



# CITY OF LONG BEACH

## DEPARTMENT OF PUBLIC WORKS

# R-40

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April 15, 2008

HONORABLE MAYOR AND CITY COUNCIL  
City of Long Beach  
California

### RECOMMENDATION:

Receive and file presentation by Public Works regarding the Urban Forest Master Plan, Goals and Policies Document. (Citywide)

### DISCUSSION

Recent press has highlighted the fact that a healthy urban forest can serve to mitigate poor air quality and enhance the appearance of the urban environment. Faced with budget and staffing constraints, many portions of the City's urban forest are in need of revitalization. In particular, additional street trees would be beneficial and some existing street trees should be replaced as they become unsuitable for their environment or die due to disease or age. Similar conditions exist for trees in the City's open spaces and parks.

In order to better understand the scope of our needs and to provide a roadmap for addressing these needs, City staff entered into a contract with Melendrez and Associates and embarked on a phased master plan for the City's urban forest. The first phase of this process is the establishment of goals and policies related to the tree environment in our City. Funded jointly by the Community Development Department, the Public Works Department and the Port of Long Beach, the scope of work included:

- Reviewing existing City tree policies and procedures
- Meeting with City staff
- Conducting workshops with the City's Tree Committee, Parks and Recreation Commission and Port staff
- Drafting goals and policies
- Presenting these drafts for comment to the City's Tree Committee, Parks and Recreation Commission and Port staff
- Creating a document for Council approval

A copy of the Urban Forest Master Plan, Goals and Policies document is attached. A presentation outlining the process that led to this document as well as an explanation of the recommended goals and policies will be presented to Council for their review and consideration.

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HONORABLE MAYOR AND CITY COUNCIL

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The next phase of the Urban Forest Master Plan effort will involve a detailed assessment of the City's current tree assets and the development of a multi-year plan to both enhance and manage these assets. The City has applied for grant funding to perform the detailed inventory and assessment and will be bringing this grant application to City Council as a separate item.

### SUSTAINABILITY

The preparation of an Urban Forest Master Plan is essential to the long-term preservation of the City's tree assets. These trees provide many environmental benefits to the City including air quality enhancements, heat reduction via their canopies, nesting opportunities for a wide range of avian assets, and the creation of a valuable sense of neighborhood to the community. Adoption of the Goals and Policies Document will provide needed direction to both maintain and enhance these environmental benefits and emphasize the City's commitment to this element of environmental sustainability in the City.

### TIMING CONSIDERATIONS

City Council action on this matter is not time critical.

### FISCAL IMPACT

None.

### SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,

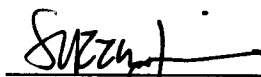


MICHAEL P. CONWAY  
DIRECTOR OF PUBLIC WORKS

MAC:db  
P:/CL/urban forest master plan

Attachment

APPROVED:

  
for \_\_\_\_\_  
PATRICK H. WEST  
CITY MANAGER



# **CITY OF LONG BEACH URBAN FOREST MASTER PLAN**

PHASE I GOALS AND POLICIES

March 2008

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MELÉNDREZ

HORTSCIENCE

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## I. INTRODUCTION

Trees play an important role in creating livable places, by providing aesthetic, environmental and economic benefits to communities. Trees help buffer noise, and mitigate environmental contaminants that result from air pollution. They slow down, then filter and clean storm water, and reduce energy consumption in both winter and summer. Economic studies have shown that a healthy tree canopy can increase property values.

The City of Long Beach has recognized that the benefits provided by the urban forest along its streets and in its parks are a critical part of maintaining a healthy city. Moreover, the City recognizes that this valuable resource must be enhanced and expanded. The Port of Long Beach must be a partner in this effort, and should be supported in its efforts to green property within the Harbor District, and, if possible along the goods movement corridors that serve the Port.

As a first step in stewarding this resource, the City has undertaken Phase 1 of the process to create an Urban Forest Master Plan, which will address City street trees within public rights-of-way, City parks, recreation and marine facilities trees, and the trees in Harbor District. This phase of the work comprises a set of goals and policies to serve as the foundation for the Master Plan, to be completed in a second phase of work.

The intent of the Urban Forest Master Plan is to address the long-term management and maintenance of City trees, as well as to quantify the environmental benefits provided by the existing and potentially expanded urban forest in the City of Long Beach, including the Port of Long Beach Harbor District and the proposed Riverlink enhancement area along the Los Angeles River.

This report is a summary of the Phase 1 work, which culminated in the development of the draft goals and policies that are presented in section five of this document. These were developed by reviewing existing City tree policies and procedures, followed by meetings with City staff, the City's Tree Committee, the Parks, Recreation and Marine Commission, and Port of Long Beach staff (see the Process Flow chart included in section II of this document). The City Council and the Board of Harbor Commissioners are the approval authorities for this document.



