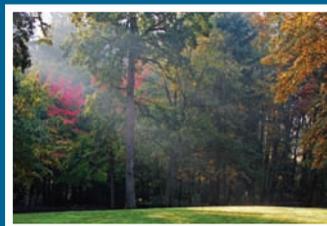


2027
City of Tigard

Comprehensive Plan

*Tigard's 20-year land use guide
designed to meet the current and future needs
of our people, land, and resources*



ON THE COVER:

Paul August won Tigard’s photo contest with this beautiful photo of the John F. Tigard House. The contest’s theme was “Tigard... A place to call home” and ran from the end of August to November 1, 2007. Entries were received from fourteen photographers, 40 photographs in total. Several of the entries can be found throughout the Comprehensive Plan.



The John Tigard house, a three room 1880 Carpenter Gothic Victorian, was entered in the National Register of Historic Places in 1979. It now resides at the corner of SW Canterbury Lane and SW 103rd in Tigard.



PAUL AUGUST: Tigard House



CITY STAFF:
Lincoln Center



KIM BRUN:
Early Morning Light



CITY STAFF:
Tigard Neighborhood



Thanks and Appreciation

An undertaking the size and scope of the City of Tigard's 20-year Comprehensive Plan takes the immense creativity and hard work of so many individuals and groups. Thanks to all (past and present) who contributed.

TIGARD CITY COUNCIL

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Craig Prosser, City Manager	Ron Bunch, CD Director
Tom Coffee, CD Dir., Retired	Darren Wyss, Senior Planner
Sean Farrelly, Redev. Project Mgr.	Beth St. Amand, Senior Planner
Duane Roberts, Project Planner	Todd Prager, Arborist/Planner
Marissa Daniels, Assoc. Planner	John Floyd, Assoc. Planner
Denver Igarta, Assoc. Planner	Doreen Laughlin, Senior Admin.
Alejandro Bancke, Intern	Other Department Representatives

TIGARD BOARDS & COMMISSIONS

City Center Advisory Commission	Committee for Citizen Involvement
Tree Board	Parks and Recreation Advisory Board
Policy Interest Team Members	

PHOTOGRAPHS

Many of the photos in this document were taken by citizens who competed in our Photo Contest, "A Place to Call Home." The winning photograph, taken by Paul August, is entitled "The Tigard House," and graces the cover. Credit has been given beneath the other photos throughout the document.



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Citizen Involvement

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





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
02-05-08	2007-00005	Entire chapter updated by Ordinance 08-01.

SECTION COVER PHOTO: LOUIS BABCOCK, PHOTO CONTEST ENTRANT
Butterfly Garden Volunteer.



Decision-makers must have an effective way to hear the voices of the community. These voices are a key component to a livable community and help elected officials in establishing the priorities for City government. This value given to citizen involvement is not a new idea, but one that professionals in the planning field have long identified as an important aspect of the planning process. This is particularly true at the local level where neighborhood residents need to be empowered to help develop ideas and plans that reflect the wishes of the community. The City's commitment to Citizen Involvement is partly based on Statewide Planning Goal 1.

GOAL 1: Citizen Involvement

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

Goal 1 requires the local citizen involvement program "clearly define procedures by which the general public will be involved in the ongoing land-use process." These actions include methods to involve citizens in land use issues; promoting successful two-way communication and feedback between the City and its citizens; means by which citizens may affect outcomes; clarity and availability of technical information; and financial support and other resources for citizen involvement efforts. All of these actions align with the community's vision where citizens are informed about how to access public services and understand their responsibility to participate as members of the community.

"Decision-makers must have an effective way to hear the voices of the community."

Citizen Involvement Requirements and Aspirations

Tigard complies with the state's citizen involvement requirements as they relate to the City's land use program activities. As part of its Community Development Code, the City has adopted application, notice, and hearing procedures that assure the procedural rights of both applicants and citizens are observed during quasi-judicial land use procedures. In addition, the Development Code contains specific notice, application, and procedural requirements to guide the review and hearing process of legislative land use matters such as the update of the Comprehensive Plan; changes to the Community Development Code; Plan and Zoning Map amendments; and development of specific area plans, etc.



It is the City's intention to maintain and improve citizen involvement as part of the land use planning program. However, Tigard also values citizen involvement in all other City government venues. The City aspires to engage its citizens to address important community issues and for them to express their collective voice to decision-makers. Therefore, the Citizen Involvement chapter includes goals, policies, and recommended action measures that reflect Tigard's citizen involvement values and aspirations, as well as the need to observe state requirements related to land use planning.

Citizen Involvement in Tigard



PHOTO: DOUG VORWALLER

Downtown Redevelopment Manager, Sean Farrelly, interacting with an interested citizen at City sponsored Open House.

Tigard has a long history of citizen involvement in City affairs, including land use planning. The structure of citizen involvement has evolved over time, beginning with the creation of Tigard's Community Plan in 1971. Shortly thereafter, in 1973 the City began to formulate Neighborhood Planning Organizations (NPOs) and a Committee for

Citizen Involvement (CCI), both of which were formally recognized in 1975. After the creation of Neighborhood Plans, participation in NPOs and the CCI lapsed until they were reestablished in 1982 to work on an update of the Tigard Comprehensive Plan. After the updated plan was approved by the Land Conservation and Development Commission in 1984, the function of NPOs transitioned to a community involvement body focused on land use issues.

In 1992, the City Council prioritized citizen involvement and replaced the Neighborhood Planning Organizations with Citizen Involvement Teams (CITs). At this time the Comprehensive Plan was updated to shift emphasis from the NPOs to the CITs. The structure of the Committee for Citizen Involvement (CCI) was also revised to include Citizen Involvement Team Facilitators. This



effort continued until 2002 when participation reached a lull.

In 2004 the City again took steps to reactivate the CCI. The CCI's membership was expanded to include the remaining Citizen Involvement Team Facilitators and a representative from each of the City's active boards and commissions (Planning Commission, Library Board, Parks and Recreation Advisory Board, etc). The focus of the CCI was also expanded to include the promotion and enhancement of citizen participation in the wide range of non land use issues, and on improving the effectiveness of the City's two-way communication with citizens.

“Tigard has a long history of citizen involvement in City affairs, including land use planning.”

In 2007 the City Council again stressed the importance of citizen involvement by adopting as one of its goals, “Improve communication with Tigard’s citizens.” Subsequently, the City moved to strengthen citizen involvement through establishment of the Tigard Enhanced Neighborhood Program. This was done to foster broader and more diverse citizen involvement in land use activities and other aspects of City government. CCI membership was also expanded. In addition to its current membership, the CCI includes five citizens appointed “at-large,” a youth representative, and Tigard Neighborhood Program representatives.



PHOTO: DOUG VORWALLER

Long Range Planner, John Floyd, conversing with concerned citizen.

Besides the CCI and Neighborhood Program, the City involves its citizens and seeks advice on important community issues in several other ways. These include Council appointed boards and commissions such as the Planning Commission, Library Board, Tree Board, Parks and



Recreation Advisory Board, Budget Committee, Youth Advisory Committee, etc. Furthermore, Council often appoints ad hoc citizen committees to provide advice on matters such as public facilities, land-use, urban design, transportation projects, etc.

