



Oregon

Theodore R. Kubongoski, Governor

Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, OR 97301-2540

(503) 373-0050

Fax (503) 378-5518

www.lcd.state.or.us



NOTICE OF ADOPTED AMENDMENT

8/23/2010

TO: Subscribers to Notice of Adopted Plan
or Land Use Regulation Amendments

FROM: Plan Amendment Program Specialist

SUBJECT: City of Tigard Plan Amendment
DLCD File Number 001-08A

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. A Copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: Friday, September 03, 2010

This amendment was submitted to DLCD for review prior to adoption pursuant to ORS 197.830(2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

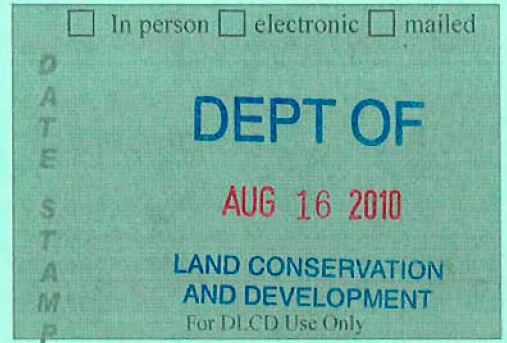
*NOTE: The Acknowledgment or Appeal Deadline is based upon the date the decision was mailed by local government. A decision may have been mailed to you on a different date than it was mailed to DLCD. As a result, your appeal deadline may be earlier than the above date specified. NO LUBA Notification to the jurisdiction of an appeal by the deadline, this Plan Amendment is acknowledged.

Cc: Darren Wyss, City of Tigard
Gloria Gardiner, DLCD Urban Planning Specialist
Amanda Punton, DLCD Regional Representative

<paa> YA

Notice of Adoption

THIS FORM MUST BE MAILED TO DLCD WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18



Jurisdiction: City of Tigard

Local file number: CPA 2008-00002

Date of Adoption: 8/10/2010

Date Mailed: 8/13/2010

Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? Yes Date: 2/21/2008

[X] Comprehensive Plan Text Amendment

[] Comprehensive Plan Map Amendment

[] Land Use Regulation Amendment

[] Zoning Map Amendment

[] New Land Use Regulation

[] Other:

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

Amend the Tigard Comprehensive Plan to update the goals, policies, and recommended action measures to reflect current community conditions and values pertaining to Tigard's Urban Forest.

Does the Adoption differ from proposal? No, no explanation is necessary

Plan Map Changed from:

to:

Zone Map Changed from:

to:

Location: Tigard City Limits

Acres Involved: 7552

Specify Density: Previous:

New:

Applicable statewide planning goals:

- Goals 1-19 with checkboxes: 1, 2, 4, 5, 6, 7, 9, 10, 11 are checked.

Was an Exception Adopted? [] YES [X] NO

Did DLCD receive a Notice of Proposed Amendment...

45-days prior to first evidentiary hearing?

[X] Yes [] No

If no, do the statewide planning goals apply?

[] Yes [] No

If no, did Emergency Circumstances require immediate adoption?

[] Yes [] No

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

Metro
ODOT

Local Contact: **John Floyd**

Phone: **(503) 718-2429** Extension:

Address: **13125 SW Hall Blvd.**

Fax Number: **503-718-2748**

City: **Tigard, OR**

Zip: **97223**

E-mail Address: **johnfl@tigard-or.gov**

ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and **TWO Complete Copies** (documents and maps) of the Adopted Amendment to:

ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540
2. **Electronic Submittals:** At least **one** hard copy must be sent by mail or in person, but you may also submit an electronic copy, by either email or FTP. You may connect to this address to FTP proposals and adoptions: **webserver.lcd.state.or.us**. To obtain our Username and password for FTP, call Mara Ulloa at 503-373-0050 extension 238, or by emailing **mara.ulloa@state.or.us**.
3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.
4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.
5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.
6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.
7. **Need More Copies?** You can now access these forms online at **<http://www.lcd.state.or.us/>**. Please print on **8-1/2x11 green paper only**. You may also call the DLCD Office at (503) 373-0050; or Fax your request to: (503) 378-5518; or Email your request to **mara.ulloa@state.or.us** - **ATTENTION: PLAN AMENDMENT SPECIALIST**.

CITY OF TIGARD, OREGON
TIGARD CITY COUNCIL
ORDINANCE NO. 10- 11

AN ORDINANCE READOPTING COMPREHENSIVE PLAN AMENDMENT CPA 2008-00002 TO ADD GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES PERTAINING TO STATEWIDE PLANNING GOAL 2, AS ORIGINALLY ADOPTED IN ORDINANCE 08-08.

WHEREAS, the Tigard City Council directed staff to complete a full update of the Tigard Comprehensive Plan, including a process for garnering citizen input; and

WHEREAS, the Tigard visioning reports, community surveys, Tigard Tree Board meetings, and policy interest team meetings were utilized to develop draft language for the update of the Tigard Comprehensive Plan; and

WHEREAS, the City has proposed an amendment to the Tigard Comprehensive Plan by updating Goals, Policies, and Recommended Action Measures corresponding to Statewide Planning Goal 2; and

WHEREAS, the Tigard Planning Commission held a public meeting on April 21, 2008, and recommended approval of the proposed CPA 2008-00002 by motion and with unanimous vote in support; and

WHEREAS, on May 6, 2008 and June 3, 2008, the Tigard City Council held public hearings to consider the Commission's recommendation on CPA 2008-00002, hear public testimony, and apply applicable decision-making criteria; and

WHEREAS, on June 3, 2008, the Tigard City Council approved Ordinance 08-08, adopting CPA 2008-00002 as amended pursuant to the public hearing and its deliberations; and

WHEREAS, Council's decision to adopt Ordinance 08-08 was based on the findings and conclusions found in the City of Tigard staff report dated April 7, 2008 and the associated record which are incorporated herein by reference and are contained in land-use file CPA 2008-00002; and

WHEREAS, on June 25, 2008 the Homebuilder's Association of Metropolitan Portland filed a Notice of Intent to Appeal with the Oregon Land Use Board of Appeals of the State of Oregon; and

WHEREAS, the City, in consultation with the Land Use Board of Appeals and the Home Builders of Metropolitan Portland, has chosen to withdraw the decision for reconsideration and re-adoption of CPA 2008-00002 by the Tigard City Council, subject to revised findings and conclusions; and

WHEREAS, the City has prepared revised findings and conclusions, contained within a staff report dated July 13, 2010 and included in Exhibit "A"; and

WHEREAS, the City has documented in Exhibit "A" the many benefits and services provided by trees and a functional urban forest; and

WHEREAS, on August 10, 2010 the City Council held a public hearing to reconsider CPA 2008-00002, hear public testimony, and apply decision-making criteria.

NOW, THEREFORE, THE CITY OF TIGARD ORDAINS AS FOLLOWS:

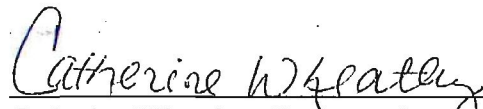
SECTION 1: Tigard City Council readopts text changes to the Tigard Comprehensive Plan, as contained in Tigard Ordinance No. 08-08 and included as Attachment 1 of the July 13, 2010 Staff Report (Exhibit "A").

SECTION 2: Tigard City Council adopts the revised findings and conclusions contained in Exhibit "A" in support of the Council's action.

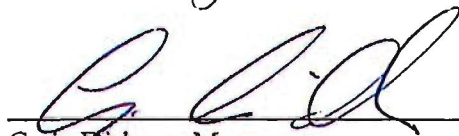
SECTION 3: Tigard City Council adopts the supporting material contained in Exhibit "A" as an expression of legislative intent and further findings to support the Council's action.

SECTION 4: This ordinance shall be effective 30 days after its passage by the Council, signature by the Mayor, and posting by the City Recorder.

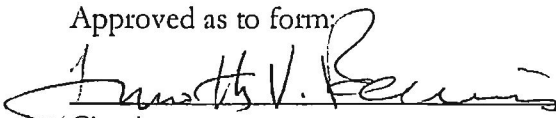
PASSED: By Unanimous vote of all Council members present after being read by number and title only, this 10th day of August, 2010.


Catherine Wheatley, City Recorder

APPROVED: By Tigard City Council this 10th day of August, 2010.


Craig Dirksen, Mayor


Approved as to form:


Janette V. Reunis
City Attorney

August 10, 2010

JULY 13, 2010

**STAFF REPORT TO THE CITY COUNCIL
FOR THE CITY OF TIGARD, OREGON**



120 DAYS = N/A

SECTION I. APPLICATION SUMMARY

FILE NAME: COMPREHENSIVE PLAN AMENDMENT TO UPDATE GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES PERTAINING TO STATEWIDE PLANNING GOAL 2: LAND USE PLANNING

FILE NO.: Comprehensive Plan Amendment (CPA) CPA2008-00002

PROPOSAL: The City is requesting Council readopt the Comprehensive Plan Amendment to amend the current Comprehensive Plan to include goals, policies and recommended action measures relating to Tigard's Urban Forest, subject to new findings.

APPLICANT: City of Tigard
13125 SW Hall Boulevard
Tigard, OR 97223

OWNER: N/A

LOCATION: Citywide

ZONING

DESIGNATION: All City zoning districts

COMP PLAN: All City comprehensive plan designations

APPLICABLE REVIEW

CRITERIA: Community Development Code Chapters 18.380 and 18.390; Comprehensive Plan Chapters Citizen Involvement, Land Use Planning, Natural Resources and Historic Areas, Environmental Quality; Hazards, Parks, Recreation, Trails & Open Space; Economic Development, Housing, Public Facilities and Services; Metro Functional Plan Titles 3 and 13; and Statewide Planning Goals 1, 2, 4, 5, 6, 7, 9, 10, 11 and 13..

SECTION II. STAFF RECOMMENDATION

Staff recommends Council readopt the Tigard Comprehensive Plan Amendment pertaining to Tigard's Urban Forest, as previously approved under Ordinance 08-08, subject to new findings contained in this staff report, with any alterations determined through the public hearing process.

SECTION III. BACKGROUND INFORMATION

On June 3, 2008 the City Council approved Ordinance 08-08 adopting Comprehensive Plan 2008-00002 to add Goals, Policies, and Recommended Action Measures pertaining to Statewide Planning Goal 2: Tigard's Urban Forest. This Comprehensive Plan Amendment serves as the "legislative foundation" in regards to the City's protection and management of the urban forest. In addition to addressing Tigard's Urban Forest, this amendment is part of a series of amendments that collectively, have updated the Comprehensive Plan in its entirety. The only exception being the chapter relating to Statewide Planning Goal 12: Transportation.

Following adoption by the City, the Home Builders of Association of Metropolitan Portland (HBA) filed a Notice of Intent to Appeal with the Land Use Board of Appeals of the State of Oregon (LUBA). This notice was filed on Jun 25, 2008. While the basis of the appeal has never been formally detailed in writing, the City understands HBA's concerns to be related to the sufficiency of the findings of fact supporting the language of the Comprehensive Plan Amendment. In lieu of filing the record and proceeding to hearing before LUBA, the HBA and the City opted for mediation through a series of stipulated agreements. This mediation ended in June of this year when the City, in consultation with the HBA, chose to voluntarily withdraw the decision back to City Council for reconsideration and re-adoption of the Amendment with revised findings.

