



## **Why did the color of the street lights in my neighborhood change? Why is the City of Saint Paul changing from HPS to LED street lights?**

Saint Paul is in the process of converting the street lighting system to modern 3,000 Kelvin (K) Light-Emitting-Diode (LED) technology.

Compared to the existing High-Pressure-Sodium (HPS) technology, LEDs use less energy, contribute less to carbon emissions, produce higher quality light, reduce hazardous waste disposal, and last longer. LEDs tend to be a whiter light than the HPS lights, which can have a yellow to orange hue.

## **Are LEDs or the light they emit hazardous?**

The existing HPS lamps contain mercury and Saint Paul must dispose of them as hazardous waste. LEDs do not contain mercury and are not classified as hazardous waste by the Minnesota Pollution Control Agency.

LEDs are widely used in common household products and lighting, including cell phones, TVs, watches, appliances, toys, etc. According to the Department of Energy, there is nothing inherently dangerous about LED lighting. (<https://www.energy.gov/eere/ssl/articles/get-facts-led-street-lighting>)

## **What is the environmental impact of LEDs?**

By converting to LEDs, Saint Paul experiences a decrease in energy consumption from 45-63% depending on the type of fixture.

## **When will the street lights in my neighborhood be converted to LEDs?**

Saint Paul is in the process of converting to LEDs, but the conversion process will take several years because the City maintains more than 38,000 street lights.

When your street lights will be converted depends on many factors including the existing light fixtures, scheduled maintenance, and budget. Additionally, new LED street lights are installed as part of street reconstruction projects.

## **What color LEDs is Saint Paul installing?**

Just as you can install different color LEDs in your home (warm white, cool white, daylight), street lighting products are available in different colors of light. With feedback from Saint Paul residents, we have standardized around warm white (3,000 Kelvin) for use in the street lighting system in Saint Paul.

There are more options for different types and color LED bulbs in your home than for street lighting fixtures. The City's street lighting system needs to meet standard lighting requirements.

### **Why is the light so bright/white?**

All HPS, fluorescent, and LED bulbs produce less light the longer they are in use. The HPS lights that are being replaced have been in place for a number of years and in that time have deteriorated and are now producing less light than when they were originally installed.

The street lighting system is designed to accommodate the reduction in light output that occurs with deterioration, but the conversion to new LEDs does reset illuminance to the originally installed levels. The products used for conversion to LEDs have been tested by the City to ensure the illuminance matches the levels the street lighting system for which they were designed.

The existing HPS lights are very orange in color and have a low Color-Rendering-Index (CRI), so it is very hard to differentiate colors. Everything just looks orange no matter what color it is. LEDs have a higher color temperature and improved CRI. While this is a dramatic improvement in public safety and street light quality, for some people it may be a noticeable change that takes time to become comfortable with.

### **How did the City select the LED products used?**

Saint Paul street lighting is important City infrastructure for pedestrian and traffic safety. Saint Paul evaluated LED products based on environmental suitability, energy consumption, life cycle costs, cost of conversion, and compatibility with the City's existing fixtures.

### **Will the City switch the LEDs back to HPS?**

The LED conversion helps the City strive toward some of its sustainability goals. LEDs use less energy, contribute less to carbon emissions, produce higher quality light, reduce hazardous waste disposal, and last longer. Switching back is highly unlikely. Unlike in your home where you can change to LED by simply switching the light bulb, many of the light fixtures in Saint Paul's street lighting system require additional work or conversion for LEDs.

### **What if I don't like the LED lights?**

The citywide transition to LEDs is vital to ensuring the sustainability of the street lighting system in Saint Paul.

Many years ago, when Saint Paul first transitioned from the white colored mercury-based lighting technology to the orange HPS technology, many citizens didn't like the new lighting because of the orange color of HPS lights. The conversion to LEDs may initially change the look and feel of an area. Please give yourself time to adjust to the new appearance. Remember when the LEDs are first installed they will appear brighter and whiter.

**Will you dim or modify the LED street lights?**

The products used for conversion to LEDs have been tested by the City to ensure the illuminance matches the levels the street lighting system for which they were designed.

The City has approximately 16 different types of light fixtures of varying ages and styles. The current lighting inventory totals approximately 38,000 lights. The City has a limited number of treatment options to address specific concerns about lighting. The City cannot install any treatments to reduce lighting on the street side of any light fixture as this will interfere with designed street lighting levels.

**Who do I contact with questions or concerns about the LED conversion?**

For questions about installation or operation of street lights, contact Traffic Operations at 651-266-9777.

For questions about street light design or engineering, contact Traffic Engineering at 651-266-6200.