4 PRINCIPLES OF DARK SKY FRIENDLY LIGHTING

ONE

MINIMIZE THE AMOUNT OF ILLUMINATION

- Don't use more lighting fixtures around your home than necessary
- Use lower lamp wattage

TWO

MINIMIZE THE AREA OF ILLUMINATION

- Shine light only where it's needed
- Aim fixtures downward so no light is directed up or to the sides
- Ensure that little or no unwanted light falls onto adjacent properties

THREE

MINIMIZE THE DURATION OF ILLUMINATION

- Install switches, timers and dimmers to turn off (or down) lights when not in use

FOUR

USE LONG-WAVELENGTH LIGHTS

- Use bulbs with "warm" color temperatures below 3000K

How will you help follow the principles of dark sky friendly lighting?

LIGHT POLLUTION COSTS MORE THAN YOU THINK

160 MILLION

The number of public and commercial outdoor lighting fixtures in the U.S.

- 45 million streetlights
- 62 million lights on commercial buildings
- 52 million parking-lot lights

The percent of all outdoor lighting wasted in the U.S. by unshielded and/or poorly-aimed outdoor lighting

Which is about $3 billion per year worth of energy (~$10 for every man, woman, and child in the U.S.)

13%

The percentage of residential electricity in the U.S. used for outdoor lighting

Bad outdoor lighting wastes 0.5 kWh per night (enough energy to power a 50-inch plasma TV for one hour)

15 MILLION TONS OF CARBON DIOXIDE

Wasted outdoor lighting in the U.S. generates about 15 million tons of carbon dioxide per year into the atmosphere

That's about 40,000 tons per day or the CO2-equivalent of about three million cars

~875 million trees would need to be planted annually to offset that amount of carbon dioxide

What will you do to help reduce light pollution?

LIGHT TO PROTECT THE NIGHT

Five Principles for Responsible Outdoor Lighting

Illuminating ENGINEERING SOCIETY

IDA

USEFUL

ALL LIGHT SHOULD HAVE A CLEAR PURPOSE

Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.

TARGETED

LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED

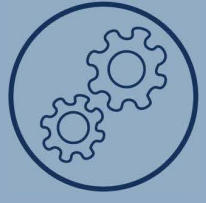
Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.

LOW LIGHT LEVELS

LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY

Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.

CONTROLLED



LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL

Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.

COLOR

USE WARMER COLOR LIGHTS WHERE POSSIBLE

Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.

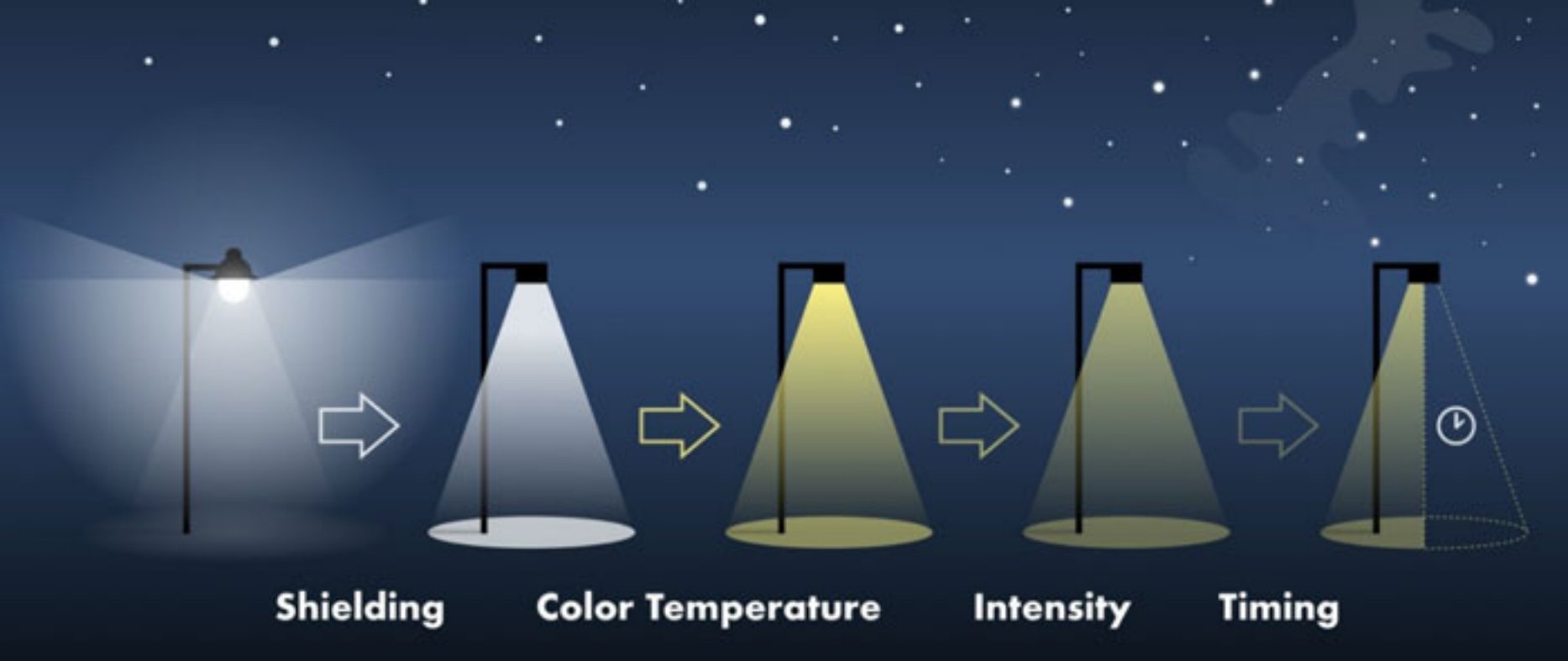


Illustration : Rémi Boucher / Mont-Mégantic International Dark-Sky Reserve