*Street Trees in Long Beach*



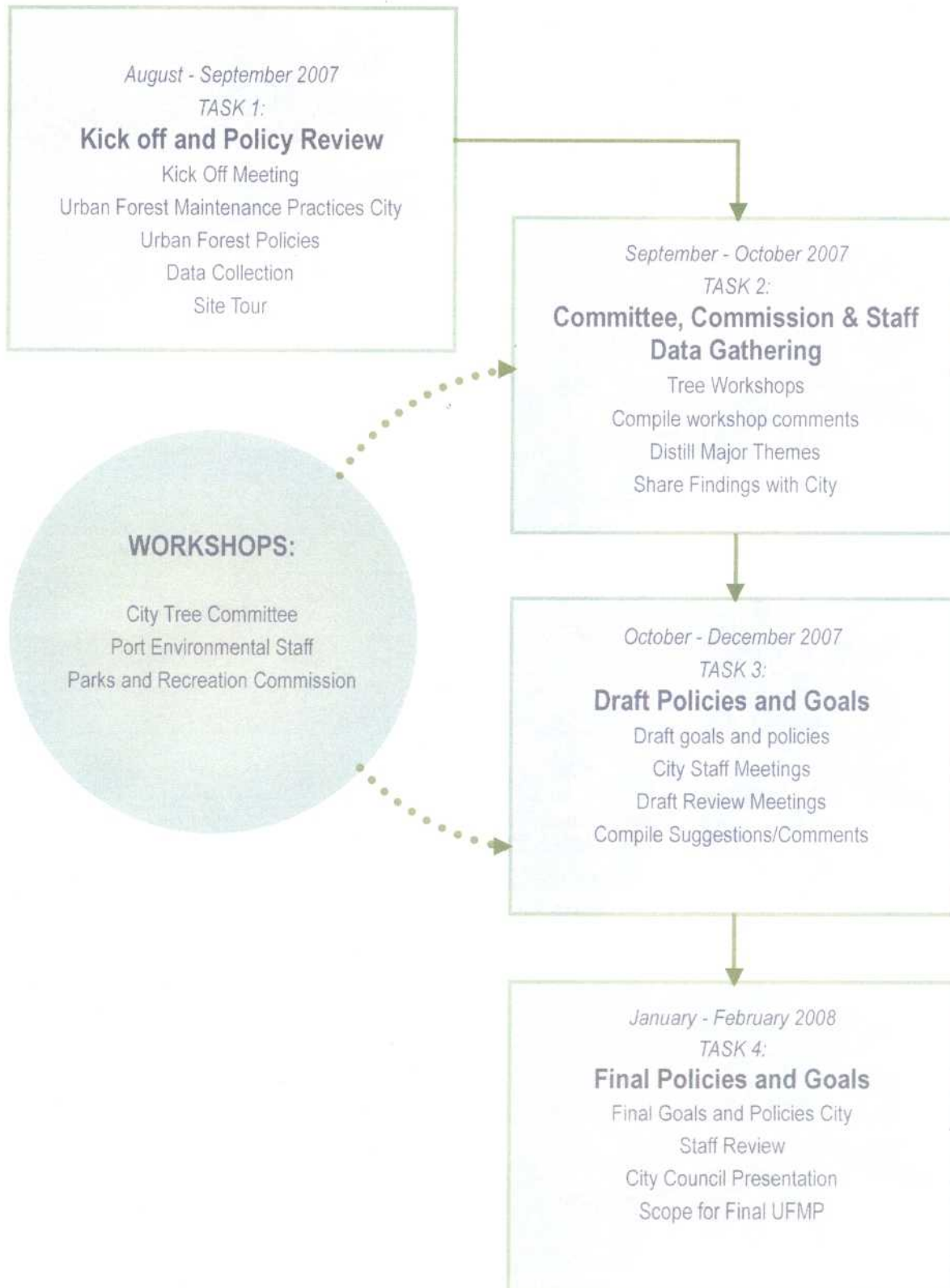
*Median Trees in Long Beach*



*Park Trees in Long Beach*



## II. MASTER PLAN PHASE 1 PROCESS







### III. URBAN FOREST ISSUES NOTES

#### A. CITY STAFF ISSUES

The issues identified below were discussed at the Long Beach Urban Forest Master Plan kick-off meeting, on August 14th. Representatives of the Department of Public Works, the Department of Recreation, Parks and Marine, and the consultant team of Meléndrez and HortScience were present. The purpose of the meeting was to present a plan of action for the development of the Urban Forest Master Plan goals and policies, as well as to discuss the range of issues and concerns that would likely be important considerations in the development of the Plan.

*Life cycles:* many neighborhoods have had problems with older trees dying, all at the same time, leaving them with little or no tree canopy.

*Tree Pruning:* trees within the city are on different cycles for pruning. For example, Ficus trees are on a five-year cycle and Palms are on a two-year cycle. Some trees should be pruned more often, but are not being completely neglected. Unscheduled maintenance is done in-house; regular maintenance is by contract. Public Works and Parks are talking about centralizing all tree maintenance activities into one plan.

*Sidewalk issues:* the City dedicates \$3 million/year to repair sidewalks that have been damaged by tree roots. Many trees have been lost in the process. Public Works oversees the management of both the sidewalk program and the tree program. The City has made a lot of progress with regard to tying sidewalk repair to street tree assessment and trimming; however, there is an opportunity to continue to improve the process of linking these activities in order to save more trees and incur less damage to City infrastructure.

*Sewer intrusions:* the City has had some problems with tree roots breaking into sewer lines.

*Utilities:* the City has a lot of overhead utilities and maintains on-going communication with Edison about tree removal and pruning. They have over-pruned a lot of trees. Currently there is a debate about whether it is better to plant small or large trees. The traditional practice has been to plant small trees that will grow underneath utility lines. But because of increasing awareness of the value of trees in an urban environment, there is a shift to planting large trees and then pruning the canopy so that branches don't interfere with utility lines. Verizon is in the process of trimming trees to prevent them from hitting into and breaking fiber optic lines, which are easily damaged.

*Airport:* there are height limitations around the airport that restrict certain species from being planted.



City tree crew



Tree and overhead power lines



*Street lights:* many streets and parks are darker than they should be because street lights have been overtaken by large tree canopies. Adding pedestrian lighting may help. This is particularly apparent in Districts 4,5,6,7. The City presently deals with this issue on the basis of specific complaints.

*Business identity issues:* many businesses complain about the lack of visibility of their stores due to trees that grow in front of signs and facades. Second Street and Bixby Knolls areas, for instance, may need special guidance in terms of appropriate tree species for planting.

*Sustainability:* there are a number of sustainability issues related to the urban forest, include water conservation, nesting, and the use of native species. The City is interested in looking at what is sustainable for the future. The homeowner's association of the Park Estates community has made a huge reforestation effort. Public outreach to other homeowner's association would be good.



*Planted parkway*

*Parkways:* one of the outcomes of this plan could be a set of recommendations/strategies for what people are planting under and around trees. The City currently has no established policy or any kind of conceptualization for this.

*Soil conditions:* there is a high degree of variation with regard to soils in the City, particularly because of the river floodplains. Some areas have clay and a high water table, while others are silty loam.



*Rubber sidewalk*

*Rubber sidewalks:* the City has installed these in a couple of places, but the installation is expensive and the sidewalks are very maintenance-intensive.

*Green Waste:* the City collects green waste from tree trimming on site. It is chipped and then used as landfill alternative daily cover.

*Water Conservation:* the plan should have some kind of link with the water department's water conservation strategies.

*Social Justice issues:* in general, low-income neighborhoods tend to have fewer trees and less canopy coverage in the City. This deficiency should be addressed in the plan.

*Median Plantings:* are currently maintained by the Parks, Recreation and Marine Department.

*Green streets:* this is a stormwater management technique in which medians and planting strips are constructed so that they collect water runoff from the street. Instead of flowing directly into storm drains, the water flows into the medians and/or parkways and slowly percolates into the water table or is cleaned and sent back into storm drains. This type of technique may be appropriate in the City.

*Community Involvement:* Two nonprofit organizations work on tree-related issues in the city. The City maintains communication with both of these groups, and there is an opportunity for them to play a larger role in the management of the urban forest. Long Beach Organic helped with Harbor-Arbor day, and operates a tree farm and the YELL team, a youth environmental leadership program. Long Beach Green evolved from one of the community gardens, and has expressed interest in having a future role in urban forest issues.



*Green Street in Downtown Los Angeles*

## **B. CITY COUNCIL ISSUES**

The Urban Forest Master Plan project team made a presentation to City Council on August 14th in order to provide Councilmembers with a brief overview of the Urban Forest Master Plan Phase 1 process, and to provide them with an opportunity to offer specific suggestions or ask questions about the development of the plan. The following comments and issues were captured from that meeting.

### **Councilmember Gerrie Schipske—Fifth District**

*Community Forest Program:* would it be possible to develop a program that would train local citizens to be arborists, similar to what has been done in New York? Tree maintenance is an enormous task. In a city the size of Long Beach, which has so many trees, community forestry could be an effective way of maintaining and managing the urban forest.

*Community Outreach and Education:* the City should have some kind of online resource to educate citizens about urban forest issues. Many residents do not understand the value that trees have in an urban environment. Perhaps the City could utilize a software program like Stratum or I-Tree and engage young people to help with the tree inventory. The City could also have an approved list of trees uploaded onto the City website, in order to provide guidance to residents who are interested in planting trees.