In preparation for this reconsideration and re-adoption, staff has prepared findings of fact. These are included below in Section IV of this staff report. No change is proposed to the Comprehensive Plan language (Attachment 1), only to the findings of fact that support the amendment.

These findings reference correspondence with DLCD regarding the applicability of Statewide Planning Goals to the Comprehensive Plan Amendment (Attachment 2), and an annotated bibliography of academic and professional articles documenting the benefits and services provided by trees and a functional urban forest (Attachment 3).

SECTION IV. APPLICABLE CRITERIA AND FINDINGS

The following represents the applicable criteria and findings in their entirety; no additional issues were raised during the hearings and adoption process that are not addressed through these findings.

THE STATEWIDE PLANNING GOALS AND GUIDELINES ADOPTED UNDER OREGON REVISED STATUTES CHAPTER 197

State planning regulations require cities to adopt and amend Comprehensive Plans and land use regulations in compliance with the state land use goals. Because the Urban Forestry Comprehensive Plan Amendment ("Urban Forest Policy") has a limited scope and the amendments address only some of the topics in the Statewide Planning Goals, only the goals addressed below apply.

Statewide Planning Goal 1 – Citizen Involvement:

To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

Findings: This goal was met through an extensive public involvement process. A Public Involvement Program for the Comprehensive Plan Update was developed in March 2006. This

Program was reviewed and endorsed by the Committee for Citizen Involvement and the Planning Commission. The Program outlined the information, outreach methods, and involvement opportunities available to the citizens during the process.

Information was distributed throughout the process via the project website, an interested parties listserv, Cityscape articles, press releases, articles in the local paper, and two project open houses. Outreach methods also included presentations to a number of civic organizations in the community, personal emails sent to groups and organizations, updates to City boards and commissions, presentations to high school students, and staff attendance at community events to pass out information.

Involvement opportunities included two open houses, participation on a policy interest team, submitting written comments via the website, and attending the Planning Commission workshop. Additionally, the Tigard Tree Board met at regular meetings to provide input and develop a formal recommendation to Council, Planning Commission, and staff consistent with Council Resolution 07-30. Meetings were open to the public and public comment was accepted during the course of deliberation. Additionally, the interested parties listserv and volunteers who signed up for the policy interest teams were provided notice of all meetings held regarding the Comprehensive Plan Update.

As part of the Comprehensive Plan Amendment process, public notice of the original Planning Commission public hearing was sent to the interested parties list and published in the March 20, 2008 issue of The Times. Public notice for the original City Council public hearing was sent to an interested parties list and published in the Times on May 15, 2008. As part of the voluntary withdrawal and reconsideration process, notice of a City Council public hearing was again sent to the interested parties list and published in The Tigard Times on July 22, 2010. The notices invited public input and included the phone number of a contact person to answer questions. The notice also included the address of the City's webpage where the entire draft of the text changes could be viewed.

Statewide Planning Goal 2 – Land Use Planning:

To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.

Findings: The proposed amendment to the Tigard Comprehensive Plan is being undertaken to update the City's acknowledged Comprehensive Plan in a manner consistent with current conditions and citizen values. It is being processed as a Type IV procedure, which requires any applicable statewide planning goals, federal or state statutes or regulations, Metro regulations, Comprehensive Plan policies, and City's implementing ordinances, be addressed as part of the decision-making process. Notice was provided to DLCDC 45 days prior to the first scheduled public hearing and all applicable review criteria have been addressed within this staff report. Therefore, the requirements of Goal 2 have been met.

The policies included in this amendment address the diverse attributes and services of a healthy urban forest, and reflect present community values. Understanding of these attributes and services is based on academic and scientific information cited in a memo to City Council dated May 17, 2010 (Attachment 3), and included in the record of the decision to adopt the Urban Forest Policy to the Comprehensive Plan.

Statewide Planning Goal 4 – Forest Lands

To conserve forest lands by maintaining the forest land base, and to protect the state's forest economy.

Findings: Forest lands are those acknowledged as forest lands as of the adoption of Statewide Planning Goal 4. The City of Tigard has not identified any commercial forest lands within its City limits, and as such this amendment is not subject to the requirements of Goal 4.

Statewide Planning Goal 5 – Natural Resources

To protect natural resources and conserve scenic and historic areas and open spaces.

Findings: The proposed Urban Forest Policy does not amend the City's acknowledged Goal 5 program or inventories. The Urban Forest Policy is aspirational and descriptive in nature and intended effect. Adoption of this policy will not result in any amendment to current natural resource regulations and protections, or the permitting of any new uses, whether in conflict with significant resources or otherwise. Therefore, the Urban Forest Policy does not affect any Goal 5 resources or trigger application of the Goal 5 rule and is in compliance with Goal 5 process requirements.

Oregon Administrative Rule (OAR) 660-023-0250(3) states that in adoption of a post-acknowledgement plan amendment (PAPA), a local government is not required to apply the Goal 5 criteria unless the PAPA affects a Goal 5 resource in any of the following three ways:

- (a) The PAPA creates or amends a resource list or a portion of an acknowledged plan or land use regulation adopted in order to protect a significant Goal 5 resource or to address specific requirements of Goal 5;
- (b) The PAPA allows new uses that could be conflicting uses with a particular significant Goal 5 resource site on an acknowledged resource list; or
- (c) The PAPA amends an acknowledged UGB and factual information is submitted demonstrating that a resource site, or the impact areas of such a site, is included in the amended UGB area.

The Urban Forest Policy amends the City's acknowledged Comprehensive Plan by adding a new chapter and is a PAPA, as defined at OAR 660-023-0010(5). Therefore, the Goal 5 criteria are only applicable to the Urban Forest Policy if any of OAR 660-023-0250 (a), (b), and (c) are implicated.

The City finds that the Urban Forest Policy (a) does not amend or create a resource list, nor does it create or amend the City's acknowledged Goal 5 program or any implementing land use regulations, (b) does not allow any new uses, and (c) does not amend the acknowledged UGB.

There is no direct link between the Urban Forest Policy, as the policy is to be adopted and implemented separately from the City's Goal 5 program and regulations. As a result, no current regulations of the use of property will be amended, and no new uses will be allowed by adoption of this policy. Additionally, the Urban Forest Policy sets out a policy for future preservation of individual trees and will not affect the current regulation or protection of any significant Goal 5 resources. Tigard's interest in the adoption of this Comprehensive Plan Amendment spans the full range of services and values that trees provide such as air and water quality, economic development, reduction of the urban heat island effect, carbon sequestration, aesthetic

enhancement, and increased livability and human health. While this broad range of services and shared goals may at times overlap with the narrower natural resources related objectives of Statewide Planning Goal 5, any overlap is significantly outweighed by the preponderance of other values and services that trees can provide to the community, the promotion of which is the purpose of the Urban Forest Policy. However, this does not eliminate the natural resource value of policies that seek to maintain a healthy urban forest. To the degree to which these policies embrace the natural resource value of the urban forest, the intent of Goal 5 is also met.

These findings are consistent with the position expressed by the Oregon Department of Land Conservation and Development (DLCD), dated December 16, 2008 (Attachment 2). In this letter, DLCD confirmed that the requirements of Goal 5 are very specific, whereas the requirements of Goal 6 are quite broad, and that "although there may be some shared objectives, there is not necessarily a direct link between [tree policies] and Goal 5." As such, the process requirements of Goal 5 are separate from the proposed amendment, and sufficient findings have been made for the establishment of the Urban Forest Policy under other Statewide Planning Goals. To that end, findings for the establishment of urban forestry goals and policies can be found in Statewide Planning Goals 2, 6, 7, 9, 10, 11, and 13.

Should any subsequent adoption of regulations to implement this Urban Forest Policy trigger any Statewide Planning Goal 5 requirements at the time of implementation, the City will follow all necessary processes for compliance with Goal 5 at that time.

Statewide Planning Goal 6: Air, Water, and Land Resources Quality

To maintain and improve the quality of the air, water, and land resources of the state.

Findings: The proposed amendment is consistent with Statewide Planning Goal 6 as the proposed goals and policies seek to manage the City's urban forest in a manner that maintains and improves the quality of the air, water, and land resources of the state. Proposed Goals 2.2 and 2.3 and their associated policies (Attachment 1) includes statements seeking to minimize erosion, limit stormwater run-off impacts, improve air quality, and buffer differential land uses from one another through the maintenance and planting of trees.

The benefits of trees to air, water, and land resource quality are well documented in academic and professional literature. These studies and reports are cited and summarized in a memorandum to the City Council dated May 17, 2010, and included in the record of the decision to readopt the Urban Forest Policy (Attachment 3).

Statewide Planning Goal 7: Areas Subject to Natural Disasters and Hazards

To protect life and property from natural disasters and hazards.

Findings: The proposed Comprehensive Plan Amendment (Attachment 1) contains policies that allow the City to not only continue to regulate tree removal on lands subject to natural hazards, but also to address public safety concerns by finding ways to prevent and resolve tree related hazards through appropriate code amendments. Such hazards would include natural disasters and hazards such as storm related flooding, erosion, landslides, and falling trees. As a result, adoption of the proposed amendment would support the protection of life and property from natural disasters and hazards.

Statewide Planning Goal 9: Economic Development

To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

Findings: The proposed amendment is supportive of the economic development goals of the state. Included in the amendment are goals and policies that call for the integration of urban forestry related principles and practices into public and private projects undertaken in Tigard, including those pursued for economic development purposes. This includes policies calling for flexibility in development standards and appropriate tree planting requirements to ensure that the urban forest is sustained and in a manner that does not discourage investment or economic activity. More broadly, the aspirational goals and policies look to the future adoption land use regulations and standards to enlarge and improve a healthy and functioning urban forest in order to enhance the aesthetic experience, environmental quality, and economic value of Tigard's streets and neighborhoods. The desired improvement in the urban environment is expected to support and protect both public and private sector investment that wishes to capture or leverage a high quality urban environment.

The positive influence of trees and a healthy urban forest upon community livability and economic prosperity is well documented in academic, professional, and government literature. Such effects can be seen in the realm of aesthetic and environmental quality, community health and safety, consumer preference and behavior, and economic vibrancy. These studies and reports are cited and summarized in a memorandum to the City Council dated May 17, 2010 (Attachment 3).

Statewide Planning Goal 10: Housing

To provide for the housing needs of the citizens of the state.

Findings: The proposed goals and policies continue to ensure that housing needs for all citizens are provided for because they do not reduce the amount of buildable lands available, nor require a lowering of allowable densities. The proposed amendment does aspire towards the protection and enhancement of neighborhood vitality and livability, improved environmental and human health of those residing within, protection from tree related hazards, and the protection and enhancement of residential property values.

Recent studies suggest that the presence of trees in residential neighborhoods can be linked to the greater well-being of residents and the protection of market value for homes with mature trees on the same lot or proximate to the home. These studies and reports are cited and summarized in a memorandum to the City Council dated May 17, 2010 (Attachment 3).

