



# *City Of Horseshoe Bay*

## **City of Horseshoe Bay Nomination Package For the International Dark-Sky Community Designation**



May 2015  
Mayor Steve Jordan and City Council  
City of Horseshoe Bay, Texas



# City Of Horseshoe Bay

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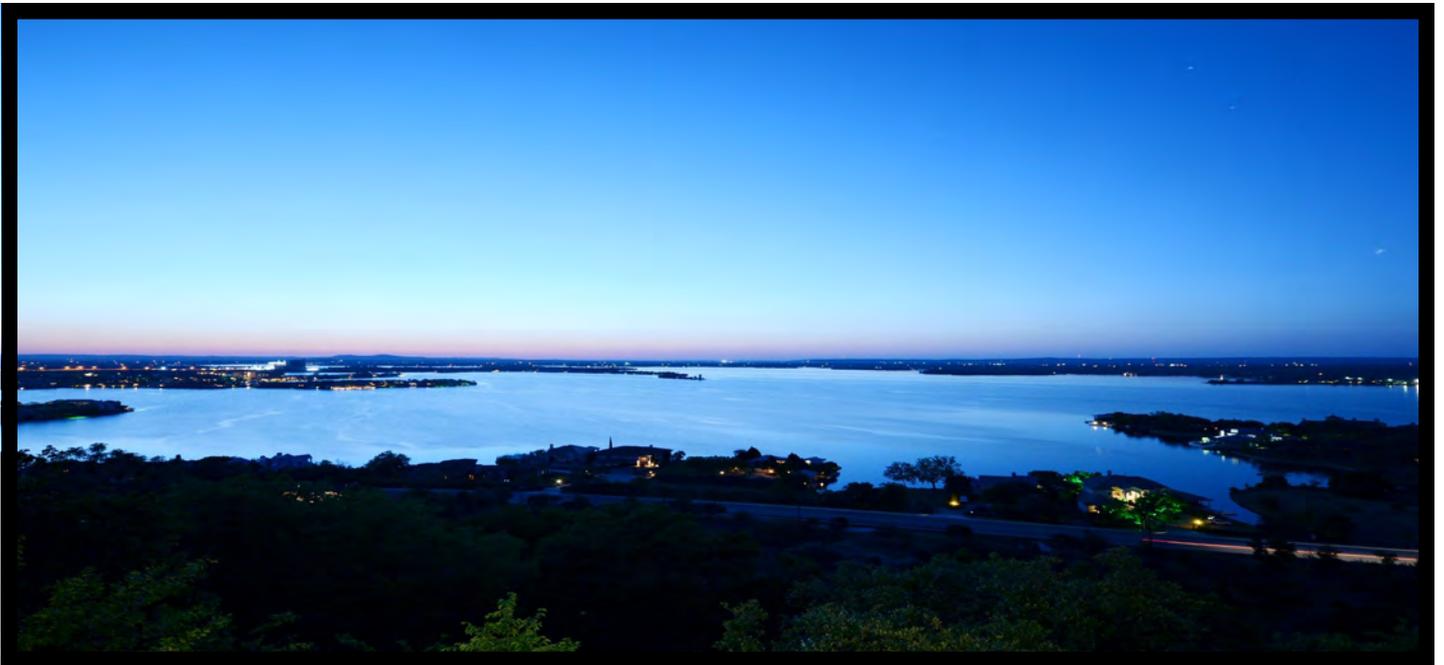
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# *City Of Horseshoe Bay*

## **City of Horseshoe Bay Nomination Package for the International Dark-Sky Community Designation**



### **Part 1**

**Introduction, Nomination, and City Council Support**



# City Of Horseshoe Bay

## City of Horseshoe Bay, Texas

### Dark-Sky Community Application Introduction

“The stars at night are big and bright, deep in the heart of Texas!!”

There is a sanctuary nestled deep inside the Texas Hill Country on beautiful Lake LBJ far from the city lights of Austin. A natural refuge, unique in beauty, convenience and comfort. A place that fosters the best in family life, resort-style amenities, and neighborhood involvement. It began as one of America’s first master-planned resort communities and is now one of the finest. We call it Horseshoe Bay. Most people that move here have retired from the big city life and want a rural environment where they can sit on their back porch with their neighbors, family and grandkids and see the Texas stars at night. That is why there are no street lights in the City and no desire for large retail commercial box stores.

Like so many great ideas, it started with an idea two cousins sketched on a napkin. Where others saw a rough uninhabitable Hill Country, a lakeside resort and golf community was envisioned. Where some saw a hilly and rocky land, a new dream came to life. It began over 40 years ago as the vision of the late Norman and Wayne Hurd. These visionary men studied other communities across the country and the challenges they faced, and saw the need for a thoughtfully planned community where families could retire and live in harmony with nature and our night sky. In the 1970’s, Horseshoe Bay was born and has thrived over the years to become one of America’s largest and most successful resort and master planned communities. Incorporated in 2005 it has evolved to a full-service City that continues to carry on the legacy of the Hurds. The first Outdoor Lighting Ordinance for the new City, which was enacted in 2007, was very progressive in it’s protection of the night sky.

City of Horseshoe Bay Dark-Sky Community Application Award Application Team:

*Members of the 2014-2015 City Council*

*Stan R. Farmer, City Manager*

# Texas Section of the International Dark-Sky Association



International Dark-Sky Association  
3223 N. First Avenue  
Tucson, Arizona 85719

Dear IDA:

It is with the utmost pleasure that I nominate the City of Horseshoe Bay to be recognized by the International Dark-Sky Association as an International Dark Sky Community. Horseshoe Bay has a strong community commitment to protect its night sky and the natural beauty of the Texas Hill Country. They embraced an ordinance to codify this ethos in 2007. It is a large part of who they are.

The amount of light Horseshoe Bay allows for residential and commercial properties is a wonderful testament to a community knowledgeable of the fact that less light than the modern norm actually improves visibility at night. Visibility is not the only winner here. The resultant view of the night sky is a delightful result for all to share.

As a lifetime member and Coordinator of the Texas Section of IDA, each community in Texas that steps up to protect our heritage of natural night skies thrills me. One by one they help accelerate the movement to foster better outdoor lighting which gives all of us less glare, better looking communities, lower energy usage, reduced light trespass, improved visibility that fosters a safer environment, reduced damage to our immune system, and the precious gift of allowing everyone to see our natural night sky.

Texas is seeing the results of years of educational efforts and ordinance pressures to improve outdoor lighting and protect our heritage of splendid night skies. The designation of Horseshoe Bay as an International Dark Sky Community will recognize their success as a community in controlling light pollution. It will also strengthen the network of parks, reserves, and communities in Texas who recognize that more outdoor light is not better and, when light is needed, choose to use IDA recommended lighting practices to improve visibility and protect the treasure that is our common view of the night sky.

With best regards,

*Cindy Luongo Cassidy*

Cindy Luongo Cassidy  
Coordinator, Texas Section of the International Dark-Sky Association  
*Better Lights for Better Nights*

cindy@GreenEarthLighting.com  
512.944.7354



P.O. Box 1 Johnson City, Texas 78636-0001

[www.pec.coop](http://www.pec.coop)

November 19, 2014

Board of Directors  
International Dark Sky Association  
3223 N. First Avenue  
Tucson, AZ 85719

Pedernales Electric Cooperative (PEC) is pleased to nominate the City of Horseshoe Bay to be designated as a Dark Sky Community. PEC, a member-owned electric utility that serves the City of Horseshoe Bay, recognizes the Texas Hill Country for its diverse ecosystems, ethics for land stewardship, rich cultural heritage, and breathtaking scenic beauty, and is committed to protecting the beauty of the night skies. Resolution #1714 states that Cooperative shall promote outdoor lighting fixtures and practices that follow up-to-date guidelines for efficient, non-intrusive lighting and work with its partners to educate and encourage landowners, businesses, residential communities, and public entities to join in this commitment.

The City of Horseshoe Bay has worked to reduce and prevent additional light pollution since its incorporation and passed several ordinances with lighting restrictions. The city values their heritage to view the night sky, a value its citizens and around the area enjoy.

In viewing the progress made by the city, and a commitment to protecting the night skies, we recommend that the City of Horseshoe Bay receives the designation of a Dark Sky Community given by the International Dark Sky Association.

Best Regards

A handwritten signature in blue ink that reads 'Peter Muhoro'.

Peter Muhoro, Ph.D.  
Director, Energy Research and Strategies

A handwritten signature in blue ink that reads 'John D. Hewa'.

John D. Hewa, P.E.  
Chief Executive Officer

education  
conservation  
cooperation



February 19, 2015

IDA Board of Directors  
International Dark Sky Association  
3223 North First Avenue  
Tucson, AZ 85719-2103

Dear IDA Board Members:

Thank you for all of the amazing work you do to protect the Night Sky.

On behalf of the Hill Country Alliance (HCA), please accept this letter of recommendation and support for the City of Horseshoe Bay to be recognized as a "Dark Sky Community." We appreciate the efforts of City Manager, Stan Famer and the entire community for their values in protecting the night sky and commitment to proper lighting through effective ordinances and public outreach and education.

There is great momentum in the Hill Country for protecting the Night Sky. HCA has an active team of leaders working on resolutions, educational events, educational materials, media releases, advocacy for ordinances, and hands-on light retrofitting projects. You can learn more about these efforts at [www.hillcountrynightskies.org](http://www.hillcountrynightskies.org). We will work side-by-side with this community to support their work.