Honoring Past Citizen Involvement — “Tigard Beyond Tomorrow”

The Tigard Comprehensive Plan also honors the past efforts by Tigard’s citizens to express a shared community vision of the future. During the past decade, Tigard citizens met and assembled the Tigard Vision from the results of community workshops, surveys, open houses, and ongoing dialogues with citizens and the business community. The values and aspirations expressed by “Tigard Beyond Tomorrow” visioning have been significant in the 2027 Comprehensive Plan update.

“...the City values citizen involvement in all aspects of City government and seeks to involve its citizens in other venues.”

KEY FINDINGS:

- Tigard’s citizen involvement efforts have changed over time and the Comprehensive Plan’s current Citizen Involvement chapter is out of date. It requires significant update to reflect current conditions, circumstances, community values, and aspirations.
- Tigard’s citizen involvement efforts are partially based on Statewide Planning Goal 1, Citizen Involvement. However, the City values citizen involvement in all aspects of City government and seeks to involve its citizens in other venues.
- Implementing Statewide Planning Goal 1 and Tigard Development Code Standards will ensure citizens can participate in the City’s quasi-judicial and legislative land use processes.
- Other avenues for citizen participation include Council appointed boards and commissions and ad hoc citizen advisory committees.



- Tigard is committed to: successful two-way communication and feedback between the City and its citizens; providing processes by which citizens may affect outcomes; clarity and availability of technical information; and providing financial support and other resources for citizen involvement efforts.



PHOTO: DOUG VORWALLER

Involved citizens participating in a City sponsored Comprehensive Plan Open House.

- The charge of the Committee for Citizen Involvement is to promote citizen involvement in land use matters and in many other aspects of City government.
- Update of the Comprehensive Plan has involved a structured citizen involvement effort including open houses, engagement of policy interest teams and boards and commissions, Planning Commission, and City Council work sessions and public hearings. Also, the Comprehensive Plan Project has been significantly informed by the Tigard Beyond Tomorrow visioning process.
- The citizens of Tigard value and understand their responsibility to participate as members of the community.

GOAL:

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

POLICIES:

1. The City shall maintain a Committee for Citizen Involvement representative of a broad cross-section of the Community to:



CITIZEN INVOLVEMENT

- A. Make recommendations to the City regarding ways to engage the public in City issues, projects, and the land use process;
 - B. Help implement and develop a public information and citizen involvement program applicable to a wide range of issues; and
 - C. Support the enhancement of Tigard's overall level and quality of civic engagement by promoting meaningful citizen involvement in City government.
2. The City shall define and publicize an appropriate role for citizens in each phase of the land use planning process.
 3. The City shall establish special citizen advisory boards and committees to provide input to the City Council, Planning Commission, and City staff.
 4. The City shall provide staff and financial support to the Committee for Citizen Involvement and any other appointed board or committee.
 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.

RECOMMENDED ACTION MEASURES:

- i. Report the activities of the Committee for Citizen Involvement annually to the City Council to ensure they are in accordance with the needs of the Tigard community and Statewide Planning Goal 1 requirements.
- ii. Establish a process for the Citizen Involvement Committee to meet with the City Council and Planning Commission on topic-specific issues relating to citizen involvement.
- iii. Recognize citizens, organizations, and stakeholders who put forth exceptional civic efforts.
- iv. Work with the Tigard-Tualatin School District and local private schools to encourage the involvement of youth in City government.



- v. Appoint additional citizen task forces, as the need arises, to advise the City with regard to Comprehensive Plan issues.
- vi. Develop and maintain a neighborhood program that includes land use planning.
- vii. Review and evaluate the effectiveness of the citizen involvement program, including the effectiveness of individual boards, committees, and the enhanced neighborhood program on a yearly basis.
- viii. Assist and support any City Council appointed citizen group by providing adequate meeting places, distribution of materials, policy direction, and staff involvement.

“The City shall work to maximize citizen involvement through education and accessibility.”

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.

POLICIES:

- 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.
- 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.



3. The City shall work to maximize citizen involvement through education and accessibility.
4. The City shall ensure citizens receive a timely response from policy-makers regarding recommendations made through the citizen involvement program.
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.
6. The City shall provide opportunities for citizens to communicate to Council, boards and commissions, and staff regarding issues that concern them.

RECOMMENDED ACTION MEASURES:

- i. Provide translations of information to non-English speaking members of the community.
- ii. Update and maintain the City of Tigard Communications Plan.
- iii. Ensure that when citizens ask questions the response is welcoming, timely, and includes sources of additional information.
- iv. Review City notification requirements and methods periodically to determine if they adequately provide notice to affected citizens. Revise these requirements and methods as necessary.
- v. Continue to publish information on land use planning issues in a form accessible to all citizens.
- vi. Utilize methods such as town halls, open houses, public displays, newsletters, mailings, comment cards, surveys, and the internet to inform the public and receive information from them about important issues and events.



- vii. Update and maintain a running list of citizen involvement opportunities to be posted in City Hall, the Tigard Library, and online.
- viii. Include and publicize a final citizen involvement report at the end of any major decision or process.
- ix. Define the feedback mechanism in advance of citizen comment.
- x. Ensure response to citizen comment is welcoming, timely, and includes suggestions for how citizens can be further involved.
- xi. Update and maintain a list of community organizations to participate in discussion of City issues.
- xii. Implement a Speakers Bureau program to facilitate two-way communication between community organizations and City Hall.
- xiii. Require Communication Plans in advance of major City Projects for review by the Committee for Citizen Involvement.



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.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
06-03-08	2008-00001	Section 1: Legislative Foundation updated by Ordinance 08-07.
06-03-08	2008-00002	Section 2: Tigard's Urban Forest updated by Ordinance 08-08.

SECTION COVER PHOTO: CITY STAFF

2009 Planning Commission

Top Row L-R: Jeremy Vermilyea; Matthew Muldoon; Tom Anderson; Rex Caffall

Btm Row L-R: V.P. David Walsh; President Jodie Inman; Karen Fishel; Margaret Doherty

Not pictured: Commissioner Stuart Hasman, Alternate Commissioner Timothy L. Gaschke



Land use planning influences the type and character of development in Tigard, as well as the City’s ability to provide and sustain essential urban services. The type, quality, and amount of new development and its required urban services can affect attainment of community objectives such as quality of life, sense of place and uniqueness, and a strong local economy. The Comprehensive Plan and its implementing regulations are important policy and regulatory tools needed to achieve the above, and other, community objectives. They are also essential to guide cooperation, coordination, and partnerships with other governments and agencies that have a stake in the overall well-being of the Portland Metro Region.

“Land use planning influences the type and character of development.”

The goals and policies contained in this chapter, as well as all chapters in the Tigard Comprehensive Plan, establish the legislative policy basis for Tigard’s land use planning program. The program includes the Community Development Code, regulatory maps, special area plans, etc. In addition, these policies establish important criteria to be used when initiating regulatory changes or reviewing and developing code, map, and policy amendments. The policies also provide guidance on when and how to update the Comprehensive Plan and state the City’s commitment to coordinating the development and maintenance of its land use program with other affected agencies and jurisdictions.

GOAL 2: Land Use Planning

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

Statewide Planning Goal 2 requires that:

- City, county, state, and federal agency and special district plans and actions related to land use be consistent with the comprehensive plans of cities, counties, and regional plans adopted under ORS Chapter 268 (Metro);
- Land use plans identify issues, problems, inventories, and other factual information for each applicable statewide planning goal;



- Specific implementation measures be developed consistent with and adequate to carry out local jurisdictions' comprehensive plan;
- Adoption and subsequent amendment of comprehensive plans and their implementation measures be coordinated with the plans of other affected governmental units; and
- All adopted land use plans and implementing measures be periodically reviewed and revised to address changed conditions and circumstances.

Section 1: Legislative Foundation

Incorporated in 1961, the City of Tigard has experienced rapid growth over the years. This growth can be attributed to many factors, primarily the close proximity to Portland, a healthy inventory of developable land, and easy access to major transportation facilities such as Hwy 99W, Hwy 217, and I-5.



PHOTO: CITY STAFF

Washington Square.

implementing ordinances that comply with the goals. Subsequently, the City of Tigard updated its Community Plan into a Comprehensive Plan that was adopted in 1983.

The City completed its first and only Periodic Review of the Comprehensive Plan in 1989 and since that time the context and scope of land use planning has changed considerably. For example, Tigard has undertaken several other planning efforts that are required to be coordinated, from a policy perspective,

Tigard recognized the need to plan for growth and adopted its first Community Plan in 1971. This plan set the stage for the City's future land use planning efforts. Shortly thereafter, in 1974, the state adopted the Statewide Planning Goals. This required that all Oregon jurisdictions prepare and adopt comprehensive land use plans and



with the current Comprehensive Plan. These include the Tigard Triangle Plan, the Washington Square Regional Center Plan, the Tigard Transportation System Plan, the Tigard Urban Renewal Plan, and the Tigard Downtown Improvement Plan. Furthermore, many new state land use laws and administrative rules have been passed, while Metro has taken the lead in several other areas of urban growth management. Metro's responsibilities now include the management of the regional urban growth boundary, transportation planning, natural resource management, and household and employment allocations to regional jurisdictions. Tigard's Comprehensive Plan must be in compliance with state goals and laws, while also being consistent with Metro's growth management rules.

One of the biggest growth management challenges that Tigard will face, as well as the rest of the Portland region, is the need to accommodate up to a million new residents and commensurate employment growth within the region as forecasted by Metro's 2030 population projection. Cities in the Portland region have already committed to minimize urban sprawl and accommodate a significant part of this growth within compact urban centers within existing municipal boundaries. However, part of the region's future growth will have to occur at the "edges" of the urban growth boundary. It is unlikely that any of this "edge" growth will be within the City of Tigard because urban level development in unincorporated Washington County separates future urban growth areas from Tigard's city limits. The only factors that would alter this would be annexation of these lands and/or changes in policy and intergovernmental cooperation that would allow extension of City boundaries to non-contiguous future growth areas. The manner in which Tigard and the rest of the region chooses to address these challenges will be significant in determining the area's future quality of life, character, and prosperity.

Another growth management challenge that Tigard faces is the lack of large vacant parcels available for urban development. This type of development is a thing of the past and most household and employment growth in Tigard will be the result of redevelopment and infill. Within residential areas, the City's

*"Part of
the region's
future growth
will have to
occur at the
"edges" of the
urban growth
boundary."*



land use program assures that infill occurs in a way that is sensitive and complementary to existing residential neighborhoods. In the City's downtown center, commercial corridors, regional center, and industrial areas, the Comprehensive Plan and implementing regulations will guide the development of vibrant and compact urban housing and employment/shopping areas. In both instances, it



PHOTO: CITY STAFF

New development in Tigard.

is important that the City's land use planning efforts protect natural resources, assure the provision of needed public facilities and services, and promote the development of well designed, high quality urban areas.

The City's land use program also impacts its strong economic ties with other jurisdictions

within the Portland region. A significant portion of Tigard residents commute to other communities, particularly Portland, for work. Conversely, most of those who work in Tigard commute from elsewhere. This situation will require Tigard to work cooperatively with these other jurisdictions, and Metro to develop land use patterns and employment opportunities to minimize impacts from commuting.

KEY FINDINGS

- Portland area jurisdictions' comprehensive plans are required to be consistent with statewide planning goals and Metro rules.
- Most of Tigard's developable land has been urbanized.
- Future development in single-family residential neighborhoods will likely consist of small lot partitioning, infill, and redevelopment.
- Future commercial, employment, and multi-family growth will likely occur through redevelopment.
- Tigard's expansion into new urban growth boundary areas is unlikely under the current policy framework.



- A well conceived and responsibly implemented land use planning program is essential to the City’s quality of life and economic prosperity.
- The Comprehensive Plan provides the basis for the City’s land use program.
- A properly balanced mix of land uses is necessary to ensure that it derives the tax revenues required to fund needed community services.
- Local governments may assign, to the extent possible, the public facility costs associated with development to the actual development itself.
- Compatibility of new and existing development is an important issue in developed communities.
- Planned Development standards/regulations are important tools to allow/encourage high quality/innovative design and quality development.
- A significant part of the City’s currently identified Urban Planning Area has been urbanized in unincorporated Washington County.

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.

POLICIES:

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.
2. The City’s land use regulations, related plans, and implementing actions shall be consistent with and implement its Comprehensive Plan.
3. The City shall coordinate the adoption, amendment, and implementation of its land use program with other potentially affected jurisdictions and agencies.
4. The City’s land use program shall promote the efficient use of land through the creation of incentives and redevelopment programs.



5. The City shall promote intense urban level development in Metro-designated Centers and Corridors, and employment and industrial areas.
6. The City shall promote the development and maintenance of a range of land use types which are of sufficient economic value to fund needed services and advance the community's social and fiscal stability.
7. The City's regulatory land use maps and development code shall implement the Comprehensive Plan by providing for needed urban land uses including:
 - A. Residential;
 - B. Commercial and office employment including business parks;
 - C. Mixed use;
 - D. Industrial;
 - E. Overlay districts where natural resource protections or special planning and regulatory tools are warranted; and
 - F. Public services.
8. The City shall require that appropriate public facilities are made available, or committed, prior to development approval and are constructed prior to, or concurrently with, development occupancy.
9. The City may, upon determining it is in the public interest, enter into development agreements to phase the provision of required public facilities and services and/or payment of impact fees and/or other arrangements that assure the integrity of the infrastructure system and public safety.
10. The City shall institute fees and charges to ensure development pays for development related services and assumes the appropriate costs for impacts on the transportation and other public facility systems.
11. The City shall adopt regulations and standards to protect public safety and welfare from hazardous conditions related to land use activities.
12. The City shall provide a wide range of tools, such as planned development, design standards, and conservation easements, that encourage results such as:
 - A. High quality and innovative design and construction;



- B. Land use compatibility;
 - C. Protection of natural resources;
 - D. Preservation of open space; and
 - E. Regulatory flexibility necessary for projects to adapt to site conditions.
13. The City shall plan for future public facility expansion for those areas within its Urban Planning Area that can realistically be expected to be within the City limits during the planning period.
14. Applicants shall bear the burden of proof to demonstrate that land use applications are consistent with applicable criteria and requirements of the Development Code, the Comprehensive Plan, and when necessary, those of the state and other agencies.
15. In addition to other Comprehensive Plan goals and policies deemed applicable, amendments to Tigard’s Comprehensive Plan/Zone Map shall be subject to the following specific criteria:
- A. Transportation and other public facilities and services shall be available, or committed to be made available, and of sufficient capacity to serve the land uses allowed by the proposed map designation;
 - B. Development of land uses allowed by the new designation shall not negatively affect existing or planned transportation or other public facilities and services;
 - C. The new land use designation shall fulfill a proven community need such as provision of needed commercial goods and services, employment, housing, public and

“The City shall plan for future public facility expansion for those areas within its Urban Planning Area that can realistically be expected to be within the City limits during the planning period.”