*City Council Involvement:* Can the project team arrange to meet with individual council offices as well?



**Councilmember Tonia Reyes Uranga—Seventh District**

*Port of Long Beach:* what will be the Port’s role in this process? Can we expand their tree-planting reach within the community? Can we find carbon offsets for the Port in Port impact areas?

*Project Timeline:* there is a lot happening with neighborhoods groups. Can this process be accelerated so that it captures what is currently happening in the field?



*I-710 Freeway edge in Long Beach*

**Councilmember Rae Gabelich—Eighth District**

*Neighborhood Benefit:* how will this plan benefit neighborhoods directly impacted by Port activities, such as those that are located along goods movement corridors?

*City Trees:* An approved list of trees should be developed and uploaded onto the City website.

*Public rights-of-way:* we should consider the Union Pacific ROW in the 8th District as a potential corridor for planting new trees.



*Union Pacific right-of-way*

**Councilmember Suja Lowenthal—Second District**

*Tree Coverage:* determining the amount of tree coverage that a city has is an important component of an urban forest plan. How are we going to determine what is an appropriate level of tree coverage in different Long Beach neighborhoods?

*Stormwater Management:* how will stormwater management issues be considered in the development of this plan?

**Councilmember Bonnie Lowenthal—First District**

*Tree Coverage:* we should look at tree coverage neighborhoods rather than using district boundaries.

*Port Involvement:* we should make sure that the Port is involved in the project.

**Councilmember Suja Lowenthal, 2nd District**

On September 20th, 2007 a one-on-one meeting was held with Councilmember Suja Lowenthal in order to capture the additional input she wished to feed into the development of relevant goals and policies that could be incorporated into an Urban Forest Master Plan. These discussions led to an additional list of urban forest issues and concerns, which are summarized below.



*Tree Coverage:* the #1 goal for this project should be to increase the tree coverage as much as possible. Tree canopies and overall tree coverage has many advantages, including cooling the cooling effect and the creation of shade. Some creative ideas will have to be developed in order to increase the overall canopy coverage in the city.

*Aesthetics:* aesthetics of specific trees is almost as important as their benefits.

*View Corridors:* there are areas in Long Beach that have view corridors that need to be maintained, and where trees should not necessarily be planted. This includes Ocean Park Avenue downtown and Bluff Heights.

*Nuisance trees:* there are many nuisance trees in the city that should be removed. However, the City is in a bind because there are many bad trees, yet they are beneficial so it is not wise to remove them.

*Magnolia trees:* Magnolias create lots of leaf litter and problems with sidewalk. There are better trees to plant in small spaces.

*Ficus trees:* Ficus is a problem species because it creates cracks in the sidewalk

*Elms:* Chinese Elms are not an appropriate species for Pine Street. Slender and taller trees would be better

*Flowering trees:* more flowering trees, such as the Jacaranda, should be planted around the city.

*Trees and Lighting:* A balance needs to be achieved between trees and lighting. Big trees are great during the day because they create shade and help cool the urban environment, but at night they obstruct lighting and create potential unsafe conditions. This issue could be resolved by installing pedestrian lighting that goes underneath the tree canopy.

*Mobility Plan:* this plan needs to be coordinated with the Mobility Plan because of the relationship between trees and sidewalks/streets.

*Alleys:* are there potential places where neighbors could take over alleys that no longer serve a public purpose and then put in landscaping, trees, etc.? Certain alleys could be maintained as public corridors but then closed off for other benefits.



*Jacaranda trees*



*General Plan:* the plan should focus on the implementation of General Plan goals and policies pertaining to trees, including the policy of replacing trees that are removed with new trees.

*Tree Stewardship Training:* could the plan involve the development of stewardship training?

*Parking Lots:* the plan should develop guidelines/ordinances for parking lots so that trees will have enough space to become large and shade pavement.

*Density Bonuses:* can density bonuses be conceived or other incentives for tree planting in development projects?

*Medians:* the plan should involve the development of medians along business corridors, such as along 7th Street.

*Downtown:* the plan should consider the green space vision from the Downtown Visioning process. We also may want to consider/review the Armory Park proposal that has not been implemented.

*Pine Street:* can be a hard environment for trees because of the dense, urban conditions. Chinese Elms are not an appropriate species for Pine Street. Slender and taller trees would be better

*Broadway:* the Ficus trees on Broadway are an immediate issue. More trees could be planted on Broadway if the street were to continue one-way east of Alamitos, so that the sidewalks can be expanded. Larger canopy trees would be better for Broadway

*Bulb-outs:* we should look for opportunities for planted bulb-outs, even in parking impacted areas where losing spaces is controversial.



*Planted median*



*Planted curb extension/  
bulb out*

### **C. PARKS, RECREATION & MARINE COMMISSION ISSUES**

On September 20th the team outlined the Urban Forest Master Plan Phase I process and sought input from the Parks, Recreation and Marine Commission on the development of relevant goals and policies that could be incorporated into the plan. An additional list of urban forest issues and concerns came to light at that meeting, and are summarized below.



*Partners of Parks:* could potentially have a role in promoting tree planting and maintenance within Long Beach public parks.

*Community Tree Adoption:* perhaps some type of community program, similar to the Adopt-a-Highway program, could be created. This could potentially give private sector partners an opportunity to invest in the maintenance of local parks.

*Endowments:* what if some type of endowment for trees was created? Ten cents for every dollar could go into a fund that could help the City finance a program to plant and maintain trees.

*Wildlife:* Coastal birds such as the Great Blue Heron and the Black-Crowned Night Heron are nesting in trees in one of the City's marinas and are seen in El Dorado Park as well. Because these birds are protected, the Parks Department has to get permits to trim trees and work in the area where the nesting is taking place. The City has reached out to many of these groups and has fenced off areas where coastal birds nest in Ficus trees. The Port has been in litigation with the Audobon Society due to problem with Black-Crowned Night Heron nesting in Ficus trees. This is occurring in Gull Park, which acts as the Port's very own urban forest. (Note that the Public Works Department is also dealing with this issue in trees in the public right of way. Their response is to trim trees in cooperation with biologists and local environmental groups, and outside of the nesting season)

*National Audobon Society:* the City currently does not have an established partnership with the NAS. Because of an increase in the number of protected birds nesting in City trees, such a partnership would be beneficial.

*Southern California Edison:* can we develop some type of partnership with the utility companies? Right now Edison is doing heavy pruning to trees that have branches that touch their utility lines. The City has no jurisdiction over Edison and therefore has no way of preventing them from doing this. We need to reach out to Edison so that this problem can be resolved.

*Education:* a big part of this project is education—teaching people about urban forest, and what it is trying to accomplish long-term in different public areas such as street medians, parks, etc.

*Realistic Plan:* the plan should be realistic in the sense that City staff members won't be trying to sell something that know they can't get.



City park and wildlife areas



*Agency perspectives:* individual public agencies and communities groups have different perspectives and different needs regarding trees. This needs to be considered in the development of the master plan.



*Tree root damage to sidewalk*

*Infrastructure:* trees are part of the infrastructure of a community—right now there is a huge battle taking place between sidewalks and street trees because many residents live on streets where trees have uprooted the sidewalk and they want something to be done about it.

*Nature Center:* the trees that were planted at the nature center have now matured, and staff is fighting the battle of what to do with aging trees that have not been maintained properly.

*Long Beach Unified School District:* there is a need to plant more trees in Long Beach's public schools. How can we work develop a partnership with LBUSD?

*Tree Events:* proper planning of tree planting events is important. An example of poor planning is a community planting project that occurred near the river (didn't catch the name). Residents went out and planted a wide variety of trees, many of which were not on the City's approved list of trees. They also planted them too close together, which has created problems over time.

#### **D. PORT ENVIRONMENTAL STAFF ISSUES**

On September 20th the team outlined the Urban Forest Master Plan Phase I process and sought input from environmental and tree specialists at the Port of Long Beach on the development of relevant goals and policies that could be incorporated into the plan. An additional list of urban forest issues and concerns came to light at that meeting, and are summarized below.



*Lack of trees on Port lands*

*Limitations of Port Involvement:* the Port of Long Beach is interested in doing offsite mitigation with trees. However, it is currently limited in its ability to participate in this project due to legal restrictions related to a Tidelands grant which restricts Port revenue from being used outside of the Harbor District. The Port is currently investigating whether or not it will be able support projects outside of this area. For the time being, it can only commit to planting trees within the Harbor District. The Port's specific interests in this project include using trees as noise barriers, as a mechanism to improve air quality and reduce particulate matter, as a visual barrier, and to capture greenhouse gases.





*Caltrans:* owns the best places to plant trees along freeways and goods movement corridors. This plan should include their participation and investigate ways to plant trees lands that are under their jurisdiction.

*Tree Canopy:* the Port is interested in adding to the tree canopy on Port land. This will require research into the location of unleaseable space on the property, and negotiation with leaseholders, in some cases. Roadway setbacks (such as on Ocean Boulevard) may be an appropriate place to add trees as well. A difficulty in adding trees, in addition to finding the space for them, is the poor soil condition on Port lands.

*Sustainable Landscape Palette:* we need to be aware that additional tree planting may seem inconsistent with the City's current water conservation initiatives. The Port has a sustainable landscape palette that can be utilized for new urban forest areas within the Harbor District. Species must be tolerant of recycled water, variable soil & dust. Evaluate palette with low BVOC in mind.

*Former naval station land:* Gull Park has been created on former naval station land, now in the Port, on which Black-Crowned Night Heron nest in Ficus trees. This park is not generally accessible to the public.

### E. TREE COMMITTEE ISSUES

On September 20th the team outlined the Urban Forest Master Plan Phase I process and sought input from the Long Beach Tree Advisory Committee on the development of relevant goals and policies that could be incorporated into the plan. An additional list of urban forest issues and concerns came to light at that meeting, and are summarized below.

*Utility pruning:* the City needs to develop better practices as to why trees are pruned as they are.

*Palm Trees:* the plan should address the use of palms and the use of palms as magic trees for blighted areas. Tree Committee members would like to see other trees used that have more benefits. A possible goal for the plan might be to minimize the use of palm trees except where appropriate. At the very least, the plan could try to minimize the widespread use of Fan Palms.

*California Natives:* Tree Committee members would like to see more California natives planted in Long Beach. This is a difficult issue because many coastal areas in California historically didn't have any trees planted. In fact, Long Beach does not



*Palms in Long Beach*



*Coast Live Oak*



have any trees that are native to this environment. On the other hand, the plan could certainly encourage the use of Coast Live Oak as a viable street tree, and avoid the continued planting of Black Walnut.

*Water Use:* is water use going to be considered in this plan? Water recycling should be considered in this plan. Does the use of recycled water to irrigate trees affect any species? --The Department of Parks, Recreation and Marine—which uses recycled water to irrigate—hasn't had any negative impact from watering trees with recycled water.

*Tree replacement:* the plan may need to consider that replacement of trees will be different for different types of environments. For example, the planting of trees along medians will likely be very different than trees in natural areas or trees in parks. It almost seems like there are several different tiers of management that the plan will need to address—trees along public rights-of-way, trees in parks and open spaces, and trees in natural areas.



*A meandering sidewalk*

*Meandering sidewalks:* many residents would like to have a broader sidewalk repair policy that doesn't damage the trees so much. One possibility is to increase the implementation of meandering sidewalks. However, programs in other communities that involve the construction of meandering sidewalks have been abandoned because of issues with changes to setbacks and zoning. When a traditional sidewalk is replaced with a meandering sidewalk, the property line is often inadvertently changed. This isn't a problem until the resident goes to sell the house and finds that the property is out of compliance with city property records. These types of changes to existing zoning require a variance, and many communities have not found an effective way to resolve this issue. Until this is resolved, these types of programs have come to a halt.



*A planted bioswale*

*Industrial areas:* is there a policy for planting trees in industrial areas? We should try to make the industrial sections of town as green as possible.

*Watershed Management/Runoff:* the plan should look into the development of bioswales and other types of strategies for water catchment.

*General Plan:* the plan should focus on the implementation of General Plan goals and policies pertaining to trees, including the policy of replacing trees that are removed with new trees.

*Management:* the Committee would like to see a policy that has enforces strict rules for the management and maintenance of the urban forest. A good example is the

urban forest plan for the City of Portland. The plan imposes very strict guidelines about planting trees, as well as about the maintenance of trees. This is something that could be incorporated into the Long Beach plan.

*Business corridors:* the Tree Committee would like to see a policy that trees planted along commercial corridors should not be in care of or under the jurisdiction of business owners. Many business owners have a bad attitude about the trees near their business because of visibility issues and the negative impact they feel the tree has on their business. Public trees along commercial corridors like Pine Street should be the responsibility of the City, and the City should have special measures in place that help protect those trees from the self-interests of business owners.

*Downtown environment:* in general, Long Beach has a somewhat dismal looking downtown environment. Trees could be used to improve the environment downtown.

*Tipuana Tipu:* this tree looks great and would be a nice addition to Pine Street downtown, as well as other locations such as near Alegria.

*Green waste program:* Long Beach doesn't have this type of service. Could something like this be incorporated into the plan? Could the City give away mulch for free like some other cities do?

*School environments:* many schools have blacktops with very little trees and green space. Can the plan incorporate more trees in the schools? One goal for the plan might be for the city to partner with the district to increase the number of trees that are planted.

*Signature trees:* Committee members would like to see the development of a policy that addresses the use of signature trees in selected areas.

*Greening of the Port:* other ports, such as the Port Miami or the Port of Montreal, are completely surrounded by trees. Can something like this be done to green the environment around the Port of Long Beach?

*Refineries and diesel areas:* the Tree Committee would like to see policies that encourage planting of trees around the refineries, as well as along goods movement corridors.



