

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Jim Ortbal

**SUBJECT: STREETLIGHT OUTAGE
STATUS REPORT**

DATE: December 15, 2016

Approved

D. D. Sy L

Date

12/15/16

INFORMATION

This memorandum provides a status report to the City Council on streetlight outages and streetlight wire theft. The Department of Transportation (DOT) typically reports to the City Council on streetlights at this time of year because public concern and awareness about outages rises when daylight savings time ends and nights are longer. Additionally, with incidents of copper wire theft continuing throughout the City, it is important for the City Council and community to be aware of current outage levels, efforts to mitigate the incidence of stolen wire, and how to report outages for repair.

Streetlight System, Outages and Repairs

DOT is responsible for the planning, operation and maintenance of the City's 2,400 miles of streets and other infrastructure in the public right-of-way. As such, streetlight repairs and maintenance is a critical component of DOT's services as it ensures adequate night time visibility at street intersections and along major streets. The City's extensive and varied streetlight system can be summarized with the following key facts:

- There are approximately 64,400 active streetlights citywide.
- 11,273 outages were repaired in FY 2015-16, which represents a 36% decrease in the number of repairs from the previous year. The decrease can be attributed to preventative measures aimed at reducing wire theft and converting one-third of the City's streetlight infrastructure to new LED fixtures.
- 66% of incoming streetlight outage reports were caused by burned out bulbs, fuses and malfunctioning photo cells, for which the typical repair timeline ranges from 7-14 days.
- The leading causes of the current open streetlight outage backlog can be attributed to repairs requiring external resources such as special equipment or PG&E assistance (38%), fixture or wire malfunction (31%), and vehicular accidents (24%). The time to

complete these repairs can take longer, sometimes six months or more, because they are generally more complex and often require a high level of internal or external coordination.

- Copper wire theft currently accounts for less than 4% of open streetlight outage backlog (33 out of 908). DOT is typically restoring lights affected by wire theft within 30 days of notice.
- As of October 31, 2016, the open streetlight outage backlog was down to 908, after peaking with a high of 1,672 in February 2016.

Streetlight Wire Theft

A series of one-time investments and strategies to aggressively replace stolen streetlight wire and deter future theft have been successful. The total number of streetlight outages due to wire theft as of October 31, 2016 was 33, compared to a high of over 1,000 nearly three years ago. Additionally, the number of wire theft incidents occurring each month is trending downward due to the installation of metal locking lids on over 6,500 streetlight wire junction boxes in targeted areas of the City. In FY 14-15, there were approximately 50 incidents of wire theft occurring each month with each incident affecting an average of five to six lights. In FY 15-16, the average number of wire theft incidents occurring each month dropped to about 30. So far in FY 2016-17, there has been an average of 14 incidents per month. Since the installation of metal locking lids began in 2014, there have been very few instances of recurring wire theft at locations with metal locking lids.

It should be noted that one-time funding for streetlight wire theft repair and additional metal locking lids will be exhausted during this fiscal year. DOT will work to identify resources needed to continue performing this work throughout the entire fiscal year and beyond.

Entering Peak Season for Streetlight Outages

With the end of daylight savings time on November 6, the City enters into the period of the year when requests to repair streetlight outages are at their peak. Throughout the late fall and winter, with longer nights, DOT typically experiences an increase in repair requests in the 25% range due to heightened public awareness of streetlight outages. The timeframe for bulb replacement repairs within seven days typically drops during this time of year because no additional resources are available to respond to the surge in repair requests.

Although the streetlight maintenance crews have been able to increase the amount of proactive patrolling to identify outages, it is important for the City Council and the community to be aware that the majority of repairs are made primarily in response to public notifications. DOT relies on the community to report outages as soon as possible after they are noticed as follows:

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To report streetlight outages to DOT (include pole #, location, and contact info), leave a voice mail message at 1(408) 794-1903, submit a service request through the City internet site (www.sanjoseca.gov) or email street.lights@sanjoseca.gov

LED Streetlight Conversion

In FY 2015-16, 18,133 streetlights were converted to LED fixtures through the Energy Solutions Company (ESCO) program with an additional 1,000 lights converted through variety of other projects and funding. To date, there are nearly 25,000 LED streetlights in the City, approximately 39% of the total streetlight inventory.

The City embarked on a Request for Proposals (RFP) process to secure the conversion of the remaining 39,000 lights at no cost to the City. Proposals to the RFP are being reviewed at this time and staff is planning to bring a recommendation for the project to the City Council in early 2017.

/s/

JIM ORTBAL

Director of Transportation

For questions, please contact Eric Hon, DOT Division Manager at (408) 794-1987.