

**DATE:** February 17, 2009

**TO:** Mayor and City Council

**FROM:** Maintenance Services Director

**SUBJECT:** Resolution Requesting State Funding for Urban Forestry Inventory Grant

### **RECOMMENDATION**

That Council adopts the attached resolution approving an Urban Forestry Grant project and making the commitment of matching funds for a tree inventory of publicly maintained and controlled trees within the City of Hayward.

### **SUMMARY**

The State of California Department of Forestry and Fire Protection administers an Urban Forestry Grant Program funded by Proposition 40, *California Clean Water, Clean Air, Safe Neighborhood, Parks, and Coastal Protection Act of 2002*, and Proposition 84, *Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006*. On October 24, 2008, the City submitted a project concept application for a \$110,000 Inventory Grant. On January 12, 2009, the state informed staff that the project concept application had been ranked high enough to be eligible for the next step in the application process and that funds had been set aside for the project pending a successful final proposal. In order to pursue this funding, a final proposal is due by February 23, 2009. One required component of the final proposal is a resolution authorizing project approval and matching funds. The proposed project is an expansion of a tree inventory project approved in the FY2009 Capital Improvement Program(CIP) in the Gas Tax Fund. The approved Gas Tax Funds can be used as the required local match.

### **BACKGROUND**

In order to manage trees efficiently, it is necessary to have an accurate and complete inventory. The City has had an inventory of City street trees in residential neighborhoods since 1992. This inventory is contained in a computerized maintenance management system and has proven invaluable in the management of the residential street trees, and is used daily. However, the existing system is limited. The program can only identify trees by address and relative position along the street; trees are not mapped into a graphical interface. This limitation makes it impossible to identify and track trees around public buildings such as the library, in medians, or alongside roads. In addition the existing software is obsolete and no longer supported by a vendor. Staff

estimates that there are 25,000 City-maintained trees. In recognition of these shortcomings, staff proposed a CIP project to purchase new software and conduct an inventory of City-maintained trees. This proposal was approved in the adopted Five-Year Capital Improvement Program at \$50,000 for the current fiscal year and \$50,000 for FY2010.

In addition to trees maintained by the City, there are many trees maintained by homeowners, businesses, Lighting and Landscaping District Zones, and homeowner associations, which were a conditioned requirement of a development and are perceived as street trees. These trees are all protected by the City's Tree Preservation Ordinance, but there is no database containing these trees. Staff estimates that there are 5,000 trees in this category.

Finally, there are many public trees in the parks and on school grounds. Neither the Hayward Unified School District (HUSD) nor the Hayward Area Recreation and Park District (HARD) have a computerized, graphical tree inventory. Staff estimates that there are 10,000 school trees and 80,000 park trees.

Over the last several years, the public appreciation and concern over issues such as global warming, carbon sequestration, air quality, water quality, property values, neighborhood aesthetics, public health, and creating desirable commercial environments has increased. Out of this heightened awareness, the city has responded through its Clean and Green Initiative and the Sustainability Initiative. Recent research by the United States Forest Service has created a model to quantify the positive impact of the urban forest on these issues. However, the model is unusable without an accurate, complete inventory.

## **DISCUSSION**

Project Description: The City's new Work Management Software will be purchased and installed prior to project initiation. The existing database will be imported without GPS coordinates. The software will have call manager, work manager, mapping, and data analysis modules.

The proposed project would have a total budget of \$220,000 of which \$198,000 of this total would be used to purchase contracted tree inventory services. It is estimated that the contractor would inventory and input into our management system 30,000 trees that are City maintained or protected, 10,000 trees maintained by the school district, and 20,000 of the estimated 80,000 trees in parks. Since this project will not be sufficiently funded to allow for the inventory of all park trees and there will be a need for future inventory of new plantings, this project will also fund the purchase of GPS hardware. Trees that are not inventoried by the contractor will be inventoried by staff on a time available basis. Among the tree attributes collected by either the contractor or staff would be mapping coordinates, species, diameter, canopy area, condition, maintenance needs, hardscape damage present, conflicts with utilities, and the size and area of the growing space. The contractor will import this data into the new management software so that individual trees or groups of trees can be located on aerial photographic basemaps and any historical or pending work records viewed.

The City will retain ownership of all data, but the tree software and data will be physically located and secured on the vendor's server. The vendor's server integrity is assured through both gas generator and battery power. The City program and data will be protected through redundant disk

arrays and by nightly automated backups performed by the vendor. City staff can also download data at any time for further data protection. This level of protection is comparable to the protection that our current data receives.

Staff operational access will be through a password protected browser interface. The City will have access to all tree data for analysis purposes and access to the City-maintained tree data to manage the City-maintained trees. The data for the trees protected by the Tree Preservation Ordinance, but maintained by other parties, can be used to monitor compliance with conditions of development. The park and school districts will have access as needed for managing their trees.

Project Benefits: Because individual trees are continually growing and changing, it is difficult to manage the urban forest without a complete inventory that is integrated with photographic basemaps. Some of the factors that need to be analyzed are species distribution, age distribution, vacant planting site distribution, and problem tree distribution.