*Business corridor in Long Beach lacking street trees*



*New development:* the Tree Committee would like to see a policy that makes developers stick to a plan. Nobody is holding developers accountable for what they are doing, which results in less than desirable conditions.

*Education:* business owners can be educated about the trees that are planted in front of their business, because they often don't consider that the tree needs some time but eventually its branches will grow above their sign.

*Funding:* there are some realtors in Long Beach who would be willing to contribute money to a fund for the maintenance of trees. One possible goal of the plan could be to find alternate sources of funding from the private sector, such as money contributed by realtors. This funding could be used to augment the Department of Public Works' operating budget for tree maintenance.



*Daisy Avenue median cedars*

*Historic trees:* there should be a policy regarding heritage trees and/or trees that are found in historic neighborhoods such as Wilmore. The City did make an effort to develop an ordinance for heritage trees, but it required staff to go out and inventory the trees and this has never been done. There are additional problems with this because the actual definition of a heritage tree varies across the state. So it is difficult to come up with a widely accepted standard for defining what a heritage tree is and then enforcing its protection.

*Nonprofit participation:* a possible goal for the plan would be to encourage nonprofit organizations to take on a larger role in managing/maintaining the urban forest. The City could develop stronger community partnerships with organizations like Long Beach Organic and Long Beach Green.

*Community Forester training:* the plan could encourage the development of a community forester training program. Such a program would give a broad arborist training to local residents.

*Private donations:* the plan should look at other possible private donations such as a program that would plant a tree to commemorate the loss of a loved one.

*Tree availability:* local residents should not have to jump through hoops to get trees when they want to organize local planting events.

*Activism:* Long Beach has a number of activist environmental groups that have special interests which are sometimes contrary to the City. However, Long Beach is a unique city in that there are not a lot of organized groups. Opposition to projects tends to be at



the local level, from groups who tend to form according to something that is happening in a specific neighborhood. So at any given point in time, the City might deal with a group of boaters, or birders, etc.

*Tree Removal:* City needs to enforce its existing policies with respect to illegal tree removal.

*City Working Group:* consider establishing a working group from various City committee & departments that would develop a sidewalk repair and tree management policy.



## IV. URBAN FOREST ISSUES SUMMARY

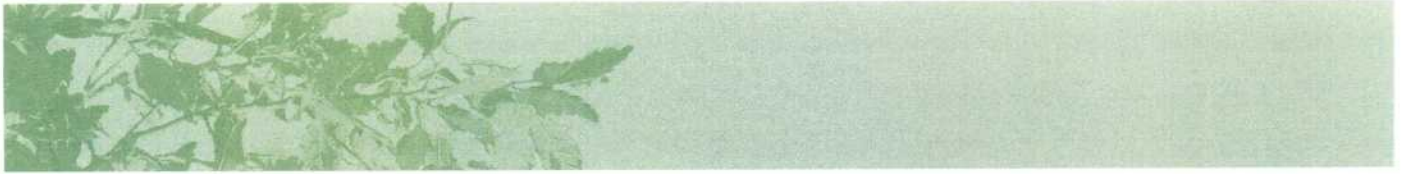
Based on our meetings with elected leaders, City staff and residents, as well as our document and policy review, the project team can make the following observations:

1. The City of Long Beach values its urban forest and considers it important to the livability of the community. However, budgetary constraints limit the City's ability to comprehensively manage the urban forest.

  - The City appears willing to support its urban forest but not fully able to do so.
2. The City does not have an urban forest management program. It manages trees but not its forest.

  - City departments vary widely in their tree management programs. The Department of Public Works has an active street tree program while such management is a secondary activity to Recreation, Parks & Marine, and to the Port.
  - The City does not have any idea of how many trees are located on public property. Although Public Works has an inventory of street trees, the Department acknowledges that the inventory is out of date. None of the other departments know the size of the tree resource in City parks and recreation areas, or in the Port.
  - The City lacks a planting program. City trees are removed but not replaced. The Neighborhood Services Bureau sponsors tree planting efforts, and coordinates with neighborhood groups in order to do tree plantings, but these are not fully coordinated with the departments that must eventually maintain the trees.
  - Departments lack the staff resources to respond to citizen requests and provide outreach to the community.
3. Citizen support for the City's tree management programs is variable.

  - On the positive side, community groups have undertaken tree planting efforts. The City's Tree Committee provides forum for discussion of trees and for tree removal appeals, as well as a connection to government.
  - On the negative side, citizens are unhappy with tree removal and sidewalk repair. Further, community groups such as the Audubon Society have opposed tree management activities such as pruning and removal.
  - There appears to be a good opportunity for outreach and cooperation with community groups such as Long Beach Organic, Long Beach Green, a wide array of already active neighborhood groups, as well as other City institutions including the Long Beach Unified School District.



4. **Financial constraints limit action.**
  - As noted above, budget limitations constraint tree management as reflected in the statement, heard multiple times in this process, “Why should plant new trees if we can't maintain the ones we already have?” As a result, tree management is limited to tree removal, sidewalk repair and pruning.
  
5. **City does not enforce existing policies regarding tree removal.**
  - Staff expressed frustration that residents who illegally remove trees are not fined or otherwise prosecuted.
  
6. **The City has no information about the value of the benefits provided by its urban forest.**
  - Because the City lacks a comprehensive inventory, it cannot fully assess the environmental, economic and social benefits provided by public and private trees.

In the next section of this report, we address these general observations with specific suggestions for goals and policies.



## V. DRAFT GOALS AND POLICIES

### INTRODUCTION

Upon completion of the policy review and City review meetings, and after touring the City's urban forest, the project team compiled a preliminary set of goals and policies. These goals and policies will provide the foundation for the Urban Forest Master Plan, which will be the focus of a future Phase 2 of this process.

The project team identified seven goals for Long Beach's urban forest. These goals are broad in nature, defining what the City needs to accomplish in order to nurture its urban forest and enhance the benefits it provides. The goals start with protecting the existing urban forest, then move toward enhancing it. Furthermore, recognizing that the City cannot manage its urban forest by itself, but relies on partnerships and public support, we identify outreach and education as important goals.

Within each goal, we identify more detailed policies that introduce specific actions the City can take to meet the goals of the plan. As the plan moves to Phase II, these policies will be further developed and prioritized.

Because the goals and policies involve commitment of City staff and financial resources, and possible modification of existing programs, we look to the City Council and the City's Commissions for support of this first step.

### URBAN FOREST DRAFT GOALS & POLICES REVIEW MEETINGS

On January 17th a draft goals and policies document was presented to the Parks, Recreation and Marine Commission and the Long Beach Tree Advisory Committee. Comments made by Commissioners and members of the Tree Committee led to some refinements to the content of the enclosed set of goals and policies. Also, additional estimates of costs to complete some policy elements were added, in response to concerns raised by the Commission about the need to understand the full implications of potential Urban Forest Master Plan activities prior to starting the next phase of the planning process. Notes from these meetings are enclosed in an appendix to this document.