- community services, etc. in the particular location, versus other appropriately designated and developable properties;
- D. Demonstration that there is an inadequate amount of developable, appropriately designated, land for the land uses that would be allowed by the new designation;
- E. Demonstration that land uses allowed in the proposed designation could be developed in compliance with all applicable regulations and the purposes of any overlay district would be fulfilled;
- F. Land uses permitted by the proposed designation would be compatible, or capable of being made compatible, with environmental conditions and surrounding land uses; and
- G. Demonstration that the amendment does not detract from the viability of the City's natural systems.

16. The City may condition the approval of a Plan/Zoning map amendment to assure the development of a definite land use(s) and per specific design /development requirements.



PHOTO: CITY STAFF

McDonald Woods, a planned development off of SW Gaarde.

17. The City may allow concurrent applications to amend the Comprehensive Plan/Zoning Map(s) and for development plan approval of a specific land use.
18. The Council may at any time, upon finding it is in the overall public interest, initiate legislative amendments to change the Comprehensive Plan text, Plan/Zoning Map(s) and/or the Community Development Code.
19. The Planning Commission may at any time recommend to the City Council that it consider initiating legislative amendments to



the Comprehensive Plan, Plan/Zoning Maps, and/or Community Development Code.

20. The City shall periodically review and, if necessary, update its Comprehensive Plan and regulatory maps and implementing measures to ensure they are current and responsive to community needs, provide reliable information, and conform to applicable state law, administrative rules, and regional requirements.
21. The City shall require all development to conform to site design/development regulations.
22. The City shall identify, designate, and protect natural resources as part of its land use program.
23. The City shall require new development, including public infrastructure, to minimize conflicts by addressing the need for compatibility between it and adjacent existing and future land uses.
24. The City shall establish design standards to promote quality urban development and to enhance the community's value, livability, and attractiveness.

RECOMMENDED ACTION MEASURES:

- i. Work with the Oregon Department of Transportation (ODOT), Metro, Washington County, and others to develop means to equitably assign costs to new development for its impacts on the interstate and intra-regional freeway and arterial system.
- ii. Develop and maintain land use regulations, standards, and procedures necessary to enhance the design of multi-family, commercial, and industrial development, and to mitigate impacts on adjacent land uses.
- iii. Implement measures to preserve and enhance the quality and character of Tigard's residential districts. Examples include managing the design of infill development, mitigating impacts of adjacent dissimilar land uses, improving quality of streetscapes and the pedestrian environment, and providing greater access to open space.



- iv. Develop and periodically update Citywide Public Facilities and Transportation System Plans (PFP, TSP) to guide the location, financing, and timing of future public facilities. Coordinate the preparation and adoption of these Plans with other affected jurisdictions and agencies.
- v. Revise the Comprehensive Plan text, maps, and related findings as needed to maintain reliability and timeliness; to ensure consistency among goals, policies, and recommended action measures; to assure accuracy of findings; and to comply with state, regional, and federal laws and rules. This includes review by the Planning Commission every two years, formal evaluation every five years, and an overall update at least every ten years.
- vi. Monitor and evaluate whether City actions and community conditions and circumstances are consistent with the goal and policy direction of the Comprehensive Plan. When appropriate, amend the Plan or adjust City actions, regulations, or standards.
- vii. Monitor actions, programs, and policies of federal, state, and regional governments. When appropriate, amend the Comprehensive Plan and its implementing regulations and plans to be consistent with those of other agencies.
- viii. Develop and adopt special district plans to enhance opportunities for economic development, housing, social vitality, access to transit, etc.
- ix. Actively participate and engage with other Portland Metropolitan Area jurisdictions and agencies to represent Tigard's interest involving region-wide land use, transportation, natural resource, and public facility issues.
- x. Implement incentive and redevelopment programs to utilize urban land and existing public facilities more efficiently.
- xi. Review transportation and other public facility plans and projects to address potential negative aesthetic or operational impacts on neighborhoods and take mitigating action when necessary.



- xii. Work with the appropriate agencies to review the methods used in determining development impacts upon water quality, natural resources, and other land uses.
- xiii. Review and analyze the use of the Planned Development process as a way to gauge its functionality and whether it is working as intended.
- xiv. Proactively evaluate the effectiveness and usefulness of different elements of the City's land use program, such as maps, codes, and area plans, and make changes when necessary to further community objectives.
- xv. Develop criteria to identify and protect unique community features and resources.
- xvi. Review and update regulations that are intended to protect the community from transportation hazards, environmental hazards, and natural hazards associated with land use activities.

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.



PHOTO: DOUG VORWALLER

Jim Griffith Memorial Skate Park.



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.



PHOTO: CITY STAFF

Martin McKnight, Parks Supervisor, and Mayor Craig Dirksen assist Alberta Rider schoolchildren as they plant new trees on the school grounds on Arbor Day.

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.



PHOTO: CITY STAFF
 Mayor Craig Dirksen receives Tree City USA award at Alberta Rider Elementary School from Cynthia Orlando, Oregon Dept. of Forestry; Councilor Gretchen Buehner looks on.

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 additional 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 comprehensive 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.

“Community attitude surveys reveal Tigard residents place high value on the protection of 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 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.

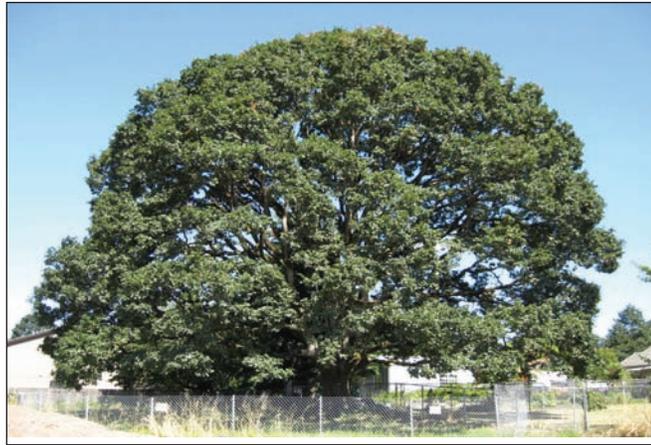


PHOTO: CITY STAFF

2009 Heritage Tree Nominee.

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.



PHOTO: CITY STAFF

Volunteers planting low maintenance trees.