Statewide Planning Goal 11: Public Facilities and Services

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Findings: This update will ensure continued compliance with Statewide Planning Goal 11 as the new goals and policies reflect current community conditions and values, and ensure that the variously impacted departments operate in a unified manner towards the enhancement of the urban forest as a green infrastructure system.

Statewide Planning Goal 13: Energy Conservation

To conserve energy.

Findings: The proposed amendment is consistent with and supports Statewide Planning Goal 13 to conserve all forms of energy through a number of its aspirations.

The heating and cooling of buildings is a significant source of energy consumption. Trees can reduce this demand for energy through the seasonal regulation of solar energy, transpiration, and wind speed reduction. By providing shade in the summer, trees can help to mitigate the urban heat island effect (a significant increase in ambient temperatures resulting from large expanses of unshaded asphalt and concrete that act as a heat sink). Similarly, the use of deciduous trees along the southern exposure of buildings can provide shade in the summer, while allowing solar radiation to reach the building during the winter months when such a warming effect is desired. By regulating solar gain or shade during the extreme months of the year, the presence of a healthy and appropriate tree canopy can result in a significant reduction in energy required to heat and cool buildings.

In addition to lowering ambient temperatures and solar gain, the shade provided by urban tree canopy over streets and parking lots can extend the useful life of pavement, resulting in higher fuel efficiency for vehicles traveling the roadway, and a significant reduction of energy inputs required to maintain the streets in an acceptable condition.

These findings are supported in greater detail by studies and reports cited and summarized in a memorandum to the City Council dated May 17, 2010 (Attachment 3).

CONCLUSION: Based on the analysis above, Council finds that the proposed amendment is consistent with the applicable Statewide Planning Goals.

APPLICABLE METRO REGULATIONS:

Metro has adopted an Urban Growth Management Functional Plan (UGMFP) that requires local jurisdictions to adopt and amend Comprehensive Plans and land use regulations that are not inconsistent with its provisions.

Metro Urban Growth Management Functional Plan Title 3: Water Quality, Flood Management, and Fish/Wildlife Habitat Conservation - protect beneficial uses and functional values of water quality and flood management resources by limiting uses in these areas from development activities and protecting life and property from dangers associated with flooding.

Findings: In 2002, the City of Tigard adopted Comprehensive Plan and Code Amendments to comply with Title 3 of Metro's Urban Growth Management Functional Plan, which outlines water quality and flood management requirements for the region. The adopted standards were based on a unified program developed by local governments in the Tualatin Basin and implemented through Clean Water Services (CWS) Design & Construction Standards, which provides for vegetated stream corridor buffers up to 200 feet wide and mandating restoration of corridors in marginal or degraded condition.

In addition, Clean Water Services, local cities, Washington County, Metro, and Tualatin Hills Park and Recreation District, partnered on a parallel effort to develop the CWS Healthy Streams Plan (HSP), an updated watershed plan designed to enhance the functions of the Tualatin Basin surface water system and address the Clean Water Act and Endangered Species Act (ESA).

The proposed amendment, specifically Goal 2.2 and 2.3 and their associated policies (see Attachment 1), will continue to ensure consistency with Title 3 requirements and standards. The policies also outline the City's commitment to appropriate tree protection with new development, and for the City to manage and enhance the urban forest to maximize water quality and flood control benefits.

Metro Urban Growth Management Functional Plan Title 13: Nature in Neighborhoods – conserve, protect, and restore a continuous ecologically viable streamside corridor system, from the streams' headwaters to their confluence with other streams and rivers, and with their floodplains in a manner that is integrated with upland wildlife habitat and with the surrounding urban landscape; and control and prevent water pollution for the protection of the public health and safety, and to maintain and improve water quality throughout the region.

Findings: The multi-jurisdictional approach undertaken by Tualatin Basin jurisdictions was used to develop a program to meet Statewide Goal 5 requirements for inventorying riparian areas and wildlife habitat and to comply with Metro's Urban Growth Management Functional Plan Title 13 (the regional *Nature in Neighborhoods* program). The *Tualatin Basin Fish and Wildlife Habitat Program* was developed to complement Clean Water Services Design and Construction Standards to protect the beneficial uses of water (including rivers, streams and creeks) within the Tualatin Basin.

The proposed amendment, specifically Goals 2.2 and 2.3 and their associated policies (see Attachment 1), will continue to ensure consistency with Title 13 requirements and standards. Policies 2.2.1 through 2.2.3 describe clear direction for the City to coordinate and enhance existing and future protections for trees across the City, including habitat areas and other sensitive lands. Similarly, Policies 2.3.1, 2.3.2, and 2.3.7 are descriptive in nature and seek to assure that property owners minimize impacts to existing tree cover, to focus preservation on native trees, and to cooperate with property owners and other stakeholders involved in the management and preservation of wetlands, stream corridors, habitat areas, and similar resources. It should be noted that this amendment does not change any adopted resource inventories or resource regulations, and only provides an aspirational policy direction for future action.

CONCLUSION: Based on the analysis above, staff finds that the proposed amendment satisfies the applicable Metro regulations.

CITY OF TIGARD COMPREHENSIVE PLAN POLICIES:

General Findings

Finding: The City's Comprehensive Plan was adopted by the Tigard City Council in 1983, and acknowledged as being in conformance with the Statewide Planning Goals by the Land Conservation and Development Department (LCDC) on October 11, 1984. LCDC re-acknowledged the plan's compliance with the Statewide Planning Goals through a subsequent Periodic Review process.

Finding: The Council finds that the following Comprehensive Plan goals and policies apply to the amendments and the amendments satisfy the applicable goals and policies for the reasons stated below. During the course of public hearings, the Community Development Department, the

Planning Commission, and the City Council provided all interested parties opportunities to identify, either orally or in writing, any other Comprehensive Plan goals or policies that might apply to the amendments. No additional provisions were identified.

Finding: The proposed amendment was adopted by Council on June 3, 2008, and is now returning to the same body on voluntary withdrawal and reconsideration. Subsequent to the adoption of the urban forestry Comprehensive Plan amendments the Tigard City Council adopted multiple Post Acknowledgement Plan Amendments, removing some policies and inserting new ones, including Ordinance 08-07 (amending Chapter 2 – Land Use Planning) and Ordinance 08-13 (Chapter 5 – Natural Resources and Historic Areas). These updates are the result of a multi-year effort by the City of Tigard to completely update its Comprehensive Plan on a chapter-by-chapter basis to reflect current community conditions and values. Each plan chapter amendment was separately reviewed by DLCDC and found compliant with the statewide planning goals. As a result, the Comprehensive Plan in 2010 is not the same document that was in effect in 2008 when this amendment was first considered by Council. In order to ensure internal legislative consistency, the City finds the current language of the Tigard Comprehensive Plan is the only applicable criteria when adopting new provisions there to under a voluntary withdrawal and reconsideration. However, should the old Comprehensive Plan language be found applicable, findings of consistency have been prepared by staff and are included as Attachment 4.

Chapter 1: Citizen Involvement

Goal 1.1 Provide citizens, affected agencies, and other jurisdictions the opportunity to participate in all phases of the planning process.

Policy 1.1.2 The City shall define and publicize an appropriate role for citizens in each phase of the land use planning process.

Policy 1.1.3 The City shall establish special citizen advisory boards and committees to provide input to the City Council, Planning Commission, and City staff.

Findings: This amendment process has complied with all notification requirements pursuant to Chapter 18.390.060 of the Tigard Community Development Code. The staff report was also available seven days in advance of the hearing pursuant to Chapter 18.390.070.E.b of the Tigard Community Development Code.

Additionally, a Public Involvement Program for the Comprehensive Plan Update was developed in March 2006. This Program was reviewed and endorsed by the Committee for Citizen Involvement and the Planning Commission. The Program outlined the information, outreach methods, and involvement opportunities available to the citizens during the process.

Information was distributed throughout the process via the project website, an interested parties listserv, Cityscape articles, press releases, articles in the local paper, and two project open houses. Outreach methods also included presentations to a number of civic organizations in the community, personal emails sent to groups and organizations, updates to City boards and commissions, presentations to high school students, and staff attendance at community events to pass out information.

Involvement opportunities included two open houses, participation on a policy interest team, submitting written comments via the website, and attending the Planning Commission workshop. The interested parties listserv and volunteers who signed up for the policy interest teams were provided notice of all meetings held regarding the Comprehensive Plan Update.

Additionally, the Tigard Tree Board met at regular meetings to provide input and develop a formal recommendation to Council, Planning Commission, and staff consistent with Council Resolution 07-30 (Interim Charge Statement for the Purpose of Developing Comprehensive Tree Protection and Urban Forest Enhancement Program). Meetings were open to the public and public comment received during the course of deliberation.

As part of the Comprehensive Plan Amendment process, public notice of the original Planning Commission public hearing was sent to the interested parties list and published in the March 20, 2008 issue of The Times. Public notice for the original City Council public hearing was sent to the interested parties list and published in the Times on May 15, 2008. As part of the voluntary withdrawal and reconsideration process, notice of a City Council public hearing was again sent to the interested parties list and published in The Tigard Times on July 22, 2010. The notices invited public input and included the phone number of a contact person to answer questions. The notices also included the address of the City's webpage where the entire draft of the text changes could be viewed.

Policy 1.1.5 The opportunities for citizen involvement provided by the City shall be appropriate to the scale of the planning effort and shall involve a broad cross-section of the community.

Findings: As outlined above, the community was given multiple venues to access information and get involved. This included a number of articles in the Cityscape newsletter that is delivered to every household in Tigard. Staff also made a good faith effort to ensure a diversity of citizens and stakeholders were involved in the policy interest team meetings by not only soliciting volunteers, but by inviting organizations that share a common interest in that particular topic.

Goal 1.2 Ensure all citizens have access to:

- A. opportunities to communicate directly to the City; and
- B. information on issues in an understandable form.

Policy 1.2.1 The City shall ensure pertinent information is readily accessible to the community and presented in such a manner that even technical information is easy to understand.

Findings: Information regarding the topics included in this Comprehensive Plan Amendment was available in multiple locations in an understandable format for the duration of the process. This included paper and electronic copies that were available in the permit center and also on the website. Information was regularly sent to the project listserv and to the community volunteers who participated on the policy interest teams.

Policy 1.2.2 The City shall utilize such communication methods as mailings, posters, newsletters, the internet, and any other available media to promote citizen involvement and continue to evaluate the effectiveness of methods used.

Findings: Information was distributed throughout the process via the project website, an interested parties listserv, Cityscape articles, press releases, articles in the local paper, and two project open houses. Outreach methods also included presentations to a number of civic organizations in the community, personal emails sent to groups and organizations, updates to City boards and commissions, presentations to high school students, and staff attendance at community events to pass out information.

Policy 5. The City shall seek citizen participation and input through collaboration with community organizations, interest groups, and individuals in addition to City sponsored boards and committees.

Findings: Outreach methods included presentations to a number of civic organizations in the community, personal emails sent to groups and organizations, updates to City boards and commissions, presentations to high school students, and staff attendance at community events to pass out information.

Involvement opportunities included two open houses, participation on a policy interest team, submitting written comments via the website, and attending the Planning Commission workshop. Additionally, the interested parties listserv and volunteers who signed up for the policy interest teams were provided notice of all meetings held regarding the Comprehensive Plan Update.

Chapter 2: Land Use Planning

Goal 2.1 Maintain an up-to-date Comprehensive Plan, implementing regulations and action plans as the legislative foundation of Tigard's land use planning program.

Policy 2.1.1 The City's land use program shall establish a clear policy direction, comply with state and regional requirements, and serve its citizens own interests.

Policy 2.1.3 The City shall coordinate the adoption, amendment, and implementation of its land use program with other potentially affected jurisdictions and agencies.

Findings: This update seeks to ensure continued compliance with Statewide Planning Goal 2, as the new goals and policies reflect current community conditions and values regarding the benefits and services of Tigard's urban forest. The new goals and policies have been developed through a citizen involvement effort in compliance with Statewide Planning Goal 1, were reviewed by City staff, distributed to affected agencies for comment, and reviewed by the Tigard Planning Commission.

Chapter 4: Forest Lands

Finding: Land is considered forest land only if it was acknowledged as such when Goal 4 was adopted. The City of Tigard has not identified any commercial forest lands within its City limits, as such the City has not adopted any goals or policies related to commercial forestry.

Chapter 5: Natural Resources and Historic Areas

Goal 5.1 Protect natural resources and the environmental and ecological functions they provide and, to the extent feasible, restore natural resources to create naturally functioning systems and high levels of biodiversity.

Policy 5.1.1 The City shall protect and, to the extent feasible, restore natural resources in a variety of methods to:

- A. contribute to the City's scenic quality and its unique sense of place;
- B. provide educational opportunities, recreational amenities, and buffering between differential land uses;
- C. maximize natural resource functions and services including fish and wildlife habitat and water quality; and
- D. result in healthy and naturally functioning systems containing a high level of biodiversity.

Policy 5.1.2 The City shall demonstrate leadership in natural resource protection through the use of sustainable building practices and low impact development strategies, to the extent feasible, on all City projects.

Policy 5.1.3 The City shall provide options to conventional construction and site planning techniques, and incorporate sustainable and low-impact building and site planning technologies into City codes and standards as they become available.

Policy 5.1.4 The City shall actively coordinate and consult with landowners, local stakeholders, and governmental jurisdictions and agencies regarding the inventory, protection, and restoration of natural resources.

Policy 5.1.5 The City shall utilize periodic assessments of the effectiveness of the City's programs and regulatory structures to guide future decisions regarding natural resource protection, management, and restoration.

Policy 5.1.6 The City shall utilize incentives or disincentives, to the extent feasible, to discourage property owners from removing or degrading natural resources prior to application for development or annexation.

Policy 5.1.7 The City shall protect and restore riparian and upland habitats to the maximum extent feasible on public and private lands.

Policy 5.1.8 The City shall protect and, to the extent feasible, restore the diverse ecological and non-ecological functions and services of streams, wetlands, and associated riparian corridors.

Policy 5.1.9 The City shall implement measures to protect groundwater.

Policy 5.1.10 The City shall complete a baseline inventory of significant natural resources and update or improve it as necessary, such as at the time of Comprehensive Plan Periodic Review, changes to Metro or State programs, or to reflect changed conditions, circumstances, and community values.

Policy 5.1.11 The City shall assist landowners in the protection of natural resources through diverse methods including, but not limited to: education, incentives, planned development standards and regulations, and conservation easements.

Policy 5.1.12 The City shall develop and implement standards and procedures that mitigate the loss of natural resource functions and services, with priority given to protection over mitigation.

Policy 5.1.13 The City shall identify, preserve, and create linkages between wildlife habitat areas, to the extent feasible, as a key component of parks, open space, and surface water management plans.

Findings: Tigard's interest in the adoption of this Comprehensive Plan Amendment spans the full range of services and values that trees provide such as air and water quality, economic development, reduction of the urban heat island effect, carbon sequestration, aesthetic enhancement, and increased livability and human health. While this broad range of services and shared goals may at times overlap with the narrower natural resource related objectives of Statewide Planning Goal 5 and the Tigard Comprehensive Plan Goal and Policies listed above, any overlap is significantly outweighed by the preponderance of other values and services that trees can provide to the community, the promotion of which is the purpose of the Urban Forest Policy. However, this does not eliminate the natural resource value of policies that seek to maintain a healthy urban forest. To the extent to which the Urban Forest Policy affects the above natural resource policies, it is consistent with each.

As discussed in the finding made for Statewide Planning Goal 5, the proposed amendment does not alter the City's acknowledged Goal 5 inventories or land use programs, as it consists of a new chapter of the Comprehensive Plan. Due to the aspirational and descriptive function of the policies contained therein, no changes will occur to current Natural Resource protections by adoption of the Urban Forest Policy. If and when the goals and policies contained in the Urban Forest Policy are implemented through future amendment(s) to the Tigard Development Code and associated inventories, any and all Goal 5 requirements that are triggered by such amendment will be complied with. Should the proposed urban forestry policies trigger any Statewide Planning Goal 5 requirements at the time of implementation, such as the expansion of acknowledged resource inventories, the City would require consistency with the natural resource goals and policies of the Tigard Comprehensive Plan.

Chapter 6: Environmental Quality

Goal 6.1 Reduce air pollution and improve air quality in the community and region.

Policy 6.1.6 The City shall encourage the maintenance and improvement of open spaces, natural resources, and the City's tree canopy to sustain their positive contribution to air quality.

Findings: This policy is satisfied by the proposed amendment through Goals 2.2 and 2.3 and their associated Policies (Attachment 1). Policies 2.2.1 through 2.2.4, and 2.3.4 through 2.3.6 seek to ensure that tree removal is minimized and/or mitigated, that ample space be provided for the planting of new trees, and City regulations are periodically updated to remain effective. Policies 2.2.5 through 2.2.7 call for the City to plant new trees and maintain the City's historic investment in

trees. Similarly, policy 2.3.7 seeks to ensure cooperation with residents and outside entities in the preservation and management of existing tree cover. This protection and enhancement of tree cover can positively affect air quality and contribute towards meeting air quality standards, as documented in published academic and scientific literature. Relevant literature is cited in a memo to City Council dated May 17, 2010 (Attachment 3).

Goal 6.2 Ensure land use activities protect and enhance the community's water quality.

Policy 6.2.1 The City shall require that all development complies with or exceeds regional, state, and federal standards for water quality.

Policy 6.2.3 The City shall encourage the use of low impact development practices that reduce stormwater impacts from new and existing development.

Policy 6.2.5 The City shall require measures to minimize erosion and storm run-off from development sites during and after construction.

Findings: These policies are satisfied by the amendment through Goals 2.2 and 2.3 and their associated policies (Attachment 1) which emphasize the protection of existing trees, allowing and encouraging flexibility in site design, the maintenance of a compatible and healthy understory that controls erosion, and a continuing commitment to protect tree cover in sensitive areas such as stream corridors and steep slopes.

Policy 6.2.4 The City shall protect, restore, and enhance, to the extent practical, the natural functions of stream corridors, trees, and water resources for their positive contribution to water quality.

Findings: These policies related to water quality are satisfied by the proposed amendment through Goals 2.2 and 2.3 and their associated Policies (Attachment 1) that call for tree removal to be minimized or mitigated, ample room be provided for the planting of new trees, and City regulations to be periodically updated to remain effective. Furthermore, 2.2.5 through 2.2.7 call for the City to plant new trees and maintain the City's historic investment in trees, while Policy 2.3.7 seeks to ensure cooperation with residents and outside entities in the preservation and management of existing tree cover. This layered protection of tree cover can positively affect water quality and reduce stormwater impacts resulting from development. Relevant academic and scientific literature documenting these services is cited in a memo to City Council dated May 17, 2010 (Attachment 3).

Chapter 7: Hazards

Goal 7.1 Protect people and property from flood, landslide, earthquake, wildfire, and severe weather hazards.

Policy 7.1.12 The City shall encourage pervious, and minimize impervious, surfaces to reduce storm water runoff.

Findings: This policy is satisfied by the amendment through Goal 2.3 and its associated Policies 2.3.1, 2.3.2 and 2.3.5. The first two call for the preservation of existing tree cover and the preservation and/or installation of a compatible understory that, amongst other things, controls soil and erosion. The latter policy also calls for the City to enforce site design and landscape

requirements to reduce stormwater runoff and other environmental impacts of impervious surfaces.

Policy 7.1.13 The City shall retain and restore existing vegetation with non-invasive species in areas with landslide potential to the greatest extent possible.

Findings: This policy is satisfied by the amendment through Goal 2.2, and more specifically by Policies 2.2.8 and 2.2.9 which seek to establish an approved tree list for various applications and site conditions, and call for a prohibition on the use or retention of invasive trees and other plants through the development review process.

Policy 7.1.14 The City shall work to reduce the risk of loss of life and damage to property from severe weather events.

Findings: This policy is satisfied by Goal 2.3 and Policies 2.3.3 and 2.3.9. The first policy seeks to ensure tree related hazards to persons and property are addressed and abated in a timely way. The latter calls for all applications for tree removal and all tree management plans to be peer reviewed by a certified arborist to ensure their adequacy.

Chapter 8: Parks, recreation, Trails, and Open Space:

Goal 8.1 Provide a wide variety of high quality park and open spaces for all residents, including both:

- A. developed areas with facilities for active recreational; and
- B. undeveloped areas for nature-oriented recreation and the protection and enhancement of valuable natural resources within the parks and open space systems.

Policy 8.1.19 The City shall seek to establish and manage a fully-functional urban forest.

Findings: Consistency with this policy is satisfied by Goals 2.2 and 2.3 and their various related Policies (Attachment 1) that seek to ensure tree removal is minimized or mitigated, that ample room be provided for the planting of new trees, and City regulations are periodically updated to remain relevant and effective. This commitment to the protection and enlargement of tree cover is consistent and supportive of the establishment of a fully-functional urban forest.

Chapter 9: Economic Development

Goal 9.1 Develop and maintain a strong, diversified, and sustainable local economy.

Policy 9.1.3 The city's land use and other regulatory practices shall be flexible and adaptive to promote economic development opportunities, provided that required infrastructure is made available.

Findings: Consistency with this policy is satisfied by Goals 2.2 and 2.3, and their implementing Policies 2.2.1 and 2.3.6 (Attachment 1). These policies call for the City to remain adaptive and promote economic development through the maintenance and periodic update of land use standards, and the allowance of flexible development standards in order to save trees and not discourage development during site review.

Policy 9.1.12 The City shall assure economic development promotes other community qualities, such as livability and environmental quality that are necessary for a sustainable economic future.

Findings: Stated urban forestry Goals 2.2 and 2.3 and their implementing Policies (Attachment 1) are consistent with Policy 9.1.12 as the language calls for the integration of urban forestry goals and practices into public and private projects, including those undertaken for economic development purposes. This includes policies calling for flexibility in development standards and appropriate tree planting requirements to ensure that the urban forest is sustained and developed as the City promotes and allows new development to occur. Similarly, other policies call for planned protection and planting of street trees on public property and new road projects.

The positive influence of trees and a healthy urban forest upon community livability and economic prosperity is well documented. Such effects can be seen in the realm of aesthetic and environmental quality, community health and safety, and economic vibrancy. These studies and reports are cited and summarized in a memorandum to the City Council dated May 17, 2010 (Attachment 3).

Goal 9.3 Make Tigard a prosperous and desirable place to live and do business.

Policy 9.3.2 The City shall adopt land use regulations and standards to ensure a well-designed and attractive urban environment that supports/protects public and private sector investments.

Findings: The amendment is consistent with this Policy as the goals and policies direct the City to adopt land use regulations and standards to enlarge and improve a healthy and functioning urban forest as well as enhancing the aesthetic experience and economic value of Tigard's streets and neighborhoods. The resulting high quality urban environment will support and protect both public and private sector investment that wishes to capture or leverage a high quality urban environment.

A discussion of these benefits can be found in reports and studies that conclude that consumers judge districts with trees as more pleasant to be in, are worth driving farther to visit and spend more time in, and are more willing to spend more for both parking and goods and services. In addition, the shade provided by streets not only makes the environment more attractive for human occupation and reduce the urban heat island effect, it may also reduce the rate of pavement wear and tear and associated maintenance costs. These studies and reports are cited and summarized in a memorandum to the City Council dated May 17, 2010 (Attachment 3).

Chapter 10: Housing

Goal 10.2 Maintain a high level of residential livability.

Policy 10.2.1 The City shall adopt measures to protect and enhance the quality and integrity of its residential neighborhoods.

Findings: This policy is satisfied by Goals 2.2 and 2.3 and implementing Policies 2.3.1, 2.3.5, and 2.2.7. More specifically, the first two seek to assure that all tree removal be minimized, and encourages the use of flexible development standards to maintain existing trees within

neighborhoods. Similarly, Policy 2.2.7 calls for the City to conduct an ongoing urban forest enhancement program to improve the aesthetic quality and economic value of existing neighborhoods.

Recent studies suggest that the presence of trees in residential neighborhoods can be linked to the greater well-being of residents and increased market value for homes with mature trees on the same lot or proximate to the home. These studies and reports are cited and summarized in a memorandum to the City Council dated May 17, 2010 (Attachment 3).

Policy 10.2.8 The City shall require measures to mitigate the adverse impacts from differing or more intense land uses on residential living environments, such as:

- A. Orderly transitions from one residential density to another;**
- B. Protection of existing vegetation, natural resources and provision of open space areas; and**
- C. Installation of landscaping and effective buffering and screening.**

Findings: This policy is satisfied by Goals 2.2 and 2.3 and implementing Policies 2.3.1, 2.3.5, 2.3.7 and 2.2.7. More specifically, the first two seek to assure that all tree removal be minimized, and encourage the use of flexible development standards to maintain existing trees within neighborhoods. Policy 2.2.7 calls for the City to conduct an ongoing urban forest enhancement program to improve the aesthetic quality and economic value of existing neighborhoods, while Policy 2.2.14 calls for the use of trees and other vegetation as buffering and screening between differential land uses.

Chapter 11: Public Facilities and Services

Goal 11.1 Develop and maintain a stormwater system that protects development, water resources, and wildlife habitat.

Policy 7. The City shall encourage low impact development practices and other measures that reduce the amount of, and/or treat, stormwater runoff at the source.

Findings: This policy is satisfied by the proposed amendment through Goal 2.3, and its implementing Policies (Attachment 1). Policies 2.3.1 and 2.3.2 seek to reduce stormwater runoff by lowering the volume of impervious surface coverage through minimization of impacts to existing tree cover, and the preservation and/or installation of a compatible understory that maintains natural hydrologic regimes controls soil and erosion. Policy 2.3.4 also calls for the City to enforce site design and landscape requirements to reduce environmental impacts of impervious surfaces such as increased stormwater runoff.

CITY OF TIGARD COMMUNITY DEVELOPMENT CODE (TITLE 18)

Chapter 18.380: Zoning Map and Text Amendments

Chapter 18.380.020 Legislative Amendments to the Title and Map

A. Legislative amendments. Legislative zoning map and text amendments shall be undertaken by means of a Type IV procedure, as governed by Section 18.309.060G

Findings: The amendments to the Tigard Comprehensive Plan would establish policies to be applied generally throughout the City of Tigard; and therefore, the application is being processed as a Type IV procedure, Legislative Amendment, as governed by Section 18.390.060G.

Chapter 18.390: Decision-Making Procedures

Chapter 18.390.020 Description of Decision-Making Procedures

B.4. Type IV Procedure. Type IV procedures apply to legislative matters. Legislative matters involve the creation, revision, or large-scale implementation of public policy. Type IV matters are considered initially by the Planning Commission with final decisions made by the City Council.

Findings: The amendments to the Tigard Comprehensive Plan were reviewed under the Type IV procedure as detailed in Section 18.390.060.G. In accordance with this section, the amendment was initially considered by the Planning Commission with City Council making the final decision.

Chapter 18.390.060.G. Decision-making considerations. The recommendation by the Commission and the decision by the Council shall be based on consideration of the following factors:

1. The Statewide Planning Goals and Guidelines adopted under Oregon Revised Statutes Chapter 197;
2. Any federal or state statutes or regulations found applicable;
3. Any applicable Metro regulations;
4. Any applicable Comprehensive Plan policies; and
5. Any applicable provisions of the City's implementing ordinances.

Findings: As indicated in the findings and conclusions that address applicable Statewide Planning Goals, Regional Functional Plan Titles, Tigard Comprehensive Plan policies, and Tigard implementing ordinances, the amendment is consistent with this criterion.

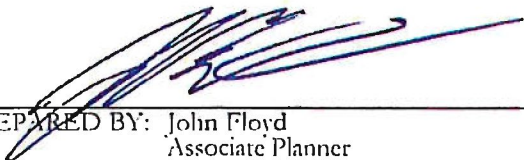
CONCLUSION: Based on the analysis above, Council finds that the proposed amendments satisfy the applicable review criteria within the Tigard Community Development Code.

SECTION VI. CONCLUSION

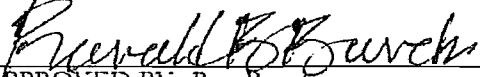
The proposed changes comply with the applicable Statewide Planning Goals, Metro regulations, the Tigard Comprehensive Plan, and applicable provisions of the City's implementing ordinances. Therefore, staff recommends Council readopt the Comprehensive Plan Amendment, as previously approved by Council on June 3, 2008 in Ordinance 08-08, subject to the revised findings and conclusions contained in this staff report.

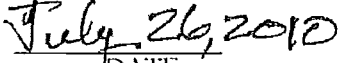
ATTACHMENTS TO THE STAFF REPORT:

- | | |
|---------------|--|
| ATTACHMENT 1: | Comprehensive Plan Amendment pertaining to Tigard's Urban Forest, previously adopted under Ordinance 08-08 |
| ATTACHMENT 2: | Letter from DLCD to Tigard Staff; December 16, 2008. |
| ATTACHMENT 3: | Urban Forestry Annotated Bibliography |
| ATTACHMENT 4: | Old Comprehensive Policies Removed by Ordinance 08-07 and 08-13 |


 PREPARED BY: John Floyd
 Associate Planner

July 13, 2010
 DATE


APPROVED BY: Ron Bunch
Community Development Director


DATE



Section 2: Tigard's Urban Forest

A defining community feature of Tigard is its trees and the urban forest they create. Unlike natural forests or managed timberland, Tigard's urban forest is a mosaic of native forest remnants and planted landscape elements interspersed with buildings, roads and other elements of the urban environment. The protection, management, and enhancement of this resource is important not only for Tigard's aesthetic identity and sense of place, but for the social, ecological, and economic services it provides to the community.

Trees and other types of vegetation are integral to the quality of Tigard's aesthetic, economic, and natural environments. Plants provide variation in color, texture, line and form that softens the hard geometry of the built environment. They also enhance the public and private realm through the provision of shade from the sun and wind, providing habitat for birds and wildlife, enhancing community attractiveness and investment, improving water quality and soil stability, and promoting human health and well-being.

Tigard's trees and native plant communities have experienced significant disruption and displacement, first by agriculture and logging in the 19th century, and by increasingly dense urban development in the 20th Century. Competition from introduced invasive species such as English ivy, reed canary grass, and Himalayan blackberries has made it difficult for remaining native plant communities to thrive. However, remnant stands of native tree and associated plant communities still remain within the City Limits. Trees are important members and contributors to natural resource systems including upland habitat areas and plant communities, and functioning riparian corridors including the Tualatin River, Fanno Creek and its tributaries, and their adjacent flood plains and wetlands.

In addition to remnants of the native forest, Tigard possesses a large number of



mature and outstanding specimens of native and non-native trees planted when the area was rural country-side in the late 19th and early 20th centuries. Aerial photos demonstrate that increasingly more trees were planted on both public and private property during a period of large lot residential subdivision development from the late 1940's through the 1970's, many of which survive to this day.

Community attitude surveys reveal that Tigard Citizens place high value on the protection of trees and are concerned about the impact of development upon existing tree resources. Community surveys conducted in 2004 and 2006 show that residents value their neighborhood as a suburban retreat, a place that allows for views of trees and other natural areas. The 2006 Community Attitudes Survey found "the protection of trees and natural resource areas" as rating the highest of all "livability" characteristics posed to the respondents, scoring 8.4 out of 10 points. Preservation of trees and other natural resources scored higher on resident's livability index than neighborhood traffic (8.2), maintaining existing lot sizes (7.8), pedestrian and bike paths (7.7), and compatibility between existing and new development (7.6). A follow-up question contained in the 2007 survey revealed that 84% of Tigard Residents supported regulations to protect existing trees, with only 6% strongly disagreeing and 9% somewhat disagreeing. In addition, 90% of Tigard residents thought the City should take the lead in preserving open space. These values are also shared by residents of adjoining jurisdictions who maintain, or have begun significant updates to, their tree protection ordinances.

The City of Tigard has been a Tree City, USA since 2001 because of aggressive programs to plant trees on public property. In partnership with Clean Water Services, the City of Tigard is in the early stages of a series of stream restoration and enhancement projects intended to improve water quality, reduce erosion, and provide shade, structure and food sources to fish and other wildlife. Projects currently underway within the City's floodplains and riparian areas will result in the planting of approximately 100,000 native trees over a 10 year period (Fiscal Years 2001-2011). Through volunteer projects, cooperative efforts with non-profits, contract services, and the labor of Public Works crews, thousands of young trees are annually planted on public property.

Not including restoration projects, the City's Public Works Department annually plants approximately 250 new or replacement trees on public lands, distributes approximately 50 street trees each year to private property owners through the Street Tree Program, and plants an addition 25 trees in celebration of arbor day.



Native species are given preference and are regularly planted along trails, riparian areas, and in new park and green space areas. The objective is to increase the total number of trees, particularly in areas where summer shade is desired such as picnic areas and next to sidewalks. Money is budgeted each year to maintain new trees being established and to remove hazard trees located on public property. As more public property is added and trees grow older, the number of hazard trees pruned or removed each year will continue to grow. The level of new tree planting is limited by the maintenance capacity of City work crews.

Conditions and circumstances have significantly changed since the adoption of Tigard's Comprehensive Plan in 1983. Rapid urban development has resulted in a general perception that the City has experienced a significant loss of tree canopy, and other vegetation essential for wildlife habitat, erosion control, slope stability, water quality, air-quality, and community aesthetics. Driving this perception are METRO land use regulations, failed annexation efforts and changing market conditions resulting in higher density development than was anticipated in 1983, further challenging the City to protect trees and canopy cover while accommodating new development. Additionally, the City does not currently have a comprehensive tree management and urban forest enhancement program to address these issues in a unified and consistent manner. As a result there is general feeling among residents, developers, and other stakeholders that the existing regulatory structure is not adequate and hinders both the strategic protection of trees and the orderly urbanization of the City.

The City has historically relied upon its Development Code to manage and protect trees on private property, particularly heritage trees and those located within steep slopes, wetlands, and other sensitive lands. Existing regulations require new development to protect and/or replace existing trees wherever possible, to pay into a mitigation fund when trees are removed, and to plant new street trees and landscape trees as part of all new construction. In addition, trees within vegetated corridors surrounding wetlands, riparian corridors, and other natural bodies of water are also protected by Clean Water Services as part of their stormwater management program. These regulatory structures do not recognize or protect existing trees outside of those areas, and offer little protection unless a development action is pending, or prior conditions of development approval designated the affected tree(s) for future protection. As a result, the existing regulatory structure does not encompass a significant number of trees across the city, which may be removed by the property owner without City consultation or permit. Additionally, because the City does not have a compre-



hensive tree removal consultation or permit system, protected trees (such as street trees) have been removed despite existing regulations or restrictions in force.

KEY FINDINGS:

- A defining community feature is Tigard's urban forest, a mosaic of native forest remnants and planted landscape elements interspersed throughout the City.
- This urban forest provides social, economic, and ecological services that create public and private value to residents, businesses, and visitors.
- Mature and well-managed trees provide the maximum public benefits.
- The City continues to allocate staff and resources to tree planting, tree maintenance, and outreach activities. Additionally, new development is required to install street trees, landscape trees, and trees for mitigation purposes.
- The existing urban forest continues to experience significant disruption and displacement through the conversion of land to more intense urban land uses and competition from invasive species.
- Existing tree regulations are dispersed throughout the code; applied by multiple divisions in a non-unified and inconsistent manner; and sometimes conflicting between different code sections.
- The City does not presently have a comprehensive and unified process to monitor tree removal and enforce existing tree protections outside of development permit review. Furthermore, landowners are not always aware of regulatory protections applicable to their property or street trees adjacent to their property.
- Community attitude surveys reveal that Tigard residents place high value on the protection of trees within the community, that they are concerned about the impact of development upon existing tree resources, and are strongly in favor of a regulatory structure that would protect additional trees.

GOAL:

- 2.2 To enlarge, improve and sustain a diverse urban forest to maximize the economic, ecological, and social benefits of trees.

POLICIES:

1. The City shall maintain and periodically update policies, regulations and standards to inventory, manage, preserve, mitigate the loss of, and



LAND USE PLANNING

enhance the community's tree and vegetation resources to promote their environmental, aesthetic and economic benefits.

2. The City's various codes, regulations, standards and programs relating to landscaping, site development, mitigation, and tree management shall be consistent with, and supportive of, one another; administration and enforcement shall be regulated and coordinated by the variously impacted departments.
3. The City shall continue to regulate the removal of trees, within environmentally sensitive lands and on lands subject to natural hazards.
4. The City shall ensure that street design and land use standards provide ample room for the planting of trees and other vegetation, including the use of flexible and incentive based development standards.
5. The City shall require the replacement and/or installation of new street trees, unless demonstrated infeasible, on all new roads or road enhancement projects. Trees should be planted within planter strips, or at the back of sidewalks if planter strips are not feasible or would prohibit the preservation of existing trees.
6. The City shall establish and enforce regulations to protect the public's investment in trees and vegetation located in parks, within right-of-ways, and on other public lands and easements.
7. The City shall conduct an ongoing tree and urban forest enhancement program to improve the aesthetic experience, environmental quality, and economic value of Tigard's streets and neighborhoods.
8. The City shall continue to maintain and periodically update approved tree lists for specific applications and site conditions, such as street trees, parking lot trees, and trees for wetland and riparian areas.
9. The City shall discourage the use or retention of invasive trees and other plants through the development review process.
10. The City shall require the appropriate use of trees and other vegetation as buffering and screening between incompatible uses.
11. The City shall develop and implement a citywide Urban Forestry



Management Master Plan.

RECOMMENDED ACTION MEASURES:

- i. Develop and implement a comprehensive, coordinated update and enhancement of all tree related regulations, standards, programs, and plans.
- ii. Develop and implement an inspection and enforcement program that will ensure ongoing maintenance of trees and other vegetation required by development approval, with particular attention to challenges introduced by the change of ownership of affected properties.
- iii. Develop and implement an inspection and enforcement program that will ensure non-development related tree management and removal complies with the City's tree protection ordinances such as heritage trees, street trees, and trees on sensitive lands.
- iv. Inventory and evaluate street tree, parking lot and landscape area plantings that have failed to thrive, and determine if site conditions or management practices can be modified, and/or if trees can be planted elsewhere in order to satisfy conditions of development approval or provide the benefits expected of the original planting.
- v. Develop and maintain, as part of the City's GIS and permit systems, a publicly accessible inventory of tree plantings, permitted removals, and the state of the City's urban forest.
- vi. Develop and distribute educational materials and programs regarding City policies, regulations, and good arboricultural practices for the general public, developers and city staff regarding tree planting, maintenance, and protection. Materials should be published in both paper and electronic media and in multiple languages. Particular focus should be given to new property owners who may be unfamiliar with the City's regulations and development related restrictions affecting their property.
- vii. Encourage and promote the removal of nuisance/invasive plants,



and the installation of trees and vegetation that are low maintenance, drought tolerant, site appropriate, and require minimal chemical applications. Strategies could include the production and distribution of approved tree lists to area nurseries, landscaping companies, libraries and similar businesses and public resources.

- viii. Utilize approved tree and plant lists that emphasize long lived evergreens, broad-spreading deciduous varieties, and native species, but allow flexibility to choose a wide variety of species that are proven suitable for local climate conditions and for specific uses and locations.
- ix. Encourage efforts by community groups and neighborhoods to plant trees and undertake other projects, such as restoration of wetlands and stream corridors.
- x. Maintain a list of invasive plants, discourage the sale and propagation of these plant materials within the City, promote their removal, and prevent their reestablishment or expansion.

GOAL:

- 2.3 To balance the diverse and changing needs of the City through well-designed urban development that minimizes the loss of existing trees to create a living legacy for future generations.

POLICIES:

- 1. The City shall develop and implement standards and procedures designed to minimize the reduction of existing tree cover, with priority given to native trees and non-native varieties that are long lived and/or provide a broad canopy spread.
- 2. In prescribing the mitigation of the impacts of development, the City shall give priority to the protection of existing trees, taking into consideration the related financial impact of mitigation.
- 3. The City shall develop policies and procedures designed to protect trees, including root systems, selected for preservation during land



development.

4. The City shall address public safety concerns by ensuring ways to prevent and resolve verified tree related hazards in a timely manner.
5. The City shall develop and enforce site design and landscape requirements to reduce the aesthetic and environmental impacts of impervious surfaces through the use of trees and other vegetation.
6. The City shall, in order to preserve existing trees and ensure new trees will thrive, allow and encourage flexibility in site design through all aspects of development review.
7. The City shall require all development, including City projects, to prepare and implement a tree preservation and landscaping plan, with the chosen trees and other plant materials appropriate for site conditions.
8. The City shall continue to cooperate with property owners, businesses, other jurisdictions, agencies, utilities, and non-governmental entities to manage and preserve street trees, wetlands, stream corridors, riparian areas, tree groves, specimen and heritage trees, and other vegetation.
9. The City shall require, as appropriate, tree preservation strategies that prioritize the retention of trees in cohesive and viable stands and groves instead of isolated specimens.
10. Applications for tree removal and tree management plans shall be reviewed by a certified arborist employed or under contract to the City.
11. The City shall recognize the rights of individuals to manage their residential landscapes.

RECOMMENDED ACTION MEASURES:

- i. Develop and implement regulations, standards, and incentives to encourage developers to transfer density, seek variances and adjustments necessary to preserve trees and natural open space in a manner that optimizes tree preservation and protection.



- ii. Develop tree-mitigation regulations and standards to guide the City in assessing fees or compelling compensatory action resulting from violation of its tree protection standards and/or conditions of development approval. Consideration shall be given to off-site mitigation on both public and private lands, and the maintenance of a publicly accessible registry of mitigation sites both historical and potential.
- iii. Conduct surveys, workshops, and/or other public outreach strategies to identify and implement an appropriate strategy and form for tree protection regulations outside of the development review process.
- iv. Encourage other jurisdictions operating within and adjacent to Tigard to prepare and implement a tree preservation and landscaping plan as part of all development and infrastructure projects.
- v. Develop standards and procedures to identify and abate tree related hazards on both public and private property..



Oregon

Theodore R. Kulongoski, Governor

Department of Land Conservation and Development

800 NE Oregon Street M/S 18, Suite 1145

Portland, Oregon 97232-2162

Phone: (503) 731-4065

Fax: (503) 731-4068

Web Address: <http://www.lcd.state.or.us>



December 16, 2008

John Floyd
Associate Planner
City of Tigard
13125 SW Hall Blvd.
Tigard, OR 97223

Dear John,

In your November 12, 2008 letter you asked for some guidance from the Department of Land Conservation and Development on the relationship of new language added to Tigard's Comprehensive Plan that supports the preservation of trees within the city. The stated purpose of the policies is to protect and preserve air and water quality, in addition to serving other local objectives.

With regard to establishing policies to protect and encourage the growth of trees within the city, although there may be some shared objectives, there is not necessarily a direct link between such a policy and Goal 5. As you mention in your letter there are other Goals that are supported by policies that promote an urban tree canopy. You are correct that the applicability requirement for Oregon Administrative Rule (OAR) 660-023-0250 is very specific; it states:

- (3) Local governments are not required to apply Goal 5 in consideration of a PAPA [post-acknowledgment plan amendment] unless the PAPA affects a Goal 5 resource. For purposes of this section, a PAPA would affect a Goal 5 resource only if:
- (a) The PAPA creates or amends a resource list or a portion of an acknowledged plan or land use regulation adopted in order to protect a significant Goal 5 resource or to address specific requirements of Goal 5;
 - (b) The PAPA allows new uses that could be conflicting uses with a particular significant Goal 5 resource site on an acknowledged resource list; or
 - (c) The PAPA amends an acknowledged UGB and factual information is submitted demonstrating that a resource site, or the impact areas of such a site, is included in the amended UGB area.

The overlap with Goal 5 process requirements can occur when inventories and implementing ordinances are adopted to protect trees. In general, protective measures that focus on individual trees like street trees are less likely to overlap with Goal 5 requirements, whereas approaches that identify and protect tree groves, particularly if

December 16, 2008
John Floyd, City of Tigard
Page two of two

coincident with Goal 5 resources such as riparian areas and wetlands, are more likely to overlap with Goal 5 requirements. (See LUBA No. 95-041)

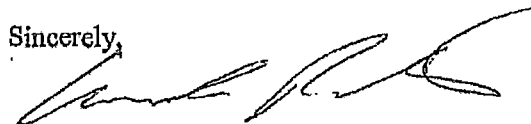
The fact that Tigard has linked the new policies to Goal 6 creates another case for separation of the policies and resultant implementation from the process requirements of Goal 5. OAR 660-23-0240 (1) states,

- (1) The requirements of Goal 5 do not apply to the adoption of measures required by Goals 6 and 7. However, to the extent that such measures exceed the requirements of Goals 6 or 7 and affect a Goal 5 resource site, the local government shall follow all applicable steps of the Goal 5 process.

The requirements of Goal 6 are quite broad: "To maintain and improve the quality of air, water and land resources in the state." Findings based on scientific research that trees within an urban area serve to maintain and improve air and/or water quality should be sufficient to link local tree preservation strategies with Goal 6. The Portland Metro Title 3 program is an example of Goal 6 being used to establish requirements for or limits on development, without the application of the Goal 5 process.

I hope that this information is helpful. I am available to further discuss any questions that may be raised by this letter. Please contact me by phone (971-673-0961) or e-mail (amanda.punton@state.or.us).

Sincerely,



Amanda Punton
Natural Resources Specialist

cc: DLCD staff:

Meg Fernekees, Regional Representative
Rob Hallyburton, Planning Services Division Manager



City of Tigard
Memorandum

To: City Council

From: Tim Lehrbach, Planning Assistant

Re: Urban Forestry Annotated Bibliography

Date: May 17, 2010

Community Development staff has assembled the attached bibliography to document the diverse range of benefits and services provided by a healthy urban forest. The scholarly works cited have been compiled to inform and support the adoption of the Urban Forestry Comprehensive Plan Amendment (CPA2008-00002). Where the authors have made abstracts of their works available, these existing abstracts are included and are denoted by an asterisk (*). For each of the other works, staff has composed an abstract.

Attachment:
Annotated Bibliography

Annotated Bibliography

Center for Urban Forest Research. (2003). *Is All Your Rain Going Down the Drain?* USDA Forest Service, Pacific Southwest Research Station. 4 p.

Urban trees can be a significant asset for the reduction of stormwater runoff by retaining rainwater and slowing soil erosion. An urban forest of 10,000 trees will reduce runoff by 10 million gallons or more of water each year. Large-crowned trees which are in-leaf coinciding with the most precipitous season, or are evergreens, provide the greatest benefit.

Center for Urban Forest Research. (2006). *Why Shade Streets? The Unexpected Benefit.* USDA Forest Service, Pacific Southwest Research Station. 4 p.

This report presents research on the benefits of street trees for road maintenance in California's Central Valley. Evaporation at high temperatures of the binder in asphalt increases the instance of large cracks in pavement over time. Streets that are shaded by trees are less susceptible to this effect and require less frequent maintenance. Shading streets can save between 17% (when small trees are used) and 58% (when large trees are used) on resurfacing and repair costs versus unshaded streets. Effectiveness is highest when large, deep-rooted trees are selected, adequate soil volume is maintained, and trees are placed at least three feet from any pavement.

Donovan, G.H., & Butry, D. (2010). "Trees in the City: Valuing Street Trees in Portland, Oregon." *Landscape and Urban Planning* 94(2), 77-83.

**Donovan and Butry use a hedonic price model to simultaneously estimate the effects of street trees on the sales price and the time-on-market (TOM) of houses in Portland, Oregon. On average, street trees add \$8,870 to sales price and reduce TOM by 1.7 days. In addition, the authors found that the benefits of street trees spill over to neighboring houses. Because the provision and maintenance of street trees in Portland is the responsibility of adjacent property owners, their results suggest that if the provision of street trees is left solely to homeowners, then there will be too few street trees from a societal perspective.*

Geiger, Jim. (2004). *The Large Tree Argument: The Case for Large Trees vs. Small Trees.* Center for Urban Forest Research, USDA Forest Service, Southern Center for Urban Forestry Research & Information. 8 p.

Planting and maintaining as many large-stature trees as possible is economically and environmentally preferable over the long run to planting and maintaining small-stature trees. The article cites a comparison study of costs and benefits for different plans for municipal tree planting and maintenance and provides suggestions for marketing large-stature trees to communities.

McPherson, E.G., Maco, S.E., Simpson, J.R., Peper, P.J., Xiao, Q., VanDerZanden, A.M., & Bell, N. (2002). *Western Washington and Oregon Community Tree Guide: Benefits, Costs and Strategic Planting.* Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, pp. 5-12, 17-22.

Decisions about investments in community trees depend on correctly calculating the costs and benefits of planting and maintaining trees in community spaces: yards, parks, and street locations. The Tree Guide describes studies calculating the economic benefits of trees to energy conservation, air cooling, pollutant and runoff reduction, street

shading, and land value, as well as studies calculating the costs of planting, pruning, and removing trees, irrigation, pest and disease control, infrastructure repair, cleanup, liability, and administration. Net benefits or costs are calculated by weighing the benefits versus costs at four different scales—parcel, neighborhood, community, and global—then summing the results. The summed results reveal net benefits exceeding net costs for all large trees, all medium residential trees, and all small trees opposite west-facing walls.

McPherson, E. G., & Muchnick, J. (2005). "Effects of Street Tree Shade on Asphalt Concrete Pavement Performance." *Arboriculture & Urban Forestry* 31(6), 303-310.

**Forty-eight street segments were paired into 24 high and low-shade pairs in Modesto, California, U.S. Field data were collected to calculate a Pavement Condition Index (PCI) and Tree Shade Index (TSI) for each segment. Statistical analyses found that greater PCI was associated with greater TSI, indicating that tree shade was partially responsible for reduced pavement fatigue cracking, rutting, shoving, and other distress. Using observed relations between PCI and TSI, an unshaded street segment required 6 slurry seals over 30 years, while an identical one planted with 12 crape myrtles (*Lagerstroemia indica*, 4.4 m [14 ft] crown diameter) required 5 slurry seals, and one with 6 Chinese hackberry (*Celtis sinensis*, 13.7 m [45 ft] crown diameter) required 2.5 slurry seals. Shade from the large hackberries was projected to save \$7.13/m² (\$0.66/ft²) over the 30-year period compared to the unshaded street.*

McPherson, E.G., Simpson, J.R., Peper, P.J., Maco, S.E., & Xiao, Q.(2005). "Municipal Forest Benefits and Costs in Five US Cities." *Journal of Forestry*, 103(8), 411-416.

**Increasingly, city trees are viewed as a best management practice to control stormwater, an urban-heat-island mitigation measure for cleaner air, a CO₂-reduction option to offset emissions, and an alternative to costly new electric power plants. Measuring benefits that accrue from the community forest is the first step to altering forest structure in ways that will enhance future benefits. This article describes the structure, function, and value of street and park tree populations in Fort Collins, Colorado; Cheyenne, Wyoming; Bismarck, North Dakota; Berkeley, California; and Glendale, Arizona. Although these cities spent \$13– 65 annually per tree, benefits ranged from \$31 to \$89 per tree. For every dollar invested in management, benefits returned annually ranged from \$1.37 to \$3.09. Strategies each city can take to increase net benefits are presented.*

Nowak, David J. *The Effects of Urban Trees on Air Quality*. USDA Forest Service, Northeastern Research Station. 4 p.

Urban vegetation directly and indirectly alters local and regional air quality in four principal ways. Urban vegetation can reduce air temperature and effect other changes in local meteorology. Trees remove pollutants from the atmosphere both temporarily by intercepting airborne particles and permanently through leaf uptake. Trees emit volatile organic compounds (VOCs) and may result in the emission of additional VOCs from tree maintenance, yet can reduce overall VOC emissions by lowering air temperatures and absorbing evaporative emissions. Appropriately placed, mature trees reduce building energy use, while improperly sited trees may increase building energy use. The combined effects suggest that urban forest management strategies should promote planting and sustaining large, long-lived, and low-maintenance trees in energy-conserving and pollution-reducing locations.

Sullivan, W.C., Kuo, F.E., & DePooter, S.F. (2004). "The Fruit of Urban Nature: Vital Neighborhood Spaces." *Environment and Behavior* 36(5) 678-700.

**What makes a neighborhood space vital? This article explores the possibility that the presence of trees and grass*

may be one of the key components of vital neighborhood spaces. The authors report on 758 observations of individuals in 59 outdoor common spaces in a residential development. Twenty-seven of the neighborhood common spaces were relatively green, whereas 32 were relatively barren. Results indicate that the presence of trees and grass is related to the use of outdoor spaces, the amount of social activity that takes place within them, and the proportion of social to nonsocial activities they support. The findings improve and broaden our understanding of the physical characteristics that influence social contact among neighbors and provide evidence that nature plays an important role in creating vital neighborhood spaces.

Wolf, Kathleen L. (2007). "City Trees and Property Values." *Arborist News* 16(4), 34-36.

All forms of urban nature—parks, greenbelts, open space, street trees, etc.—are public goods which provide a range of benefits and services to society. For policy and investment decisions, whether public or private, economic valuation is paramount. Economic decision-making centered on productive use and hard cost can obscure incentives to invest in urban nature. The benefits of urban nature can be represented economically using hedonic pricing and nonmarket valuation. Utilizing these methods can yield evidence in favor of investment in urban nature by revealing nonexcludable benefits for all members within a community and added value to properties with trees.

Wolf, Kathleen L. (2005). "Civic Nature Valuation: Assessments of Human Functioning and Well-Being in Cities." *Forging Solutions: Applying Ecological Economics to Current Problems, Proceedings of the 3rd Biennial Conference of the U.S. Society for Ecological Economics*. Tacoma, WA: Earth Economics. 6 p.

**Civic nature is the collective "constructed nature" of cities and can include parks, open spaces and urban forests, on public or private lands. The existence and quality of civic nature is dependent on comprehensive planning and management. Civic nature advocates are called upon to justify the public costs of amenities that are often perceived as having only aesthetic value. Urban nature provides multiple valuable services, and economic valuation of such services has been initiated. Valuation of the human services provided by urban trees and open space—physical health, mental health and functioning, community health and safety—is another opportunity for research and dialog about nature-based public goods.*

Wolf, Kathleen L. (1998). *Human Dimensions of the Urban Forest, Fact Sheet 1 - Urban Nature Benefits: Psycho-Social Dimensions of People and Plants*. Center for Urban Horticulture, University of Washington, College of Forest Resources. 2 p.

Urban trees are associated with various positive effects on everyday moods, activities, and emotional health. Exposure to nature helps us recover from cognitive fatigue. Views of and proximity to nature in the workplace are correlated with greater enthusiasm and patience for work and increased satisfaction. Green views from the home may be associated with reduced domestic conflict. Well-tended landscapes reduce stress and fear of violence in neighborhoods, on the road, and at school. These and other examples add to the list of environmental reasons to grow more urban plants.

Wolf, Kathleen L. (1998). *Human Dimensions of the Urban Forest, Fact Sheet 2 - Growing with Green: Business Districts and the Urban Forest*. Center for Urban Horticulture, University of Washington, College of Forest Resources. 2 p.

The fact sheet presents a survey of perceptions of urban trees among business interests including owners, contractors, realtors, and business association staff. Trees present opportunities to maximize profits when they create a positive mood and distinct visual identity for patrons to a business. Trees indicate attention to customer service outside the

walls of the business. Concerns about urban trees outside of businesses include reduced visibility for safety and security, engineering and debris impacts, and loss of functional space. Acknowledging these costs helps inform decisions on planting and maintaining the right trees in the right places.

Wolf, Kathleen L. (1998). *Human Dimensions of the Urban Forest, Fact Sheet 3 - Urban Forest Values: Economic Benefits of Trees in Cities*. Center for Urban Horticulture, University of Washington, College of Forest Resources. 2 p.

The fact sheet introduces a selection of economic benefits of urban trees. Strategic planting and care enhances the urban infrastructure by reducing heating and cooling costs, cleansing the air, and improving water quality. Trees and landscaping attract customers to retail and commercial environments and are associated with higher commercial land values and higher commercial occupancy rates. Residential property values, too, are increased by planting and retaining trees.

Wolf, Kathleen L. (2003). "Social Aspects of Urban Forestry: Public Response to the Urban Forest in Inner-City Business Districts." *Journal of Arboriculture*, 29(3), 117-126.

**Revitalization programs are under way in many inner-city business districts. An urban forestry program can be an important element in creating an appealing consumer environment, yet it may not be considered a priority given that there are often many physical improvements needs. This research evaluated the role of trees in consumer/environment interactions, focusing on the districtwide public goods provided by the community forest. A national survey evaluated public perceptions, patronage behavior intentions, and product willingness to pay in relationship to varied presence of trees in retail streetscapes. Results suggest that consumer behavior is positively correlated with streetscape greening on all of these cognitive and behavioral dimensions. Research outcomes also establish a basis for partnerships with business communities regarding urban forest planning and management.*

Wolf, Kathleen L. (2005). *Trees Are Good for Business: Urban Forest Planning Guidelines for Business Associations*. Presentation, Pacific Northwest Chapter of the International Society of Arboriculture. 12 p.

This presentation summarizes the results of surveys of business patrons and research in marketing and consumer behavior recommending that trees be utilized to create positive customer experiences. Trees are cues of caring and quality and are correlated with more frequent and longer visits to businesses, greater willingness to travel farther and pay for parking, and increased spending. Respondents to surveys preferred visiting sites with trees to those without trees, and positive reaction increased with tree size.

Wolf, Kathleen L. (2005). "Trees in the Small City Retail Business District: Comparing Resident and Visitor Perceptions." *Journal of Forestry* 103(8), 390-395.

**Many small cities and towns are located near resource lands, and their central business districts serve both residents and visitors. Such quasi-rural retail centers face competitive challenges from regional shopping malls, online purchasing, and big box discount retailers. District merchants must strategically enhance their market position to prevent outshopping. Streetscape trees are a physical improvement that can be used to attract and welcome consumers. A national survey evaluated public perceptions, patronage behavior intentions, and product willingness-to-pay in relationship to depictions of trees in retail settings. Results suggest that consumer behavior is positively associated with the urban forest on multiple cognitive and behavioral dimensions. Forest amenities of both wildland and built environments can be used to strengthen local economies.*

Wolf, Kathleen L. (2004). *Trees, Parking, and Green Law: Strategies for Sustainability*. Stone Mountain, GA: Georgia Forestry Commission, Urban and Community Forestry, pp. 8-14.

A critical and frequently overlooked aspect of working toward sustainability goals in communities is responding to the impact of paved areas, especially parking lots, on the natural environment. This report describes scientific research on the effects of parking lots and offers strategies for improving a community's environmental performance with respect to automobile parking. Such strategies will address heat island effects, air quality, stormwater runoff, and economic impacts. A multi-faceted approach to mitigating the impact of paved parking areas will employ creative policy statements and innovative code language to promote vegetation planting, retention, and maintenance, restrict parking lot geometry, and emphasize smart design.

Policies Removed by Ordinance 08-07

Topic 1: General Policies

Policy 1.1.1 THE CITY SHALL ENSURE THAT:

- a. THIS COMPREHENSIVE PLAN AND ALL FUTURE LEGISLATIVE CHANGES ARE CONSISTENT WITH THE STATEWIDE PLANNING GOALS ADOPTED BY THE LAND CONSERVATION AND DEVELOPMENT COMMISSION, THE REGIONAL PLAN ADOPTED BY THE METROPOLITAN SERVICE DISTRICT;
- b. ANY NEIGHBORHOOD PLANNING ORGANIZATION PLANS AND IMPLEMENTATION MEASURES ADOPTED BY THE CITY OF TIGARD AFTER THE EFFECTIVE DATE OF THIS COMPREHENSIVE PLAN ARE DESIGNED TO BE CONSISTENT WITH THIS PLAN; AND
- c. THE TIGARD COMPREHENSIVE PLAN AND COMMUNITY DEVELOPMENT CODE ARE KEPT CURRENT WITH THE NEEDS OF THE COMMUNITY. IN ORDER TO DO THIS:
 1. THIS PLAN SHALL BE REVIEWED AND UPDATED AT LEAST EVERY FIVE YEARS.

Findings: The proposed comprehensive plan amendment will continue to ensure the City is in compliance with applicable statewide law, plans, and programs, and responds to current community needs and values. Further detail can be found findings regarding applicable Statewide Planning Goals, City of Tigard Comprehensive Plan Policies, and the City of Tigard Development Code. Neighborhood Planning Organizations are no longer a part of the City's land use program.

Policy 1.1.2 THE COMPREHENSIVE PLAN AND EACH OF ITS ELEMENTS SHALL BE OPENED FOR AMENDMENTS THAT CONSIDER COMPLIANCE WITH THE PLANS OF THE METROPOLITAN SERVICE DISTRICT (MSD) OR ITS SUCCESSOR ON AN ANNUAL BASIS, AND MAY BE SO AMENDED OR REVISED IF DEEMED NECESSARY BY THE CITY COUNCIL. ANNUAL AMENDMENT AND REVISION FOR COMPLIANCE WITH THE ABOVE REGIONAL GOALS, OBJECTIVES AND PLANS SHALL BE CONSISTENT WITH ANY SCHEDULE FOR RE-OPENING OF LOCAL PLANS APPROVED BY THE LAND CONSERVATION AND DEVELOPMENT COMMISSION (LCDC).

THIS PROVISION IS NOT TO BE CONSTRUED AS WAIVING ANY

LEGAL RIGHTS WHICH THE CITY MAY HAVE TO CHALLENGE THE LEGALITY OF A REGIONAL GOAL, OBJECTIVE, OR PLAN PROVISION.

Findings: This update will ensure the City continues to remain in compliance with applicable laws, rules, regulations, plans, and programs of Metro. Please refer to findings made in reference to applicable Metro Regulations.

Policies Removed by Ordinance 08-13

Topic 3: Natural Features and Open Space

Policy 3.4.2 THE CITY SHALL:

- a. **PROTECT FISH AND WILDLIFE HABITAT ALONG STREAM CORRIDORS BY MANAGING THE RIPARIAN HABITAT AND CONTROLLING EROSION, AND BY REQUIRING THAT AREAS OF STANDING TREES AND NATURAL VEGETATION ALONG NATURAL DRAINAGE COURSES AND WATERWAYS BE MAINTAINED TO THE MAXIMUM EXTENT POSSIBLE;**
- b. **REQUIRE THAT DEVELOPMENT PROPOSALS IN DESIGNATED TIMBERED OR TREE AREAS BE REVIEWED THROUGH THE PLANNED DEVELOPMENT PROCESS TO MINIMIZE THE NUMBER OF TREES REMOVED; AND**
- c. **REQUIRE CLUSTER TYPE DEVELOPMENT IN AREAS HAVING IMPORTANT WILDLIFE HABITAT VALUE AS DELINEATED ON THE "FISH AND WILDLIFE HABITAT MAP" ON FILE AT THE CITY.**
- d. **ADDRESS GOAL 5 RULE REQUIREMENTS PERTAINING TO THE PRESERVATION OF WETLANDS ONCE ADEQUATE INFORMATION ON THE LOCATION, QUALITY, AND QUANTITY OF WETLAND SITES IS OBTAINED. THIS GOAL 5 REVIEW WILL INCLUDE DETERMINING WHICH WETLAND SITES ARE ECOLOGICALLY AND SCIENTIFICALLY SIGNIFICANT. CITIZENS WILL PARTICIPATE IN MAKING POLICY RECOMMENDATIONS FOR THE PROTECTION AND PRESERVATION OF THOSE WETLAND AREAS DESIGNATED AS SIGNIFICANT. THE CITY SHALL COMPLETE ITS GOAL 5 REVIEW OF WETLAND AREAS BEFORE THE CITY'S NEXT PERIODIC REVIEW, BUT NO LATER THAN DECEMBER 23, 1996.**

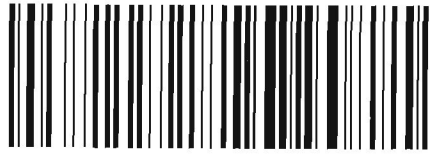
Findings: Tigard's interest in the adoption of this Comprehensive Plan Amendment spans the full range of services and values that trees provide such as air and water quality, economic development, reduction of the urban heat island effect, carbon sequestration, aesthetic enhancement, and increased livability and human health. While this broad range of services and shared goals may at times overlap with the narrower natural resource related objectives of Statewide Planning Goal 5 and the Tigard Comprehensive Plan Goal and Policies listed above, any overlap is significantly outweighed by the preponderance of other values and services that trees can provide to the community, the promotion of which is the

Attachment 4

purpose of the Urban Forest Policy. However, this does not eliminate the natural resource value of policies that seek to maintain a healthy urban forest. To the extent to which the Urban Forest Policy affects the above natural resource policies, it is consistent with each.

As discussed in the finding made for Statewide Planning Goal 5, the proposed amendment does not alter the City's acknowledged Goal 5 inventories or land use programs, as it consist of a new chapter of the Comprehensive Plan. Due to the aspirational and descriptive function of the policies contained therein, no changes will occur to current Natural Resource protections by adoption of the Urban Forest Policy. If and when the goals and policies contained in the Urban Forest Policy are implemented through future amendment(s) to the Tigard Development Code and associated inventories, any and all Goal 5 requirements that are triggered by such amendment will be complied with. Should the proposed urban forestry policies trigger any Statewide Planning Goal 5 requirements at the time of implementation, such as the expansion of acknowledged resource inventories, the city would require consistency with the natural resource goals and policies of the Tigard Comprehensive Plan.

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**CITY OF TIGARD
LONG RANGE PLANNING
13125 SW HALL BLVD.
TIGARD, OR 97223**



02 1M \$ 07.17⁰
0004227235 AUG 13 2010
MAILED FROM ZIP CODE 97223

ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEV.
635 CAPITOL STREET NE., SUITE 150
SALEM, OREGON 97301-2540

RETURN RECEIPT
REQUESTED