## GOALS

What we intend to accomplish

# 1.

## Protect and maintain Long Beach's existing urban forest

## POLICIES

How we will accomplish our goals

- 1.1 Establish a citywide benchmark of no net loss of trees within the city, and replace every tree removed with a tree that meets minimum departmental requirements for species, size, and planting. (Estimated yearly cost: \$75,000. Assumes 400 new street trees per year @ \$150 per tree [installed] plus 100 new park trees. State & federal funds may be available to purchase trees.)
- 1.2 Conduct an assessment of the City's urban forest, using the USDA Forest Service Urban Forest Effects (UFORE) model to calculate the structure, environmental effects and values. (Estimated cost: \$25,000 to 50,000) Perform periodic updates of the assessment (not more than once every five years.)
- 1.3 Update the citywide tree inventory to include park and median trees. (Estimated cost: \$600,000)
- 1.4 Develop a cost benefit analysis of the City's street & median trees, using updated inventory information and computer modeling tools (Stratum's street tree module.) (also see policies related to Goal 6). (Estimated cost: \$5,000)
- 1.5 Require tree care contractors to provide updates of tree removal and pruning, in order to maintain the tree inventory.
- 1.6 Develop standards for tree maintenance activities that will be used by all City departments that have trees on the properties they manage and/or operate, addressing lost trees, regular and on-going maintenance, tree life cycles and appropriate pruning intervals.
- 1.7 Develop a street tree master plan that will identify appropriate tree and plant palettes for different types of environments (e.g. residential, commercial storefront, office and industrial), site requirements and soil conditions; a list of native trees appropriate for use in urban areas; the preservation of important view corridors; and the use of signature trees for specific urban areas. (Estimated cost: \$25,000 to \$75,000).
- 1.8 Work with the City's Tree Committee to develop direction on guidelines for the repair of tree damaged sidewalk including possible repair alternatives.
- 1.9 Work with Southern California Edison, and other utility service providers, to establish a program of "Right Tree, Right Place," which will provide guidelines for removal and replacement of trees near utility lines.
- 1.10 Establish standards for identifying and protecting historic and/or heritage trees.

<b>GOALS</b> What we intend to accomplish	<b>POLICIES</b> How we will accomplish our goals
<p><b>2.</b></p> <p><b>Expand Long Beach’s urban forest in the public right of way, on City-owned property, and in partnership with private property owners in the City</b></p>	<ul style="list-style-type: none"> <li>2.1 Identify ways to increase the amount of tree canopy provided by street and park trees, in order to achieve a long-term net gain in the overall level of urban forest cover in the City.</li> <li>2.2 Develop landscape standards for planting trees and plants within existing street medians, City parkways, and other public rights-of-way.</li> <li>2.3 Revise and enforce City landscaping standards for tree planting in parking lots in development projects (including projects in the Harbor District) to ensure appropriate canopy cover is achieved in them.</li> <li>2.4 Make planting new trees on private property a priority through a combination of City commitment, outreach and education.</li> <li>2.5 Create new and strengthen existing relationships with neighborhood associations, nonprofit organizations, educational institutions, homeowner’s associations, business districts and business owners to plant new, and maintain young, trees along streets.</li> <li>2.6 Coordinate with the Port of Long Beach, MTA, Los Angeles County, Caltrans, Long Beach Unified School District, CSU Long Beach, Long Beach City College, railroads, and other public agencies to organize new tree planting projects within transportation and goods movement corridors.</li> </ul>
<p><b>3.</b></p> <p><b>Ensure the fair provision and distribution of urban forest services in all parts of the city</b></p>	<ul style="list-style-type: none"> <li>3.1 Establish criteria and priorities to identify areas of the city appropriate for enlarging the urban forest.</li> <li>3.2 Prioritize new tree planting efforts (in cooperation with nonprofit organizations and neighborhood groups) in underserved neighborhoods that are identified as tree-deficient or maintenance poor, using criteria such as tree inventory, tree stocking levels, trees per street mile, etc.</li> </ul>
<p><b>4.</b></p> <p><b>Develop a unified voice to address the long term expansion, stewardship and maintenance of Long Beach’s urban forest</b></p>	<ul style="list-style-type: none"> <li>4.1 Place all tree management and maintenance activities on City property under the responsibility of one department. (Recommend: the Department of Public Works) (related costs indicated in Policy 7.2)</li> <li>4.2 Expand the mission of the existing Tree Committee to include proactive urban forest planning and management oversight.</li> <li>4.3 Expand the existing Tree Committee into a citywide Commission incorporating all tree-related interests, including involved City agencies, departments and commissions, nonprofit organizations, and community groups.</li> <li>4.4 All departments supporting City urban forestry efforts, including Public Works, Community Development, and Parks, Recreation and Marine, shall liaise with the City Tree Committee (future Commission) on these efforts.</li> <li>4.5 Develop strong linkages between the Urban Forest Master Plan and other City policy such as the General Plan, Specific Plans, Parks, Recreation and Marine plans including Riverlink, Redevelopment Project Area plans, and the Municipal Code, so that a synergy is achieved in their implementation.</li> </ul>