Two of our partners, Friends of Enchanted Rock and the City of Dripping Springs have received this designation and we would like see the City of Horseshoe Bay become the third designation in our region followed by many more!

The Hill Country Alliance is a nonprofit organization whose purpose is to raise public awareness and build community support around the need to preserve the natural resources and heritage of the Central Texas Hill Country.

Thank you for your consideration and please do not hesitate to contact me personally for additional information.

Best,

Christy Muse  
Executive Director



## Landscape Lighting Professionals

205 Deer Forest Road

Kingsland, TX 78639

325-423-0653

[www.night-scenes.com](http://www.night-scenes.com)

December 10, 2014

Stan Farmer, City Manager  
City of Horseshoe Bay  
P. O. Box  
Horseshoe Bay, TX 78657

Dear Stan:

At NightScenes Landscape Lighting Professionals we fully support the direction that the city of Horseshoe Bay has moved regarding the preservation of our dark skies. As you may know, NightScenes has been a member of the International Dark Sky Association for many years. We design and promote dark sky friendly outdoor lighting systems, and help to educate the public on the differences between responsible outdoor lighting and that which is detrimental to the surroundings, dark skies and neighbors.

If done well, low voltage LED landscape lighting is not a dark sky problem, as stated by Bill Wren of the McDonald Observatory, and we fully agree. We offer our services to the city and anyone in the Horseshoe Bay area for outdoor lighting consultation and education. We also would be happy to provide retrofit options for replacing old outdoor fixtures that can contribute to light pollution with new dark sky friendly alternatives.

We are very fortunate to live in an area that still has a wonderful view of the starry skies at night, and we thank the city of Horseshoe Bay for helping to insure that we can keep this view for a long time to come.

Sincerely,

A handwritten signature in black ink that reads "Paul R. Gosselin, Sr." in a cursive style.

Paul R. Gosselin, Sr.  
President  
NightScenes Corporation



## HORSESHOE BAY RESORT

From the Office of Ron Lynn Mitchell  
Vice Chairman / President / CEO

February 13, 2015

To: City of Horseshoe Bay, Texas  
Subject: City's Proposed Application  
Topic: International Dark Sky Association

Dear, Mayor, Council, and City Manager,

After review of the proposed Amended City Code of Ordinances Article 3.07 Outdoor Lighting and consideration of recommended changes thereto; Horseshoe Bay Resort and Summit Rock Communities supports the City's proposed application with the International Dark Sky Association and the City's efforts to be designated as a Dark Sky Community.

Horseshoe Bay Resort has been and will continue to be a leader in efforts to preserve the many valued lifestyles associated with living in the various communities of Horseshoe Bay, including preservation of our dark skies.

Horseshoe Bay Resort will support any reasonable ordinance, adopted by the City, which addresses nighttime lighting as such relates to a negative effect on our night skies.

Sincerely,

Ron Lynn Mitchell



# HORSESHOE BAY

PROPERTY OWNERS' ASSOCIATION, INC.

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December 19, 2014

City of Horseshoe Bay  
c/o Stan R. Farmer, City Manager  
PO Box 7765  
Horseshoe Bay, TX 78657

Dear Stan,

As the largest Property Owners' Association (POA) in the City of Horseshoe Bay, The Horseshoe Bay POA fully supports the City's efforts to gain the International Dark-Sky Association Dark Sky Community designation. Our members cherish the rural night sky of the Hill Country. In fact, many choose to retire to this area because of the rural residential feel that excludes streetlights and large commercial stores.

For many years, our architectural standards, which include exterior lighting, have had the objective to preserve the nighttime dark sky by minimizing the amount of exterior lighting, utilize low intensity, indirect light sources to the extent required for safety and subtle drama, and utilize light fixtures which complement the architecture and enhance the landscape.

The Horseshoe Bay POA appreciates the City's efforts to reduce glare and sky glow in the area. These efforts lead to an improved quality of life for all Horseshoe Bay area residents and visitors. Thank you for taking the initiative to maintain our Texas Hill Country way of life and the unique character of our community.

I urge the International Dark-Sky Association to receive your application positively and quickly approve the City of Horseshoe Bay's application.

Sincerely,

Nancy Ritter  
General Manager  
Horseshoe Bay Property Owners' Association  
cc: HSB POA Board of Directors



## Highland Lakes Title

P.O. Box 520 – 208 E. Hwy. 29  
Burnet, Texas 78611  
Phone: (512) 756-4114 (888) 756-4114  
Fax: (512) 756-1934 [www.hltitle.com](http://www.hltitle.com)

December 30, 2014

Mr. Stan Farmer  
City Manager  
City of Horseshoe Bay, Texas

Via email to: [sfarmer@horseshoe-bay-tx.gov](mailto:sfarmer@horseshoe-bay-tx.gov)

Dear Stan,

Our company wholeheartedly supports the City's proposed application with the International Dark Sky Association for Horseshoe Bay to be designated as a Dark Sky Community. The starlit skies of our highland lakes area is an asset which needs to be preserved.

Our company would unquestionably comply with any ordinance adopted by the City that defines necessary nighttime lighting fixtures.

I am also available to speak to the city council in support of the ordinance if requested.

Sincerely,

**Michael Lucksinger**  
Co-Owner/Counsel  
Highland Lakes Title

[MLucksinger@HLTitle.com](mailto:MLucksinger@HLTitle.com)  
512/756-4114

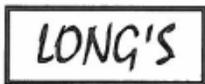
**Burnet**  
P.O. Box 520  
208 E. Hwy. 29  
Burnet, Texas 78611  
(512) 756-4114

**Horseshoe Bay**  
P.O. Box 8697  
7501 Hwy. 2147 W., Ste. 100  
Horseshoe Bay, Texas 78657  
(830) 598-2393

**Kingsland**  
P.O. Box 30  
106 Cottonwood Dr., Ste B  
Kingsland, Texas 78639  
(325) 388-2999

**Llano**  
P.O. Box 667  
200 W. Luce  
Llano, Texas 78643  
(325) 247-5771

**Marble Falls**  
P.O. Box 177  
100 Avenue H, Ste. 102  
Marble Falls, Texas 78654  
(830) 693-5500



**JIM AND JULIE LONG**

*P.O.Box 8843 ~ 205 Wennmohs Place ~ Horseshoe Bay, TX 78657*

*Phone 830/598-1198 - e-mail: [jimlonghsb@gmail.com](mailto:jimlonghsb@gmail.com)*

Jan. 21, 2015

Mr. Stan Farmer  
City of Horseshoe Bay  
P.O. Box 7765  
Horseshoe Bay, TX 78657

Hello Stan

Subject: International Dark Skies Assn. (IDSA)

I understand you are submitting an application for recognition of Horseshoe Bay with this organization.

As a resident I think your subscription to the principals and standards advocated by the IDSA are extremely important in maintaining the life style of our residents and the ambiance of the community. If we were to receive recognition from the IDSA I think it could go a long ways in bringing residents attention to this problem and engage their further support.

We fully support this application and thank you for taking a leadership role in controlling the light pollution challenge in our community.

Cordially

A handwritten signature in black ink, appearing to read "Jim & Julie Long", with a long, sweeping flourish extending to the right.

Jim & Julie Long



# CITY OF HORSESHOE BAY



February 18, 2015

International Dark Sky Community Program  
International Dark Sky Association  
3225 N. First Ave.  
Tucson, AZ 85719

Re: City of Horseshoe Bay Application to International Dark Sky Community Program

Dear Dark Sky Committee,

When residents and visitors enter the City of Horseshoe Bay at night, most notice how truly dark the City is and how the skies over the City of Horseshoe Bay are not spoiled by light pollution. This is evidence that the City and the people who live in and near the City value the natural environment, including the beauty of the Hill Country and high quality of the night sky.

The City hopes to be recognized by the International Dark Sky Community Program for its commitment to and success in implementing the ideals of dark sky preservation and restoration, and promotion of quality outdoor lighting.

The City's first Outdoor Lighting ordinance was adopted in 2007, shortly after the City was incorporated in 2005, and was very strict. The current Outdoor Lighting Ordinance was recently amended in 2015 further clarifying the policy and expectations of low light levels and CCT counts not to exceed 3200K. In addition, the City has a restrictive Sign Ordinance that also promotes strict light pollution measures. Through these ordinances the City has been successful in preventing light pollution.

The City is a resort-style retirement community that prides itself on being primarily a residential community with no streetlights or commercial box-stores. We hope that the International Dark Sky Community Program will be our partner in seeing that the quality of our night sky is continued to be preserved.

Sincerely,

  
Steve Jordan  
Mayor

**CITY OF HORSESHOE BAY**

**RESOLUTION NO. RES 14-11-18B**

**A RESOLUTION OF THE CITY OF HORSESHOE BAY, TEXAS, FOR  
SUPPORT OF DARK SKY PRESERVATION DESIGNATION**

**A RESOLUTION OF THE CITY OF HORSESHOE BAY IN SUPPORT OF  
DARK SKY PRESERVATION BY RECOGNIZING THE IMPORTANCE  
OF MAINTAINING THE BEAUTY OF THE CITY AND THE TEXAS  
HILL COUNTRY BY PROCEEDING WITH EFFORTS TO ATTAIN THE  
DESIGNATION AS AN INTERNATIONAL DARK SKY COMMUNITY**

**WHEREAS,** Horseshoe Bay residents recognize the importance of the City and the surrounding Texas Hill Country for their rich cultural heritage and breathtaking scenic beauty, including starry night skies; and

**WHEREAS,** our heritage of starry night skies has rapidly been eroding; and

**WHEREAS,** light trespass from night lighting fixtures can negatively impact the natural environment and the quality of life of the people in the City by, among other things, reducing night sky visibility and enjoyment for citizens and visitors alike.

