

## DARK SKY LIGHTING

### What is Dark Sky Lighting?

It is a campaign to reduce the amount of light pollution. Light pollution is mostly caused by the over use of poorly designed lighting fixtures. If you have ever looked up at the sky at night hoping to see a mass of twinkling stars, but see a halo of bleary light instead, that is light pollution. Dark sky lighting helps to make the night sky more visible, and also helps to cut down on the amount of energy being used and reduces the impact unnatural light has on the environment.

Here are 5 helpful hints to help make your modern outdoor lighting dark sky compliant.

#### 1. *Install shield lights*

When picking modern outdoor lighting fixtures, make sure that they are fully shielded so the light is pointing downward. This cuts down on light pollution, minimizes glare, and facilitates better vision at night.

#### 2. *Go for LED Lighting*

LEDs are a great option when white light is required because they are energy efficient thus cutting down on waste. Dimmable LEDs are even better as they can be turned down.

#### 3. *Color Matters*

Blue light is known to be harmful to not only nature and wildlife but also to humans. Lights should have a color temperature of no more than 3,000 kelvins. Look for "warm" lighting temperatures such as low-spectrum LEDs.

#### 4. *Reduce Light Waste*

Only light areas that need it. This also means turning lights on only when required, or setting them onto a timer or sensor to help reduce the amount of light waste.

#### 5. *Only Use What You Need*

Make sure your lights are not unnecessarily bright. Figure out the minimum amount of brightness you need to safely navigate in the darkness and make sure that the lighting you choose meets that minimum.

The District of Lakeland Environmental Advisory Committee produced this information. For more information, see our table at the District of Lakeland Office or visit us online. We care about our lakes and the land around them, and we hope you will too!



FOR MORE INFORMATION REFER TO THE DISTRICT WEBSITE

[www.lakeland521.ca](http://www.lakeland521.ca)

Researched by:  
The Environmental Advisory Committee



# District of Lakeland No. 521

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## ZEBRA & QUAGGA MUSSELS

### An Invasive Species

#### What is an invasive species and what do they do?

Invasive species include animals, micro-organisms or plants that are introduced to locations outside of their natural habitat. The relocation causes negative impacts to the new environment because they generally reproduce and spread rapidly as there are few, if any, natural species to control their spread. Over time, an invasive species may totally wipe out native species, introduce harmful diseases, and alter the natural food chains and water quality.

#### Where do Zebra & Quagga Mussels come from?

These mussels are native to the Black Sea area in Europe. They have migrated over time to North America from cargo ships. In Saskatchewan, the biggest threat of their introduction into our waterways lies in pleasure boats that cross our borders from infected areas in Manitoba and the United States. The mussels can attach to boat hulls, live wells or engines, fishing gear, boat trailers, or even weeds stuck onto the trailers.

#### The Saskatchewan situation

At this time no lakes or waterways in the province have been identified as having either species. In co-operation with the Canadian border guards, the Saskatchewan government is watching for them at the international border crossings, and they have purchased a number of portable washing units. We are also producing and distributing informational materials.

The Adult Invasive Mussel Monitoring Program was established in partnership with community organizations in Saskatchewan to monitor and detect these mussels and to develop a data-base. Lakeland is part of this effort.

Locally, members of the District of Lakeland Environmental Advisory Committee deploy samplers off the docks at the main boat launches on Anglin, Christopher, Emma and McPhee Lakes. These are inspected and shoreline surveys are done on a monthly basis to record the presence/absence of adult mussels.

#### Clean, Drain and Dry

If you bring a boat from out of province, please inspect your boat, trailer, and gear. It is important that you follow and practice the CLEAN, DRAIN and DRY protocol. (<http://www.environment.gov.sk.ca/invasivespecies>)

Make others aware of the potential consequences of transporting mussels and educate them on the steps and protocols they need to take to eliminate the risk of introducing this invasive species.

If you suspect that mussels are or may be present, please call the **TIP** line at **1-800-667-7561**.

## ENVIRONMENTALLY FRIENDLY FERTILIZER

#### Applying fertilizer: Is it really necessary?

Caution and restraint should be exercised when applying fertilizer in proximity to water bodies. First ask yourself, do I really need to fertilize? If the answer is yes, consider an organic fertilizer that is environmentally friendly.

When fertilizer leaches into the water, it feeds naturally occurring lake plant and animal biomass such as phytoplankton, attached algae and macrophytes. The most visible and common result is algae blooms. These unsightly blooms cause resemble slime or weed infestations, and they produce noxious odors and release harmful toxins into the water which in turn can kill fish.

Fertilizer may enter water systems through spring run-off, leaching, and rain run-off. Land fertilized in close proximity to water has the highest potential to spread dissolved fertilizer to the water.

#### Organic vs. non-organic choices

All plants receive their nutrients in chemical form. They cannot distinguish between how the nutrient was derived, whether organic or non-organic for example.

When referring to plant nutrition, organic or natural generally refers to any fertilizer that is derived from plant, animal or mineral origin. It must have one or more essential nutrient for plant growth. Organic alternatives include blood or bone meal, or manure. The most commonly available organic fertilizers sorted for their role in providing nitrogen, phosphorus or potassium include the following:

- Nitrogen: blood meal, cottonseed meal, fish emulsion, manure and seaweed extract.
- Phosphorus: bone meal, rock phosphate, manure
- Potassium: greensand, sulfate of potash

Non-organic fertilizers (also known as synthetic) are manufactured chemically. They are made to deliver nutrients rapidly, such as those that are water-soluble, or over time as a controlled release. (Examples include: 10-10-10 or nitrogen, phosphorus and potassium).

Labels for organic products may include: "organic," "green earth" or "environment friendly."



## ATVS IN LAKES ARE ILLEGAL

Quads and All-Terrain Vehicles (ATVs) are illegal in Saskatchewan's lakes and rivers for a number of reasons.

- They can seriously impact aquatic ecosystems. They can introduce foreign substances into the water which can impact original species and damage our lakes;
- They alter the natural drainage patterns which can alter natural wetlands (introduce other species/plants, dry up natural catchment areas that may also result in the flooding of other areas); and
- The weight of the vehicle damages the shoreline. The shoreline along Anglin, Emma, McPhee and Christopher Lakes is subject to erosion. We all need to do our part to maintain the health of our shorelines.

The District of Lakeland Environmental Advisory Committee wants to strongly advise ATV and Quad owners to respect the rules of the area and to stay on marked ATV paths.

#### ***Keep wheels out of the water!***

For more information try these sites:

Dept of Fisheries and Oceans

<http://www.dfo-mpo.gc.ca/Library/333554.pdf>

Additional resources:

<http://atfiles.org/files/pdf/ohvbibliogVT00.pdf>

