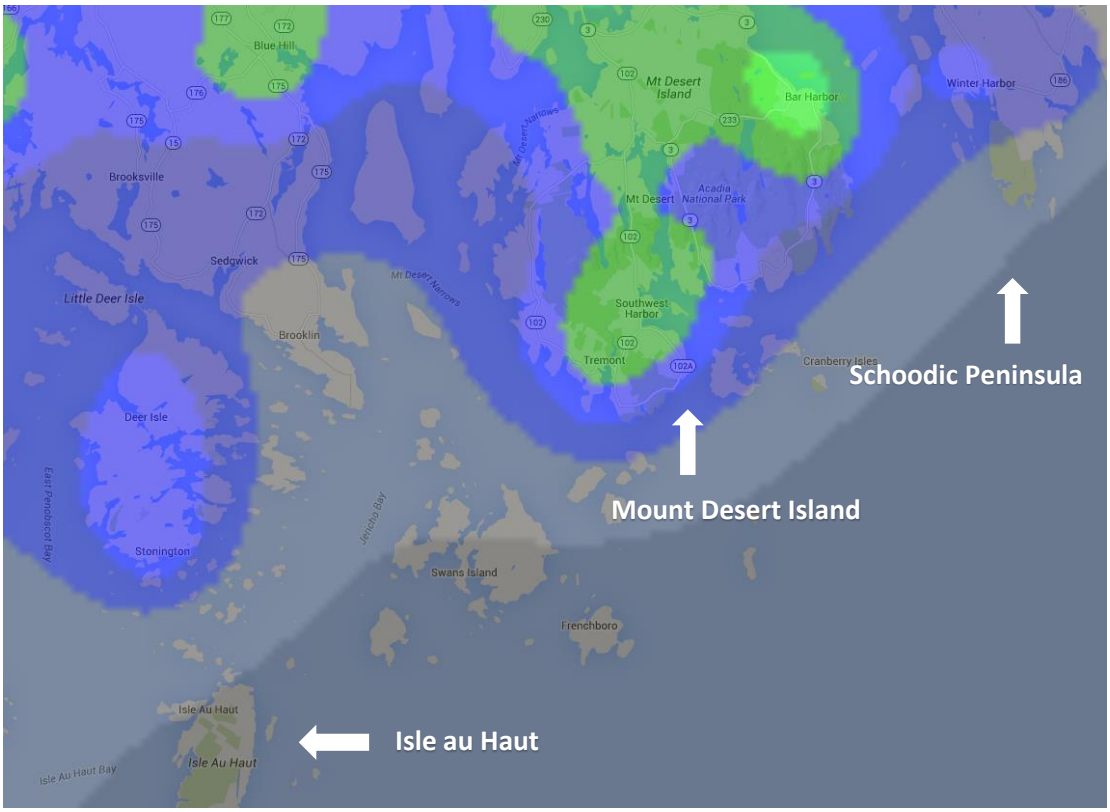
Figure 5: Acadia National Park Satellite Image

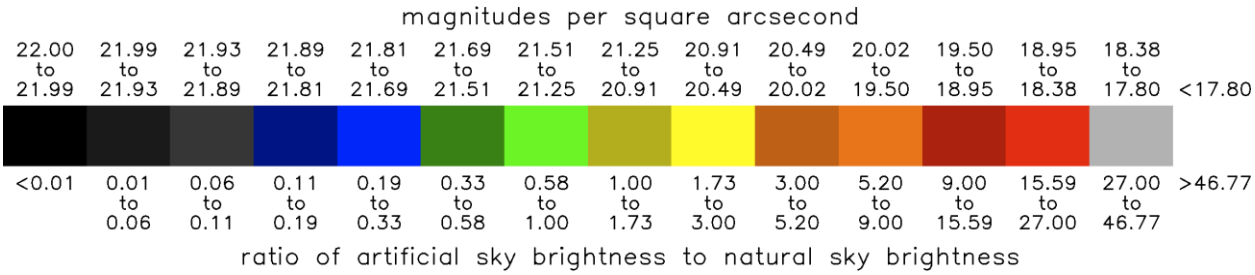


(http://eoimages.gsfc.nasa.gov/images/imagerecords/3000/3988/landsat_acadia_9aug02_30m.jpg)

Figure 6: Heat Maps of America and Mount Desert Island Ambient Lighting







(https://djlorenz.github.io/astronomy/lp2006/)

The map shown above was originally taken by the World Atlas of the Artificial Night Sky Brightness. In 2006 the World Atlas of the Artificial Night Sky Brightness was updated by David Lorenz producing the above images. A red box was placed to show where Acadia is located on this map and a zoomed in section is presented below with Mount Desert Island, Schoodic Peninsula, and Isle au Haut. Acadia has portions of the park in these three locations, therefore it is the focus of our selection. The updated information supports the original data, showing particularly dark skies in Acadia. Most of the park is shown to be in the blue or light grey range, indicating measurements between 21.81 and 21.93 magnitudes per square arcsecond.

3.0 IDA Nomination Letter

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce risus magna, condimentum a dignissim vitae, tincidunt sed nisl. Pellentesque molestie, leo sed tristique convallis, quam tellus varius est, id dictum risus massa non ex. In ac est ac tortor scelerisque ornare. Ut sed venenatis sapien, ut suscipit ante. Sed a enim nec felis ultrices euismod scelerisque ut urna. Morbi urna diam, cursus non dictum non, vehicula ut enim. Maecenas mollis et sem id iaculis.

Mauris egestas nulla ac augue vestibulum, vel efficitur dolor efficitur. Sed nec urna et elit maximus feugiat ac vitae libero. Cras id sollicitudin turpis. Sed interdum elementum pretium. Sed imperdiet rhoncus augue, ac dictum dui suscipit in. Donec mauris libero, semper vitae sodales ut, egestas ut ipsum. Pellentesque et tortor consectetur, facilisis nisi sit amet, ornare nisl. Phasellus feugiat interdum nulla sed tincidunt. Integer nec pharetra diam, quis vulputate turpis. Pellentesque congue ultrices dapibus. Donec fringilla justo at eros lacinia porta. Mauris tincidunt molestie diam, sit amet dapibus leo facilisis ut.

Donec quam metus, malesuada quis maximus sit amet, eleifend eget ex. Aliquam gravida varius diam ac volutpat. Nam efficitur blandit augue, in varius nulla hendrerit et. Nam imperdiet libero tortor, in tempus nibh pulvinar vitae. Donec volutpat maximus tellus, vel faucibus nulla porta at. Nullam mattis tempor mollis. Ut gravida feugiat gravida.

Aliquam sit amet leo semper, vulputate lorem eget, pellentesque lectus. Proin consectetur nisi lectus, ut commodo metus efficitur a. Cras convallis orci sed justo sodales vulputate. Praesent rhoncus ex et dui ornare, vel condimentum arcu dapibus. Nullam ut risus mi. Integer aliquet erat vel ullamcorper gravida. Nulla eu turpis a lectus ornare ornare. Duis scelerisque egestas risus, nec accumsan sapien dapibus eget. Vivamus sit amet rutrum ligula. Donec porttitor sapien id ante tempor, eu ornare metus maximus. Quisque dictum erat a arcu ultrices semper.

Quisque quis placerat mi. Nunc nec arcu ut eros porta hendrerit eget et nisl. Nullam aliquet dictum vestibulum. Duis mollis ipsum eu ipsum mollis gravida. Cras sed suscipit nisl. Nullam placerat odio eros, vel dictum odio faucibus dignissim. Vivamus non ex pharetra, vestibulum nisl aliquam, blandit dolor. Cras cursus enim lacus, a maximus felis condimentum ut. Aenean in blandit purus. Proin sit amet dui quis lectus suscipit scelerisque. Mauris id turpis nisi. Fusce id cursus nibh.

4.0 Acadia National Park Superintendent Letter

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce risus magna, condimentum a dignissim vitae, tincidunt sed nisl. Pellentesque molestie, leo sed tristique convallis, quam tellus varius est, id dictum risus massa non ex. In ac est ac tortor scelerisque ornare. Ut sed venenatis sapien, ut suscipit ante. Sed a enim nec felis ultrices euismod scelerisque ut urna. Morbi urna diam, cursus non dictum non, vehicula ut enim. Maecenas mollis et sem id iaculis.

Mauris egestas nulla ac augue vestibulum, vel efficitur dolor efficitur. Sed nec urna et elit maximus feugiat ac vitae libero. Cras id sollicitudin turpis. Sed interdum elementum pretium. Sed imperdiet rhoncus augue, ac dictum dui suscipit in. Donec mauris libero, semper vitae sodales ut, egestas ut ipsum. Pellentesque et tortor consectetur, facilisis nisi sit amet, ornare nisl. Phasellus feugiat interdum nulla sed tincidunt. Integer nec pharetra diam, quis vulputate turpis. Pellentesque congue ultrices dapibus. Donec fringilla justo at eros lacinia porta. Mauris tincidunt molestie diam, sit amet dapibus leo facilisis ut.

Donec quam metus, malesuada quis maximus sit amet, eleifend eget ex. Aliquam gravida varius diam ac volutpat. Nam efficitur blandit augue, in varius nulla hendrerit et. Nam imperdiet libero tortor, in tempus nibh pulvinar vitae. Donec volutpat maximus tellus, vel faucibus nulla porta at. Nullam mattis tempor mollis. Ut gravida feugiat gravida.

Aliquam sit amet leo semper, vulputate lorem eget, pellentesque lectus. Proin consectetur nisi lectus, ut commodo metus efficitur a. Cras convallis orci sed justo sodales vulputate. Praesent rhoncus ex et dui ornare, vel condimentum arcu dapibus. Nullam ut risus mi. Integer aliquet erat vel ullamcorper gravida. Nulla eu turpis a lectus ornare ornare. Duis scelerisque egestas risus, nec accumsan sapien dapibus eget. Vivamus sit amet rutrum ligula. Donec porttitor sapien id ante tempor, eu ornare metus maximus. Quisque dictum erat a arcu ultrices semper.

Quisque quis placerat mi. Nunc nec arcu ut eros porta hendrerit eget et nisl. Nullam aliquet dictum vestibulum. Duis mollis ipsum eu ipsum mollis gravida. Cras sed suscipit nisl. Nullam placerat odio eros, vel dictum odio faucibus dignissim. Vivamus non ex pharetra, vestibulum nisl aliquam, blandit dolor. Cras cursus enim lacus, a maximus felis condimentum ut. Aenean in blandit purus. Proin sit amet dui quis lectus suscipit scelerisque. Mauris id turpis nisi. Fusce id cursus nibh.

5.0 Friends of Acadia

Friends of Acadia, a non-profit organization in Bar Harbor Maine, works with Acadia National Park to support the park in projects that the park wants to undertake. Friends of Acadia has worked with Acadia for about 26 years working with various projects with the park. The non-profit preserves and promotes stewardship of the natural beauty, ecological vitality, and cultural distinctiveness of Acadia National Park and surrounding communities. They fund many initiatives set forth by Acadia relating to visitor experience protection and transportation around the park. L.L. Bean has worked closely with Friends of Acadia and has contributed more than 3.25 million dollars to protect and preserve the National Park.

Some projects of FOA include protecting Acadia's lands, engaging youth and the outdoors, making sure visitors of the park have a high-quality experience, and preserving and protecting Acadia trails and carriage roads. Friends of Acadia sponsors many projects set forth by the park. The park hopes to manage invasive species in the park. With respect to stewardship, FOA funds a project called Acadia Youth Conservation Corps (AYCC) that employs 16 high school students and 4 Acadia Park leaders for eight weeks a summer. FOA provides salaries and equipment for the students such as trail clean up, reconstructing stone drainages, cutting woods of campgrounds, and other miscellaneous things. With respect to high-quality experiences of visitors of the park, FOA have funded a shuttle service called The Island Explorer throughout the park. Since 1999, almost 5.5 million visitors have ridden the shuttle.

FOA has been working on many projects in recent years. One project is documenting eroding stream banks and invasive plants along the entire length of the Cromwell Brook watershed. Friends of Acadia has also brought local teens to the park with a youth-produced film about Acadia from the prospective of students at Mount Desert Island High School. The film is a multi-year course at the high school. Friends of Acadia funds many projects throughout the park and new ideas of the park that require money to get accomplished.

6.0Educational Outreach and Interpretive Programs

6.1 Park Goals:

To foster understanding and education of the night sky and the effects of night sky pollution in the community.

Dark Sky Themes:

- Dark Sky Parks are a critical component of a healthy ecosystem
- Dark Sky Parks should be preserved and protected from excessive light pollution
- Dark Sky Parks should be protected in the future

To meet these goals, Acadia National Park offers educational and outreach programs in order to meet objectives relating to becoming a Dark Sky Park.

<u>Events and Outreach</u>

6.2 Stars over Sand Beach

Acadia offers a few events related to the night sky and the effects of lighting pollution during the summer. One event is Stars over Sand Beach (SOSB) during June and twice weekly in the months of July and August in which the community can hear about Acadia's night sky. This program runs for an hour. Rangers of the park talk about the night sky while participants can relax and listen on Sand Beach. The event highlights aspects of the night sky and educates the public about issues surrounding the night sky. Similar to SOSB, the Night Sky Scoping programs provide visitors the opportunity to look closer at the night sky. To protect light pollution and maximize the success like this program, in 2008, a Dark Sky ordinance was passed into law that requires 'night light friendly' outdoor lighting on all new construction in the town of Bar Harbor.

Figure 7: Stars over Sand Beach: Kent Miller (A) and Sue Anne Hodges (B)

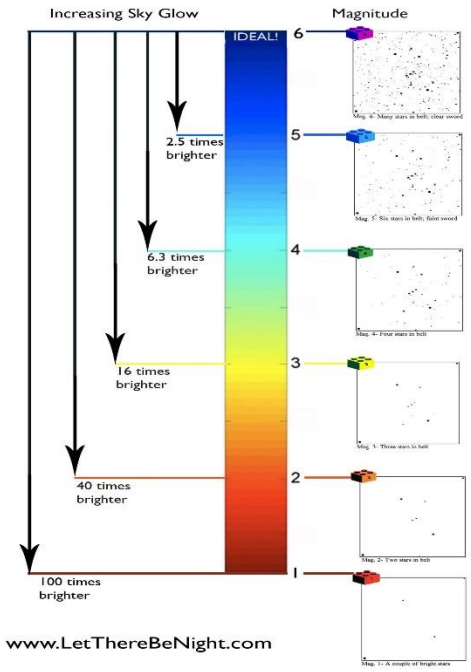
A **B**

6.3Acadia Night Sky Festival

Another outreach program, Acadia Night Sky Festival, is a 'community celebration to promote the protection and enjoyment of Acadia's night sky as a valuable natural resource through education, science, and the arts'. Some goals of the festival are to strengthen the MDI economy as more and more visitors recognize the island as a stellar place to view the night sky and to inform participants about local scientific research and ongoing efforts to improve lighting on the Island. The festival runs yearly in the fall. The 2016 event will feature talks, films, outings, workshops, and star parties in Acadia National Park. This year's festival will include recognized speakers and hands-on experiences.

6.4 Let There be Light

Let There be Light is a program for elementary and middle school students designed to "get families to look up; to introduce them to outdoor lighting issues; to generate a community dialogue… and inspire better outdoor lighting practices" (lettherebenight.com). Students create models using Legos and shown how the night sky has been lost due to light pollution. This program brings an educational opportunity to younger kids. More than 3,400 observed Orion in 2009. The children used different colors to show sky glow.

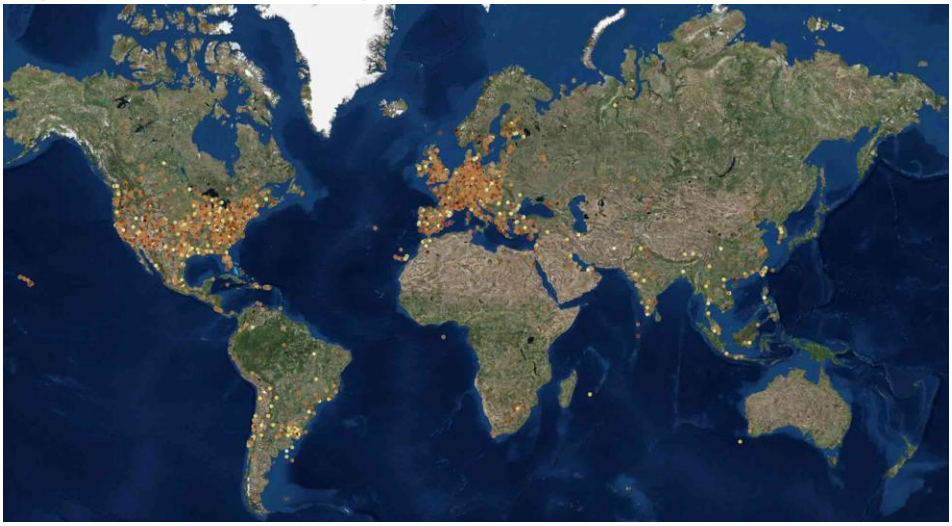


Lego designations of Sky Glow

6.5 GLOBE at Night

Some outreach has include volunteer people to measure night sky brightness and submit their observations—like the case of GLOBE at Night. People can submit their observations from either a computer or a smart phone. This program has been a huge success. Volunteers from 115 different countries have contributed more than 100,000 measurements. For 2016, light data will be collected all 12 months. In 2015, there were 23,040 points submitted from 104 countries including all 50 US States. (globeatnight.org)

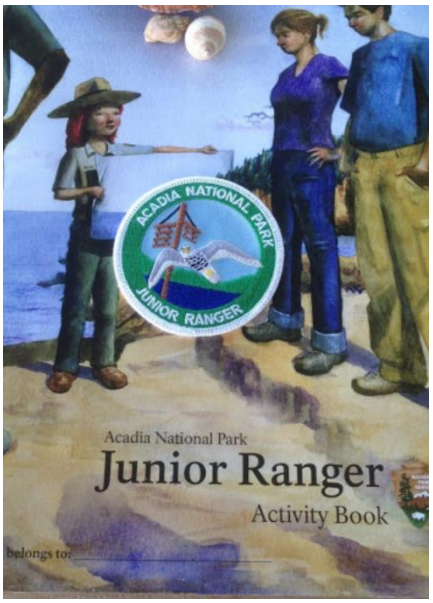
Figure 8: GLOBE at Night data from 2015



6.6 Outreach to the Public

The Junior Ranger Program is offered to kids to learn about being a park ranger and ecology of Acadia. The program offers activities including activities relating to marine biology, geology, and environmental protection. The Junior Ranger booklet contains 14 of these programs. Kids 7 and under are only required to complete 5 of the activities. Every child is required to interview a park ranger. The child shows a completed booklet to a park ranger and they signs and dates the booklet and hands the child a patch. This is an example of the park informing visitors of the park of all ages of educational programs and activities of the park.

Figure 9: ANP Junior Ranger Activity Book



6.8 Past Policies, Current Work, and a Model Park

Previous work has been done in Acadia to improve lighting standards and to encourage education of the night sky. The NPS, in 2006 adapted a policy to "preserve, to the greatest extent possible, the natural lightscapes of parks". The policy also directs parks to minimize lights emanating from park facilities. In 2008, Bar Harbor citizens enacted a lighting ordinance that recognizes the importance of dark skies for the park and surrounding community along Tremont with their own lighting ordinances. In 2009, the park organized its first annual Night Sky Festival. Bogard, in his book 'The End of Night: Searching for Natural Darkness in an Age of Artificial Light' notes that what makes Acadia such an important for national parks and darkness is that it attracts more than 2 million visitors a year. Acadia is an important park because the park provides the opportunity to enjoy natural darkness and a high-quality night sky. Visitors of the park can see the Milky Way—a sight that two-thirds of Americans can't see because of light pollution. Acadia National Park has been designated with a Class 3 to 4 on the Bortle scale. The scale measures light pollution from a scale ranging from 1 to 9—with Class 1 being the brightest and least impaired.

In 2009, an intern at Slipper Rock University by the name of Christine Kercell, inventoried all 829 outdoor lighting fixtures of Acadia. She determined that 340 or 41% of the lights met lighting standards as fully shielded. This was followed by a donation from Musco Lighting and the Yawkey Foundation to replace 40 non-compliant lights at Blackwoods campground.

The National Park Night-Sky Team are NPS rangers and astronomers are working to protect and preserve the night sky of America's National Parks. Dr. Nordgren is an active member of the team. He has been elected to the Board of Directors for the IDA in 2011. He has written a book titled "Stars Above, Earth Below: A guide to the national parks" detailing what visitors of the park can observe in the night sky and ways to protect the night sky. He is currently working on a book about solar eclipse—for an upcoming August 2017 eclipse, the first total eclipse since 1979.

The IDA recognized Mont-Megantic National Park the first Dark Sky Reserve in 2008. The park has made itself a model for future initiatives to protect darkness and night skies while meeting needs of modern daily life. Mont-Megantic features a dark sky festival in July and a meteor festival in August. The national park is a model park to base other national parks that would like to receive a dark

sky certification. Mont- Megantic also hires college students, with astronomy majors or young people with an interest in astronomy, to serve as guides at the AstroLab. Personal connections also draws people to the park each year and future years. Other parks could model themselves off of Mount-Megantic National Park.

7.0 Sky Quality Measurements and Results

7.1 Data Collection Method

In order to accurately represent the true nature of the night sky in Acadia National Park over 8000 sky quality measurements were taken across the whole of Mount Desert Island. The data points were then compiled into a heat map that accurately showed the progression of dark and light areas of the night sky. The collection and implementation of the data points was vital in proving Acadia National Park's effort in preserving the night sky.

In order to collect the number of data points needed to create a high resolution and accurate heat map a WPI research team developed an application and PostgreSQL database system to automate the process. Data was collected using Unihedron SQM-LU-DL meters which were connected to an android device using an USB-OTG cable. With the use of the app Andriodmedae, created by the 2014 WPI research team, the SQM and android device were able to auto log data onto the android device. The android device once connected to the SQM was able to retrieve magnitude information from the SQM as well as including other useful information such as GPS location, time, and weather aspects. Once all of this data was collected by the android device it was uploaded to a PostgreSQL database with PostGIS extensions installed. The database allowed for the storage of Geographical data alongside of non-geographical data. The PostgreSQL database is then queried by QGIS, a geographical mapping and visualization software that allowed for the collected data to be displayed in a heat map. The automated process allowed for the 2014 research team to collect fifty times as many data points as previous groups using Unihedron SQM-LU-DL meters.

In order for the heat map to show high accuracy in the interpolation of the imported data some point grouping and statistical analysis was applied. The 10000 points were organized into 583 groups of geographically close points. This grouping allowed for the generally median to be found in the points. Using the discovered median for each point the WPI research team was able to remove any outliers that would have negatively affected the accuracy of the heat map. Using the Inverse Distance Weighted point analysis function provided by QGIS and the remaining data the final heat map (Figure 1) was created.

Figure 10: Mount Dessert Island Heat Map

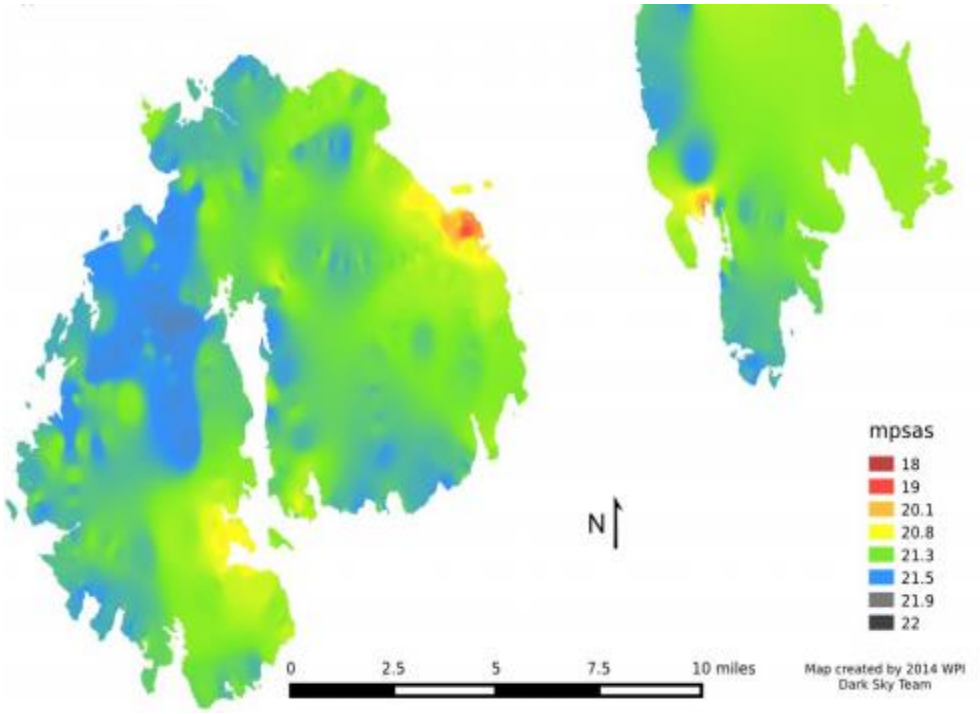


Figure 11: Data Point Location Chart (Mount Desert Island)

7.2 Acadia National Park and Surrounding Towns

Acadia National Park is a very large park whose bounds often intertwine with the surrounding towns. This close proximity to more densely populated areas can negatively effect the degree of darkness throughout the park. In order to get a fully accurate representation of the night sky within in the park it is important to pay attention to specific areas of the park. Schoodic Point, Sand Beach, and Cadillac Mountain are three iconic locations in the park that give an accurate representation of the night sky unhindered from the surrounding towns. Cadillac Mountain was a vital location to take sky quality measurements at because it provides a clear image of the night sky unhindered by tree coverage and the often unhelpful weather patterns of Acadia. Even with Bar Harbor being very close to Cadillac Mountain and being able to visible see lights from the surrounding towns while standing on the peak the average sky quality reading was still 21.5. Sand Beach, where Acadia National Park holds the event 'Stars over Sand Beach' also provides a good representation of the night sky with a sky quality reading of 21.4. Sand beach provides a great view of the night sky as it is isolated from the surrounding towns and has a clear view unhindered by tree coverage. Schoodic point is another iconic location within in the park. Being separated from the rest of the main body of the park and not located within densely populated Mount Desert Island Schoodic Point allows for a great view of the night sky from the Xenith to the horizon. A sky quality measurement of at least 21.7 Schoodic Point is one of the darkest locations within the park. These areas inside the park bounds show the effort and reward of the hard work of Acadia National Park in the preservation of the night sky.

A WPI research team completed a case study of the town of Southwest Harbor on Mount Dessert Island to understand the relationship between light pollution in the town and the effects of ambient lighting within the park bounds. Using the method that was produced to collect data points throughout the entire park the team was able to make a high resolution heat map of Southwest Harbor and the surrounding areas. The heat map provided valuable data that was used to identify areas of the town that have the largest negative affect on ambient lighting. This information was presented to members of the town with recommendations on how to reduce the towns over all light pollution and help preserve the night sky within the park. The WPI team will gauge the success these recommendations by returning and creating another heat map of Southwest Harbor that will show how much the town has decreased its effect on ambient lighting. The WPI team also

was able to illustrate the relationship between the town lighting and the level of light pollution with in the park with greater detail. The town, while averaging a sky quality of 19.8 in the town center, seems to have a quickly diminishing effect on the quality of the night sky as points were taking further from the town center. The level of ambient lighting returned to a stable 21.2 just outside of the town boundaries. This shows that the town may not have a direct geographical effect on the ambient light in the surrounding area but more likely lowers the sky quality by of a greater area by a smaller margin. The recommendations made to the town by the WPI research team should provide a better quality night sky throughout the park.

Figure 12: Southwest Harbor Heat Map

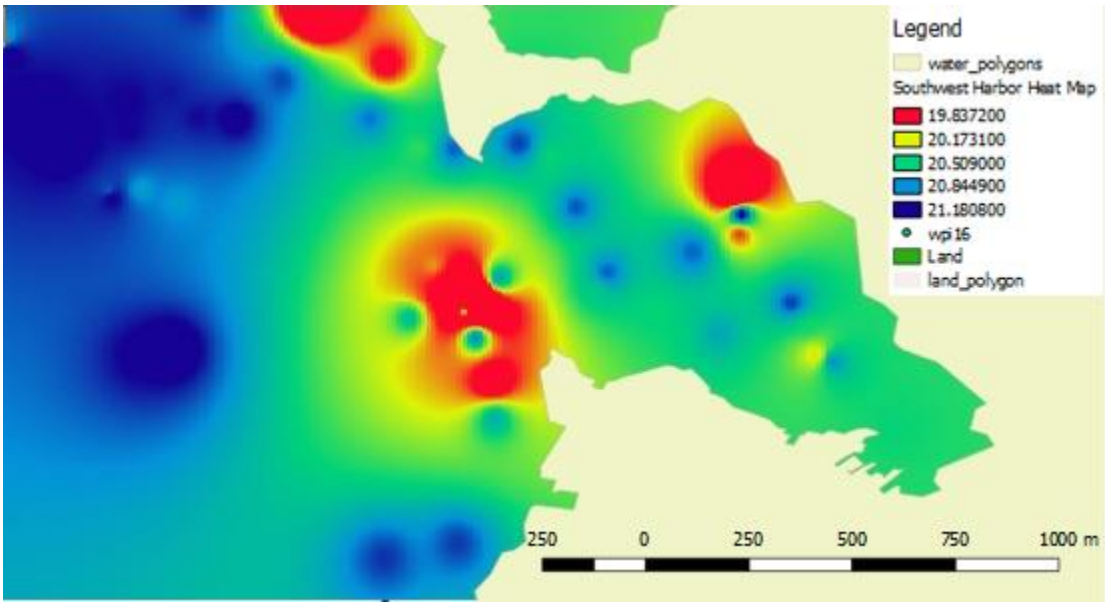
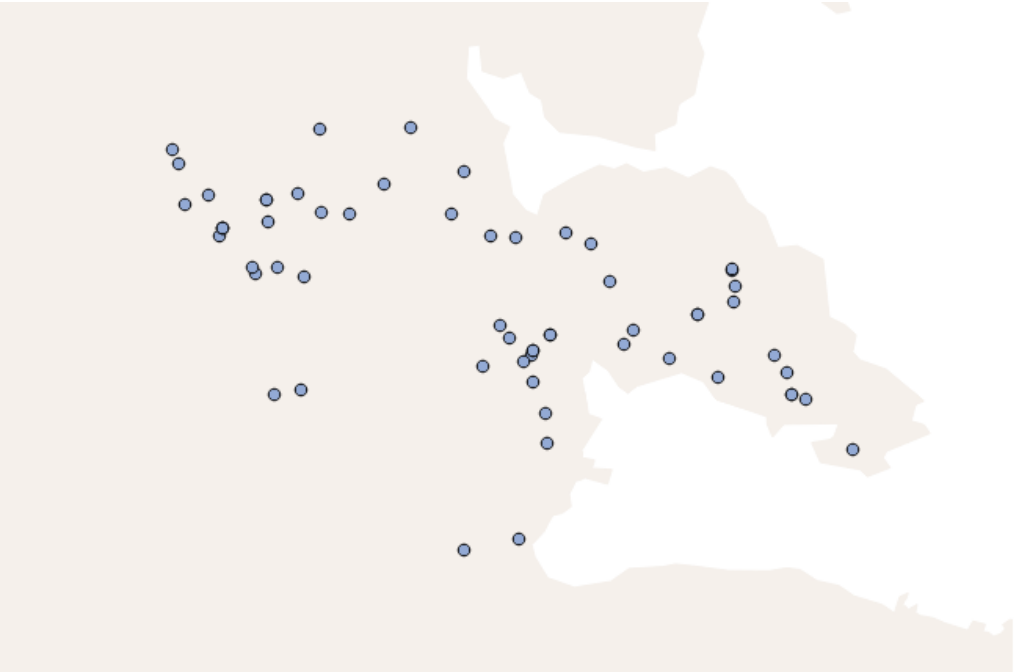


Figure 13: Data Point Location Chart (Southwest Harbor)



7.3 Sky Quality Measurements

The most recent data points were collected in the summer of 2015. These points show that the night sky around Acadia National Park has not diminished in quality since the creation of the park wide heat map and extensive data point collection. As seen in the table below and in figure five the data points were taken in key locations around the park.

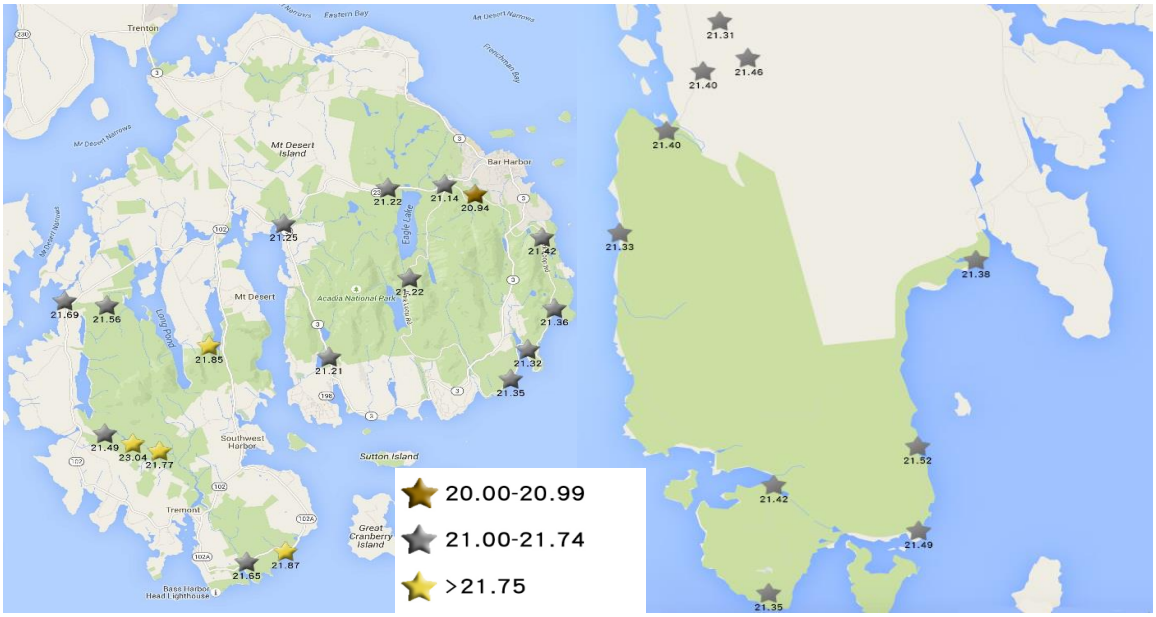
Figure 14: SQM Readings

Latitude	Longitude	mag/arcsec^2
44.3756532	-68.2336106	21.14
44.3782027	-68.2287363	20.94
44.3599067	-68.1882377	21.42
44.3298488	-68.1837037	21.36

44.3143356	-68.1960952	21.32
44.3029621	-68.2027713	21.35
44.3198806	-68.2532924	21.22
44.3115794	-68.2853811	21.21
44.3639737	-68.3061702	21.25
44.3755419	-68.2610955	21.22
44.2370400	-68.3022360	21.87
44.2336580	-68.3203580	21.65
44.2824880	-68.3863360	21.49
44.2789000	-68.3818390	23.04
44.2777240	-68.3741730	21.77
44.3329700	-68.4038580	21.69
44.3320360	-68.3868530	21.56
44.3136670	-68.3368300	21.85
44.3802724	-68.0677388	21.40
44.3820293	-68.0629590	21.46
44.3844873	-68.0655339	21.31
44.3743998	-68.0711435	21.40
44.3653747	-68.0762110	21.33

44.3427967	-68.0599993	21.42
44.3331055	-68.0610641	21.35
44.3389776	-68.0452531	21.49
44.3465582	-68.0457081	21.52
44.3628210	-68.0393110	21.38

Figure 15: 2015 Data Point Locations



The results of the data collected indicate that the night sky in Acadia National Park is excellent and consistently remained within the level of quality required by the IDA. The image of the data points collected together into a single map shows that the park has an average sky quality of 21.3 or better, which qualifies Acadia national park for silver status.

8.0 Lightscape Management Plan

Acadia National Park (ANP) is home to one of the darkest night skies found on the east coast of the United States. In conformance with the National Park Service (NPS) management policy 4.10, natural lightscapes, the night sky should be preserved and the use of artificial lighting should be reserved only for situations that deem outdoor lighting necessary. This Lightscape Management Plan (LMP) will serve as a guide for future lighting retrofits as well as a tool to evaluate the current lighting inventory within the park. Good lighting practices require a close look at how light is used, the types of bulbs used, the use of control devices such as switches and motion sensors, color spectrum of light, location of fixture and fixture shielding, to name a few. There are additional concerns when placing new or evaluating current permanent fixtures such as redundant use or areas that are over lit, the angle that light is scattered, glare, light trespass and atmospheric conditions due to the fact that light scatters easily on heavily clouded nights. The goal of this LMP is to provide safety and security for pedestrians while mitigating light pollution as much as possible.

8.1 NPS Management Policy 4.10

The Service will preserve, to the greatest extent possible, the natural lightscapes of parks, which are natural resources and values that exist in the absence of human-caused light. The absence of light in areas such as caves and at the bottom of deep bodies of water influences biological processes and the evolution of species, such as the blind cave fish. The phosphorescence of waves on dark nights helps hatchling sea turtles orient to the ocean. The stars, planets, and earth's moon that are visible during clear nights influence humans and many other species of animals, such as birds that navigate by the stars or prey animals that reduce their activities during moonlit nights.

Improper outdoor lighting can impede the view and visitor enjoyment of a natural dark night sky. Recognizing the roles that light and dark periods and darkness play in natural resource processes and the evolution of species, the Service will protect natural darkness and other components of the natural lightscape in parks. To prevent the loss of dark conditions and of natural night skies, the Service will minimize light that emanates from park facilities, and also seek the cooperation of park visitors, neighbors, and local government agencies to prevent or minimize the intrusion of artificial light into the night scene of the

ecosystems of parks. The Service will not use artificial lighting in areas such as sea turtle nesting locations where the presence of the artificial lighting will disrupt a park's dark-dependent natural resource components.

The Service will

- restrict the use of artificial lighting in parks to those areas where security, basic human safety, and specific cultural resource requirements must be met;
- use minimal-impact lighting techniques;
- Shield the use of artificial lighting where necessary to prevent the disruption of the night sky, natural cave processes, physiological processes of living organisms, and similar natural processes.

8.2 Light Pollution

Light pollution is the scattering of light in earth's atmosphere. To preserve the night sky, light pollution must be lessened. In this sense light is not just a nuisance, it is a pollutant. There are many reasons to want to preserve the night sky and to minimize light pollution. To name a few…

- The preservation of the night sky will maintain natural light levels allowing for excellent astronomical observation.
- The preservation of the night sky increases recreational value for park visitors seeking a pure and undiminished night sky quality.
- The preservation of the night sky will not impair the park's wildlife habits and rituals, hunting and migration patterns as well as reproductive and birthing cycles.

8.3 Lightscape Management Plan Principals

This LMP is created with certain principals in mind. Above all, preservation of the night sky and limiting the use of artificial light takes highest priority. Where artificial lighting is used, care must be taken to minimize its impact on the environment.

- ANP will be conscious of the impact that artificial light has on people and wildlife alike. The scattering of light and the impact light trespass has on nocturnal animals will be considered.
- Energy efficiency is a goal of any good LMP effectively lowering the park's carbon footprint. While this is a goal that can be worked towards, it should be noted that not all energy efficient lighting will be night

friendly. Energy efficient bulbs should be chosen for long term sustainability.

- Outdoor lighting within ANP will be held to a high standard so that surrounding communities will have a suitable example of good lighting practices.

8.4 General Guidelines for Park Lighting

1. Light only WHERE needed
    a. Limit the use of redundant lighting. Lighting should be spaced in an appropriate manner especially when erecting lighting for parking lots and pathways.
2. Light only WHEN needed
    a. Park lighting should be placed on timers and a "dark time" should be set. ANP will adhere to a 2 hour dark time. 2 hours after sunset all lights in the park will be turned off except in situations where light is needed in heavily traveled areas. In these areas lights should be placed on switches or motion sensors so that no unnecessary light is used.
3. Light fixtures should be SHIELDED
    a. At a minimum, all light fixtures that emit above 500 initial lumens within the park should be shielding and no light should be emitted at or above the horizontal, only light directed downward. Special case lighting as well as lights that emit less than 500 initial lumens do not need to be shielded.
4. Bulbs should be selected to MINIMIZE negative impacts
    a. Humans and many other animals are sensitive to blue/white light. This can cause night blindness for people and wildlife while upsetting hormonal balances in humans and affect nocturnal behavior of wildlife. Warm temperature lighting, which limits color spectrum to 1800-3000K, is much better suited for night time lighting.
    b. Bulbs with a color temperature between 3000 and 5000K are said to be "neutral" in tone. The common incandescent lamp is 2700k. For consistency and appearance ANP will select bulbs with a temperature between 1800 and 3000K with a minimum color rendering index of 70. This will provide the desired amber to warm white color lighting that is commonly accepted for use in outdoor lighting applications. Not only does amber light minimize light pollution and environmental affects, bugs are less attracted to this color light.
5. Bulbs should be selected to MAXIMIZE efficiency

a. Light sources should be chosen to maximize efficiency while providing long life and low maintenance cost. This will ultimately reduce the lighting budget and overall carbon footprint of the park.
    i. LED 2700K “warm” white lamps, yellow, or amber colored, 1, 3, or 7 watt. Use amber LEDs in sensitive areas where high environmental impact could arise. LEDs superior life, energy efficiency, instant starting and low temperature performance make them a great choice.
    ii. Compact fluorescent (CFL), 9 watt, twin tube and 13 watt double twin tube or Edison base-spiral 3, 7, 10, 13 or 26 watt are accepted for use in many basic outdoor lighting fixtures. Due to low cost, these bulbs are perfect for general purpose lighting.

6. Use the minimum AMOUNT of light necessary
    a. There is no need to over-light or use high power bulbs in any application. Specifically, pathway lighting 3 feet or less from the ground should use the lowest possible wattage bulbs or LEDs. 9 or 13w CFL or 1 to 3w LEDs are acceptable. Post lighting approximately 8 ft in height should use no more than 13w CFL. Tall post lighting for use in parking lots and area lighting should use no more than a 42w CFL or 70w high pressure sodium bulb or equivalent LED pack.

8.5 Guidelines for outdoor lighting

8.5.1 Buildings

At a minimum all buildings in the park must have full cut-off shields to prevent light scattering above the horizontal. Buildings which close at night should have their lights turned off once the building is no longer in use. All buildings in the park should adhere to “dark time”.

8.5.2 Administration buildings

Defined as buildings with private offices that will close after dark. Illumination of main doorways and stairs may be necessary after dark during winter, spring and autumn for safety reasons. During these times interior lights should be shielded from the outside by use of blinds and curtains. All lighting internal and external to the building should go off approximately 30 minutes after

closing time. For employees and staff that work late hours, lights should be on manual switches for additional use, but should be turned off once work is finished.

8.5.3 Public buildings, Retail Outlets, Restaurants

Defined as buildings open to the public during normal business hours and may also contain private offices. Similar to administration buildings all lighting internal and external should be turned off 30 minutes after closing time. During winter, spring and autumn illumination after dark will be required at building entrances and stairs. Interior lights should be shielded by use of blinds and curtains. Due to potentially higher pedestrian foot traffic, motion sensors may need to be used in order to extend lighting into “dark time” at park management discretion.

8.5.4 Toilet and washroom facilities

Special considerations should be made for public restrooms. Generally these facilities will be available throughout the night and should be illuminated at their entrance for easy access and ability to be located at night. Full cut-off fixtures should be used. Park management can choose to use non cut-off fixtures if the lowest possible output bulbs are selected for use. Additionally 1w red or amber led markers can be used for non cut-off fixtures. Interior illumination is a concern if there are windows that allow light to be scattered outside. Interior lights should be on motion sensors and use low wattage yellow or amber lighting

.

Area	Type	Lamp	Illuminance	Height	Curfew
Administrative Buildings	FCO	Incandescent, yellow CFL or amber LED	2 Lux or .2 FC	8ft from the ground	YES
Public Buildings	FCO	Incandescent, yellow CFL or amber LED	2 Lux or .2 FC	8ft from the ground	YES
Retail Stores/Restaurants	FCO	Incandescent, yellow CFL or amber LED	2 Lux or .2 FC	8ft from the ground	YES

Toilet & Washroom Facilities	FCO	Incandescent, yellow CFL or amber LED	2 Lux or .2 FC	8ft from the ground	NO

8.5.5 Parking lots

Parking lots should have pole mounted lighting that should be spaced 4 times the pole height starting from the extreme corners of the lot. Fully cut-off fixtures with low pressure sodium, high pressure sodium or amber LED should be used. For administrative parking lots, lamps should be on timers and should turn off 30 minutes after closing time. Small parking lots with low pedestrian use should not be illuminated. Large parking lots with high pedestrian use may be illuminated past "dark time" at park management discretion, but require full cut-off fixture and proper illumination levels.

Parking Area	Type	Lamp	Illumination level	height	curfew
Administration	FCO	LPS,HPS,Amber LED	3 Lux or .3 Fc	20ft from the ground	YES
Small <10 cars	NONE	NONE	NONE	NONE	N/A
Large >10 cars	FCO	LPS,HPS, Amber LED	3 Lux or .3 Fc	20ft from the ground	At Park's discretion

8.5.6 Pathways

Pathways that are navigated by pedestrians after dark may be illuminated. Full cut-off fixtures such as bollard lights should be used for illumination. Only the path should be illuminated, effectively keeping the surrounding areas free of illumination. Due to low height of selected luminaires, very low wattage lights or

LEDs should be selected. Pathway lighting should adhere to “dark time”. At Park management discretion pathway lights may be used after “dark time” but must use motion sensors or switches so that light is not wasted after pedestrians pass down the pathway. Reflective markers can be placed in the pathway if lights are not used. Pedestrians should be encouraged to use flashlights with red or amber filters or low wattage bulbs while walking pathways at night.

Pathways	Type	Lamp	Illumination	Height	Curfew
Illuminated pathways	FCO	Incandescent, yellow CFL or amber LED	1 Lux or .1 FC	3.3ft from the ground	YES
Main pathways	FCO	Incandescent, yellow CFL or amber LEC	1 Lux or .1 FC	3.3ft from the ground	At Park’s discretion

8.5.7 Historic Buildings

Historic buildings will be subjected to the same criteria as other buildings in the park unless “period specific lighting” is deemed necessary for use. In this case historic buildings can have non cut-off fixtures. Most historic lighting in the park is on a manual switch and is used infrequently. The only historic lighting in the park currently on a timer are 3 lights used to illuminate entrance ways to Rockefeller Hall at the Schoodic Research Institute. Other period specific lighting is erected but not used at night. In any case these fixtures will be considered compliant either by lack of use, style, or shielding. These lights are clearly labeled in the park’s lighting inventory.

8.5.8 Acadia National Park Island Explorer

The Island Explorer is a free bus service offered by ANP. Bus rides around the park are available until 9:30 pm during the summer. Lights that are used to illuminate the bus stop areas should be turned off 30 minutes after bus operation. Most bus stops also have a map that identifies bus routes. Light levels should be appropriate such that patrons of the Island explorer can easily read the bus maps and navigate to their destinations effectively.

8.5.9 Signs and flag poles

No upward facing spotlights are permitted for use in lighting signs or flag poles. Flag poles can be lit by shielded downward facing luminaires. Signs in general do not need to be illuminated and should be installed so that a vehicle's headlamp will illuminate them enough to be read. Flag poles may be lit overnight when a flag is being illuminated.

8.5.10 Emergency lighting

May be unshielded as long as the lighting is only used during emergency and turned off immediately afterward.

8.5.11 Amphitheaters

There are 3 amphitheaters in Acadia National Park. They are located at Blackwoods, Seawall and Schoodic Woods campgrounds. Lighting in these areas need to allow night time demonstrations and events the proper illumination for their intended purpose. Illumination in amphitheaters may be slightly higher than normal. Park management will do their best to conform to general guidelines, but at management's discretion. At a minimum, fixtures will be shielded to be considered compliant. Currently all amphitheater lighting is on a manual switch and none of the lighting remains on unless there is an event taking place. From March 1st, 2016 through November 1st, 2016 there are 14 scheduled events combined between all amphitheaters that may use lights for their programs. All lighting is to be turned off upon completion of evening programs.

9.0 Action Plan

Acadia National Park easily achieves a silver tier designation based on SQM data with some areas of the park that are representative of gold tier standards. The Milky Way and Andromeda Galaxy are viewable with the naked eye in all areas of the park. Although the night sky is particularly good at Acadia National Park, action must be taken to retrofit a large portion of the Park's lighting inventory. First and foremost, Acadia currently has no standard for "dark time" or a lighting curfew in place.

9.1 Step 1: Establish park wide lighting curfew (Dark time)

Acadia National Park will establish a lighting curfew in which lighting will be turned off by a maximum of 2 hours after sunset. This will be completed by the use of astronomical timers as well as photo sensors and timing control panels and manual switches where applicable.

Residential buildings within the park where lights are on a manual switch will be strongly recommended to adhere to light curfew. There may be instances where residents need to illuminate an exterior light after light curfew. These include leaving or returning for work or recreational activities, having guests enter or exit a residence, and the use of outdoor space. Discretion will be left up to residents, but no outdoor light on a manual switch shall be left on overnight without a specific purpose.

9.2 Step 2: Lighting inventory compliance

Currently Acadia National Park contains 920 outdoor lighting fixtures. 366 fixtures are compliant which grants the park an overall compliance of 39.78%. This leaves the park with 554 non-compliant fixtures. In order to reach a compliance of 67% in the next 3 years, Acadia will have to go through a retrofit process of fixtures and bulbs. Not all of the 553 non-compliant lights are due to a lack of shielding. 195 fixtures are shielded, but utilize a bulb or LED pack that is not color compliant or is too powerful and illuminates the ground to higher than desired levels, while 359 fixtures are non-shielded and will require complete replacement in the fixture.

Acadia has previously partnered with companies that retrofit lighting and utilize night sky friendly lighting that is properly shielded. Evidence of this can be seen at Blackwoods, Seawall and Schoodic Campgrounds as well as at Schoodic

Peninsula Research Institute. Gaining a provisional certification will allow Acadia to raise the necessary funding to perform the required lighting retrofits to reach 67% compliance in 3 years.

Total Light fixtures	Total compliant fixtures	Total non-compliant fixtures	Shielded but require different bulb	Shielded but require different LED pack	Non shielded and require new fixture	Overall compliance of inventory
921	362	559	121	74	364	39.31%

The lighting inventory contained in this application lists specific recommendations and comments for each fixture that is found to be non-compliant and should be referenced as a starting point for any future lighting retrofits.

9.3 Purposed solution to reach compliance in 3 years

Acadia National Park should first remove all non-compliant bulbs and LED packs and replace them with compliant luminaires. This will grant Acadia an additional 195 compliant fixtures for a total of 557 compliant fixtures and a compliance of 60.47%. This is a huge jump in compliance without having to replace an entire fixture. In many cases a simple $5 CFL can be swapped out to gain compliance. More complicated will be the replacement of LED luminaires, which may require the replacement of a fixture in order to reach compliance. Previously contracted companies should be contacted to fully understand the best course of action for replacing LED packs.

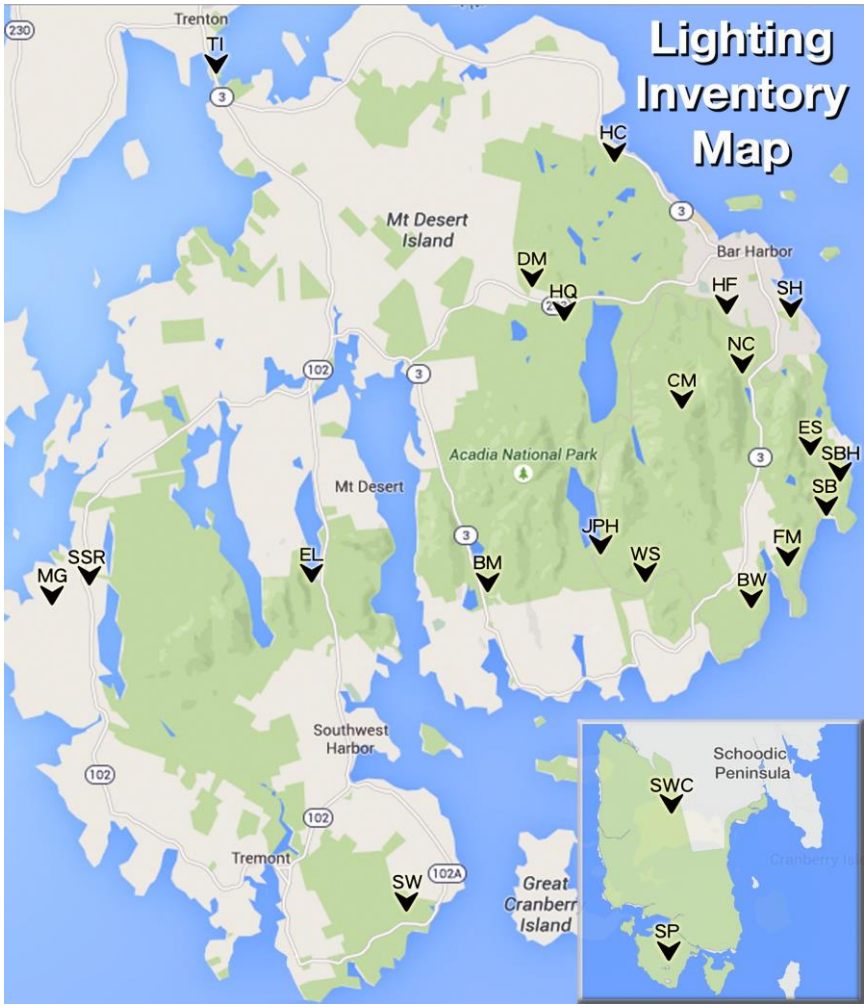
Replacing the pathway lighting at Jordan pond house to fully shielded bollards will grant an additional 41 compliant lights for a total of 598 compliant lights and an overall compliance of 64.92%.

Additionally 25 fixtures within the park can be removed due to having disconnected bulbs, not in use or redundant. 1 fixture at Jordan Pond House can be aimed properly for compliance. Removing 25 fixtures will drop the total fixtures to 896 and gaining one complaint light will bring the total compliant lights to 599. Overall park compliance will be 66.85%. In addition, park management should scrutinize lighting fixtures at park headquarters and determine if additional lighting fixtures could be removed.

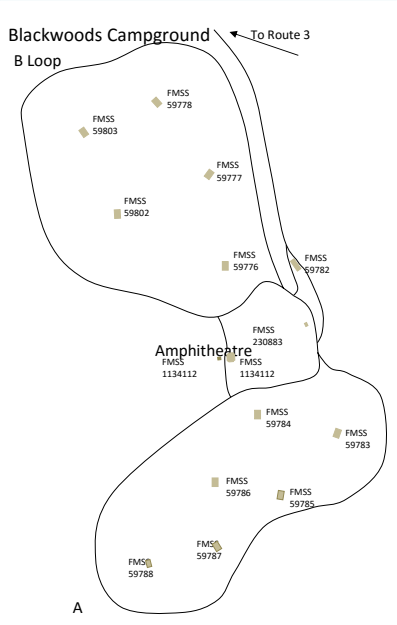
Acadia National Park Lighting Inventory

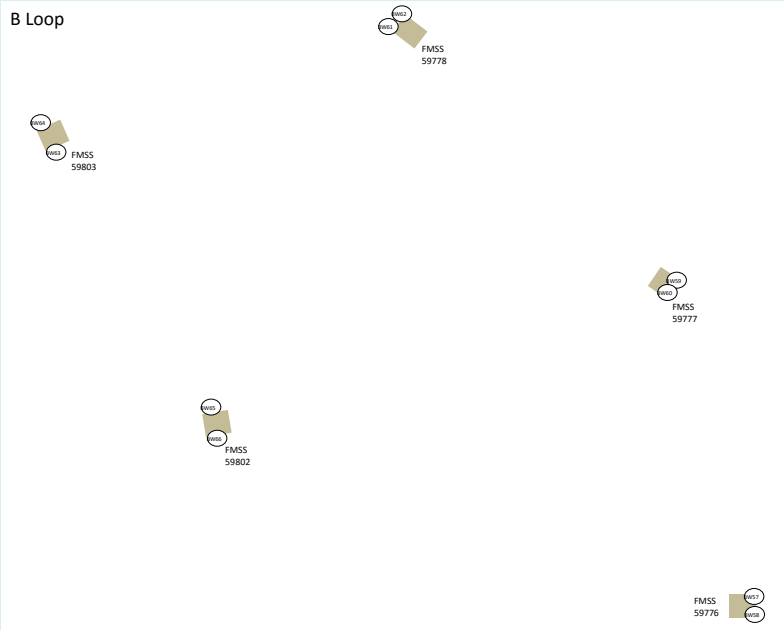
Acronym	Full Name
BW	Blackwoods Campground
BM	Brown Mountain Gatehouse
CM	Cadillac Mountain
DH	Dermott House
EL	Echo Lake
ES	Entrance Station
FM	Fabbri Memorial
HF	Harden Farm
HQ	Headquaters
HC	Hull's Cove Visitor Center and Residence
IH	Isle au Haut
IF	Islesford
JPH	Jordan Pond House
MG	Mildred Gilley Residence
NC	Nature Center
SB	Sand Beach
SBH	Sand Beach House
SP	Schoodic Peninsula
SWC	Schoodic Woods Campground
SW	Seawall Campground and Residence
SSR	Somes Sound Residence
SH	Storm Beach House
TI	Thompson Island Information Center
WS	Wildwood Stables
Statistics	

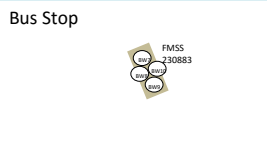
Recommendations Key		
Boxes Marked with this color indicate that the LED of the fixture must be replaced	Boxes marked with this color indicate that the Bulb of the fixture must be replaced	Unmarked boxes for a non-compliant fixture indicate that the entire fixture must be replaced

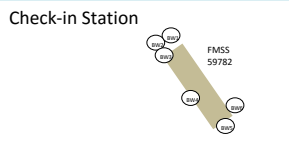


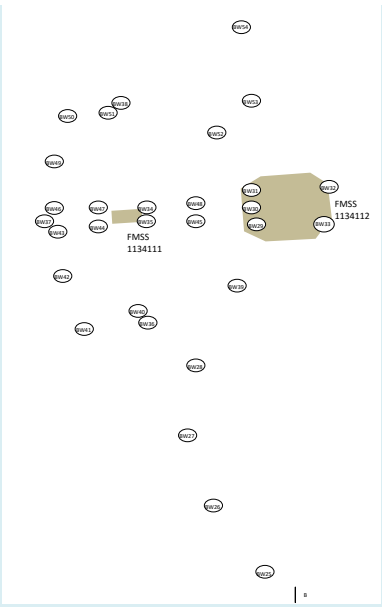
Blackwoods Campground (BW)

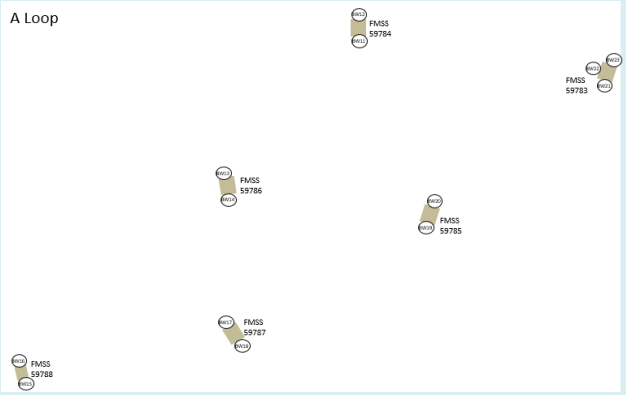












Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
BW1		Philips Rab HBHH100VQTB HID Flood, 70-150W	Accent, flag pole	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
BW2		Philips Rab HBHH100VQTB HID Flood, 70-150W	Accent, flag pole	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
BW3		Musco LED pack	Building entry	YES	No	4000K	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW4		Musco LED pack	Area lighting	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW5		Musco LED pack	Area lighting	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW6		Musco LED pack	Area lighting	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW7		Vantage 6" H.F. Lensed, 4-pin, 18W CFL, 120V	Bus stop	YES	No	Warm white	Timer	NO	Replace bulb with proper color and temperature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used

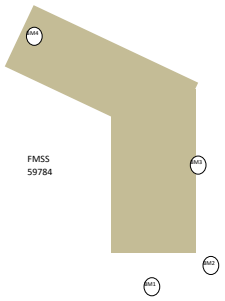
BW8		Vantage 6" H.F. Lensed, 4-pin, 18W CFL, 120V	Bus stop	YES	No	Warm white	Timer	NO	Replace bulb with proper color and temperature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
BW9		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Bus stop	YES	No	Warm white	Timer	NO	Replace bulb with proper color and temperature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
BW10		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Bus stop	YES	No	Warm white	Timer	NO	Replace bulb with proper color and temperature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
BW11			Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW12		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW13		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW14		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW15		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW16		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW17		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW18		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW19		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW20		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW21		Musco LED pack	Building entry	YES	No	4000k	Timer	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW22		Ceiling mount; 13W CFL	Building entry	NO	No	Wrong Color	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
BW23		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW24		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW25		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW26		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW27		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less

BW28		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW29		90W Halogen, hooded flood	Stage lighitng for Amphitheater	YES	No	Wrong Color	Switch	YES		Amphitheater lighting, see LMP
BW30		90W Halogen, hooded flood	Stage lighitng for Amphitheater	YES	No	Wrong Color	Switch	YES		Amphitheater lighting, see LMP
BW31		90W Halogen, hooded flood	Stage lighitng for Amphitheater	YES	No	Wrong Color	Switch	YES		Amphitheater lighting, see LMP
BW32		Musco LED pack	Area lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW33		Musco LED pack	Area lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW34		90W Halogen, hooded flood	Area lighting for Amphitheater	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW35		90W Halogen, hooded flood	Area lighitng for Amphitheater	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW36		Post lamp	Area lighting for Amphitheater	YES	No	Amber	Switch	YES		Amphitheater lighting, see LMP
BW37		Post lamp	Area lighting for Amphitheater	YES	No	Amber	Switch	YES		Amphitheater lighting, see LMP
BW38		Post Lamp	Area lighting for Amphitheater	YES	No	Amber	Switch	YES		Amphitheater lighting, see LMP
BW39		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP.
BW40		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW41		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW42		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW43		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW44		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW45		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	NO, needs repair	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW46		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP

BW47		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW48		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW49		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW50		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW51		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW52		Progress P5224-31WB Speciality, 13W, 12V	Path lighting	YES	No	Warm white	Switch	YES		Amphitheater lighting, see LMP
BW53		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW54		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW55		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW56		Musco LED pack	Path lighting	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW57		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW58		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW59		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW60		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW61		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW62		Musco LED pack	Building entry	YES	No	4000k	Switch	NO	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000k color temp or less
BW63		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
BW64		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
BW65		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

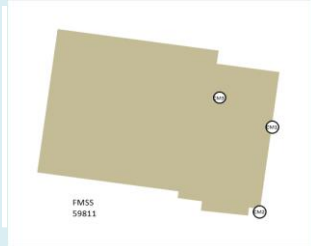
BW66		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

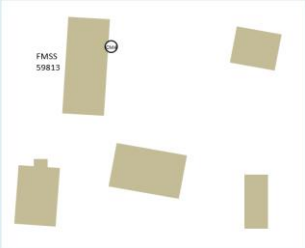
Brown Mountain Gatehouse

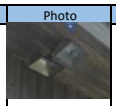
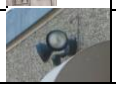


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
BM1		Exterior wall lantern, 13W CFL	Area lighting	NO	NO	N/A	Switch	YES		Historic lighting see LMP
BM2		Exterior wall lantern, 13W CFL	Area lighting	NO	NO	N/A	Switch	YES		Historic lighting see LMP
BM3		Exterior Pendant; incandescent	Residential building entry	NO	NO	N/A	Switch	YES		Historic lighting see LMP
BM4		Exterior Pendant; incandescent	Area lighting; gatehouse gateway	NO	NO	N/A	Switch	YES		Historic lighting see LMP

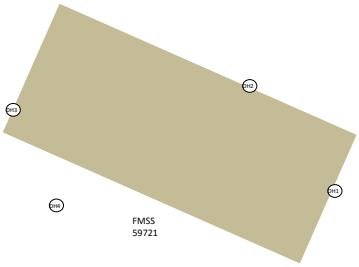
Cadillac Mountain (CM)





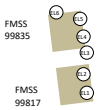
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
CM1		Halogen wall mount	Area lighting	NO	N/A	N/A	N/A	No	Remove fixture	Bulbs Removed from fixture. Light not in use.
CM2		Halogen wall mount	Area lighting	NO	No	Wrong Color	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
CM3		Glare Buster GB-2000	Area lighting	YES	No	Compliant	Switch	YES		
CM4		Hooded flood	Area lighting	NO	No	Wrong Color	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

Dermott House



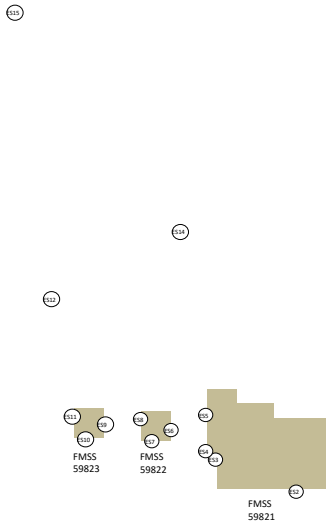
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
DH1		Wall lantern, 60W, incandescent candelabra	Area lighting; garage	NO	NO	N/A	Switch	YES		Historic lighting see LMP
DH2		Wall mount, incandescent	Residential building entry	NO	NO	N/A	Switch	YES		Historic lighting see LMP
DH3		Wall lantern, 60W, incandescent candelabra	Residential building entry	NO	NO	N/A	Switch	YES		Historic lighting see LMP
DH4		Post light, 60W, incandescent candelabra	Area lighting	NO	NO	N/A	Switch	YES		Historic lighting see LMP

Echo Lake



Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
EL1		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
EL2		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
EL3		Fairpoint Communications; flourescent	Accent; payphone	YES	YES	Warm white	N/A	YES		
EL4		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
EL5		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
EL6		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
EL7		13W, Fluorescent; photocell	Area lighting	NO	NO	Warm white	Photocell	NO	Replace with shielded fixture. Follow general guidelines in LMP	

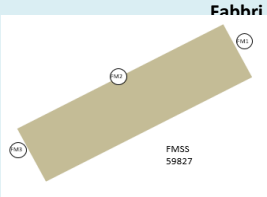
Entrance Station

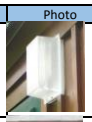
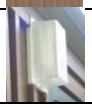


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
ES1		Philips/Hadco Pro filer, PA2, 250W high pressure sodium	Area lighting	YES	No	Amber	Timer	No	Replace with lower power bulbs	Replace with 100-125w high pressure sodium bulb
ES2		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
ES3		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
ES4		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
ES5		Fluorescent 4ft T8 tube	Accent	YES	No	Amber	Switch	YES		
ES6		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
ES7		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
ES8		Fluorescent 4ft T8 tube	Accent	NO	No	Amber	Switch	YES		
ES9		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

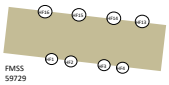
ES10		Canlet, Non-metellis compact fluorescent vaproproof fixture, 26W	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
ES11		Fluorescent 4ft T8 tube	Accent	YES	No	Amber	Switch	YES		
ES12		Philips/Hadco Pro filer, PA2, 250W high pressure sodium	Area lighting	YES	No	Amber	Timer	No	Replace with lower power bulbs	Replace with 100-125w high pressure sodium bulb
ES13		Philips/Hadco Pro filer, PA2, 250W high pressure sodium	Area lighting	YES	No	Amber	Timer	No	Replace with lower power bulbs	Replace with 100-125w high pressure sodium bulb
ES14		Philips/Hadco Pro filer, PA2, 250W high pressure sodium	Area lighting	YES	No	Amber	Timer	No	Replace with lower power bulbs	Replace with 100-125w high pressure sodium bulb

Fabbri Memorial (FM)



Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
FM1		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
FM2		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Area lighting	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
FM3		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	

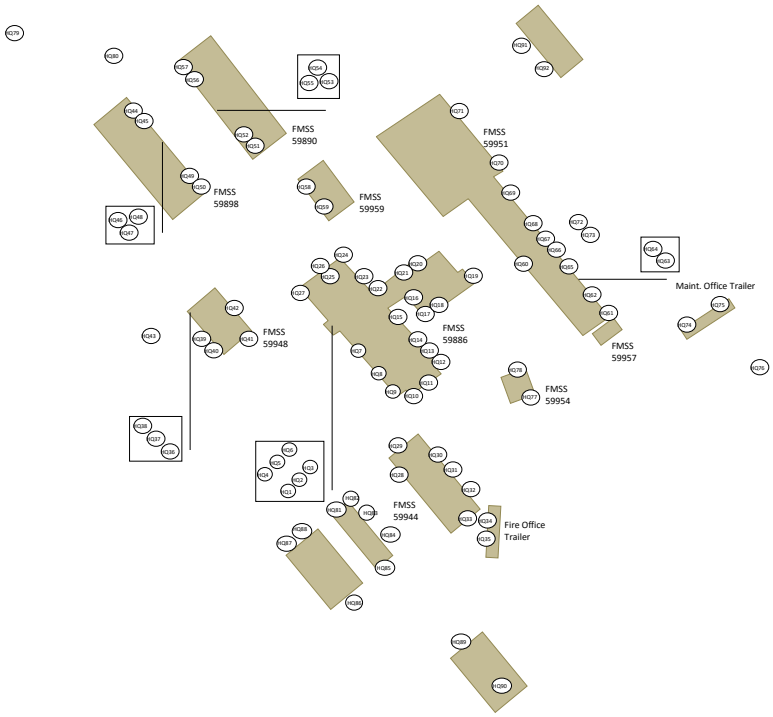
Harden Farms

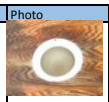


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
HF1		60W/13W, square recessed	Residential building entry	Yes	No	Warm White	On Switch	YES		
HF2		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF3		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF4		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF5		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF6		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF7		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF8		60W/13W, square recessed	Residential building entry	YES	No	Warm White	On Switch	YES		
HF9		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF10		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF11		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF12		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF13		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF14		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF15		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HF16		Wall mounting fluorescent, 26W	Residential building entry	NO	No	Warm White	On Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

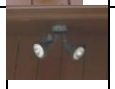
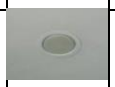
f

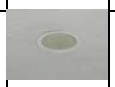
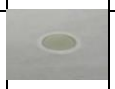
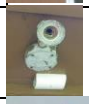
Headquarters

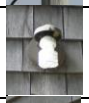
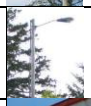
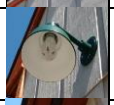
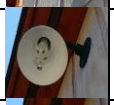
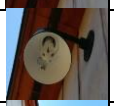
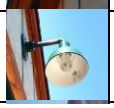


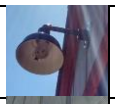
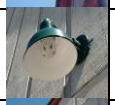
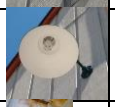
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
HQ1		Halo H7ICAT, recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Remove Fixture. Area Is already well lit	
HQ2		Halo H7ICAT, recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Remove Fixture. Area Is already well lit	
HQ3		Halo H7ICAT, recessed, 13W CFL	Building entry	YES	No	Warm White	Switch	YES	These two should be on instead of HQ1, HQ2, HQ5, and HQ6	
HQ4		Halo H7ICAT, recessed, 13W CFL	Building entry	YES	No	Warm White	Switch	YES	These two should be on instead of HQ1, HQ2, HQ5, and HQ6	
HQ5		Halo H7ICAT, recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Remove Fixture. Area Is already well lit	
HQ6		Halo H7ICAT, recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Remove Fixture. Area Is already well lit	
HQ7		Wallpack	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ8		Halo H7ICAT, recessed, 13W CFL	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ9		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

HQ10		Wallpack	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ11		Non-hooded double flood, 13W CFL	Area lighting; garages	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ12		Stonco Roughlyte Wall Mount	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ13		Wallpack	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ14		Wall mount, 13W CFL	Building entry	YES	No	Warm White	Switch	YES		
HQ15		Halo H7ICAT, recessed, 13W CFL	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ16		Wallpack, High Pressure Sodium, 50W	Area lighting	NO	No	amber	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ17		Metal halide canopy, 50-150W	Area lighting; curatorial garage	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ18		Metal halide canopy, 50-150W	Area lighting; curatorial garage	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ19		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ20		Metal halide canopy, 50-150W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ21		Metal halide canopy, 50-150W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ22		Wallpack; High pressure sodium; 50W	Area lighting	NO	No	amber	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ23		Wallpack	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ24		Non-hooded flood, 13W CFL	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	This fixture is redundant and not necessary
HQ25		Wallpack	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ26		Halo H7ICAT, recessed, 26W CFL	Building entry	YES	No	Warm White	Switch	No	Replace with lower power bulb. See LMP general guidelines	Use 13w CFL less than 3000k color temperature
HQ27		Wallpack	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ28		Flood; Non-hooded Not in use	Building entry	NO	No	N/A	N/A	No	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture

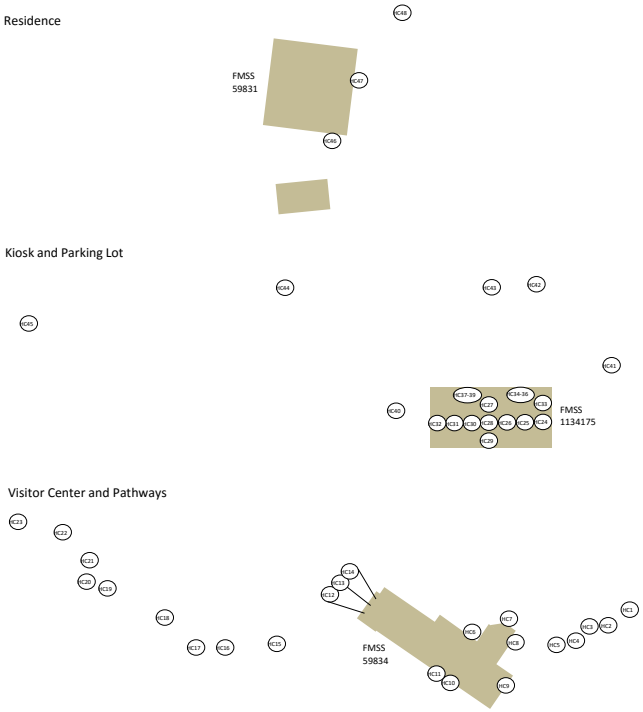
HQ29		Wall mount, 13W CFL	Building entry	YES	No	Warm White	Switch	Yes		
HQ30		Hooded flood, motion sensor	Area lighting	NO	No	Warm White	Motion	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ31		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ32		Hooded flood, photo sensor	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ33		Halogen flood	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ34		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ35		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ36		Non-recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	ONLY ONE OF THESE 3 LIGHTS NEEDS TO BE ON
HQ37		Non-recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	ONLY ONE OF THESE 3 LIGHTS NEEDS TO BE ON
HQ38		Non-recessed, 13W CFL	Building entry	NO	No	Warm White	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	ONLY ONE OF THESE 3 LIGHTS NEEDS TO BE ON
HQ39			Accent, flag	Yes	No	Wrong Color	Timer	No	Replace LED with proper color and temperature bulb. Follow LMP.	Use 3000K temperature or less
HQ40		Non-hooded Flood Light, 750 lumens, 120V, 16W	Accent, flag	NO	No	Warm White		Removed	Replace with shielded fixture. Follow general guidelines in LMP	
HQ41		GE Wallighter 70 Luminaire, 50W, 120V, photocell	Building entry	NO	No	Wrong Color	Photocell	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ42		Kenall Lightmate, incandescent, 120V	Building entry	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ43		Kenall Lightmate, incandescent, 120V	Accent, kiosk	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
HQ44		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ45		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ46		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ47		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		

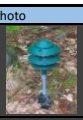
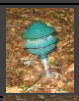
HQ48		Non-hooded flood, 13W flood CFL	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ49		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ50		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ51		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ52		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ53		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ54		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ55		Non-hooded flood, 13W flood CFL	Area lighting	NO	No	Warm White	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ56		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ57		Recessed, 13W CFL	Residential building entry	YES	No	Warm White	Switch	YES		
HQ58		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ59		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ60		Non-hooded flood; not in use	Building entry	NO	No	N/A	N/A	No	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
HQ61		500W Quartz Flood; not in use	Area lighting	NO	No	N/A	N/A	No	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
HQ62		Non-hooded Flood, 13W	Area lighting	NO	No	warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ63		Non-hooded Flood, 90W Halogen	Area lighting	NO	No	Warm White	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ64		Employee use only; bulbs disconnected	Accent; vending machine	YES	N/A	N/A	N/A	YES		
HQ65		Wall mount	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ66		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

HQ67		Non-hooded Flood, 13W	Area lighting	NO	No	warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ68		Non-hooded Flood, 13W	Area lighting	NO	No	warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ69		Non-hooded Flood, 13W	Area lighting	NO	No	warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ70		Stonco Vapor proof, 26W CFL	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ71		Wallpack	Area lighting	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ72		Metal Halide, 150-175W	Area lighting; gas pump	YES	No	Warm white	Switch	YES		
HQ73		Bob Bechtold-trailer	Area lighting; gas pump	YES	No	Warm white	Switch	YES		
HQ74			Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ75			Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ76		500W Quartz Flood	Area lighting	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ77		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ78		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ79		Westinghouse, OV-25, 150W	Streetlight	NO	No	warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ80		Westinghouse, OV-25, 150W	Streetlight	NO	No	warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ81		14W LED	Building entry	YES	No	warm white	Switch	YES		
HQ82		14W LED	Building entry	YES	No	warm white	Switch	YES		
HQ83		14W LED	Area lighting	YES	No	warm white	Switch	YES		
HQ84		14W LED	Area lighting	YES	No	warm white	Switch	YES		
HQ85		14W LED	Building entry	YES	No	warm white	Switch	YES		

HQ86		14W LED	Building entry	YES	No	warm white	Switch	YES		
HQ87		14W LED	Building entry	YES	No	warm white	Switch	YES		
HQ88		14W LED	Building entry	YES	No	warm white	Switch	YES		
HQ89			Area lighting	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ90		14W LED	Building entry	YES	No	warm white	Switch	YES		
HQ91			Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
HQ92			Building entry	NO	No	warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

Hull's Cove Visitor Center and Residence



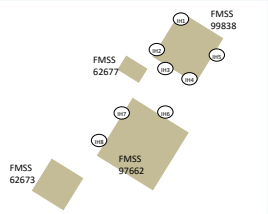
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
HC1		Aluminum Pathlyte PL39, 27W, 12V	Path lighting	NO				Removed	Replace with shielded fixture. Follow general guidelines in LMP	
HC2		Hooded Flood, 25W, 12V	Path lighting	NO				Removed	Replace with shielded fixture. Follow general guidelines in LMP	
HC3		Aluminum Pathlyte PL39, 27W, 12V	Path lighting	NO				Removed	Replace with shielded fixture. Follow general guidelines in LMP	
HC4		Aluminum Pathlyte PL39, 27W, 12V	Path lighting	NO				Removed	Replace with shielded fixture. Follow general guidelines in LMP	
HC5*		Aluminum Pathlyte PL39, 27W, 12V	Path lighting	NO				Removed	Replace with shielded fixture. Follow general guidelines in LMP	
HC6		GE WFL Wallighter Luminaire, 22W, 120V, photocell	Building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC7		Wallpack	Area Lighting	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC8		GE WFL Wallighter Luminaire, 22W, 120V, photocell	Building entry	NO	No	Warm white	Photocell	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC9		Prescolite, CFR813EB, 8 in Round Open Recessed 2 13W Twin Tube 4-Pin Elec. CFL	Building entry	YES	No	Warm white	Timer	YES		
HC10		8 in Round Open Recessed, 13W 2-pin	Building entry	YES	No	Warm white	Timer	YES		

HC11		8 in Round Open Recessed	Building entry	YES	No	Warm white	Timer	YES		
HC12		Prescolite, CFR813EB, 8 in Round Open Recessed 2 13W Twin Tube 4-Pin Elec. CF	Building entry	YES	No	Warm white	Switch	YES		
HC13		Prescolite, CFR813EB, 8 in Round Open Recessed 2 13W Twin Tube 4-Pin Elec. CFL	Building entry	YES	No	Warm white	Switch	YES		
HC14		Prescolite, CFR813EB, 8 in Round Open Recessed 2 13W Twin Tube 4-Pin Elec. CFL	Building entry	YES	No	Warm white	Switch	YES		
HC15		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC16		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC17		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC18		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC19		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC20		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC21		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC22		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC23		Wall mounted tread light, fluorescent	Path lighting	NO	No	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC24		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC25		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC26		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC27		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC28		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC29		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature

HC30		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC31		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC32		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; kiosk	YES	No	Warm white	Timer	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
HC33		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	Yes		
HC34		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	YES		
HC35		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	YES		
HC36		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	YES		
HC37		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	YES		
HC38		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	YES		
HC39		Set powered by Fiber-optic 175 metal halide generator	Accent; kiosk	YES	No	Warm white	Timer	YES		
HC40		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	Amber	Timer	YES		
HC41		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	Amber	Timer	YES		
HC42		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	Amber	Timer	YES		
HC43		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	Amber	Timer	YES		
HC44		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	Amber	Timer	YES		
HC45		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	Amber	Timer	YES		
HC46		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Residential building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC47		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Residential building entry	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
HC48		Post light, 13W CFL	Area Lighting	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

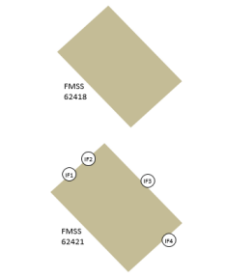
HC49			Area Lighting	NO	No	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture

Isle au Haut (IH)