**WHEREAS,** some of Horseshoe Bay's neighboring cities such as Dripping Springs and Fredericksburg have already, or are in the process of, adopting strict outdoor lighting ordinances to preserve the night skies around their cities, and

**WHEREAS,** in recent years greater focus has been placed on the economic and financial benefits of preserving the scenic beauty in and around the City in order to maintain the City's unique beauty; and

**WHEREAS,** preserving the rich historic heritage and starry night skies of Horseshoe Bay is important to its citizens in order for the City to remain unique from other Texas areas where unnecessary and inefficient lighting has turned night into day; and

**WHEREAS,** the City in 2007 passed a strict lighting ordinance; and

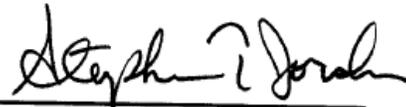
**WHEREAS,** the City of Horseshoe Bay is committed to supporting practices that limit or minimize light trespass from night lighting fixtures in order to protect the beauty of the night skies and allow others the full benefit and use of their property.

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF HORSESHOE BAY, TEXAS,**

The City to preserve our starry night skies shall promote and encourage outdoor lighting fixtures and practices that follow up-to-date suggested guidelines and use available technologies for efficient, cost effective, non-intrusive lighting and will endeavor to educate and encourage landowners, businesses, residential neighborhoods and public entities to join this commitment to reduce energy consumption, save money, and reduce light trespass.

**ADOPTED AND APPROVED** on this 18<sup>th</sup> day of November, 2014 by a vote of the City Council of the City of Horseshoe Bay, Texas.

**CITY OF HORSESHOE BAY, TEXAS**



**Stephen T. Jordan, Mayor**

**ATTEST:**

  
**Teresa L. Moore, City Secretary**



# *City Of Horseshoe Bay*

## **City of Horseshoe Bay Nomination Package for the International Dark-Sky Community Designation**



Part 2 – About the City of Horseshoe Bay, Texas

## Horseshoe Bay, Texas



What began as Horseshoe Bay Resort in 1972 became what is now the City of Horseshoe Bay through incorporation in 2005. In the early 1970's Wayne and Norman Hurd purchased the 2,700 acre Coke Ranch and began the creation of Horseshoe Bay with the intent of developing a premier resort and residential community. The City's geographical boundaries were the template for the current land area of the City, about 12 square miles. The community lies next to Lake Lyndon B. Johnson (LBJ) in the beautiful Texas Hill Country region along FM 2147, fifty miles west of Austin, the State Capital, and 90 miles north of San Antonio. Horseshoe Bay has approximately

6,500 full and part-time residents that come in from all around the world. You will find it settled in the southeastern corner of Llano County and southwestern corner of Burnet County.

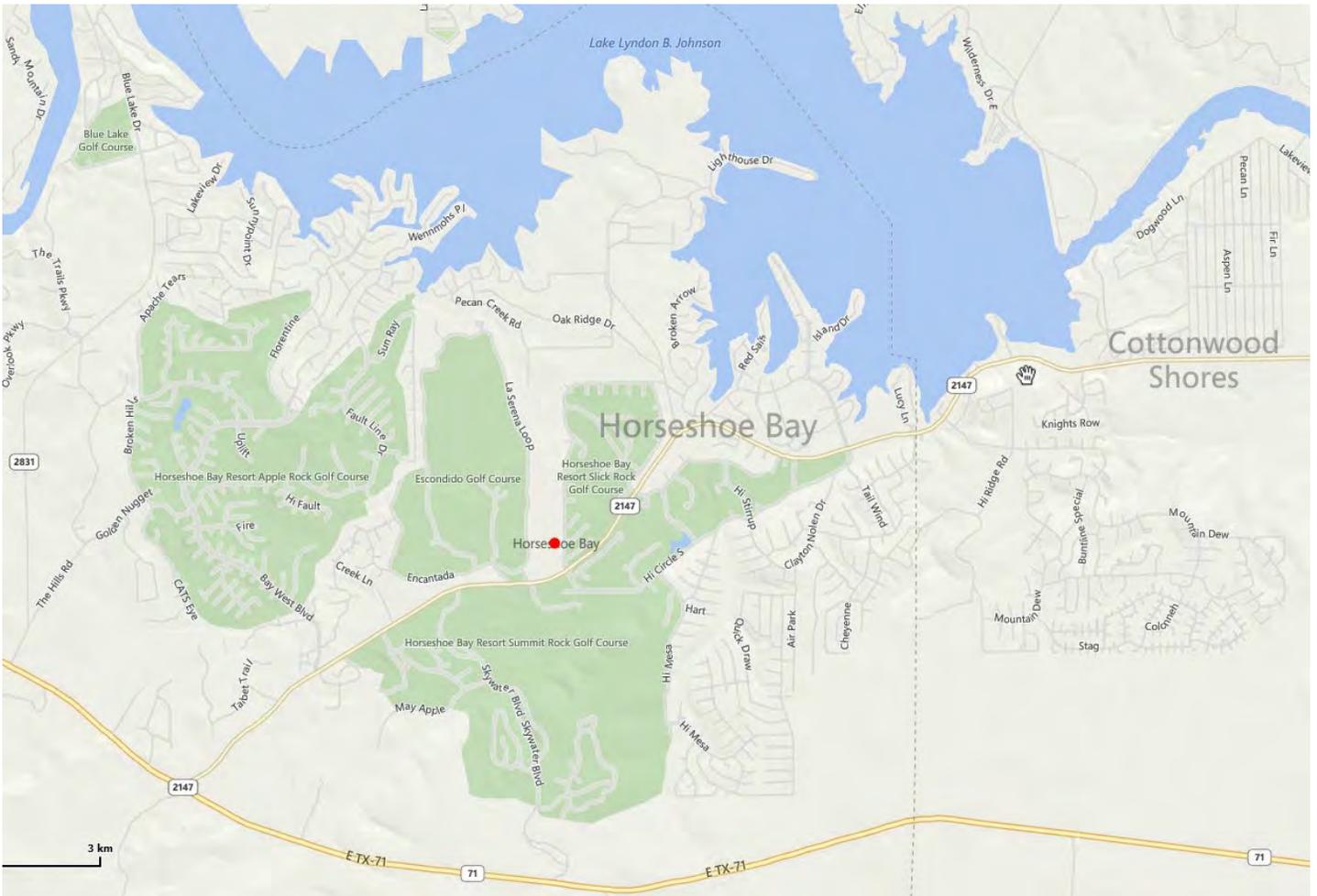
There is a strong sense of community pride in Horseshoe Bay. Golf is surely the dominant entertainment, but there are innumerable activities all throughout the city. We are happy to offer two Churches for our residents and visitors, Roman Catholic and non-denominational Protestant and they play an integral part of the community and provide significant resources to the area. Lake LBJ offers beautiful scenery, recreational boating, fishing and other water sports outside the Resort. We have over 900 homes in the City that are situated on the shores of the lake. There are over 10,000 platted lots in the community, with almost 3,500 currently built or under construction. Horseshoe Bay consists of several distinct neighborhoods, many having active and involved property owners associations (POA). The Horseshoe Bay Resort boasts three championship Robert Trent Jones, Sr. golf courses, a fourth golf course in Escondido, and a brand new Jack Nicholas Signature course in Summit Rock, as well as an 18-hole grass putting course, four stunning swimming pools, a white sand beach, spa with fitness facility, a full-service marina, five dining facilities, 12 professional tennis courts, a private airport (capable of accommodating most private and many large commercial airplanes) and jet center, as well as a 350-room Hotel and Conference Center. We have several parks throughout the city available for great night sky viewing. We do not have a school system, but have lots of kids that go to neighboring towns ISDs.



With all the beauty the City has to offer as well as the amenities, you will always be able to look somewhere and see the sky in the Texas Hill Country here in the City of Horseshoe Bay.