Because the Hayward street-tree population is only a portion of the total Hayward Urban Forest, it is impossible to assess the total public tree benefits derived by the citizens of Hayward. If the state grant is received, we will be able to assess all publicly-controlled trees. The inventory data can be imported into the US Forest Services *iTree* software and we will be able to determine the exact benefit of the public trees. For example, we will be able to determine how many tons of carbon the trees sequester each year. We will be able to do "What if?" scenarios where we can determine what impact present practices will have on future benefits.

There will be two additional operational benefits to the school and park districts. The initial inventory will identify tree conditions and maintenance needs, which will assist these agencies in targeting the most crucial maintenance areas and limit their liability exposure. Internet access to the City's Maintenance Management software will also allow both HARD and HUSD to track past and future maintenance needs and develop a comprehensive, sustainable approach to managing their trees.

Finally, the City of Hayward, HARD, and HUSD share a common goal to manage tree resources effectively. We have worked together for the last twenty years to host Arbor Day. Through sharing of resources, this project would expand on those efforts.

## **FISCAL AND ECONOMIC IMPACT**

State Inventory Grants require a 50% local match. Since the required matching funds have already been approved in the Capital Improvement Program, additional appropriation is unnecessary at this time but can be incorporated into the next update of the CIP Budget assuming the grant is approved. Some of the City's matching Gas Tax funds will be used for staff time, which will somewhat reduce General Fund expenditures.

Since this project will improve the efficient management of the urban forest, we can expect an increase in the quality of the urban forest. Studies have shown that trees increase property values and create a more desirable commercial environment. The economic impact cannot be quantified, but we can anticipate some increase in property tax and sales tax.

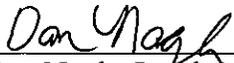
## PUBLIC CONTACT

There has not been any public contact concerning this project. Staff from HUSD and HARD have been consulted and are non-monetary supporters of the project. City of Hayward Technology Services staff have reviewed and approved the proposed software and approve the proposed internet approach.

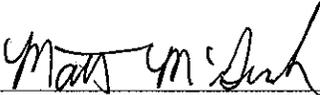
## SCHEDULE

Submittal of Final Application	February 23, 2009
Purchase & Installation of System	Spring 2009
Begin Inventory	Pending Grant Funding
Complete Inventory	March 30, 2011

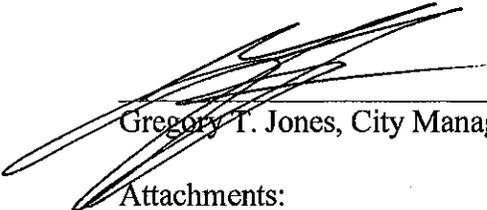
Prepared by:

  
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Dan Nagle, Landscape Maintenance Manager

Recommended by:

  
\_\_\_\_\_  
Matt, McGrath, Director of Maintenance Services

Approved by:

  
\_\_\_\_\_  
Gregory T. Jones, City Manager

Attachments:

Attachment A - CalFire Letter regarding Concept Application for Urban Forestry  
Draft Resolution



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

Urban & Community Forestry Program  
P.O. Box 944246  
SACRAMENTO, CA 94244-2460  
(916) 651-6423  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



January 9, 2008

City of Hayward  
16 Barnes Court, Suite #3  
Hayward, CA 94544  
Attention: Dan Nagle, Landscape Maintenance Manager

**RE: Concept Application for Urban Forestry  
Inventory Grant Funding Cycle 2008/2009**

Dear Mr. Nagle,

Congratulations! Your project concept application has been ranked high enough to be eligible for the next step in the application process. Two hard copies of the final proposal will be due to your CAL FIRE Regional Urban Forester by February 23, 2009. The enclosed checklist will show you what needs to be added to your concept application. Additionally, we have enclosed an Urban Forester contact list and a flow chart outlining the grant process.

Contact your CAL FIRE Regional Urban Forester for further details and instructions. He or she will also ultimately be the person administering the grant for CAL FIRE if you are successful in the final proposal process. It is suggested that you turn in your final proposal to the Regional Urban Forester well before the due date to enable them to advise you should anything be missing from your final proposal package. They will not be able to provide assistance with your final proposal package after the due date specified above.

The funds for your project have been set aside at this point pending a successful final proposal. Grant funds have not yet been awarded to your organization. You must meet the requirements of the final proposal in the allotted time to be awarded grant funds.

You should note that there is uncertainty at this time as to when grant funding will be available due to the freezing of all bond-funded obligations by the State Pooled Money Investment Board. CAL FIRE will stick to the application timeline explained above despite this uncertainty so that once the budget crisis has been resolved, grant agreements can be developed quickly thereafter. I look forward to getting your final proposal so that final grant award decisions and execution of grant agreements can be done as expeditiously as possible.

I would like to again congratulate you on a successful concept application.

Sincerely,

A handwritten signature in cursive that reads "John Melvin" with "for" written below it.

John Melvin  
Forester I  
Urban & Community Forestry Program Lead

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ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward