

DATE ISSUED: November 22, 2002 REPORT NO. 02-286

ATTENTION: Honorable Mayor and City Council
Agenda of November 25, 2002

SUBJECT: Five-Year Plan to Convert Existing Low Pressure Sodium (LPS)
Lights to High Pressure Sodium (HPS) Lights.

REFERENCE: Manager's Report No. 02-273 dated November 15, 2002

SUMMARY

Issue – Shall the City Council Adopt a resolution accepting the City Manager's plan to convert existing street lights from Low Pressure Sodium (LPS) to High Pressure Sodium (HPS) over the course of five years starting in Fiscal Year 2004 and as they burn out starting in Fiscal Year 2003?

Manager's Recommendation – Adopt the Resolution.

Other Recommendation – None.

Fiscal Impact – \$1,825,400 to convert 18,254 LPS lights in Fiscal Years 2004 through 2007.

Beginning Fiscal Year 2004, and continuing through Fiscal Year 2007, \$222,250 per year will be required to offset the increase in energy associated with the HPS lights. The \$222,250 is compounded annually resulting in a total increase energy cost of \$889,000 in Fiscal Year 2007 and every year thereafter.

BACKGROUND

On February 26, 2002, in accordance with Resolution No. R-296141, the Mayor and City Council directed the City Manager to develop a plan to convert existing street lights from

LPS to HPS over the course of five years starting in Fiscal Year 2004 and as they burn out starting in Fiscal Year 2003.

On October 30, 2002, City Manager's Report No. 02-251 was presented to the Rules, Finance and Intergovernmental Relations Committee. The purpose of the October 30th report was to provide the status of converting burned out LPS lights to HPS lights.

On November 20, 2002 City Manager's Report Number 02-273 was presented to the Rules, Finance and Intergovernmental Relations Committee. The Report presented the Manager's proposed plan to convert existing street lights from LPS to HPS over the course of five years starting in Fiscal Year 2004.

The Rules, Finance and Intergovernmental Relations Committee directed the City Manager to 1. Propose in his annual budget, funding for the replacement with high pressure sodium lamps of every low pressure sodium lamp that burns out during Fiscal Year 2004 through Fiscal Year 2007 and every remaining low pressure sodium lamp during fiscal year '08; and 2. To send a letter to other government agencies informing them of the City's actions on this subject and encouraging their cooperation.

DISCUSSION

The citywide inventory of 40,025 street lights consists of 26,005 LPS lights and 14,020 HPS lights. Approximately 2,038 LPS lights within a 30-mile radius from Mount Palomar Observatory will not be converted to HPS, therefore there are 23,967 street lights to be converted to HPS over the five-year period.

In Fiscal Year 2003, a total of \$713,719 (\$592,183 contributed by the Mayor & Council and \$121,536 from Street Division's operating budget) will pay for the conversion of approximately 5,713 lights. Year-to-date, 1,200 LPS lights have already been converted.

An estimated 4,600 LPS lights are anticipated to burn out each year in Fiscal Year 2003 through Fiscal Year 2008. Typically, Street Division replaces the burn-out LPS bulbs with a new LPS bulb at a cost of \$25 per light. The cost to convert one LPS light to HPS is \$125. Therefore, the net cost to convert a burned out LPS light is \$100. Beginning in Fiscal Year 2004, Street Division will convert approximately 4,600 burned-out LPS lights to HPS. This conversion will cost approximately \$460,000. In Fiscal Year 2005 and Fiscal Year 2006, an additional 4,600 LPS lights will burn-out each year and also be converted to HPS, leaving approximately 4,454 LPS to be converted in Fiscal Year 2007 (see attached table).

It is estimated the converted 23,967 HPS lights will cost \$889,000 in added energy costs. Therefore, beginning in Fiscal Year 2004, an additional \$222,250 per year will be required for increased energy costs associated with the converted HPS lights.

The City Manager will propose in the annual budget, funding to convert the burned-out LPS lights to HPS lights during Fiscal Years 2004 through 2007 and any remaining LPS lights during Fiscal Year 2008. Additionally, a letter will be sent to other governmental agencies informing them of the City's actions on this subject and encouraging their cooperation.

Respectfully submitted:

Approved by:

D. Cruz Gonzalez, Director
Transportation Department

George I. Loveland
Senior Deputy City Manager

LOVELAND/MXS

[Attachment: LPS/HPS Lights Conversion Project](#)