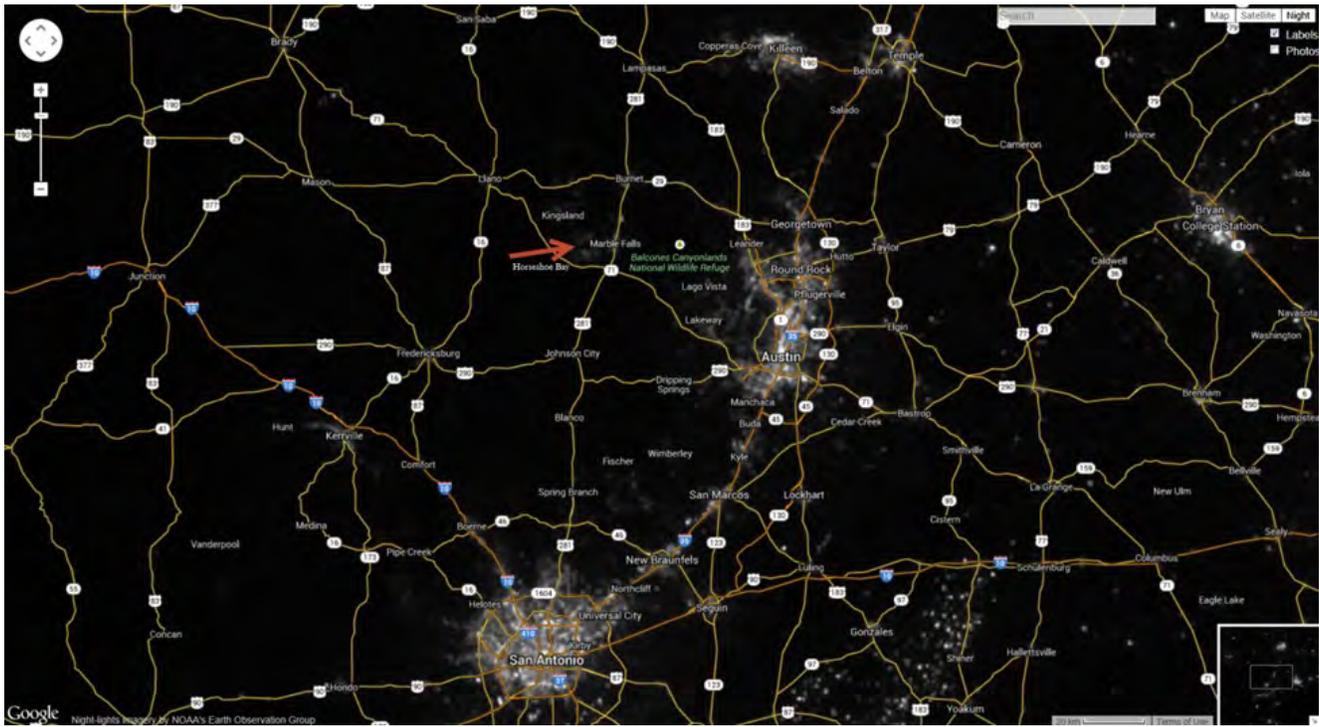
# City Of Horseshoe Bay

## Map of the City

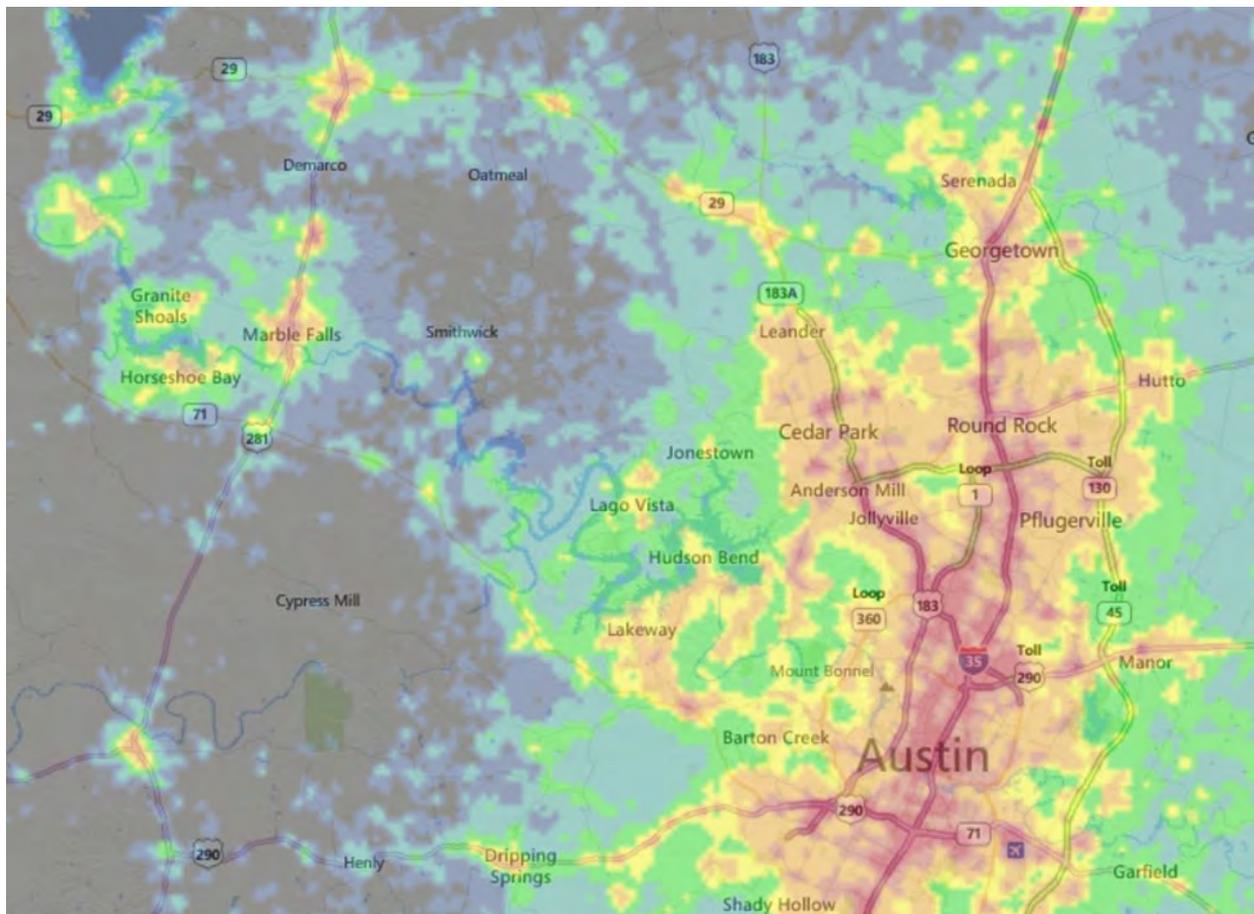


# Light Pollution Maps of Horseshoe Bay

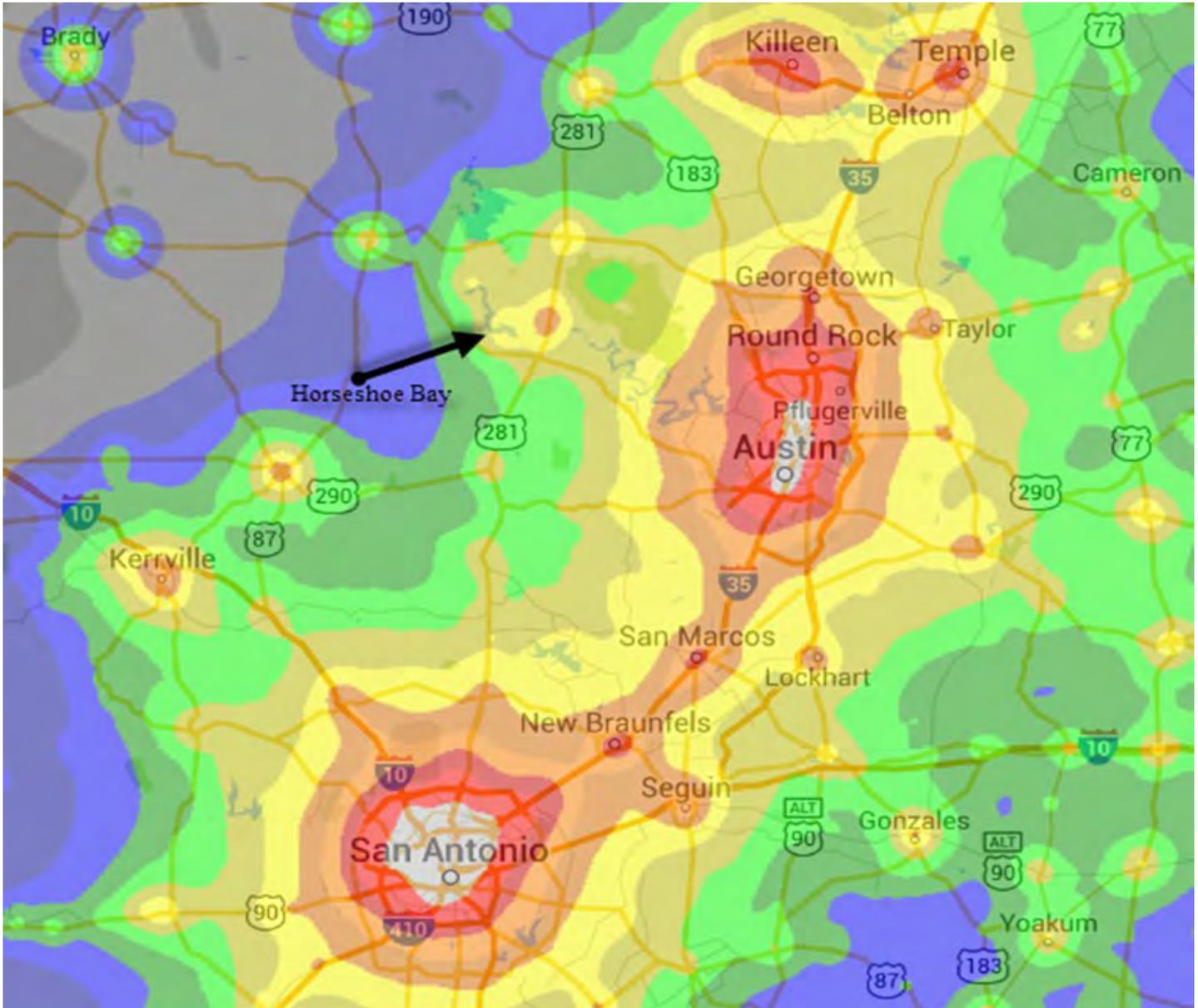
Blue Marble Map from NASA - 2014



Light Pollution Map

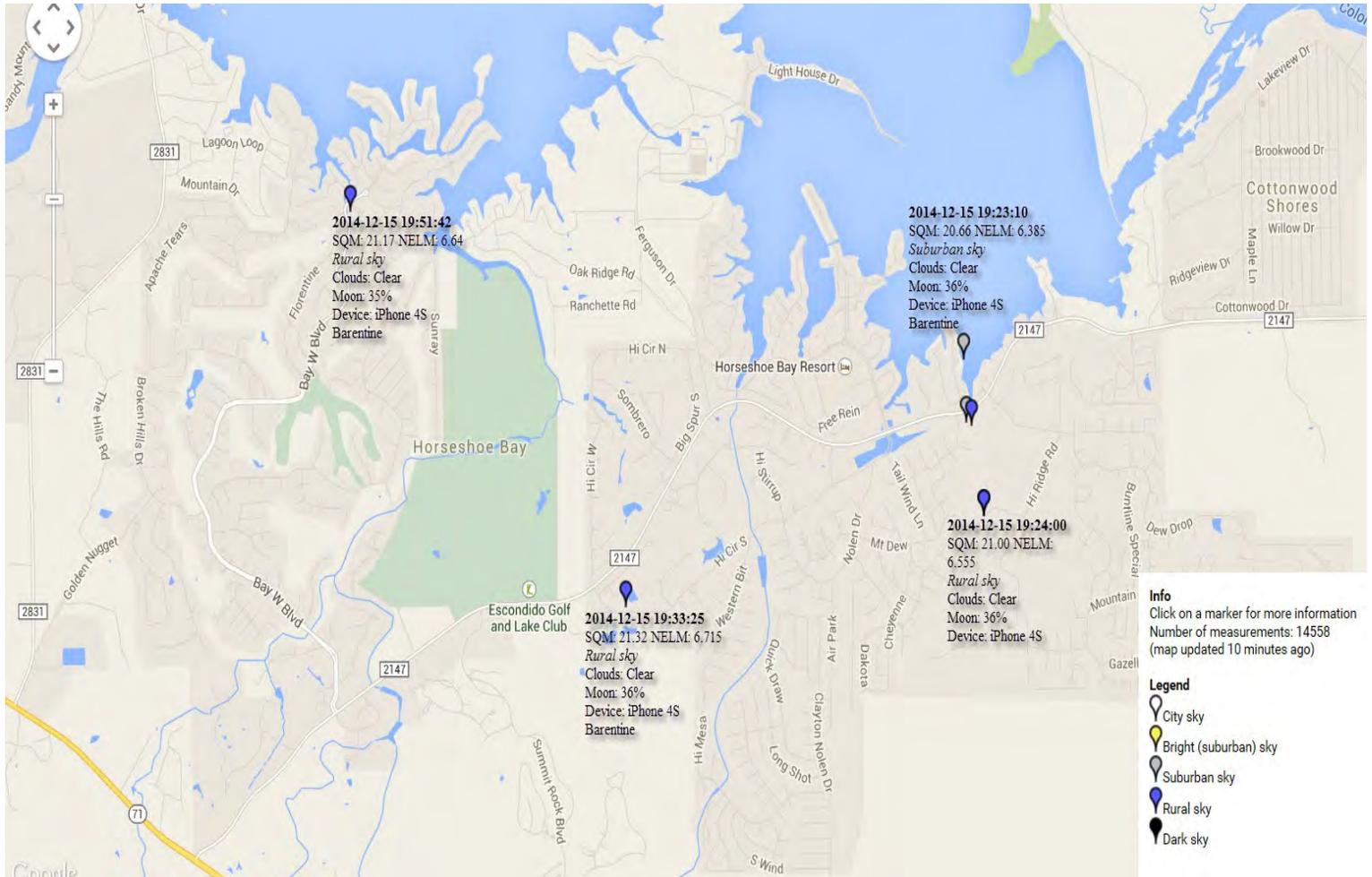


# Light Pollution Atlas Map



## Horseshoe Bay Light Pollution Readings taken during Dark Sky Visit

<http://www.darkskymeter.com/map/>



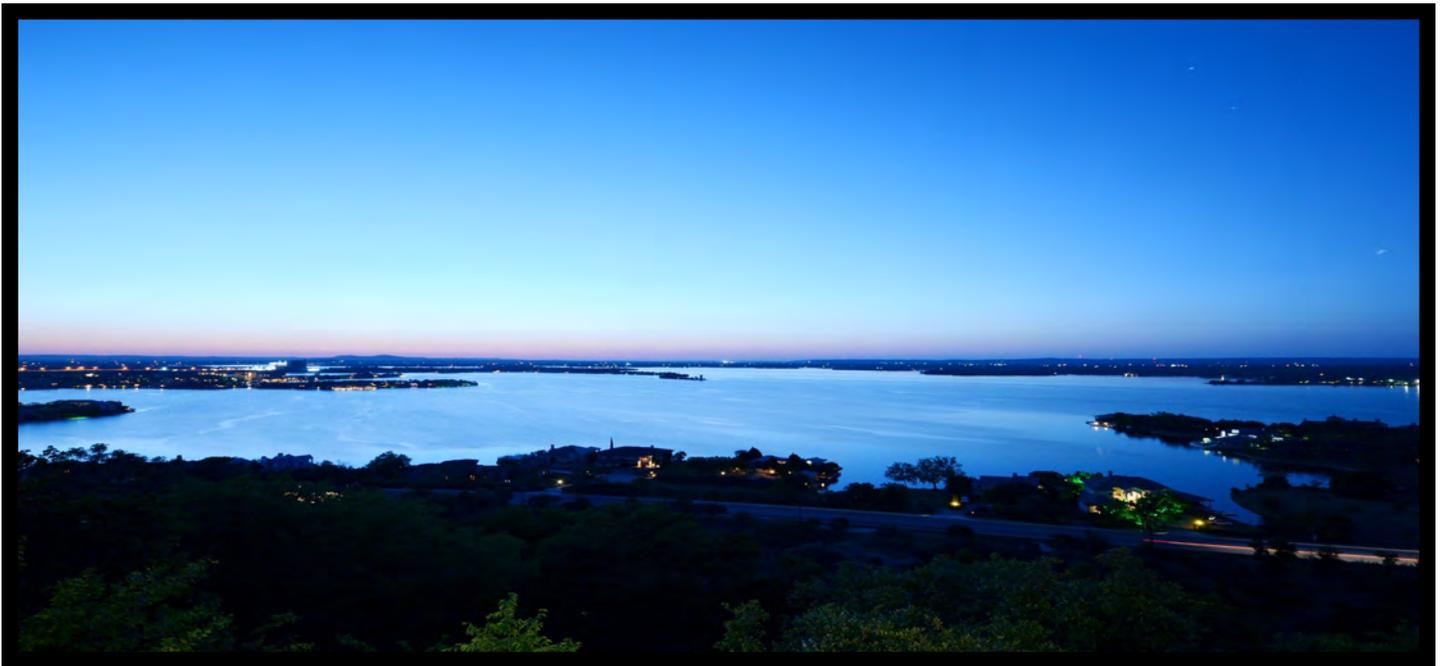
### Sky Quality Readings and Sky Brightness Measurement Program

Above you will see the readings that were taken by IDA Program Director John Barentine on his visit to the City on December 15, 2014. Most of the reading came back as Rural Sky readings and one that was a Dark Sky reading. All above readings were taken with the Dark Sky Meter app from his iPhone.

The City will continue to take readings using the app and logging our readings. We have a team that will continually monitor the skies over Horseshoe Bay and get the community involved in taking readings as well. We will also have links on our new website to educate the community on the importance of Dark Sky and allow them to see the readings the team compiles quarterly. Our aim is to get the public excited and want to take readings and get more involved and educated to the importance of light pollution.

# *City Of Horseshoe Bay*

## **City of Horseshoe Bay Nomination Package for the International Dark-Sky Community Designation**



### **Part 3 - City Ordinance**



# City Of Horseshoe Bay

## City's Ordinance History

The City is relatively young and only incorporated in 2005. The City's founders appointed a Lifestyle Committee to look at the need for numerous standard ordinances that most City's have and to write those they thought were needed, for Council consideration. One of those ordinances the Lifestyle Committee strongly believed was needed was an Outdoor Lighting Ordinance. What was written and proposed was very strict and spoke to the importance of limiting light pollution. In 2007 that first Outdoor Lighting Ordinance was passed that codified what was already being done since Horseshoe Bay was first developed in the 1970s, keeping the area simply dark. There was not a need to brush off the ordinance much for review or enforcement as the issue of residents keeping their property dark was never in question. The very few small commercial developments since 2007 have had to address outdoor lighting per that first ordinance and that has been a positive outcome with these small commercial developments not lit up all night long to a large degree. Proper wallpacks, pole lights with fixed cut-off, and shielded fixtures were all enforced early before installation.

More recently as part of the application process for this Community Award, I realized the 2007 Outdoor Lighting Ordinance, while still a very strict and good ordinance, could use a little tweaking and improvement in terminology, clarification on a few matters, and better limitations on lumens for properties. Also, although one of the primary reasons the City has such low level light readings and is so dark is because there are no street lights, there was no mention of them. Therefore, I thought it might be a nice addition to state, what is already unwritten City policy, that the policy is not to have streetlights in our City.