- 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.



PHOTO: DOUG VORWALLER

Community Development Director, Ron Bunch, conversing with a business owner at a Downtown Open House.

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.



PHOTO: CITY STAFF

Agricultural Lands

“The City of Tigard supports the efficient use of urban land within its City limits to help preserve designated farm lands in rural areas.”





AGRICULTURAL LANDS

SECTION COVER PHOTO: CITY STAFF

Vineyards located outside the Urban Growth Boundary in Washington County.



Oregon Statewide Planning Goal 3: Agricultural Lands, requires local governments to “preserve and maintain agricultural lands.” Goal 3 states that only land that lies outside Urban Growth Boundaries can be classified as agricultural. This directs counties to identify, preserve, and maintain lands for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state’s agricultural land use policy expressed in the Oregon Revised Statutes.

GOAL 3: Agricultural Lands

“Only land that lies outside Urban Growth Boundaries can be classified as agricultural.”

The City of Tigard, which is located entirely within an Urban Growth Boundary, contains no agricultural land according to the definition of Statewide Planning Goal 3. However, the City of Tigard supports the efficient use of urban land within City limits to help preserve designated farm lands in rural areas. By encouraging compact growth within the City, Tigard can help to slow urban expansion into rural areas. Chapter 14, Urbanization, discusses appropriate and timely urban expansion.

“By encouraging compact growth within the City, Tigard can help to slow urban expansion into rural areas.”



Forest Lands

*“To conserve forest lands by
maintaining the forest land base.”*





FOREST LANDS

SECTION COVER PHOTO: KIM BRUN, PHOTO CONTEST ENTRANT
Leaves Detail.



Oregon Statewide Planning Goal 4: Forest Lands, requires local governments to “conserve forest lands by maintaining the forest land base and to protect the state’s forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land, consistent with sound management of soil, air, water, and fish and wildlife resources, and to provide for recreational opportunities and agriculture.”

GOAL 4: Forest Lands

“To conserve forest lands by maintaining the forest land base, and to protect the state’s forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use of forest land, consistent with sound management of soil, air, water, and fish and wildlife resources, and to provide for recreational opportunities and agriculture.”

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 forest lands within its City limits, therefore contains no commercial forestry land. For this reason, the City of Tigard has not adopted any goals or policies related to commercial forestry. However, the City of Tigard recognizes the importance of the management and preservation of urban trees, and has adopted goals and policies pertaining to trees (see Chapter 2: Land Use and Chapter 5: Natural Resources).

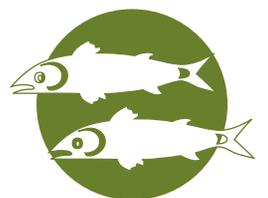
“The City of Tigard recognizes the importance of the management and preservation of urban trees.”



PHOTO: DAN QUELLO

Natural Resources and Historic Areas

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





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
09-24-08	2008-00003	Entire chapter updated by Ordinance 08-13.

SECTION COVER PHOTO: DAN QUELLO, PHOTO CONTEST ENTRANT
A Great American Home. Shaver-Bilyeu House - listed on the National Historic Register.



Each community possesses certain natural and historic resources that help to establish its identity. Tigard is fortunate to contain a variety of these resources that contribute to its high quality of life. From the riparian corridors along the Tualatin River and its tributaries, to the City’s wetlands, to the upland habitat resources, the community’s natural resources are a visual and ecological asset. The historic and cultural resources of the community represent a part of the community that provides a living history of the area. Protecting and conserving these resources are vital components to a successful land use planning program.

GOAL 5: Natural Resources, Areas, and Open Spaces

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

As awareness of the importance of natural and historic resources and their relationship to the quality of life has increased, so has concern for protecting these resources. Protecting the City’s valuable natural and historic resources is thus one of Tigard’s primary goals. In addition, the City must comply with federal, state, and regional laws protecting the resources, including sensitive, threatened, and endangered species and their habitats. The following resources are addressed in this chapter:

- Fish and Wildlife Habitat
- Wetlands
- Streams
- Groundwater
- Historic and Cultural Resources

As Tigard’s population continues to grow, so does the potential for conflict between the desire to preserve resources and the need to provide adequate land for growth. As development patterns change to accommodate growth, more pressure is placed on the resources that are present. The tension between the built and natural environments results from the competition for land resources. The steady trend of growth and development further necessitates the importance of finding a suitable balance in the future, both locally and regionally.

“The community’s natural resources are a visual and ecological asset.”



Fish and Wildlife Habitat

Despite growing urbanization, Tigard and the surrounding area remain home to an impressive diversity of birds, mammals, fish, amphibians and reptiles. Fish and wildlife species depend on a complex array of habitat conditions for their food, water, mobility, security, and reproductive needs. Wildlife habitat within the City of Tigard is heavily concentrated adjacent to water bodies, such as Summer and Fanno Creeks, Summer Lake, and the wetlands in Cook Park. However, there are patches of upland habitat in drier, higher elevations across the City, such as the forested ravines of Bull Mountain. This upland vegetation not only contributes in providing protective cover for wildlife, but also contributes to the aesthetic quality of the community and serves as an essential element in controlling runoff and soil erosion, moderating temperatures, and reducing air pollution.



PHOTO: CITY STAFF

Western Pond Turtle sunning itself on a log in Fanno Creek.

A number of agencies are involved in the effort to address the management and protection of fish and wildlife habitat. In 2000, Metro began work on a regional inventory of significant fish and wildlife habitat, focusing on riparian corridor and wildlife habitat resources.

Shortly after completion of the inventory in 2002, the Tualatin Basin

Partners for Natural Places, an alliance between Washington County and local cities (including Tigard) working with Metro, Tualatin Hills Parks and Recreation District, and Clean Water Services, was formed to meet relevant federal, state, and regional requirements. Metro entered into an intergovernmental agreement (IGA) with the Tualatin Basin Partners for Natural Places to develop a basin-specific approach to protect Goal 5 (riparian and wildlife habitat) resources in compliance with Metro's Urban Growth Management Functional Plan, Title 3 (Water Quality and Flood Management) and Title 13 (Nature in Neighborhoods). The result of the IGA was the City adopting the Significant



Habitat Areas Map and voluntary habitat friendly development provisions in December 2006 that seek to protect the wildlife habitat identified within the community. The provisions include an opportunity for low impact development practices that can reduce impacts to the identified resources.

The Tualatin Basin Partners for Natural Places used the regional habitat inventory as the basis for conducting a general analysis of the Economic, Social, Environmental, and Energy (ESEE) consequences of allowing, limiting, or prohibiting uses that would negatively impact inventoried resources. The site-specific component of the ESEE analysis provided a more localized analysis and an opportunity to refine the Basin-wide “limit” decision where necessary.

“Wetlands also offer prime sites for people to witness the wonders of a unique natural setting...”

The analysis results show that the City of Tigard has 588 acres of habitat designated as “highest” value (i.e. Metro inventoried Class I and II riparian resources within the Clean Water Services Vegetated Corridor). An estimated 370 acres of Class I and II riparian habitat situated outside the Clean Water Services’ vegetated corridor are designated as “moderate” value. In addition, 422 acres of non-Class I and II riparian resources within the City are designated as “lowest” value, including both upland and lower-value riparian habitat areas.

Wetlands

Wetlands, including swamps, bogs, fens, marshes, and estuaries, play a crucial role in a healthy ecosystem by providing essential habitat for waterfowl, fish, amphibians, and many other animal and plant species. The state defines a wetland as an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Oregon Administrative Rule (OAR) 660-023-0100). These areas also serve several natural hydrologic functions, including absorbing flood waters, sustaining summer stream flows, replenishing groundwater, and filtering out harmful pollutants from waterways. Wetlands also offer prime sites for people to witness the wonders of a unique natural setting where fish,



wildlife, plants, and water converge. These beneficial functions of wetlands, however, may be adversely affected by human activities such as encroachment through development, alterations to natural drainage patterns, pollution, and the introduction of nuisance plant species.



PHOTO: BARBARA S. WALKER, PHOTO CONTEST ENTRANT
Great Blue Heron at Fanno Creek Park.

As outlined under OAR 141-086 for Wetland Conservation Planning, Tigard's locally significant wetlands were designated according to the criteria and procedures for identification of significant wetlands adopted by DSL. Inventoried wetlands were deemed significant if they received the highest rating on at least two of the four primary

wetland functions, namely wildlife habitat, fish habitat, water quality, and hydrological control. Of the wetlands (within the City limits) identified in Tigard's Local Wetlands Inventory, roughly 98% are classified as significant wetlands.

In 1997, the City of Tigard Local Wetlands Inventory (LWI) and Wetlands Assessment were approved by DSL. Approval by DSL means that the wetlands inventory meets state LWI standards, and therefore becomes part of the State Wetlands Inventory and must be used in lieu of the National Wetlands Inventory.

Since the approval of the LWI, several new wetland delineations have occurred within the City limits. These new delineations were performed by wetland professionals and concurred by DSL. The newly delineated wetlands become part of the LWI, although a function assessment was not performed. Without the assessment, significance cannot be determined. However, the majority of the newly delineated wetlands is currently under protection from the City's sensitive lands review process because of their location in a stream corridor, 100-year floodplain, or within the CWS vegetated corridor. The remaining wetlands, although not covered by the City's sensitive lands review process, are subject to the state Removal-Fill Law and must secure permits as required by the law.



Streams

Roughly 30 miles of stream corridors cross through the City and nearly all the streams in Tigard drain into Fanno Creek, which then flows into the Tualatin River. These stream corridors provide a complex ecosystem linking water, land, plants, and animals. They perform several ecological functions, including storing and conveying surface water, modulating flows, removing pollutants, and providing vital habitat for aquatic organisms.

The City collaborates with Clean Water Services (CWS), the surface water management and sanitary sewer system utility for urban Washington County, to protect local water resources. Through CWS Design and Construction Standards, local governments in the Tualatin Basin (including Tigard) developed a unified program to address water quality and flood management requirements for Title 3 of Metro’s Urban Growth Management Functional Plan.



PHOTO: BARBARA S. WALKER, PHOTO CONTEST ENTRANT
Mallard family enjoying a swim.

In 2002, the City of Tigard adopted regulations restricting development within, and adjacent to, sensitive water resource areas, including streams, through standards in the CWS Design and Construction Standards. The CWS standards provide for vegetated corridor buffers, ranging from 15 to 200 feet wide, and mandate restoration of corridors in marginal or degraded condition. In addition, land-use applicants proposing development near streams and wetlands are required to prepare a site assessment and obtain approval from CWS prior to submitting a land use application to the City.

Additionally, the Tigard Community Development Code (18.775) contains a chapter devoted to the protection of sensitive lands, including natural drainage-ways, wetlands, and the 100-year floodplain, by requiring applicants proposing



development within a sensitive area to obtain a permit for certain activities depending on their nature and intensity.

The City of Tigard also collaborates in implementing Clean Water Services' Healthy Streams Plan (June 2005). The goal of this plan is to improve watershed and stream health for community benefit by recommending a number of policy and program refinements, as well as outlining a capital projects program. The capital projects focus on stream preservation and enhancement, flow restoration, community tree planting, stormwater outfall, and culvert replacement.

Groundwater

The importance of groundwater to the community is twofold. First, it serves the function of naturally replenishing surface waters such as wetlands, streams, and lakes. This helps provide vital habitat for aquatic organisms and wildlife. Secondly, it is a source of clean water to help meet human water needs for drinking, household use, commercial/industrial use, and irrigation.



PHOTO: CITY STAFF

Aquifer Storage & Recovery Well Pumphouse on Bull Mountain.

The western portion of the City of Tigard is located above the Cooper Mountain/ Bull Mountain Critical Groundwater Area. The Critical Groundwater Area was declared in 1973 in response to heavy pumping and the slow rate of recharge. This is significant because the City owns water rights to withdraw groundwater from the aquifer and it was once an important source of drinking water. Currently, the City of Tigard Water Division has one groundwater well in operation that is available to supplement the drinking water supply in times of high demand. The Water Division has also developed Aquifer Storage Recovery wells that allow potable water to be injected into the aquifer during the winter to supplement the summer high demands.

The western portion of the City of Tigard is located above the Cooper Mountain/ Bull Mountain Critical Groundwater Area. The Critical Groundwater Area was declared in 1973 in response to heavy pumping and the slow rate of recharge. This is significant because the City owns water rights to withdraw groundwater from the



Historic and Cultural Resources

In 1984, the City adopted a Cultural Resource Overlay District to manage significant historic resources. Section 18.740 of the Community Development Code governs the application and removal of the district overlay, the primary purpose of which is to facilitate the protection, enhancement, and conservation of landmarks and historic and cultural sites and areas. Under state law (ORS 197.772) enacted in 1995, a local government is required to allow a property owner to remove a historic property designation that was imposed by the local government; in addition, the property owner may refuse to consent to the designation at any time in the process, thus removing the property from consideration for all but the National Register of Historic Places. The implication of the statute and rule for Tigard's current historic code provisions is that if the property designation does not have owner consent, the provisions are no longer relevant or enforceable.

Local conservation efforts can be combined with the National Register of Historic Places (the National Register), a list of cultural resources of national, regional, state, or local significance that is kept by the Department of the Interior's (DOI) National Park Service (NPS). Being listed on the Register does not protect a property from demolition, but it does document and evaluate the property's historic significance based on National Register criteria and makes the property eligible for federal grants when available, including rehabilitation tax credits.



PHOTO: BARBARA S. WALKER, PHOTO CONTEST ENTRANT
Tigard Feed & Garden Store (1986). Presently the site of the Tigard Area Chamber of Commerce.

Many of the cultural resources associated with the original development of the Tigard area have not survived the City's growth during the last forty years. Improvements to Hwy 99W also contributed to the demise of the City's resource base. Those resources that survived include a mix of residential, educational, and commercial buildings.



Currently, nine resources have the overlay designation. Two sites, the John F. Tigard House and the Shaver-Bilyeu House, are listed on the National Historic Register. The only property from which the overlay has been removed was the Tigard Feed and Garden Store when the owner initiated the removal request. Chapter 18.740 of the Community Development Code requires that if an overlay property receives approval for demolition, a condition of approval will require submittal of a graphic and pictorial history and artifacts to the Washington County Museum.