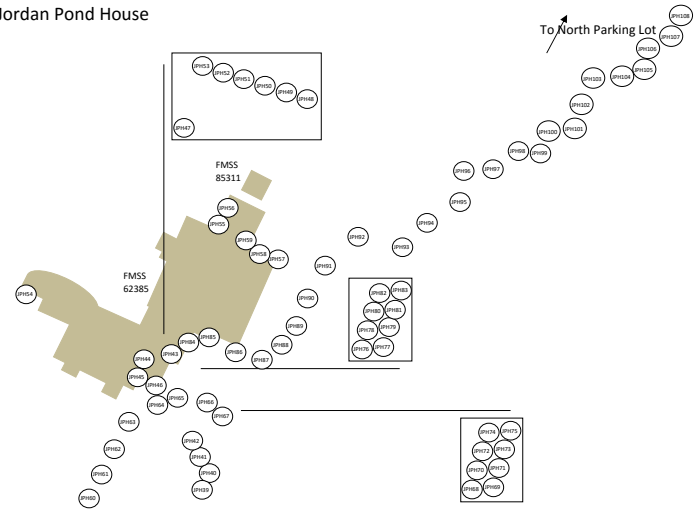
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
IH1		GE WFL Wallighter Luminaire, 22W, 120V, photocell	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH2		GE WFL Wallighter Luminaire, 22W, 120V, photocell	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH3		Wall mounted non-hooded flood	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH4		Wall mounted non-hooded flood, motion sensor	Area lighting	NO	NO	Warm white	Motion	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH5		GE WFL Wallighter Luminaire, 22W, 120V, photocell	Building Entry	NO	NO	Warm white	Photo sensor	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH6		Wallpack	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH7		Wallpack	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IH8		RAB WP1 Cutoff, 26W	Building Entry	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

Islesford (IF)

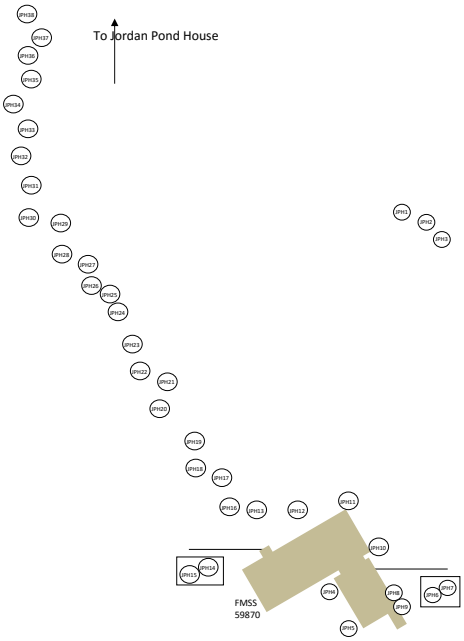


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
IF1		Wall mount, incandescent	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IF2		Non-hooded flood with motion sensor	Area lighting	NO	NO	Warm white	motion sensor	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IF3		Non-hooded double flood, 13W CFL	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
IF4		Wall mount, incandescent	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

Jordan Pond House



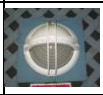
Residence



Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
JPH1*		Exterior pendant, 13W CFL	Area lighting; gatehouse gateway	No	N/A	N/A	Switch	Yes		Historic lighting see LMP
JPH2*		Wall mount, 13W CFL	Area lighting	No	N/A	N/A	Switch	Yes		Historic lighting see LMP
JPH3*		Exterior pendant, 13W CFL	Building entry, residential	No	N/A	N/A	Switch	Yes		Historic lighting see LMP
JPH4		RAB LPACK, 10-13W LED S	Streetlight/ Area Lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH5		RAB LPACK, 10-13W LED S	Streetlight/ Area Lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum

JPH6		Non-hooded flood, halogen	Emergency	No	No	Wrong Color	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH7		Square Recessed	Residential building entry	Yes	No	Warm White	Timer set to 12:30am	YES		
JPH8		Non-hooded doubleflood, halogen	Building entry	No	No	Wrong Color	Timer set to 12:30am	NO	Remove fixture	Redundent
JPH9*		Wallpack	Building entry	No	No	Wrong Color	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH10*		RAB LPACK, 10-13W LED	Streetlight/ Area Lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH11*		RAB LPACK, 10-13W LED	Streetlight/ Area Lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH12*		RAB LPACK, 10-13W LED	Streetlight/ Area Lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH13*		RAB LPACK, 10-13W LED	Streetlight/ Area Lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH14*		Wallpack	Residential building entry	No	No	Wrong Color	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH15*		Non-hooded flood, halogen	Residential building entry	No	No	Warm White	Timer set to 12:30am	NO	Remove fixture	Redundent
JPH16*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH17*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH18*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH19*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH20*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH21*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH22*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH23*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH24*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence

JPH25*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH26*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH27*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH28*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH29*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH30*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH31*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH32*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH33*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH34*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH35*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH36*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH37*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH38*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Pathway Lighting to Residence
JPH39*		Philips/Hadco, Beacon, 13W CFL	Path lighting; sunken	No	No	Warm White	Timer set to 12:30am	NO	Remove fixture	Not Necessary
JPH40*		Philips/Hadco, Beacon, 13W CFL	Path lighting; sunken	No	No	Warm White	Timer set to 12:30am	NO	Remove fixture	Not Necessary
JPH41*		Philips/Hadco, Beacon, 13W CFL	Path lighting; sunken	No	No	Warm White	Timer set to 12:30am	NO	Remove fixture	Not Illuminated
JPH42*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Remove fixture	Not Necessary
JPH43*		Round wall form, flourescent	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	

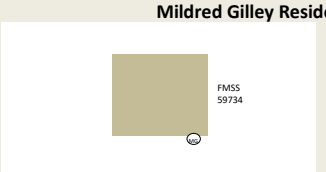
JPH44*		Round wall form, flourescent	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH45*		Round wall form, flourescent	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH46*		Round wall form, flourescent	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH47*		Round wall form, flourescent	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH48*		Recessed, incandescent	Accent; information center	Yes	No	Warm White	Timer set to 12:30am	Yes		
JPH49*		Recessed, incandescent	Accent; information center	Yes	No	Warm White	Timer set to 12:30am	Yes		
JPH50*		Recessed, incandescent	Accent; information center	Yes	No	Warm White	Timer set to 12:30am	Yes		
JPH51*		Recessed, incandescent	Accent; information center	Yes	No	Warm White	Timer set to 12:30am	Yes		
JPH52*		Recessed, incandescent	Accent; information center	Yes	No	Warm White	Timer set to 12:30am	Yes		
JPH53*		Recessed, incandescent	Accent; information center	Yes	No	Warm White	Timer set to 12:30am	Yes		
JPH54*		Wall mount, quartz	Area lighting	No	No	Wrong Color	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH55*		Wall mount, 13W CFL	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH56*		Wall mount, 13W CFL	Area lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH57*		Ceiling lamp, 13W CFL	Area lighting; loading dock	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH58*		Ceiling lamp, 13W CFL	Area lighting; loading dock	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH59*		6"x10" 300W quartz lamp	Area lighting; loading dock	No	No	Wrong Color	Motion Sensor	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH60*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH61*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH62*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature

JPH63*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH64*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH65*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH66*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH67*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH68*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH69*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH70*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH71*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH72*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH73*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH74*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH75*		LiteForms LD6, 6" LED Cylindars	Bus stop lighting	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH76*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH77*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH78*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH79*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH80*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH81*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum

JPH82*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH83*		LiteForms LD6, 6" LED Cylindars	Accent/decorative	Yes	No	Wrong Color	Timer set to 12:30am	NO	Replace LED pack see general guidelines in LMP	Replace with lower color temperature LEDs; 3000k maximum
JPH84*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH85*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH86*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH87*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH88*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH89*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH90*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH91*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH92*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH93*		Kim Lighting SL3, 4-pin, 42W CFL, 120V	Path lighting/decorative	Yes	No	Warm White	Timer set to 12:30am	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
JPH94*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH95*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH96*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH97*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH98*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH99*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH100*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	

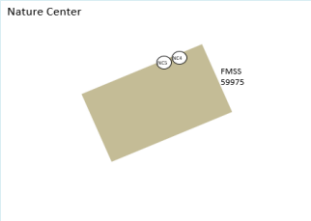
JPH101*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH102*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH103*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH104*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH105*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH106*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	
JPH107*		Philips/Hadco, Beacon, 13W CFL	Path lighting	No	No	Warm White	Timer set to 12:30am	NO	Replace with shielded fixture. Follow general guidelines in LMP	Not Illuminated
JPH108*		Post lamp	Streetlight; area lighting	No	No	Wrong Color	Timer set to 12:30am	NO	Fixture needs to be aimed properly	

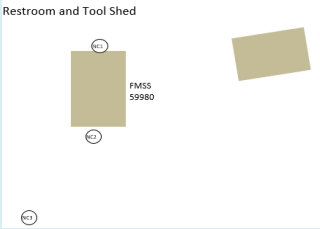
Mildred Gilley Residence (MG)

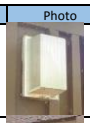


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
MG1		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Residential building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	

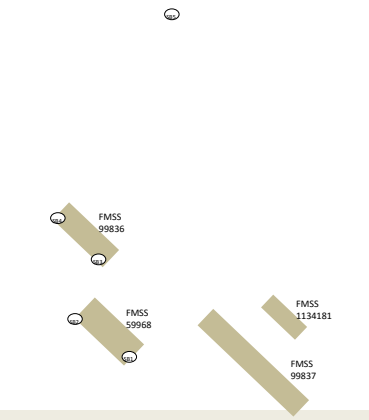
Nature Center (NC)





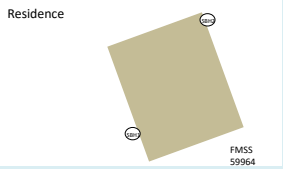
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
NC1		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
NC2		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin FL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
NC3		Fairpoint Communications	Accent; payphone	YES	YES	Warm white	Timer	YES		
NC4		Non-hooded Flood, 13W CFL	Area lighting	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
NC5		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	

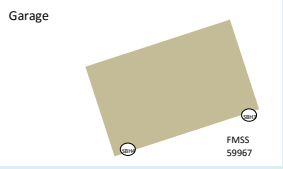
Sand Beach (SB)

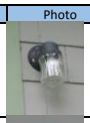


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SB1		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SB2		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SB3		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SB4		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	NO	Warm white	Timer	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SB5		Fairpoint Communications; flourescent	Accent; payphone	YES	YES	Warm white	Timer	YES		

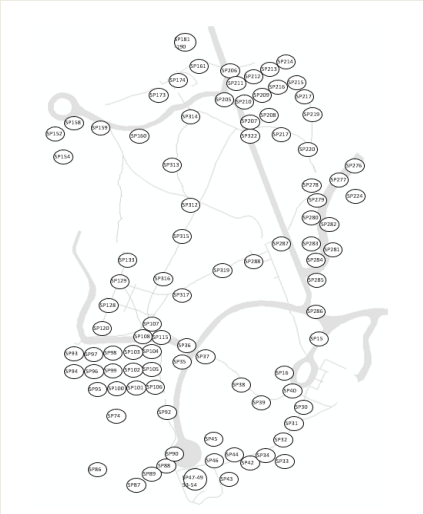
Sand Beach House (SBH)

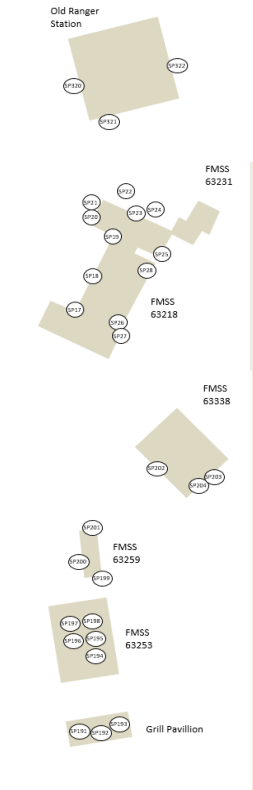


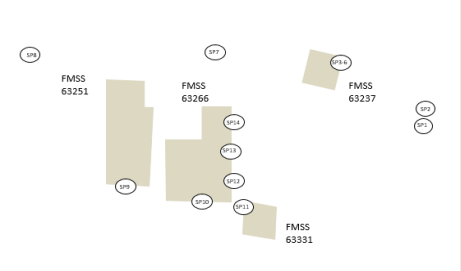


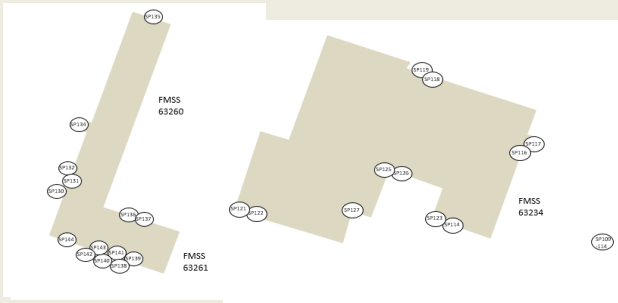
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SBH1		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Residential building entry	NO	YES	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SBH2		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Building entry	NO	YES	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SBH3		Wall mount, CFL	Building entry	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
SBH4		Non-hooded Flood, CFL	Building entry	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

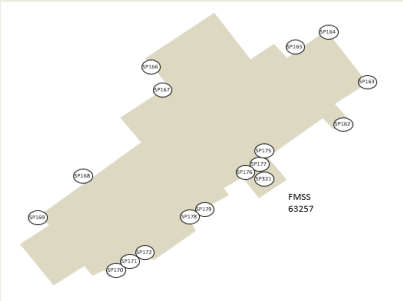
Schoodic Peninsula (SP)

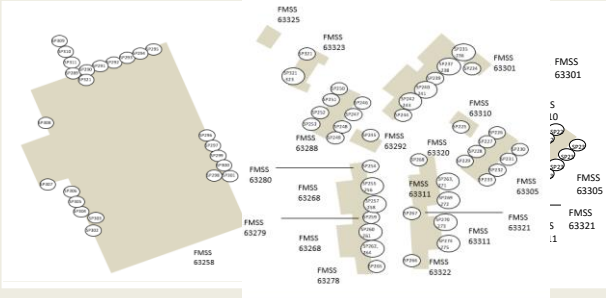


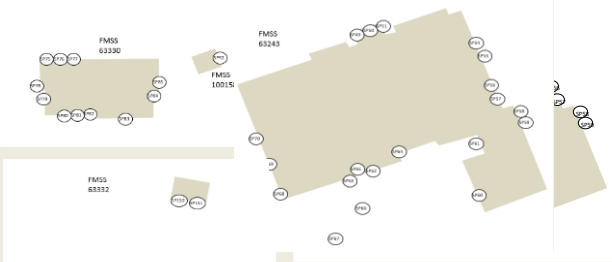


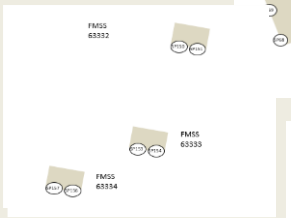



FMSS
63260
FMSS
63261
FMSS
63234

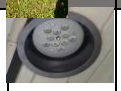
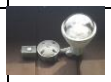

FMSS
63257


FMSS
63325
FMSS
63323
FMSS
63301
FMSS
63301
FMSS
63310
FMSS
63288
FMSS
63292
FMSS
63320
FMSS
63280
FMSS
63268
FMSS
63311
FMSS
63305
FMSS
63305
FMSS
63279
FMSS
63321
FMSS
63321
FMSS
63268
FMSS
63311
FMSS
63258
FMSS
63278
FMSS
63322


FMSS
63330
FMSS
63243


FMSS
63332
FMSS
63333
FMSS
63334

FMSS
63337
FMSS
63326

Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SP1		Non-hooded flood	Accent, entrance sign	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SP2		Non-hooded flood	Accent, entrance sign	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SP3		BeveLED Downlight, 120V, 20W	Building Entry	YES	No	White	Switch	No	Replace LED with proper color and temperature. See general guidelines in LMP	Use 3000k color temp or less or remove light completely
SP4		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	yes		
SP5		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	yes		
SP6		Duallite Twin Head with Mounting Plate, OCDRB0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP7		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP8		Fluorescent tube, not in use	Accent, sign	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SP9		AAL, Wedge, 120V, 32W CFL	Building Entry	YES	No	White 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP10		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP11		Non-hooded flood light, motion sensor and photocell	Area Lighting	NO	No	Warm white	Photocell	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP12		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP13		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP14		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP15		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP16		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP17		Wall mount, incandescent	Building entry	NO	No	Warm white	Timer	Yes		Historic lighting see LMP

SP18		Wall mount, incandescent	Building entry	NO	No	Warm white	Timer	Yes		Historic lighting see LMP
SP19		Wall mount, incandescent	Building entry	NO	No	Warm white	Timer	Yes		Historic lighting see LMP
SP20		LED Retrofit Downlight, 120V, 28W	Building Entry	YES	No	Warm white	Switch	Yes		
SP21		Post light, incandescent	Building entry	NO	No	Warm white	Switch	Yes		Historic lighting see LMP
SP22		Post light, incandescent	Building entry	NO	No	Warm white	Switch	Yes		Historic lighting see LMP
SP23		Wall mount, incandescent	Building entry	NO	No	Warm white	Timer	Yes		Historic lighting see LMP
SP24		Post light, incandescent	Building entry	NO	No	Warm white	Switch	Yes		Historic lighting see LMP
SP25		Wall mount, incandescent	Building entry	NO	No	Warm white	Switch	Yes		Historic lighting see LMP
SP26		Wall mount, incandescent	Building entry	NO	No	Warm white	Timer	Yes		Historic lighting see LMP
SP27		Wall mount, incandescent	Building entry	NO	No	Warm white	Switch	Yes		Historic lighting see LMP
SP28		Wall mount, incandescent	Building entry	NO	No	Warm white	Switch	Yes		Historic lighting see LMP
SP29		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Switch	Yes		
SP30		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Switch	Yes		
SP31		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Switch	Yes		
SP32		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP33		Wall mount	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP34		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP35		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		

SP36		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP37		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	White 3500k	Timer	Yes		
SP38		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP39		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP40		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP41		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP42		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP43		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP44		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP45		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP46		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP47		13W CFL	Path Lighting	YES	No	Warm white	Timer	Yes		
SP48		13W CFL	Path Lighting	YES	No	Warm white	Timer	Yes		
SP49		13W CFL	Path Lighting	YES	No	Warm white	Timer	Yes		
SP50		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP51		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	yes		
SP52		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP53		13W CFL	Path Lighting	YES	No	Warm white	Timer	Yes		

SP54		13W CFL	Path Lighting	YES	No	Warm white	Timer	Yes		
SP55		Non-hooded double-flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP56		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP57		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP58		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP59		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP60		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP61		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP62		LED Retrofit Downlight, 120V, 28W	Building Entry	YES	No	Warm white	Switch	Yes		
SP63		LED Retrofit Downlight, 120V, 28W	Building Entry	YES	No	Warm white	Switch	Yes		
SP64		LED Retrofit Downlight, 120V, 28W	Building Entry	YES	No	Warm white	Switch	Yes		
SP65		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP66		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP67		Fluorescent Tread light	Path Lighting	YES	No	Warm white	Switch	Yes		
SP68		Fluorescent Tread light	Path Lighting	YES	No	Warm white	Switch	Yes		
SP69		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP70		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP71		Non-hooded flood light	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

SP72		70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP73		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP74		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP75		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP76		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP77		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP78		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP79		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP80		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP81		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP82		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP83		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP84		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP85		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP86		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP87		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP88		Hadco Profiler Area Lyte, PA2	Streetlight	YES	No	White	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
SP89		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature

SP90		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP91		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP92		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP93		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP94		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP95		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP96		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP97		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP98		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP99		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP100		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP101		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP102		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP103		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP104		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP105		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP106		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP107		Mitre pathway, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature

SP108	Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP109	Tread light	Accent	YES	No	Warm white	Switch	Yes		
SP110	Tread light	Accent	YES	No	Warm white	Switch	Yes		
SP111	Tread light	Accent	YES	No	Warm white	Switch	Yes		
SP112	Tread light	Accent	YES	No	Warm white	Switch	Yes		
SP113	Tread light	Accent	YES	No	Warm white	Switch	Yes		
SP114	Tread light	Accent	YES	No	Warm white	Switch	Yes		
SP115	Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP116	Vaportight V Series, VWX151, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP117	Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP118	Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP119	BeveLED Downlight, 120V, 20W	Building Entry	YES	No	Warm white	Switch	Yes		
SP120	Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP121	BeveLED Downlight, 120V, 20W	Building Entry	YES	No	Warm white	Switch	Yes		
SP122	Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP123	Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP124	AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP125	Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

SP126		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP127		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP128		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP129		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP130		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP131		Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP132		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP133		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP134		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP135		Wallpack with photocell	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP136		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP137		Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP138		BeveLED Downlight, 120V, 20W	Building Entry	YES	No	Warm white	Switch	Yes		
SP139		Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP140		BeveLED Downlight, 120V, 20W	Building Entry	YES	No	Warm white	Switch	Yes		
SP141		Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP142		BeveLED Downlight, 120V, 20W	Building Entry	YES	No	Warm white	Switch	Yes		
SP143		Duallite Twin Head with Mounting Plate, OCDRW0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

SP144		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP145		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP146		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP147		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP148		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP149		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP150		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP151		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP152		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP153		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP154		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP155		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP156		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP157		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Switch	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP158		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP159		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP160		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP161		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature

SP162		Wall mount, incandescent	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP163		Non-hooded double flood	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP164		Halogen wall mount	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP165		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP166		Duallite Twin Head with Mounting Plate, OCDRB0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP167		Wall mount, incandescent	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP168		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP169		High pressure sodium wall mount	Area Lighting	NO	No	Amber 2100k	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP170		Recessed ceiling fixture	Building entry	YES	No	Warm white	Switch	Yes		
SP171		Recessed ceiling fixture	Building entry	YES	No	Warm white	Switch	Yes		
SP172		Recessed ceiling fixture	Building entry	YES	No	Warm white	Switch	Yes		
SP173		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP174		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP175		Duallite Twin Head with Mounting Plate, OCDRB0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP176		Ceiling mounted fixture	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP177		Ceiling mounted fixture	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP178		Recessed ceiling fixture	Building entry	YES	No	Warm white	Switch	Yes		
SP179		Recessed ceiling fixture	Building entry	YES	No	Warm white	Switch	Yes		

SP180		Exterior pendant, fluorescent	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP181		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP182		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP183		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP184		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP185		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP186		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP187		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP188		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP189		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP190		Solar-powered path LED	Path Lighting	NO	Yes	N/A	N/A	Yes		Under 500 Lumens
SP191		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP192		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP193		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP194		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP195		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP196		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP197		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

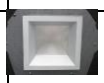
SP198		Exterior pendant, 26W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP199		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP200		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP201		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP202		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP203		Wallpack	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP204		Stonco Vaporproof, 26W CFL	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP205		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP206		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP207		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP208		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP209		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP210		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP211		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP212		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP213		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP214		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP215		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		

SP216		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP217		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP218		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP219		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP220		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP221		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP222		Stonco Vaporproof, 26W CFL	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP223		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP224		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP225		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP226		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP227		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP228		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP229		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP230		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP231		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP232		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP233		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

SP234		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP235		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP236		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP237		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP238		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP239		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP240		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP241		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP242		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP243		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP244		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP245		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP246		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP247		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP248		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP249		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP250		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP251		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

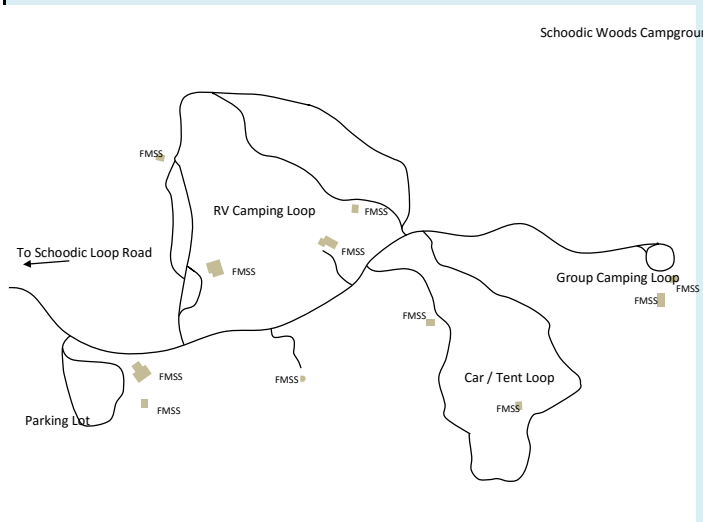
SP252		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP253		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP254		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP255		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP256		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP257		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP258		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP259		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP260		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP261		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP262		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP263		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP264		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP265		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP266		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP267		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP268		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP269		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

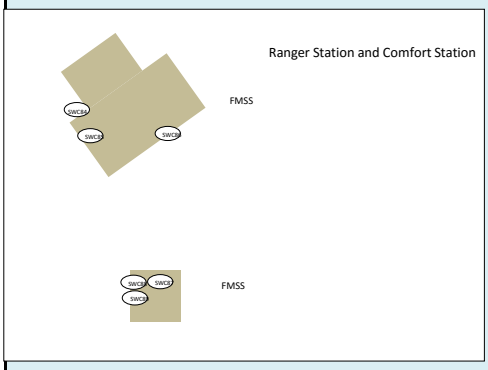
SP270		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP271		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP272		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP273		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP274		Wall mount, 15W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP275		Cento 150 Wall Mounted Luminaire, 120V, 13W CFL	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP276		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP277		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP278		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP279		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP280		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP281		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP282		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP283		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP284		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP285		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP286		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		
SP287		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		

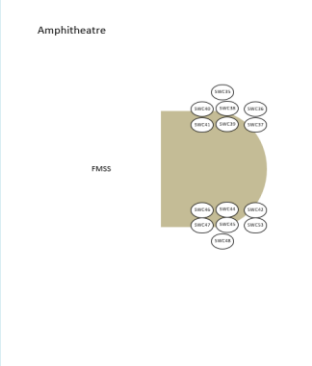
SP288		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP289		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP290		Duallite Twin Head with Mounting Plate, OCDRB0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP291		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP292		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP293		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP294		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP295		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP296		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP297		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP298		Duallite Twin Head with Mounting Plate, OCDRB0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP299		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP300		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP301		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP302		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP303		Duallite Twin Head with Mounting Plate, OCDRB0605, 6V, 5W	Security/Emergency	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP304		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP305		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		

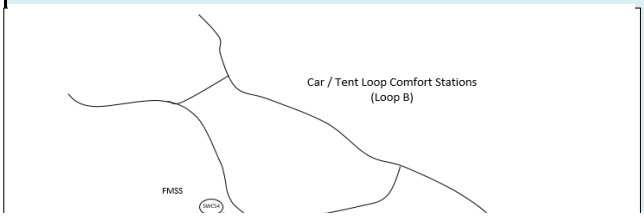
SP306		Bevel Downlight, 120V, 13W CFL	Building Entry	YES	No	Warm white	Switch	Yes		
SP307		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP308		AAL, Wedge, 120V, 32W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP309		KIM, EL807, 120V 5W LED	Path lighting	YES	No	Warm white	Switch	Yes		
SP310		KIM, EL807, 120V 5W LED	Path lighting	YES	No	Warm white	Switch	Yes		
SP311		KIM, EL807, 120V 5W LED	Path lighting	YES	No	Warm white	Switch	Yes		
SP312		Mitre Large Scale, 120V, 42 W CFL	Area Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 26w CFL less than 3000k color temperature
SP313		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP314		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP315		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP316		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP317		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP318		Mitre Medium Scale, 120V, 26 W CFL	Path Lighting	YES	No	white 3500k	Timer	No	Replace bulb with proper color temperature. See general guidelines in LMP	Use 13w CFL less than 3000k color temperature
SP319	N/A	Kenall Lightmate, incandescent, 120V	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP320	N/A	Non-hooded double flood, 13W CFL	Area Lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP321	N/A	Kenall Lightmate, incandescent, 120V	Building Entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SP322		AAL, Mitre Large Scale, 120V, 70w High Pressure Sodium	Area Lighting	YES	No	Amber 2100k	Timer	Yes		

Schoodic Woods Campground (SWC)

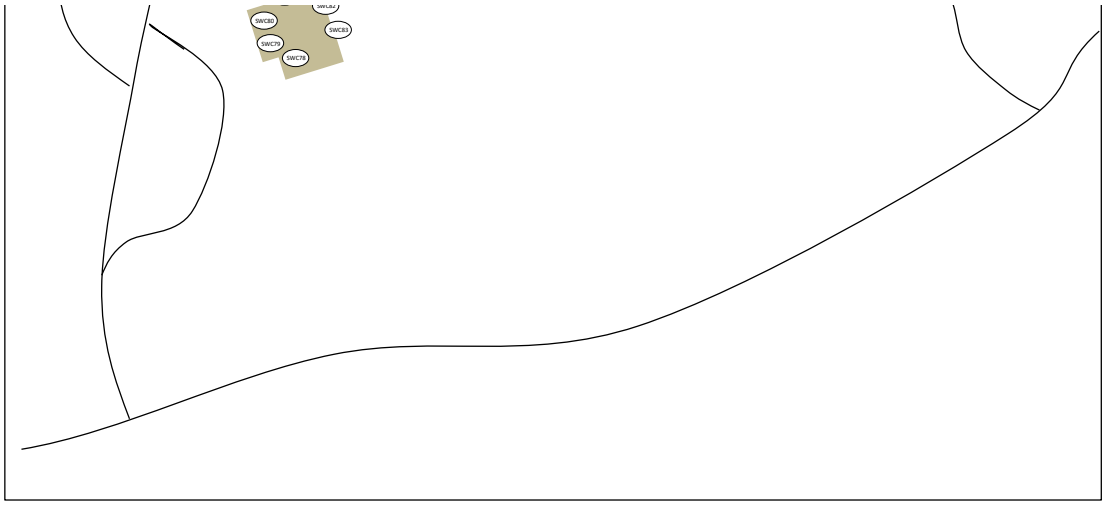








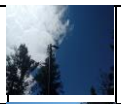
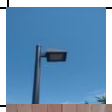
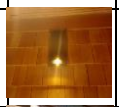
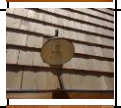
FMSS
Group Camping Loop
(Loop C)
FMSS
FMSS
RV Camping Loop
(Loop A)
FMSS
FMSS
FMSS
FMSS

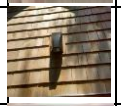
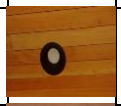
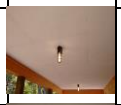


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SWC1		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC2		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC3		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC4		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC5		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC6		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC7		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC8		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC9		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC10		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC11		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed

SWC12		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC13		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC14		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC15		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC16		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC17		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC18		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC19		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC20		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC21		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC22		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC23		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC24		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC25		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC26		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC27		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC28		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC29		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed

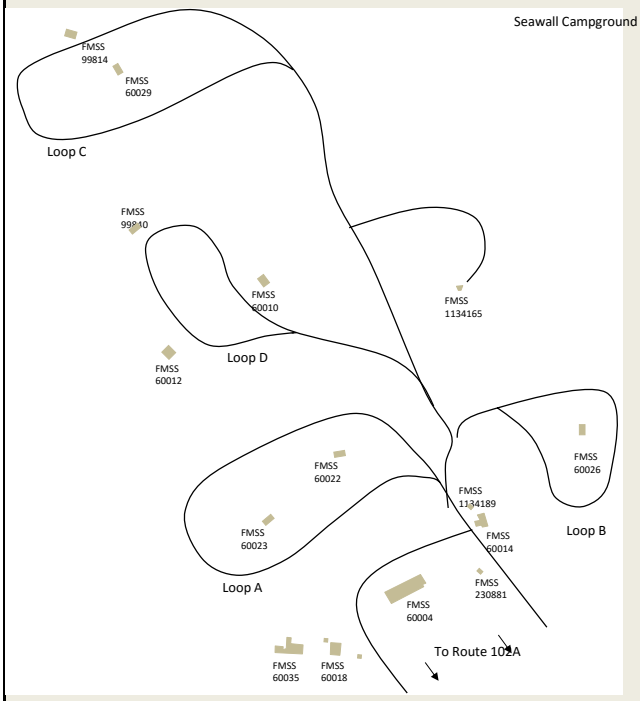
SWC30		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC31		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC32		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC33		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC34		B-K lighting LED 8w	Path lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed
SWC35		B-K lighting LED 25w	Amphitheater lighting	YES	No	White 4000k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC36		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC37		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC38		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC39		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC40		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC41		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC42		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC43		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC44		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC45		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC46		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC47		B-K lighting LED 8w	Seat lighting	YES	No	Warm white 2700k	Switch	Yes		Able to be dimmed: Amphitheater lighting, see LMP

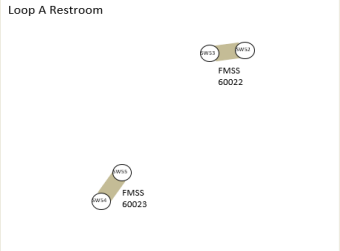
SWC48		B-K lighting LED 25w	Amphitheater lighting	YES	No	White 4000k	Timer	Yes		Able to be dimmed: Amphitheater lighting, see LMP
SWC49		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC50		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC51		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC52		Mitre M2 LED 75w	Street lighting	YES	No	Warm white 3000K	Timer	Yes		Able to be dimmed
SWC53		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC54		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC55		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC56		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC57		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC58		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC59			Sewage Pump Light	NO	N/A	N/A	N/A	Yes		Emergency lighting
SWC60		Sea Gull Lighting 13w CFL	Area lighting	YES	No	Warm white	Switch	Yes		
SWC61		Kicher 40w R14	Area lighting	YES	No	Warm white	Switch	Yes		
SWC62		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC63		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC64		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC65		Canlet 42w CFL	Area lighting	YES	No	Warm white	Switch	Yes		

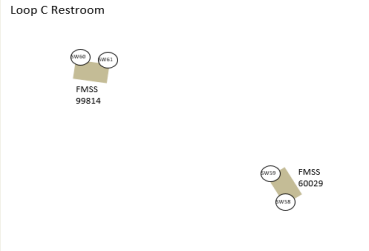
SWC66		Canlet 42w CFL	Area lighting	YES	No	Warm whtie	Switch	Yes		
SWC67		Canlet 42w CFL	Area lighting	YES	No	Warm white	Switch	Yes		
SWC68		Canlet 42w CFL	Area lighting	YES	No	Warm white	Switch	Yes		
SWC69		Canlet 42w CFL	Area lighting	YES	No	Warm white	Switch	Yes		
SWC70		Canlet 42w CFL	Area lighting	YES	No	Warm white	Switch	Yes		
SWC71		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC72		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC73		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC74			Sewage Pump Light	NO	N/A	N/A	N/A	yes		Emergency lighting
SWC75		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC76		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC77		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC78		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC79		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC80		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC81		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC82		Canlet 42w CFL	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SWC83		Canlet 42w CFL	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

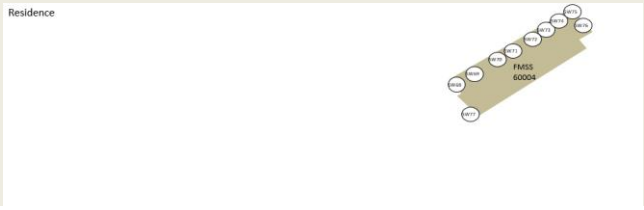
SWC84		RAB lighting LED 18w	Area lighting	YES	No	Warm white 3000K	Photocell	Yes		
SWC85			Building entry/ Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SWC86			Area lighting	YES	No	Warm white	Switch	Yes		
SWC87		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC88		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		
SWC89		9w HALO LED	Building entry	YES	No	Warm white 2700k	Timer	Yes		

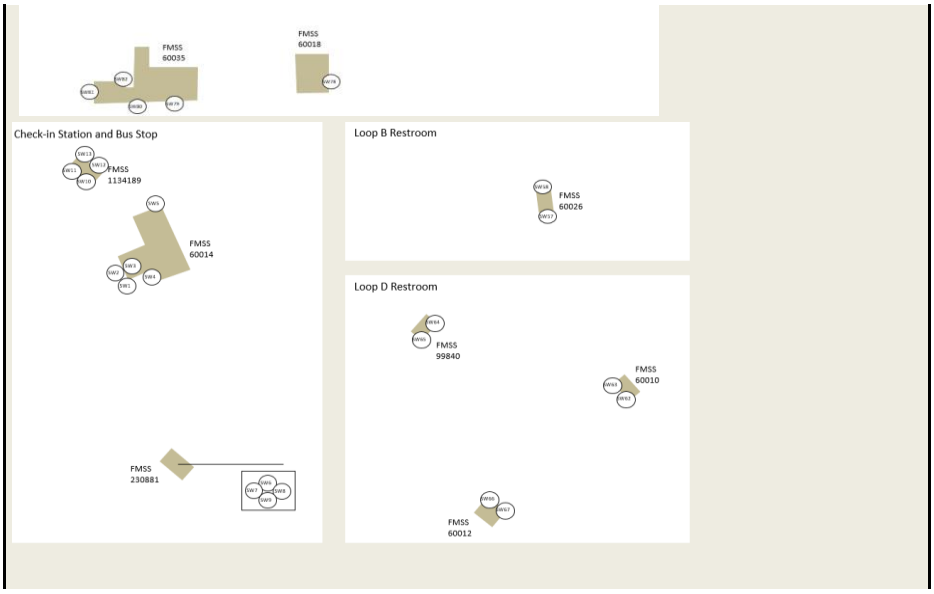
Seawall Campground and Residence (SW)









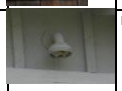


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SW1		90 Halogen Non-hooded Flood	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW2		90 Halogen Non-hooded Flood	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW3		Musco LED pack	Building entry	YES	No	4000k	Timer	No	Replace LED with proper color and tempature bulb. Follow LMP.	
SW4		Musco LED pack	Building entry	YES	No	4000k	Timer	No	Replace LED with proper color and tempature bulb. Follow LMP.	
SW5		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Area lighting	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW6		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; bus stop	YES	No	Warm white	Timer	No	Replace bulb with proper color and tempature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
SW7		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; bus stop	YES	No	Warm white	Timer	No	Replace bulb with proper color and tempature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
SW8		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; bus stop	YES	No	Warm white	Timer	No	Replace bulb with proper color and tempature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
SW9		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; bus stop	YES	No	Warm white	Timer	No	Replace bulb with proper color and tempature bulb. Follow LMP.	13W CFl less than 3000k color temperature should be used
SW10		13W CFL, Not in use; may be removed	Accent; information kiosk	YES	N/A	N/A	N/A	No	Remove fixture	Bulbs removed. Light not in use.
SW11		13W CFL, Not in use; may be removed	Accent; information kiosk	YES	N/A	N/A	N/A	No	Remove fixture	Bulbs removed. Light not in use.

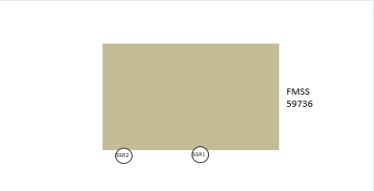
SW12		13W CFL, Not in use; may be removed	Accent; information kiosk	YES	N/A	N/A	N/A	No	Remove fixture	Bulbs removed. Light not in use.
SW13		13W CFL, Not in use; may be removed	Accent; information kiosk	YES	N/A	N/A	N/A	No	Remove fixture	Bulbs removed. Light not in use.
SW14		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW15		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW16		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW17		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW18		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW19		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW20		Musco LED pack	Path lighting	YES	No	4000k	Switch	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW21		Post light, 13W CFL	Path lighting	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SW22		Post light, 13W CFL	Path lighting	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SW23		Post light, 13W CFL	Path lighting	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SW24		Post light, 13W CFL	Path lighting	NO	No			Removed	Replace with shielded fixture. Follow general guidelines in LMP	
SW25		Post lamp	Area lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW26		Post lamp	Area lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW27		Hooded Flood, 90W Halogen, dimmer	Area lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW28		Non-hooded Flood, 90W Halogen, dimmer	Stage lighting	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	Amphitheater lighting, see LMP
SW29		Non-hooded Flood, 90W Halogen, dimmer	Stage lighting	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	Amphitheater lighting, see LMP

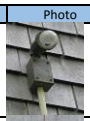
SW30		Hooded flood, 90W Halogen, dimmer	Area lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW31		Post lamp	Area lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW32		Post lamp	Area lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW33		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW34		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW35		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW36		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW37		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW38		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW39		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW40		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW41		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW42		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW43		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW44		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW45		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW46		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW47		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP

SW48		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW49		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW50		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW51		Ceiling mount, 7W CFL	Path lighting	YES	No	Warm white	switch	Yes		Amphitheater lighting, see LMP
SW52		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW53		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW54		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW55		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW56		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW57		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW58		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW59		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Building entry	NO	No	Warm white	timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW60		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW61		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW62		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW63		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW64		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW65		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less

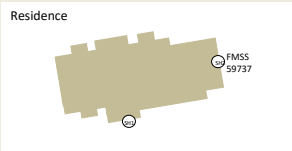
SW66		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW67		Musco LED pack	Building entry	YES	No	4000k	photo sensor	No	Replace LED with proper color and tempature bulb. Follow LMP.	Use 3000k color temp or less
SW68		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW69		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW70		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW71		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW72		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW73		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW74		Ceiling mount	Area lighting	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW75		Ceiling mount	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW76		Ceiling mount	Area lighting	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW77		Ceiling mount	Building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW78		Exterior wall lantern, not in use	Area lighting; garage	NO	No	N/A	N/A	No	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
SW79		Exterior wall lantern, incandescent	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW80		Non-hooded Flood, 90W	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW81		Non-hooded Flood, 90W	Area lighting; garage	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SW82		Non-hooded Flood, 90W	Residential building entry	NO	No	Warm white	switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

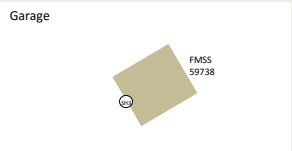
Somes Sound Residence (SSR)



Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SSR1		Wall mount incandescent, not in use	Area lighting	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	Remove fixture
SSR2		Progress Lighting, Outdoor Jelly Jar Fixture, wall mount, 13W	Residential building entry	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

Storm Beach House (SH)



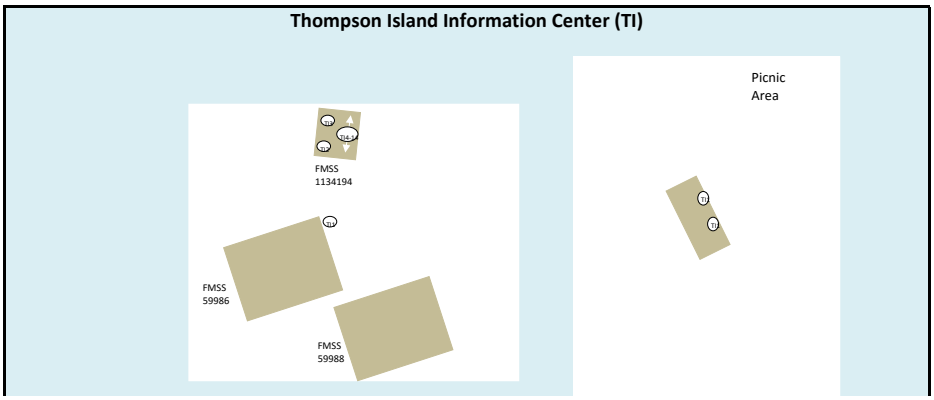


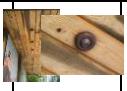
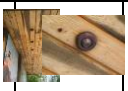
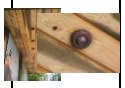
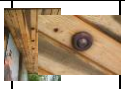
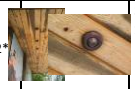
Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
SH1		Ceiling mount	Building entry	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SH2			Area lighting; house	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	
SH3		Broken hoop light; to be replaced with Baselite Z-W516-E1-CB1-2/42 (full cut-off and compliant)	Area lighting; garage	NO	No	Warm white	Switch	No	Replace with shielded fixture. Follow general guidelines in LMP	

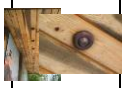
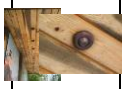
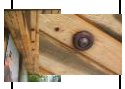
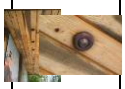
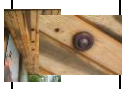
Back to Title Page

Storm Beach House Compliant Lights	0
Storm Beach Total Lights	3
Percent Compliant	0.00%

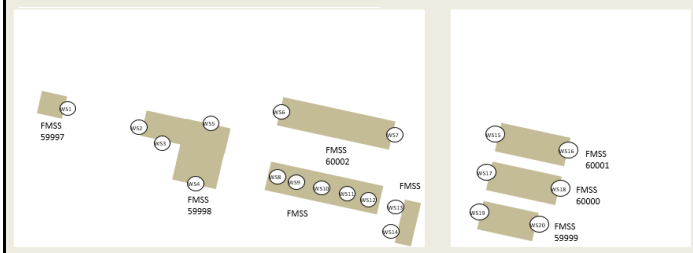
Thompson Island Information Center (TI)

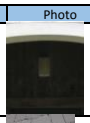


Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
TI1*		14w LED flood light	Area lighting, Security Lighting	YES	No	Warm white	Photosensor	Yes	None	
TI2*		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; information kiosk	YES	No	Warm white	Timer	No	Replace bulb see general guidelines in LMP	13W CFL should be used. This light may also be removed, kiosk back does not need to be lit
TI3*		Vantage 6" H.F. Lensed, 4-pin, 18W, 120V CFL	Accent; information kiosk	YES	No	Warm white	Timer	No	Replace bulb see general guidelines in LMP	13W CFL should be used. This light may also be removed, kiosk back does not need to be lit
TI4*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI5*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI6*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI7*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI8*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI9*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI10*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI11*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI12*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI13*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		

TI14*		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI15		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI16		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI17		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI18		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI19		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI20		Set powered by Fiber-optic 175 metal halide generator	Accent; information kiosk	Yes	Yes	Compliant	Timer	Yes		
TI21*		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Bulding Entry; Restroom	NO	No	Warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	
TI22*		Kenall Herculux 4000, fluorescent, (2) 13W 2-pin CFL	Bulding Entry; Restroom	NO	No	Warm white	Timer	No	Replace with shielded fixture. Follow general guidelines in LMP	

Wildwood Stables (WS)



Code	Photo	Fixture	Application	Fully-Shielded	<500 Lumens	Light Color	Motion Sensor or Timer	Compliance with LMP	Recommendations	Additional Comments
WS1		Kenall Herculux 4000, fluorescent	Building entry	NO	NO	Warm white	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS2		14W LED	Building entry	YES	NO	Warm white	Switch	YES		
WS3		14W LED	Building entry	YES	NO	Warm white	Switch	YES		
WS4		14W LED	Area lighting; barn	YES	NO	Warm white	Switch	YES		
WS5		14W LED	Area lighting; barn	YES	NO	Warm white	Switch	YES		
WS6		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS7		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS8		Non-hooded Flood, 90W	Area lighting	YES	NO	White	Switch	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
WS9		Non-hooded Flood, 90W	Area lighting	YES	NO	White	Switch	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
WS10		Non-hooded Flood, 90W	Area lighting	YES	NO	White	Switch	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
WS11		Non-hooded Flood, 90W	Area lighting	YES	NO	White	Switch	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
WS12		Non-hooded Flood, 90W	Area lighting	YES	NO	White	Switch	NO	Replace bulb with proper color temperature. See general guidelines in LMP	Use 3000k color temp or less
WS13		Roughlite Series Vaportight, WXL11GC, 100W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS14		Roughlite Series Vaportight, WXL11GC, 100W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	

WS15		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS16		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS17		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS18		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS19		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
WS20		Non-hooded Flood, 90W	Area lighting; stable	NO	NO	White	Switch	NO	Replace with shielded fixture. Follow general guidelines in LMP	
										5

	Number of Fixtures	Compliant Fixtures	Non-compliant Fixtures	% Compliant	# LED to Replace	# Bulb to Replace	# Fixtures to Replace
BW	66	22	44	33.33%	33	4	7
BM	4	4	0	100.00%	0	0	0
CM	4	1	3	25.00%	0	0	3
DH	4	4	0	100.00%	0	0	0
EL	7	1	6	14.29%	0	0	6
ES	14	3	11	21.43%	0	4	7
FM	3	0	3	0.00%	0	0	3
HF	16	8	8	50.00%	0	0	8
HQ	91	28	63	30.77%	1	1	61
HC	44	19	25	43.18%	0	9	16
IH	8	0	8	0.00%	0	0	8
IF	4	0	4	0.00%	0	0	4
JPH	108	10	98	9.26%	22	18	58
MG	1	0	1	0.00%	0	0	1
NC	5	1	4	20.00%	0	0	4
SB	5	1	4	20.00%	0	0	4
SBH	4	0	4	0.00%	0	0	4
SP	319	127	192	39.81%	1	74	117
SWC	89	86	3	96.63%	0	0	3
SW	78	25	53	32.05%	17	4	32
SSR	2	0	2	0.00%	0	0	2
SH	3	0	3	0.00%	0	0	3
TI	22	18	4	81.82%	0	2	2
WS	20	4	16	20.00%	0	5	11

Total Fixtures	921	Total LED to Replace	74
Total Compliant Fixtures	362	Total Bulb to Replace	121
Total Non-Compliant Fixtures	559	Total Fixtures to Replace	364
Total Compliancy	39.31%	Total Bulb and LED	195
Needed for 67%	256	Compliancy with LED	47.34%
Needed for 90%	467	Compliancy with Bulbs	52.44%
		Compliancy with Bulbs + LED	60.48%