

Memorandum


TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Hans F. Larsen

**SUBJECT: STREETLIGHT OUTAGE
STATUS REPORT**

DATE: November 19, 2014

Approved



Date

11/19/14

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 the continuing occurrence of copper wire theft 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

The status of the City's streetlight system can be summarized with the following key facts:

- There are 63,200 active streetlights Citywide.
- 15,600 outages were repaired in Fiscal Year 2013-2014 – a significant increase over the historical average of about 12,000 repairs annually. Over 70% of streetlight outages were caused by burned out bulbs. Typical repair times for burned out bulbs are 7 to 14 days.
- The current streetlight outage backlog is 1,440 (as of November 1, 2014) – down from a high of 2,020 in January 2014. The primary causes of streetlight outages in the current backlog are fixture and wiring malfunction (44%) and wire theft (34%). An aging streetlight system and continued problems with wire theft has resulted in a growing queue of more complex electrical repairs. The typical timeframe for repair of these types of outages is four to six months and, in some cases, even longer.
- In December 2013, the City Council approved a \$500,000 increase in resources for DOT to help deter streetlight wire theft and reduce an escalating backlog of streetlight outages. As a result, overall streetlight repair performance levels have improved and the backlog of outages due to wire theft has been reduced by 53% (from 1050 to 490).

Streetlight Wire Theft

Wire theft resulting in streetlight outages continues to be a significant problem. In 2013-2014 there was a 30% increase in new incidents of wire theft reported or discovered compared to the previous year. However, with the supplemental resources approved by the City Council in December 2013, DOT has been able to reduce the overall backlog of streetlight outages associated with wire theft. It is anticipated the backlog of locations in need of repair will be eliminated by the end of this fiscal year, and in the future newly reported or discovered incidents will be able to be repaired in a more timely manner.

DOT continues to utilize mechanical deterrents to make it more difficult to access and steal streetlight wire and minimize the re-occurrence of theft at locations that have been repaired. In addition to securing wire access box lids with epoxy, which has been the practice for a few years, 5,000 locking metal lids are now being installed in priority areas identified as prone to theft. This new deterrent method has proven to be highly effective, and theft re-occurrence at locations with locking metal lids has been negligible.

Staff continues to track the locations of the wire theft incidents to determine if there is any predictable pattern or concentrated areas of occurrence, and has communicated this information along with maps to the Police Department. Additionally, DOT assisted the Police Department in June 2014 with an investigation that led to the arrest of several people suspected of buying and selling stolen streetlight wire. It is important that the community continue to be a partner in keeping the streetlights operational by not only reporting outages, but also reporting any suspicious activity around streetlights by non-City personnel immediately to 911.

Entering Peak Season for Streetlight Outages

This time of year, with the recent end of daylight savings time and longer nights, DOT typically experiences a surge in requests to repair streetlight outages. As a result, the timeframe for bulb replacement repairs extends beyond the 7 to 14 day performance target because no additional resources are available to respond to the increase in repair requests. It is important for the City Council and the community to be aware that the majority of repairs are made in response to public notifications. DOT relies on the community to report outages as soon as possible after they are noticed in the following manner:

- **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**

“Smart” LED Streetlight Conversion

During 2014-2015, a substantial number of City streetlights are planned to be upgraded with new fixtures and LED lights, increasing the City’s total number of LED streetlights from about 4,000 to 23,000. Through the Energy Solutions Company (ESCO) program approximately 18,000 lights will be converted, along with another 1,000 streetlight conversions funded through miscellaneous projects and programs, including Community Development Block Grants (CDBG). The installation of these new energy-efficient, longer-lasting lights should result in a major reduction in the number of bulb burnouts and other electrical malfunctions currently associated with existing aging streetlight infrastructure. In addition, the new LED streetlights will be “smart” lights, meaning that the status of each light can be controlled and viewed by staff via a web-based application. The smart LED lighting system will provide staff with real-time alerts of streetlight malfunctions, thereby enhancing wire theft deterrence opportunities and improving the overall timeliness of streetlight repair services.

/s/

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Director of Transportation

For questions, please contact Diane Milowicki, DOT Division Manager at (408) 794-1985.