KEY FINDINGS:

- City sustainability programs will be evaluated for inclusion in the Capital Improvement Plan and may have an impact on future building renovations as it relates to the Tigard Community Development Code.
- The citizens of Tigard are concerned about population increases and the impact upon the community.
- Clean Water Services' Design and Construction Standards establish a vegetated corridor buffer adjacent to the City's streams to protect water quality; the City adopted these standards in 2002.
- In addition to contributing to the general aesthetic quality of the area, streams and the adjacent riparian areas perform several ecological functions.
- Roughly 98% of the City's wetlands are classified as "locally significant wetlands," per procedures outlined under OAR 141-086.
- The Tigard Community Development Code requires Sensitive Lands Review for any development which would impact significant wetlands or the vegetated corridor buffer to wetlands.



PHOTO: CITY STAFF

One of many streams that contribute to the general aesthetic quality of Tigard.



- Wetlands may be adversely affected by human activities such as encroachment through development, alterations to natural drainage patterns, pollution, and the introduction of nuisance plant species.
- Based on the Economic, Social, Environmental, and Energy (ESEE) analysis conducted by the Tualatin Basin Partners for Natural Places, 588 acres of the inventoried regionally significant habitat was designated as “highest value,” 370 acres was designated as “moderate value,” and 422 acres was designated as “lowest value.”
- In December 2006, the City of Tigard adopted the Significant Habitat Areas Map and voluntary Habitat Friendly Development Provisions (Ordinance 06-20) that encourages the protection of habitat with the use of low impact development practices.
- The Critical Groundwater Area on Cooper Mountain and Bull Mountain was declared by the State of Oregon in 1973 and restricts the withdrawal of groundwater on the western half of the City.
- Groundwater wells currently in operation are limited to one traditional well and two aquifer storage recovery (ASR) wells.
- In 1984, the City adopted an Historic Overlay District to manage significant historic resources.
- In 1995, ORS 197.772 required local governments to allow a property owner to remove an historic property designation that was imposed by the local government. The implication for Tigard’s current historic code provisions is that if the property designation does not have owner consent, the provisions are no longer relevant or enforceable.
- Nine resources have the overlay designation. Two sites, the John F. Tigard House and the Shaver-Bilyeu House, are listed on the National Historic Register; only the Tigard house has the Historic District overlay.
- The citizens of Tigard value trees and natural resources and feel that protecting these resources will benefit the community.
- The citizens of Tigard are concerned about the impact of growth on the community’s natural resources.



PHOTO: STELLA KASER

John F. Tigard House
(Photo contest entrant).



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.

POLICIES:

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.

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.



PHOTO: LOUIS BABCOCK, PHOTO CONTEST ENTRANT
Derry Dell duck.

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.



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.
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.
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.
7. The City shall protect and restore riparian and upland habitats to the maximum extent feasible on public and private lands.
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.
9. The City shall implement measures to protect groundwater.
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.
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.
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.

“The City shall implement measures to protect groundwater.”



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.

RECOMMENDED ACTION MEASURES:

- i. Identify and inventory locally significant natural resources not included in the Nature in Neighborhoods and Tualatin Basin Natural Resources Coordinating Committee studies.
- ii. Utilize an adaptive management approach that seeks to improve natural resource standards and programs by establishing a measurable baseline condition and desired end goals, periodically measuring the success of existing city actions against those goals, and making corrections as necessary to improve success.
- iii. Inventory and preserve small perennial streams as natural resources for their contributions to fish and wildlife habitat.
- iv. Periodically identify and take steps to improve the effectiveness of existing natural resource protections with the Development code.
- v. Continue membership and active involvement with nonprofit and government agencies such as the Tualatin Basin Natural Resources Coordinating Committee.
- vi. Incorporate bioregional and watershed based conservation strategies, such as those identified in the Oregon Conservation Strategy and Clean Water Service's Healthy Streams Plan into regulations and restoration programs.
- vii. Utilize indicators of biodiversity as a measure of the quality and health of natural resource systems, and as a measure of success of City actions and strategies.
- viii. Implement a program to assist the state in identifying and canceling unused water rights within Tigard for the purpose of stabilizing or reducing surface and groundwater diversion and extraction.



- ix. Protect and restore natural resources through a variety of methods including, but not limited to, the use of land management regulations and incentives that encourage habitat friendly development and provide flexibility in meeting state and regional land use goals.
- x. Implement outreach and regulatory programs to identify and remove invasive species that threaten habitat areas.
- xi. Identify and implement measures to protect riparian vegetation necessary for erosion control, water quality, and fish and wildlife habitat.
- xii. Identify and implement measures to maintain and, where possible, restore hydrologic systems and regimes that support fish and wildlife, provide flood control, and enable natural recharge of groundwater and other ecological and community benefits.
- xiii. Work with regional and state agencies to identify and address potential sources of contamination.
- xiv. Identify and implement measures to reduce the amount of impervious surface area covering the City that prevents the natural recharge of groundwater aquifers.
- xv. Develop and utilize incentives to foster private investment in green building techniques and technologies.



PHOTO: CITY STAFF

Volunteers and staff pulling invasive ivy from the banks of Derry Dell Creek.

GOAL:

- 5.2 Promote the preservation and protection of historically and culturally significant resources.



POLICIES:

1. The City shall actively promote the protection and preservation of historic and cultural resources and consider the development and implementation of new culturally significant resources, and cooperate with organizations involved in their protection.

RECOMMENDED ACTION MEASURES:

- i. Promote and publicize historic resources in the City.
- ii. Support volunteer programs to preserve historic resources.
- iii. Encourage rehabilitation and reuse of historic buildings to the extent feasible.
- iv. Consider holding City functions in historic buildings, where appropriate.
- v. Support efforts to obtain historic designation at the city, county, state, and national levels for public and private historic sites.
- vi. Facilitate the development of appropriate economic options and alternatives for historic and cultural resources and organizations involved in their protection, when requested.



PHOTO: DOUG VORWALLER

Environmental Quality

*“Managing the effects of human impacts on air,
water, and land resources.”*





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
01-10-08	2007-00001	Entire chapter updated by Ordinance 07-22.

SECTION COVER PHOTO: DOUG VORWALLER
Tigard sunrise.



Environmental Quality addresses the quality of air we breathe, water in aquifers, wetlands, streams and lakes, and the responsible management and disposal of waste. Environmental quality is essential for a high quality of life, including a strong and sustainable economy. Therefore, Portland metropolitan area governments and agencies, in cooperation with state and federal governments, have developed systems to address urban development’s impacts on air, water, and land resource quality. This includes measures to prevent environmental degradation and the need for conservation. Statewide Planning Goal 6 requires Oregon jurisdictions to adopt Comprehensive Plans that provide goals and policies as the basis to manage the impact of developments on air, water, and land resources.