I am very proud of our new and improved 2011 Outdoor Lighting Ordinance that only built on the great foundation of the original version. It is strict and codifies what the populace was already doing and has long desired for their community.

*Stan R. Farmer, City Manager*



# City Of Horseshoe Bay

## **Outdoor Lighting Ordinance Highlights**

The City of Horseshoe Bay since incorporation in 2005 has had a very strict lighting ordinance and with the recent amendment to the original ordinance this year it is clearer, updated, and remains one of the strictest outdoor lighting ordinances in the Texas Hill Country, if not all of Texas. Below are listed some highlights between the City's strict Sign Ordinance and Outdoor Lighting Ordinance.

The amended ordinance codified the long held policy of prohibiting ALL street lights in the City limits. There is **not a street light in the City** and is the primary reason for the excellent low light readings recorded recently and shared in this application.

No billboards in the City Limits (Sign Ordinance) – Primary reason for being named inaugural *Texas Scenic City* in 2009.

No public or private schools in the City - therefore no public/private sports facilities. The City has no public sports fields either as there are few children residing in the community, and in fact there is not a Parks & Recreation Department for the City. The average age of residents is approximately 65 yoa. The amended lighting ordinance does set a curfew of either conclusion of event or 11PM (whichever occurs first - timers required) for any future lighting at public or private sports facilities.

The aggregate total outdoor lighting on any property in residential zones shall not exceed 10,000 lumens per acre. Most lots are a quarter or third of an acre, therefore a strict limit of 2500 or 3,333 lumens per household.

All outdoor lighting fixtures with greater than 1,800 initial lumens must be full cutoff fixtures.

The City leaders do not desire and do not encourage large box store commercial development (None currently located in City). However, there is still an aggregate total outdoor lighting on any property in commercial zones that shall not exceed 25,000 lumens per acre.

Very few exceptions are allowed with strict limits on landscape lighting still specified.

**CITY OF HORSESHOE BAY**

**ORDINANCE NO. ORD 15-02-17A**

**AMENDMENT TO CHAPTER 3 BUILDING REGULATIONS, ARTICLE 3.07  
OUTDOOR LIGHTING**

**AN ORDINANCE OF THE CITY OF HORSESHOE BAY AMENDING  
CHAPTER 3 BUILDING REGULATIONS, ARTICLE 3.07 OUTDOOR  
LIGHTING ORDINANCE; PROVIDING FOR EFFECTIVE DATE,  
REPEALER, SEVERABILITY AND FINDING OF PROPER NOTICE  
AND MEETING.**

**WHEREAS,** the City Council of Horseshoe Bay approved Ordinance ORD 07-09-18B on September 18, 2007 which provided specific regulations for Outdoor Lighting; and

**WHEREAS,** the City of Horseshoe Bay (City Council) seeks to provide for the safe and attractive lighting of property within its corporate limits; and

**WHEREAS,** the City of Horseshoe Bay contains established subdivisions with established declarations of reservations, restrictive covenants, and deed restrictions that the City Council believes should be preserved and continued to the maximum extent possible within this Outdoor Lighting Ordinance; and

**WHEREAS,** the City Council of Horseshoe Bay finds that revising Article 3.07 Outdoor Lighting of the Horseshoe Bay City Code is in the best interests of the City and is necessary and proper for the good government;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF  
HORSESHOE BAY, TEXAS:**

**I. FINDINGS OF FACT**

All of the above premises are hereby found to be true and correct legislative and factual findings of the City Council, and are hereby approved and incorporated into the body of this Ordinance as if copied in their entirety.

**II. AMENDMENT OF ARTICLE 3.07 OUTDOOR LIGHTING**

**Sec. 3.07.001 Definitions**

For the purposes of this article, terms used shall be defined as follows:

*Area lighting* Light fixtures located on public or private property that are designed to light spaces including but not limited to parks, parking lots, and sales lots.

*Axis of illumination* The midline of the beam emitted by a light fixture.

*Candela (cd)* A unit of measurement of luminous intensity equal to one lumen of light emitted over one steradian of solid angle, and approximately equal to one candlepower.

*Candlepower* The luminous intensity of a light source measured in candelas.

*Correlated Color Temperature* The absolute temperature, in Kelvins (K), of a blackbody whose chromaticity most nearly resembles that of the light source. CCT characterizes the color content, or spectrum (“warmness” or “coolness”), of a light source. Lamps with a CCT of less than 3200 K are pinkish and considered “warm”. Lamps with a CCT greater than 4000 K are bluish–white and considered “cool”.

*Existing light fixtures* Those outdoor light fixtures already installed on the date this article is effective.

*Floodlight* A light fixture having a wide beam.

*Full cutoff* A shielded light fixture that emits no light at or above horizontal (90 degree above nadir).

*Footcandle* The illuminance produced on a surface one foot from a uniform point source of one candela and equal to one lumen per square foot.

*Fully shielded* A lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane passing through the lowest part of a fixture. A fully shielded fixture is not necessarily full cutoff.

*Glare* Light produced by sources in the field-of-view that is brighter than the brightness to which the eyes are adapted, causing reduced visibility by lowering contrast.

*IESNA* The Illuminating Engineering Society of North America, a recognized authority on lighting best practices and standards.

*Illuminance* The density of luminous flux incident on a surface measured in lux or footcandles.

*Initial lumens* The number of lumens of light emitted by a light source according to as-manufactured specifications and not accounting for any diminution of light due to age or maintenance condition.

*Light fixture* The assembly that holds or contains a lamp or bulb. It includes elements designed to give light output control, such as a reflector (mirror) or refractor (lens), the ballast, housing, and the attachment parts.

*Light pollution* Any adverse effect of artificial light. An example of light pollution is sky glow caused by scattered light from unshielded or poorly aimed light fixtures.

*Light trespass* Unwanted light falling on public or private property from any location external to that property.

*Lumen* A unit of luminous flux emitted within a unit solid angle by a point source with a uniform luminous intensity of one candela. For the purposes of this regulation, the lumen output values shall be the initial lumens of a lamp. The lumen rating associated with a given lamp is generally indicated on its packaging or may be obtained from the manufacturer.

*Luminaire* A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.

*Nadir* The direction indicated by a line connecting any point on the surface of the Earth and the center of the Earth.

*Outdoor lighting* Nighttime illumination of an outside area or object by any manmade device that is located outdoors and produces light.

*Private lighting.* Outdoor light fixtures located on property owned or controlled by individual persons, including but not limited to families, partnerships, corporations, and other entities engaged in the conduct of business or other nongovernmental activities.

*Public lighting* Outdoor light fixtures located on property owned, leased, or controlled by the city or other governmental entity or entities, including but not limited to streets, highways, alleys, easements, parking lots, parks, playing fields, schools, institutions of higher learning, and meeting places, and all entities completely or partly funded by grants obtained by the city or its agents from federal, state or private sources.

*Sag-lens or drop-lens* Any clear or prismatic refracting lens that extends below the lowest opaque portion of a light fixture.

*Searchlight* Any light fixture having a narrow beam intended to be seen in the sky by an observer on the ground. Spotlight means a light fixture having a narrow beam.

*Spotlight* A strong beam of light that can be directed to illuminate a small area.

*Temporary outdoor lighting* Lighting for a specific unique purpose of an outside area or object by any manmade device that produces light for a period of less than 5 consecutive days.

*Trespass lighting* Light emitted by a luminaire which falls outside the boundaries of the property on which the luminaire is sited.

*Uplighting* The most commonly used technique to illuminate structures or parts of structures, trees, walls, waterfalls, fountains, and other outdoor objects. Light fixtures are ground-mounted and directed upwards, away from the viewer to prevent glare. Normally these fixtures are easily adjustable.

*Wallpack* A type of floodlight mounted on the wall of a building or other structure.

*Yard address light* Property owners' association or architectural control committee approved yard light that has on it the house address number clearly displayed for emergency personnel.

**Sec. 3.07.002 Existing light fixtures**

(a) To reduce glare, safety hazards for drivers and pedestrians, light trespass, and light pollution, all existing spotlights, floodlights, and wallpacks shall be adjusted in accordance with the following provisions:

(1) For spotlights and floodlights mounted overhead on poles and used for area lighting, the axis of illumination shall be adjusted to an angle not more than 20 degrees from the vertical line between the fixture and the ground.

(2) For spotlights and floodlights mounted at or near ground level and used to light a building, billboard, or other structure, the axis of illumination shall be adjusted to minimize the amount of light escaping above, below, and to the sides of the illuminated object.

(3) Wallpacks shall be adjusted where possible to minimize the amount of light emitted above the horizontal.

(b) It is not the intent of this section to require an additional investment in order to comply with these provisions.

(c) Existing light fixtures, other than spotlights, floodlights, and wallpacks, already installed at the time this article is enacted may continue in service without adjustment or modification through the remainder of their useful lives but thereafter must be brought into compliance with this article.

**Sec. 3.07.003 General outdoor lighting restrictions**

(a) This section applies to all new private lighting installed after the date of adoption of this article, including replacements for existing fixtures.

(b) Lighting at public and private outdoor sports facilities, including but not limited to playing fields, arenas, tracks, and swimming pools, shall be shielded such that no light-emitting part of fixtures is visible from any other property; shall provide levels of illuminance consistent with the IESNA "Recommended Practice for Sports and Recreational Area Lighting," (IESNA RP-6-01) or current successor recommendations; and shall not exceed a Correlated Color Temperature of 4000 K. Sports lighting shall furthermore cease upon conclusion of scheduled events or 11 PM (whichever occurs first) except by special conditional use permit issued by the City. Installations of such lighting shall make use of timers to ensure that light is extinguished by the curfew hour or conclusion of scheduled events and may not inadvertently be caused to continue operating thereafter.

(c) Strobe lights on communication towers and other hazards to aerial navigation, that are required by the Federal Aviation Administration (FAA) during daytime hours and are permitted but not required to be operational at night, may not be used at night. Other lights used at night on such structures shall not be brighter than the minimum required by the FAA.

- (d) All other outdoor lighting fixtures using lamps or bulbs having outputs greater than 1,800 initial lumens must be full cutoff fixtures.
- (e) Sag-lens or drop lens fixtures are prohibited.
- (f) In the interest of conserving energy and protecting the environment, mercury vapor fixtures are prohibited.
- (g) Each flag to be lighted shall be lighted by one spotlight not exceeding 1,800 lumens and a Correlated Color Temperature of 3200 K.
- (h) The aggregate total outdoor lighting on any property in residential zones shall not exceed 10,000 lumens per acre.
- (i) The aggregate total of outdoor lighting on any property in commercial zones shall not exceed 25,000 lumens per acre, unless approved by the City Development Services Department (see Section 3.07.007).

**Sec. 3.07.004 Residential outdoor lighting restrictions**

The following restrictions are applicable to all private lighting within residential areas within the city limits:

- (1) For residences in zones 3 and 4 the following shall apply.
  - (A) Residential structures must have one but no more than one decorative yard address light (see definition) no less than 5 feet from the edge of the road or more than 15 feet from the front property line. Such light shall be a minimum of 4 feet in height, but shall not exceed 6 1/2 feet in height and shall be controlled by a light sensitive switch and have frosted glass blocking direct view of any light source.
  - (B) Yard address lights may not contain lamps exceeding 1,800 initial lumens and a Correlated Color Temperature of 3200 K.
- (2) Each yard address light and light sensitive switch for same shall be kept in good working order and maintained by the owner. All glass should be kept in good condition blocking direct view of any light source.
- (3) Any yard address light that was neither recommended by a property owners' association within the city limits of the city, nor approved by the architectural control committee prior to its installation is prohibited.
- (4) No exterior lighting on a lot, other than yard address lights and other similar yard lights approved by the architectural control committee, shall be directed outside the boundaries of such lot or produce a glare visible from outside the boundaries of such lot except as otherwise.
- (5) Garage bay lighting shall not exceed 1,800 initial lamp lumens per fixture and a Correlated Color Temperature of 3200 K.

(6) Mercury vapor lamps are prohibited.

(7) Nonworking yard lights shall be reported to the City Development Services Department who will notify the homeowner, and if not corrected within 10 days, the city will repair the fixture or replace the light bulb(s) and charge the homeowner \$50.00, plus the cost of any materials for this service.

(8) Architectural or landscape uplighting is prohibited unless approved by the governing architectural control committee and city development services department (see Sec 3.07.008 (a)(7)).

(9) All exterior lighting, other than yard address lights described above (A), and other similar yard lights approved by the architectural control committee, shall be shielded so that no light source is visible from any neighboring property.

#### **Sec. 3.07.005 Municipal outdoor lighting restrictions**

(1) It shall be the policy of the City to not provide street lighting along public rights of way unless specific and dire public safety considerations indicate otherwise.

(2) All streetlights shall be full cutoff fixtures using lamps with a Correlated Color Temperature not exceeding 3200 K, or of approved historical design, utilizing illumination levels specified in the IESNA "American National Standard Practice for Roadway Lighting" (IESNA RP-08-00) or current successor recommendations.

#### **Sec. 3.07.006 Levels of illuminance required or permitted at specific facilities**

(a) Maximum, average, and/or minimum levels of illuminance for different facilities are listed below in horizontal footcandles. Unless otherwise specified, minimum levels shall be the lowest consistent with safety. Lighting requirements are as follows:

(1) Parking lots and parking areas: average 2.0 fc; minimum 0.5 fc.

(2) Points of structure entry/exit: maximum 5.0 fc.

(3) Service stations and other fueling facilities: maximum 10.0 fc in the area surrounding pump islands; parking areas and entry areas shall be lighted as required above; drop lens fixtures are prohibited, whether mounted under canopies or on poles. Canopy lighting shall be installed so as to be recessed into the canopy. Neither canopy nor overhead lighting shall trespass onto any other property.

(4) Sales lots where merchandise, including automobiles, are displayed at night: maximum 20.0 fc. Area lighting used to illuminate sales lots may not trespass onto any other property.

(b) For locations and facilities not specified herein, the development services department shall set acceptable levels of illuminance upon request based on guidelines established by IESNA.

(c) The use of searchlights and spotlights is prohibited for advertising, attracting attention to any event, and for any other use except for emergency purposes.

**Sec. 3.07.007 Large outdoor lighting projects**

(a) An outdoor lighting project reasonably expected to utilize more than 25,000 lumens per acre in the aggregate shall file a lighting plan with the City Development Services Department. A lighting plan shall be filed at the same time as any other plans required by the City and shall specify the following:

- (1) Number and type of light fixtures to be used;
- (2) Their output in lumens; and
- (3) Photometric data from the manufacturer(s) showing the spatial distribution of the output of the proposed fixtures.

(b) The City Development Services Department shall review the lighting plan taking into account factors including but not limited to levels of luminance, glare, safety hazards, light trespass, and light pollution. The City Development Services Department shall approve or reject the plan within 30 days of submission, returning it to the applicant with an explanation for the decision. The applicant shall not undertake the outdoor lighting project until the lighting plan is approved. The decision of the City Development Services Department may be appealed to the City Council.

**Sec. 3.07.008 Exceptions; amendments**

(a) This article shall not apply to the following:

- (1) Decorative holiday lighting from the Friday following Thanksgiving through January 8 of the following year, so long as:
  - (A) The decorative lighting is not excessive or unsightly. A determination that decorative lighting is excessive or unsightly may be made by the City Development Services Department. This determination may not be appealed.
- (2) Lighting required by local, state or federal law to be installed on surface vehicles and aircraft;
- (3) Airport lighting required by law;
- (4) Temporary emergency lighting;
- (5) Temporary outdoor lighting;
- (6) Governmental facilities where compelling needs for safety and security are demonstrated; and
- (7) Lighting for walkways, flower bed borders, etc., provided that such lighting does not exceed 100 initial lumens per fixture and a Correlated Color Temperature of 3200 K. Lighting for trees provided such lighting does not exceed 600 initial lumens per fixture and a Correlated Color Temperature of 3200 K. All other uplighting provided such lighting does not exceed 400 initial lumens per fixture and a Correlated Color Temperature of 3200 K. Limits in Sec. 3.07.003 (h) and (i) still apply.

(b) This article may be amended from time to time as local conditions change, and as changes occur in the recommendations of nationally recognized organizations such as the Illuminating Engineering Society of North America and the International Dark-Sky Association.

(c) Nothing in this article shall be construed as limiting the right of any person or entity to pursue legal action against any other person or entity under any applicable law, including the doctrine of light trespass as a form of private nuisance.

(d) The City Council shall have the power to grant variances in the application of the provisions of this article and to hear and adjudicate appeals from architectural control committees and City Development Services Department decisions.

### **Sec. 3.07.009 Enforcement**

(a) Enforcement. The City shall have the power to administer and enforce the provisions of this article as may be required by governing law. Any person violating any provision of this article is subject to suit for injunctive relief as well as prosecution for criminal violations. Any violation of this article is hereby declared to be a nuisance.

(b) Criminal prosecution. Any person violating any provision of this article shall, upon conviction, be fined a sum not exceeding five hundred dollars (\$500.00), except as may be otherwise expressly provided by state law. Each day that a provision of this article is violated shall constitute a separate offense. An offense under this article is a misdemeanor.

(c) Civil remedies. Nothing in this article shall be construed as preempting or waiving the rights of third parties from instituting any action for remedies against site operators or permittees. Nothing in this article shall be construed as a waiver of the City's right to bring a civil action to enforce the provisions of this article and to seek remedies as allowed by law, including, but not limited to the following:

- (1) Injunctive relief to prevent specific conduct that violates this article or to require specific conduct that is necessary for compliance with this article;
- (2) A civil penalty up to one thousand dollars (\$1,000.00) for each day a violation occurs, when it is shown that the defendant was actually notified of the provisions of this article and after receiving notice committed acts in violation of this article or failed to take action necessary for compliance with this article; and
- (3) Other available relief.

### **III. EFFECTIVE DATE**

This Ordinance shall be and become effective immediately upon and after its passage and publication as may be required by governing law.

### **IV. REPEALER**

All ordinances or parts of ordinances in force when the provisions of this Ordinance becomes effective which are inconsistent or in conflict with the terms and provisions contained in this Ordinance are hereby repealed only to the extent of such conflict.