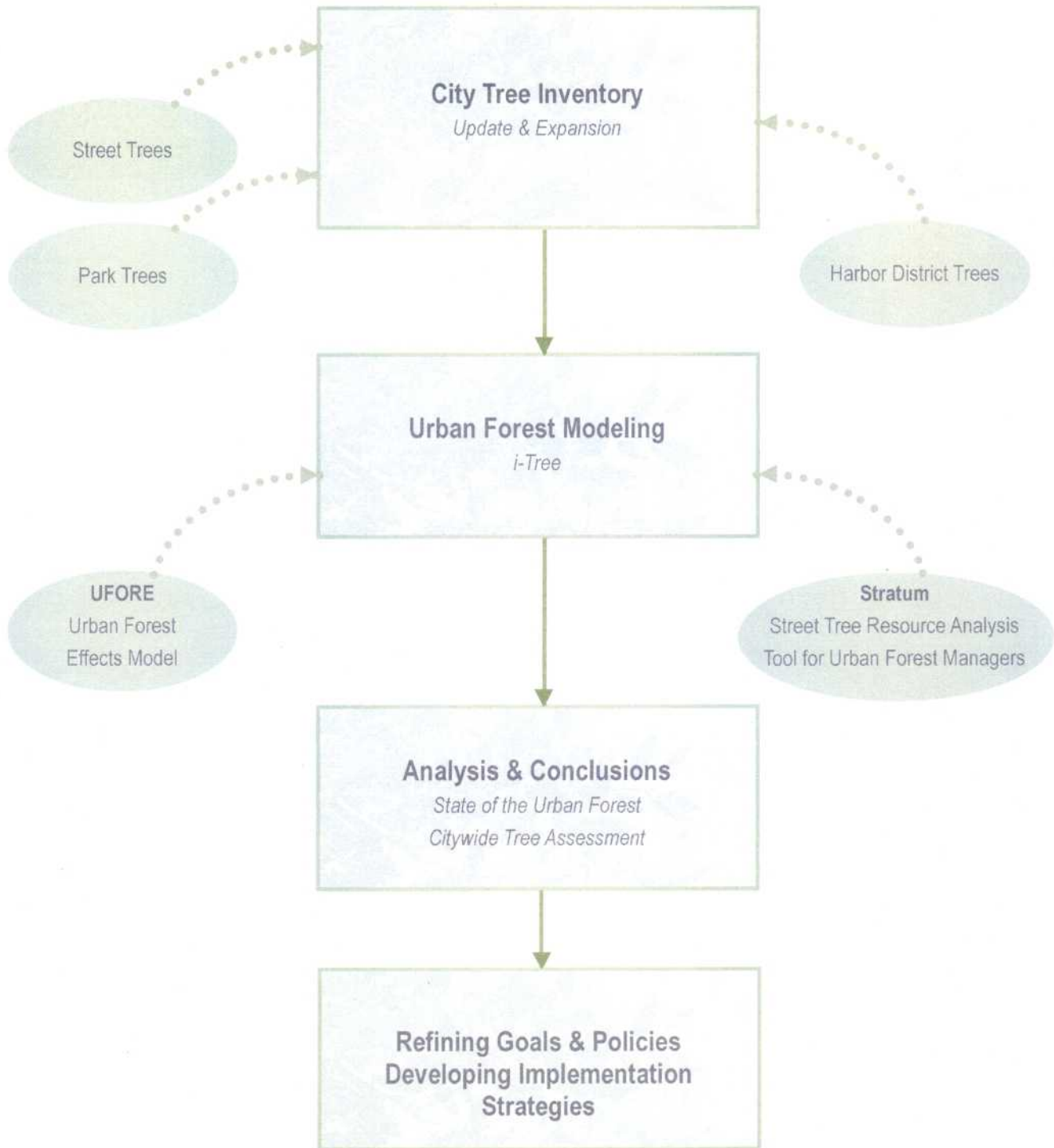
<b>GOALS</b> What we intend to accomplish	<b>POLICIES</b> How we will accomplish our goals
<p><b>5.</b></p> <p><b>Enhance education and outreach related to city trees and tree planting efforts.</b></p>	<p>5.1 Establish a Citizen Forester program that will train residents to plant, maintain and protect young trees in their neighborhoods, as well as to assist with regular updates of the citywide tree inventory. (Estimated cost per year: \$70,000)</p> <p>5.2 Publicize and enforce tree policies, relating for example to planting and removal within the street right-of-way, and planting requirements for new projects.</p> <p>5.3 Develop a coordinated urban forest outreach strategy including Public Works, Community Development, Parks, Recreation and Marine and LBUSD, in partnership with community groups, such as neighborhood organizations and historic districts. The strategy will address Arbor Day programs, cooperation on tree planting events, and education about the urban forest</p> <p>5.4 Develop a set of online resources and services that educate citizens about the benefits, values and costs of the urban forest.</p> <p>5.5 Coordinate tree planting efforts with the Long Beach Unified School District, Long Beach City College, and CSU Long Beach, and encourage those institutions to serve as another source of educational outreach to the community regarding the value of the urban forest.</p>
<p><b>6.</b></p> <p><b>Improve the quality of the contribution that the urban forest in Long Beach makes on the city's environmental health.</b></p>	<p>6.1 Develop a methodology for estimating the environmental benefit of planting trees in order to mitigate air and water pollution impacts in the City. As part of this analysis of the City's urban forest, evaluate its potential benefit and use as green waste within the City, in storm water capture, filtration and management, air quality improvements, property value increases and energy use reduction.</p> <p>6.2 Develop guidelines for protecting and enhancing the wildlife habitat value of the urban forest. Critical issues include protecting coastal birds that nest in City trees, appropriate use of native plants and trees, and evaluating trees within restored native habitat areas such as the Nature Center.</p> <p>6.3 Identify an urban forest related component for the citywide water use reduction strategy to include mandating planting climatically and geographically appropriate species, using recycled water for irrigation, and implementing "green streets" programs incorporating storm water management tools such as bioswales.</p> <p>6.4 Develop policies for diversifying tree species within City owned parks and along public rights-of-way, to ensure the ongoing health of the urban forest.</p> <p>6.5 Develop guidelines for expanding the urban forest to serve as an emission and noise buffer near facilities with significant impacts. Specifically, work with the Port of Long Beach to establish new tree planting programs within and outside its boundaries, with the focus on measurable air quality mitigation. Also see Policy 2.6</p>
<p><b>7.</b></p> <p><b>Identify appropriate funding levels, and provide stable, long-term funding sources for urban forest activities and programs.</b></p>	<p>7.1 Expand and/or consolidate urban forest staff as needed to address education and outreach and other community forestry activities while continuing to provide necessary street tree management services.</p> <p>7.2 Provide adequate funding for tree trimming, maintenance, removal and replacement to allow one department to take responsibility for all City trees on public lands. (Recommend: the Department of Public Works)(Estimated cost per year: \$6,000,000)</p> <p>7.3 Reach out to the private sector in order to augment current funding for urban forest management and maintenance. This may include developing an "Adopt a Tree" program that will provide funding for the maintenance, planting and replacement of City trees.</p> <p>7.4 Continue coordinated multi-departmental initiatives to pursue available federal, state and local grant funding for tree planting.</p>

## VI. PROPOSED URBAN FOREST MASTER PLAN OUTLINE

Based on our findings, and assuming support for the goals and policies, we propose a preliminary outline for the Phase 2 Urban Forest Master Plan, as follows. The process and steps which might be taken in order to develop this Master Plan are also conceptually identified on the following page.

- I. EXECUTIVE SUMMARY
- II. INTRODUCTION
  - a. Background
  - b. Benefits of the urban forest
  - c. Plan organization
  - d. Related plans and programs
- III. LONG BEACH'S URBAN FOREST
  - a. Current state of the urban forest (health, planting needs, etc.)
  - b. Current staffing/program structure
  - c. Existing codes and ordinances
- IV. CITYWIDE TREE ASSESSMENT
  - a. Methodology
  - b. Urban Forest structure (diversity, composition, distribution, etc.)
  - c. Environmental effects and values
  - d. Cost/benefit analysis
- V. URBAN FOREST GOALS, POLICIES AND ACTIONS
  - a. Protecting and maintaining existing resources
  - b. Expanding the urban forest on public lands
  - c. Equitable distribution
  - d. Coordinated management and planning
  - e. Education and outreach
  - f. Sustainability and environmental benefits
  - g. Funding for activities and programs
- VI. APPENDICES

# CONCEPTUAL URBAN FOREST MASTER PLAN PROCESS



## Appendix 1: DRAFT GOALS & POLICIES REVIEW MEETING NOTES

### PARKS, RECREATION AND MARINE COMMISSION

Meeting Notes, January 17, 2008

*Harry Saltzgaver, President*

The maintenance and expansion of the urban forest are important components of the goals and policies, yet there aren't any cost estimates attached. Why do some of the policies have suggested cost estimates and others don't? We need to provide a better sense of how much an expanded maintenance program is ultimately going to cost the City.

