

# Agenda Report

DATE: March 15, 2004

TO: CITY COUNCIL

FROM: CITY MANAGER

SUBJECT: UPDATE ON LONDON PLANE TREES FOR HOLLY STREET AS PART OF THE CIVIC CENTER/MIDTOWN DISTRICT DESIGN PROJECT

## RECOMMENDATION:

This report is presented for information only.

## BACKGROUND:

At their regular meeting of December 15, 2003, the City Council requested that staff return with additional technical information regarding fungus problems associated with *Platanus acerfolia*, the "Bloodgood" variety of London Plane tree. This tree was recommended by the City Center Implementation Task Force (the "Task Force") as the replacement for the declining Carob trees on Holly Street between Marengo and Garfield Avenues.

The Task Force carefully considered several tree species for this portion of Holly Street, and based their selection on the following criteria: 1) maintaining an open view towards historic City Hall; 2) repeating the historic tree planting as a uniform 'allee' on the north and south sides of the street; 3) environmental conditions (including safety and maintainability); 4) incorporating a light, open structure of tree form; 5) foliage and flower color of the tree; 6) using native species; and 7) use of a deciduous species for solar gain in the winter. The final species considered included: *Ceratonia siliqua* - Carob Tree, *Platanus acerfolia* - "Bloodgood" London Plane Tree, *Quercus agrifolia* - Coast Live Oak, *Platanus racemosa* - California Sycamore, *Acer macrophyllum* - Big Leaf Maple, and the *Jacaranda mimosifolia* - Jacaranda. Following careful consideration with respect to the selection criteria, the Task Force recommended the "Bloodgood" London Plane Tree.

The "Bloodgood" London Plane is a good candidate for planting as an urban street tree. It is included on every list of recommended large trees for streets, parks, parking lots, and other urban settings, and is desirable due to its attractive bark and nicely shaped canopy. They grow fast, live a long time (from 125–150 years), and provide shade with little care. "Bloodgood" London Plane trees are hearty trees that can endure a variety of harsh soil conditions, including compacted soil, and are also tolerant of smog, soot, dust, and reflected heat—conditions prevalent in urban settings.

While the London Plane Tree is susceptible to several fungal infections, studies have shown that the "Bloodgood" variety has proven to be resistant to these diseases. Pasadena has been using this variety for a number of years, and as a result, has had a limited number of occurrences of anthracnose and powdery mildew.

Staff has consulted with a variety of resources to better understand the London Plane tree and its potential for disease. Among them are the *Sunset Western Garden Book*, University of California at Los Angeles' Botanical Department, University of California at Davis' Statewide Integrated Pest Management Program, Los Angeles County Arboretum, Santa Barbara County Agricultural Commissioner, Urban Forestry Ecosystems Institute, Penn State University, College of Agricultural Sciences, and the University of Rhode Island Landscape Horticultural Program. In addition, Jill Vig, ISA Certified Arborist and Barbara Koenig, Landscape Architect provided the attached objective opinion of the London Plane trees. A description of the symptoms of the two major fungal infections that can be found in varieties of the London Plane tree is noted below.

Anthracnose is the best-known ailment affecting London Plane trees. The disease results from infection by several different fungi. The severity of the disease is dependent upon prolonged rainy seasons after the new growth of leaves and branches in late spring. The fungi need water to be disseminated and infect, and are not spread under dry weather conditions. In southern California, the month of June is normally dry; however, when conditions are wet and rainy, there is a higher likelihood of anthracnose attacking the London Planes.

When infected, the trees will have spots on the leaves. If the leaves are very young when they are infected, they may become curled and distorted with a portion of each leaf dying. Heavily infected leaves will fall prematurely throughout the growing season. Early leaf drop usually is followed by the production of more leaves. The disease can also affect twigs and branches, resulting in crooked-looking branches. However, in order for the disease to cause permanent damage to the trees, the infection would have to occur year after year, which would be highly unlikely with the weather conditions found in Pasadena.

In most cases, control of anthracnose is unnecessary because the disease is not usually damaging to the long-term health of the trees in Southern California because the wet weather conditions do not often present themselves in late spring and early summer. However, certain maintenance practices, such as removing and destroying infected fallen leaves, can reduce the likelihood of further infection. As mentioned earlier, the "Bloodgood" variety of the London Plane has demonstrated resistance to the disease.

Another disease that can affect the London Planes is powdery mildew. This is a common malady prevalent under the dry summer conditions found in many areas of California. This disease can be recognized by the white, powdery mycelial and spore growth that forms on both surfaces of a tree's leaves. It may infect both new and old


foliage and attacks the leaves resulting in dwarfed or distorted growth. The infected leaves die and fall from the tree prematurely much in the same way as the anthracnose attack. As mentioned earlier, the "Bloodgood" variety of the London Plane also has demonstrated resistance to this disease.

Powdery mildew spores are carried by winds to new host trees. Moderate temperatures (60–80 degrees Fahrenheit) and shady conditions are generally the most favorable for powdery mildew development. Extreme temperatures, above 90 degrees, will kill most spores and mycelium. In addition, water on the leaves will also tend to prevent germination. Planting susceptible trees in sunny areas will also help in the management. Finally, the powdery mildew does not cause long-term damage to the trees, and the new growth will generally come in healthy.

**FISCAL IMPACT:**

The potential diseases of the London Plane Tree do not pose any additional maintenance concerns, and therefore will not result in any additional maintenance costs.


Respectfully Submitted:

  
CYNTHIA J. KURTZ  
City Manager

Prepared by:

  
Kathleen Woods, Administrator  
Parks and Natural Resources

Approved by:

  
Martin Pastucha, Director  
Department of Public Works