

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

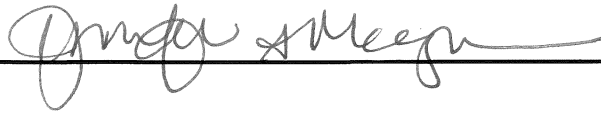
FROM: John Ristow

**SUBJECT: STREETLIGHT OUTAGE
STATUS REPORT**

DATE: November 28, 2018

Approved

Date



11/29/18

INFORMATION

This memorandum provides a status report to the City Council on streetlight maintenance services. 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 the City's history of copper wire theft, 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 operates, maintains, and improves San Jose's 2,400 miles of streets and related infrastructure. 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.
- Approximately 1/3 of the streetlight inventory were converted to LED in FY 2015-16 and remain in good condition.
- 10,201 outages were repaired in FY 2017-18, which represents a 15% increase in the number of repairs from the previous year. The increase in repairs is likely the result of the increased number of streetlight outage reports submitted through the *My San Jose* smartphone application, which makes reporting outages much easier for the public.
- 72% of reported streetlight outages 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 (23%), fixture or wire malfunction (11%), and vehicular accidents (8%). The time to

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

- As of October 31, 2018, the open streetlight outage backlog is 1,105, which is similar to the backlog at the same time last year (1,033), but significantly lower than the peak of 1,672 in February 2016.
- Copper wire theft currently accounts for 1% of the open streetlight outage backlog (12 out of 1,105). DOT is typically restoring lights affected by wire theft within 30 days of notice.

Streetlight Wire Theft

The total number of streetlight outages due to wire theft as of October 31, 2018 was 12 compared to a high of over 1,000 nearly five years ago. This significant reduction can be attributed to a series of one-time investments and strategies to aggressively replace stolen streetlight wire and deter future theft. Additionally, the number of wire theft incidents occurring each month is trending downward due to the installation of metal locking lids at over 7,400 streetlight wire junction boxes in targeted areas of the City since FY 2014-15, when there were approximately 50 incidents of wire theft occurring each month with each incident affecting multiple streetlights. So far in FY 2018-19 there has been an average of 19 incidents per month and there have been very few instances of recurring wire theft at locations with metal locking lids.

DOT utilizes a single dedicated wire theft crew, which can address up to 20 wire theft locations per month, allowing DOT to maintain its current response time of 2-4 weeks for streetlight outage repairs as well as provide the staffing resources to implement deterrent measures such as metal lids. The wire theft crew is responsible for replacing missing streetlight wires from pull box to pull box, splicing wires, and making connections back to the service point and testing the streetlight circuits. After the repairs are made, the crew will replace the concrete pull box lids with metal locking lids. Funding is in place for the wire theft crew and materials for the current fiscal year, and given the downward trend in wire theft activity, separate funding for the wire theft crew for FY 2019-20 may not be necessary as DOT believes that the number of monthly incidents will be manageable without the additional staffing. However, there is only current year funding to address wire theft, additional funding to cover the costs of stolen wire materials and additional metal locking lids may be needed in FY2019-20.

Entering Peak Season for Streetlight Outages

With the end of daylight savings time on November 4, the City entered 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 up to a 25% increase in repair requests due to heightened public awareness of streetlight outages. The number of bulb replacement repairs that can be completed within seven days typically drops during this time of year because of the surge in repair requests.

To help ensure timely repair of streetlight outages, it is important for the City Council and the community to be aware that most repairs are made primarily in response to public notifications. DOT relies on the community to report outages as soon as possible. Streetlight outages should be reported to DOT by using the *My San Jose* smartphone application as follows:

1. Login to My San Jose application
2. Select *New Request*
3. Select *Streetlight Outage*
4. Complete the service request by providing the location of the streetlight, indicating if there are multiple lights out, providing the pole number that is painted on the streetlight pole at eye level facing the street, and providing a description of the problem, e.g. the light is out, damaged, flickering, etc. Including a picture if there is damage is helpful.

The community may also report a streetlight outage by calling and leaving a voice mail message at (408) 794-1903, submitting a service request through the City internet site (www.sanjoseca.gov), or by sending an email to street.lights@sanjoseca.gov. When reporting a streetlight outage using these methods, it is important that the public provide the location, streetlight pole number, nature of the problem, and contact information should follow-up be necessary.

LED Streetlight Conversion

To date, there are over 26,000 LED streetlights in the City, which equals approximately 40% of the total streetlight inventory. Most of the LED streetlights (approximately 18,000) were converted in FY 2015-16 by the Energy Solutions Company (ESCO) program. The other LED lights were converted at various times through a variety of projects using City and grants funds.

DOT is currently in the process of converting approximately 1,100 lights in the Downtown and on selected major arterial roads throughout the City. Funding is included in the FY 2018-19 Adopted Budget for these projects.

Approximately 37,000 lights have not been converted to LED. However, with the passage of City Measure T, DOT and the Department of Public Works are now developing a specific plan to convert a portion on these non-LED streetlights to LED over the next five years.

/s/
John Ristow
Acting Director of Transportation

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