*Drew Satariano, Vice President*

In the previous meeting, when this effort was initially presented to the Commission, Council had just released its annual budget and had made a number of significant cuts to City departments and programs. This plan seems to have bad timing. How did this process get started, and why is it being developed now when other City programs are being cut?

*Tom Shippey, Maintenance and Operations Bureau Manager*

Any urban forest program has to include all the trees in the City, and has to be comprehensive. Putting the responsibility of tree management under one department is logical. The development of a comprehensive plan for the City's trees is really the only way to make this work, especially from a funding perspective. In order to obtain funding for City projects and programs, the City needs to have an approved plan.

*Phil Hester, Director of Parks, Recreation and Marine*

The City needs a comprehensive plan for the management of the urban forest. Maintenance of the urban forest is a big issue, and Council needs to understand the costs involved. Getting trees is not a problem, and many community groups are currently organizing tree planning activities. The bigger problem is what to do with these trees when they are in the ground.

*Tom Shippey, Maintenance and Operations Bureau Manager*

With regard to Policy 1.3, this has to happen before maintenance can be addressed. The City needs to understand its entire inventory before it can go through the process of estimating maintenance costs. The goals and policies being presented have a natural sequence. For example policies 1.5 and 1.6 would naturally come after policy 1.3. The City needs a plan to move forward with this process, and the details of the plan are therefore very important.



*Mark Christoffels, City Engineer*

With an adopted plan we can then go begin to look for grants that will fund the program. The plan will open up an avenue for doing this.

*Commissioner Sarah Tong Sangmeister*

Policy 5.5 makes sense, but we also need to refer to the City's educational institutions in policies 2.5 and 2.6 as well. We need to think of educational institutions as allies in public education efforts, as well as partners in expanding and maintaining the urban forest on their own properties.

*Commissioner Brett Waterfield*

As part of educating citizens about the urban forest, we need to educate them about the whole urban forest mission and its costs. People need to really understand the full cost of the urban forest, not only in planting, but maintenance/stewardship in the long term.

#### **TREE COMMITTEE**

##### **Meeting Notes, January 17, 2008**

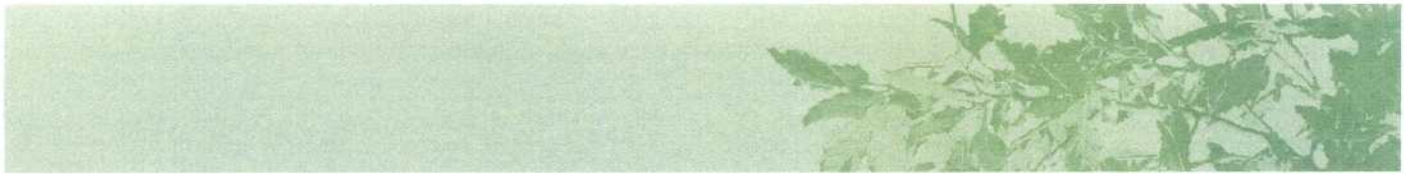
*SC Edison maintenance practices:* the Right Tree, Right Place policy relating to tree removal and replacement is good. However, it overlooks an existing and ongoing problem with maintenance and pruning. The policy needs to also address Edison's tree maintenance and management practices.

*Port involvement:* what are the legal issues related to the Port tree planting and management activities?

*Underserved neighborhoods:* many currently underserved areas have significant spaces in which trees could be planted. Many of the schools in these neighborhoods are covered in asphalt. These are great places to start tree-planting projects and programs. Many of the portable bungalows at public schools are in full sun. Trees should be planted around the bungalows. The City should also consider a tree planting program in vacant lots.

*Volunteer involvement:* would it be possible to approach residents in historic districts and affiliated with other neighborhood organizations to organize volunteers to do some of the work for the tree inventory? This could help cut the cost of doing the inventory, while providing an educational opportunity, and further engage residents as stewards.





*Grassroots education:* grassroots efforts could be useful for educating people about urban forest issues. For example, Long Beach has quite a few community newspapers, which could be used to provide community members with information about urban forest activities. Information should also be provided to neighborhood groups and organizations to pass on.

*Sustainability:* the City should choose the right trees to plant going forward, to ensure that water use for irrigation will be minimized. Air quality and water quality are important considerations when evaluating the urban forest and its contribution to the City's environmental health. The City should also consider using cisterns to capture stormwater for cleaning and reuse in irrigation.

*Process:* Ensure that the Tree Committee is notified in advance of next steps connected with the Urban Forest Master Plan goals and policies adoption, as well as phase 2 of the project. Hopefully the consultant is looking at other cities who are modeling good policies relating to urban forest issues, as case studies informing the policy direction they are setting for Long Beach.

*Development Guidelines:* The redesign work recently completed on the shopping center at Palo Verde and Spring provides a good example of why we need policy 2.3. While the project did add trees in the parking lot, it focused on adding palm trees, which do not provide the maximum environmental benefits the Committee would like to see as a result of this Plan.

*Historic Tree Preservation:* Policy 1.10 is important, as no protections currently exist in City code for historic or heritage trees in the City. Policy such as this must have already been developed in other cities, and should be used as a model for Long Beach.



## Appendix 2: SAMPLE I-TREE STRATUM RESULTS

In order to demonstrate the eventual benefit of modelling the urban forest in the City and analyzing its environmental, air quality and economic benefits, HortScience ran a sample set of City tree data from three City street blocks through the STRATUM model. These blocks are on Keynote, Oregon and Albany. The results summarized below indicate the actual net benefits provided by the trees sampled on each of the three blocks, as well as the atmospheric contaminants removed by those same trees. The benefits include the value of energy savings, carbon dioxide removal, air quality improvements, stormwater filtration, and aesthetics. The atmospheric contaminants evaluated are ozone, nitrus oxide, particulate matter (PM10) and sulfur dioxide. In summary, this small test analysis shows over \$47,000 in annual benefits derived from just three blocks of street trees within our over 50 square mile city.

Annual net benefits produced by City of Long Beach street trees							
Street segment	No. of Trees	Energy	CO2	Annual Benefits			Total
				Air quality	Storm-water	Aesthetic / other	
6100 6200 Keynote St.	49	\$1,096	\$223	\$2,864	\$235	\$24,522	\$28,942
2300 Oregon Ave.	51	\$723	\$244	\$1,654	\$89	\$7,888	\$10,599
3700 Albany Ave.	45	\$675	\$76	\$1,209	\$90	\$6,174	\$8,223
Atmospheric contaminants removed by City of Long Beach street trees.							
Street segment	No. of Trees	Ozone	Annual deposition (lb.)			BVOC produced	Annual benefit
			Nitrous oxide	PM10	Sulfur dioxide		
6100 6200 Keynote St.	49	53.0	24.3	30.4	1.9	-34.0	\$2,864
2300 Oregon Ave.	51	32.9	15.2	18.9	1.2	-61.3	\$1,654
3700 Albany Ave.	45	24.7	9.5	13.1	0.9	-33.4	\$1,209
Note: BVOC = biogenic volatile organic compounds							
Main species							
Keynote	Italian stone pine						
Oregon	Siberian elm						
Albury	Southern magnolia, Siberian elm						