**V. SEVERABILITY**

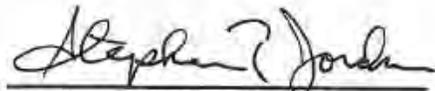
Should any part, sentence or phrase of this Ordinance be determined to be unlawful, void or unenforceable, the validity of the remaining portions of this Ordinance shall not be adversely affected. No portion of this Ordinance shall fail or become inoperative by reason of the invalidity of any other part. All provisions of this Ordinance are declared to be severable.

**VI. PROPER NOTICE AND MEETING**

It is hereby officially found and determined that the meeting at which this Ordinance was adopted was open to the public and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

**ADOPTED AND APPROVED** on this the 17<sup>th</sup> day of February, 2015 by a vote of the City Council of the City of Horseshoe Bay, Texas.

**CITY OF HORSESHOE BAY**



**Stephen T. Jordan, Mayor**

**ATTEST:**



**Teresa L. Moore, TRMC  
City Secretary**



**Bayside Fresh Market  
Commercial Project—1**



**Grand Bank  
Commercial Project—2**



**Ace Hardware  
Commercial Project—3**



**American Bank of Texas  
Commercial Project—4**



**American Bank of Texas  
Teller Lines  
Commercial Project—4 Continued**



**Summit Rock  
Golf Course Entrance  
Commercial Project—5**



**Residential  
Project—1**



**Residential  
Project—2**



**Residential  
Project—3**



**Residential  
Project—4**

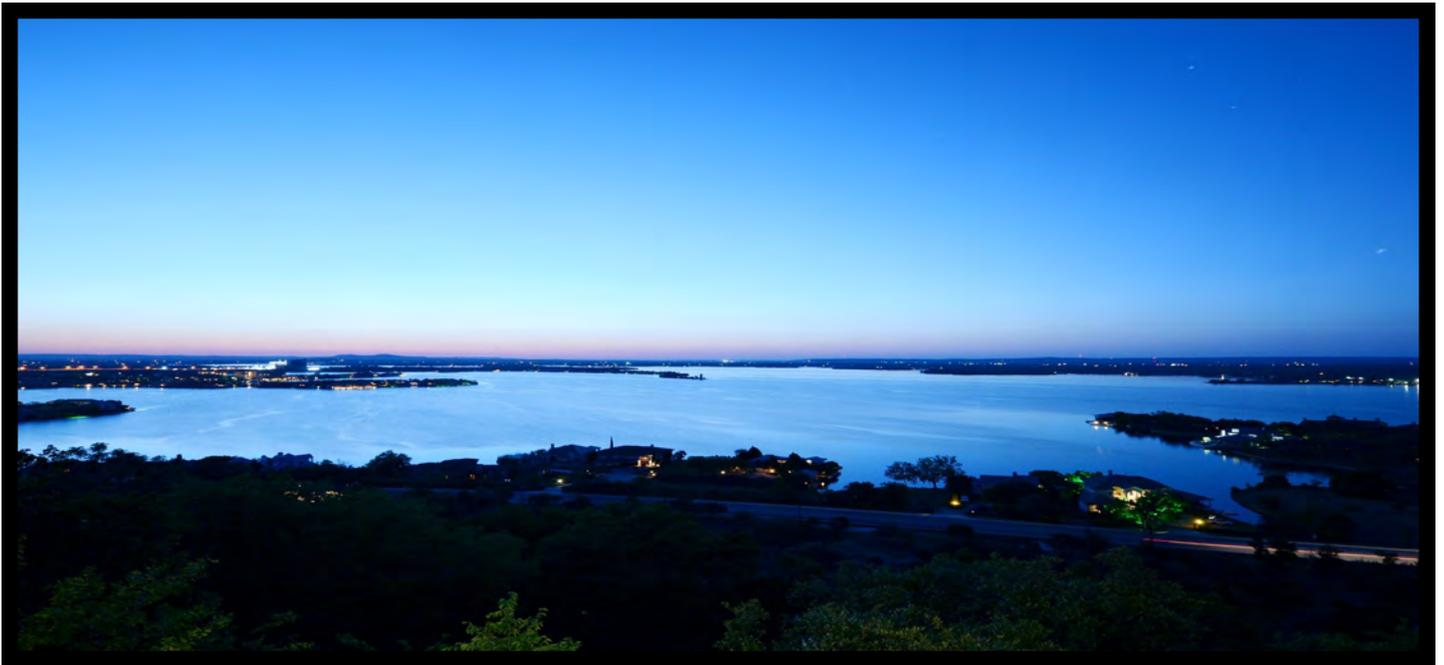


**Residential  
Project—5**



# *City Of Horseshoe Bay*

## **City of Horseshoe Bay Nomination Package for the International Dark-Sky Community Designation**



### **Part 4 - Community Commitment**



# City Of Horseshoe Bay

## **City Owned Outdoor Lighting Changes**

To date the following are the only City sites where we discovered that the lighting needed to be remediated to comply with the Dark Sky outdoor lighting requirements. The next few pictures show before and after pictures of our facilities where the lights have been remediated this year.

1. Central Water Plant Parking Lot
2. Central Water Plant Building
3. City Water Tower

The City has no street lights at all. Also, the City does not maintain or own any recreational facilities. However, please note any City owned lighting that still needs remediation will be by the end of this fiscal year ending September 30, 2015. Currently staff is doing a lighting audit of the few City owned facilities with lighting.



Parking Lot  
Central Water Plant  
Before



Parking Lot  
Central Water Plant  
After



Central Water Plant  
Before



Central Water Plant  
After



City Water Tower Before (with the Moon)



City Water Tower After (Just the Moon)



# City Of Horseshoe Bay

## Dark Skies Education

The City has been engaged in an aggressive campaign to educate the public on the importance of light pollution and trespass. We have implemented a few programs of outreach to our citizens. Below are IDA material and sources that we provide in our Welcome to Horseshoe Bay new utility customer packets. In addition, this same material is being shared with the plethora of Property Owners' Associations (POAs) we have in our City. In fact, this material have been emailed to the POA presidents so they can more actively disseminate to their members. Next we have a new City webpage coming on-line soon and plan to prominently highlight the IDA and all you do and have the same material listed below and, of course a link to the IDA website. Last, we work daily with custom homebuilders here too, and will be providing materials and education to them when the building permit is issued, although most are very diligent in the matter of soft low level lighting already. It must be noted, that unlike most Cities in America we do NOT have a public or private school in or near our boundaries, therefore visiting local school(s) is not a practical option. Our average resident's age is over 60 and we have only a few dozen children that actually live in Horseshoe Bay.

<http://www.darksky.org/education/quick-reference-materials> (PDF format)

Brochures—

General IDA Brochure— <http://www.darksky.org/assets/documents/idabrochure.pdf>

Light Pollution and Wildlife Brochure—[http://www.darksky.org/assets/documents/ida\\_wildlife\\_brochure.pdf](http://www.darksky.org/assets/documents/ida_wildlife_brochure.pdf)

Light Pollution and Energy—[http://www.darksky.org/assets/documents/ida\\_energy\\_brochure.pdf](http://www.darksky.org/assets/documents/ida_energy_brochure.pdf)

Light Pollution and Safety—[http://www.darksky.org/assets/documents/ida\\_safety\\_brochure.pdf](http://www.darksky.org/assets/documents/ida_safety_brochure.pdf)

Light Pollution and Human Health—[http://www.darksky.org/assets/documents/ida\\_human-health\\_brochure.pdf](http://www.darksky.org/assets/documents/ida_human-health_brochure.pdf)

Practical Guides—

Practical Guide : Introduction to Light Pollution—<http://www.darksky.org/assets/documents/PG1-light-pollution.pdf>

Practical Guide : Residential Lighting Good Neighbor Guide—<http://www.darksky.org/assets/documents/PG3-residential-lighting.pdf>



# CITY OF HORSESHOE BAY

## MEMORANDUM

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**DATE:** February 18, 2015

**To:** CITY DEPARTMENT HEADS AND STAFF

**From:** Stan R. Farmer, City Manager

**RE:** OUTDOOR LIGHTING ORDINANCE

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Yesterday the Council passed an amended Outdoor Lighting Ordinance. The primary reason is to keep up to date with current outdoor lighting restrictions, in keeping with the historical emphasis by the citizens and Council of keeping Horseshoe Bay a dark-sky community.

Please read the updated Ordinance and refer to this memorandum to help clarify what is expected by me with regards to this policy and outdoor lighting undertaken on all City-owned properties, buildings, and facilities.

First, all new lighting fixtures shall employ adaptive controls and reasonable curfews. Adaptive controls include, but are not limited to: motion detection sensors, timers, wireless remote monitoring, and photo sensitive light controls. Reasonable curfews shall be determined for all non-essential lights on City property or buildings with an established time not to exceed 11PM. Although the City currently does not have any public or private sports facilities, the new ordinance does set a limit of 11PM too for all future facilities such as these (Section 3.07.003(b)). Also, to be clear, current and future City parks and recreational facilities must adhere to this previous mentioned requirement in Section 3.07.003(b) too.

Next, the new ordinance codifies the long established policy of no street lights in the City (Section 3.07.005). A fact we are very proud of in Horseshoe Bay. However, in rare cases where it may be required for public safety, all lighting will be fully shielded and adhere to IDA standards (please refer to Section 3.07.005 for more specifics).

Last, although most City lighting is already in conformance with the new ordinance passed yesterday, all City-owned lighting will be in compliance with this ordinance by December 31, 2015.

Respectfully Submitted,  
Stan R. Farmer  
City Manager