GOAL 6: Air, Water and Land Resources Quality

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

The community’s vision is for a future where the character and livability of Tigard is enhanced by the quality of the surrounding environment. The citizens know the importance of participating in regional partnerships, of ensuring the natural resource systems function to provide clean air and water, and of developing land use patterns and a multi-modal transportation system that reduces the dependency on the automobile. Furthermore, it is recognized that expected population growth in the region will require further effort and innovation to protect environmental quality.

At the local level, Tigard can protect environmental quality by ensuring its land use policies, codes, and standards are up-to-date with contemporary best management practices; that it is compliant with state and federal environmental laws and administrative rules; and that it leads by example in employing environmentally sound and sustainable practices in its municipal operations. The City also has an opportunity to inform its citizens on how changes in daily life can improve environmental quality.

Section 1: Air Resources Quality

Clean air is essential for human well-being. Furthermore, if a region violates federal and state clean air rules, there can be significant negative impacts on the economy as a result of mandated actions to improve air quality. To ensure access to clean air, the federal Clean Air Act was created as the primary regulatory framework for national, state, and local efforts to protect air quality. Under the Clean Air Act, the Environmental Protection Agency (EPA) is responsible for



setting standards, known as National Ambient Air Quality Standards (NAAQS), for pollutants considered harmful to people and the environment. Air quality planning is focused on meeting the NAAQS and setting deadlines for meeting these standards.

The Oregon Department of Environmental Quality (DEQ) is responsible for protecting Oregon’s air quality by issuing permits, developing programs, and monitoring air pollution to ensure communities meet the NAAQS, and to protect Oregon’s pristine views. Air pollutants identified in the 2005 DEQ *Air Quality Report* as the greatest concern in Oregon are:

- Ground-level ozone, commonly known as smog;
- Fine particulate matter (mostly from wood smoke, other combustion sources, cars, and dust);
- Hazardous air pollutants (also called Air Toxics); and
- Carbon monoxide (mostly from motor vehicles).

As air quality does not know political boundaries, regional efforts were established to monitor and plan for pollutants. The City of Tigard is part of the Portland Area Airshed (PAA), which is defined by the Metro service boundary.

The DEQ is responsible for ensuring the PAA meets the national standards, and developing the necessary plans to continue compliance. Currently, the PAA meets all NAAQS standards (three-year averages are used to determine attainment/non-attainment of the standards: eight-hour ozone, particulate matter, and carbon monoxide). However, DEQ is required to develop maintenance plans for carbon monoxide and ozone to ensure continued compliance.

At the local level, the City can have a positive impact on air quality. Land use, transportation, and public facility planning can promote land development patterns and transportation systems that reduce dependence on the automobile. The City can coordinate with the Oregon Department of Environmental Quality to ensure that industries requiring DEQ permits comply with state and federal regulations. Also, the City can protect existing natural

“At the local level, the City can have a positive impact on air quality.”



areas and mature trees, and promote and participate in tree planting efforts. Vegetation has the natural ability to convert and sequester carbon dioxide, and produce oxygen. Trees and shrubs can also serve to screen and buffer dissimilar land uses, and lessen noise pollution. The City can also ensure its codes and regulations prevent and mitigate other negative air quality impacts associated with urban development such as visible emissions, odors, glare, and heat.

KEY FINDINGS:

- Within urban areas, air quality is often much worse along major roadways.
- DEQ has issued six active Air Contaminant Discharge Permits (ACDP) within the City to regulate minor sources of contaminant emissions.



PHOTO: CITY STAFF

Mt. Hood over SW Gaarde Street.

- Motor vehicles are now the primary source of air pollution in Oregon and, due to population increases, the number of miles driven daily by Tigard residents has increased 67% since 1990.
- The primary sources of household pollutants in Tigard include wood burning fireplaces, and lawn and garden equipment.
- The Oregon Legislature adopted a number of specific measures to address air quality in the region.
- The citizens of Tigard value trees and natural resources and feel that protecting these resources will benefit the community.

GOAL:

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



POLICIES:

1. The City shall require that all development complies with or exceeds regional, state, and federal standards for air quality.
2. The City shall support regional and state plans and programs to attain regional, state, and federal standards for air quality.
3. The City shall promote land use patterns which reduce dependency on the automobile, are compatible with existing neighborhoods, and increase opportunities for walking, biking, and/or public transit.
4. The City shall continue to investigate and implement practices that reduce air pollution associated with municipal operations.
5. The City shall cooperate with other public agencies to minimize localized transportation impacts to air quality through intersection improvements, access management, intelligent transportation systems, etc.
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.
7. The City shall improve the Environmental Performance Standards to minimize impacts from noise and light pollution.
8. The City shall encourage citizens to reduce air quality impacts associated with household activities.

“The City shall encourage citizens to reduce air quality impacts associated with household activities.”

RECOMMENDED ACTION MEASURES:

- i. Perform a land use analysis to identify residential zones that could potentially accommodate mixed use or neighborhood commercial development.



- ii. Adopt and implement development regulations that include provisions or incentives for alternative transportation use, particularly in Metro designated corridors and centers.
- iii. Perform a sidewalk inventory that results in a Citywide GIS layer to be used for gap analysis, and the creation of a sidewalk improvement plan.
- iv. Identify neighborhoods underserved by public transit and seek improvement to service in these areas.
- v. Pursue funding for transportation related projects that would reduce congestion by improving flow, but not by increasing capacity.
- vi. Expand the Free Street Tree Program by actively engaging neighborhoods and creating a pool of community volunteers to help with the plantings.
- vii. Place educational materials in the schools, Tigard Public Library, and City Hall that demonstrate actions individuals can implement to help improve air quality in the community.
- viii. Research light trespass regulations from other municipalities and consider developing standards for Tigard.

Section 2: Water Resources Quality

The quality of the water in our aquifers, streams, rivers, lakes, and wetlands is important to the health and welfare of the community, as well as the fish and wildlife that rely on clean water for habitat. To limit harmful impacts from human activities on water quality, the Clean Water Act (CWA) was enacted. It regulates the discharge of pollutants into waterways through National Pollutant Discharge Elimination System (NPDES) permits. In the State of Oregon, the Department of Environmental Quality (DEQ) has been charged with establishing standards, regulating, and monitoring Oregon's waters for compliance with the CWA and NPDES.

Large municipalities typically have NPDES permits for their wastewater treatment facilities and for stormwater runoff, called a Municipal Separate Storm



Sewer System (MS4) permit. In urban Washington County, which includes the City of Tigard, the permits have been combined and are held by Clean Water Services (CWS). The combined permit was issued for the entire Tualatin River watershed to guide a basin-wide effort to improve water quality. It requires CWS to submit a Stormwater Management Plan and a Wastewater Management Plan to DEQ. These two plans outline the best management practices that CWS, its member cities, and Washington County commit to employ to reduce pollutant discharges, regulate temperature, and comply with any Total Maximum Daily Load (TMDL) levels that have been established.

The City of Tigard is a co-implementer of the permits and associated plans through an Intergovernmental Agreement (IGA) with CWS. The IGA outlines the functions the City must perform that are critical to the operation, maintenance, and management of stormwater and wastewater facilities, and to ensure compliance with the CWA.



PHOTO: ZEN DUTSON, PHOTO CONTEST ENTRANT

Friendly deer near the Tigard Public Library.

Separate from the NPDES permit process, Clean Water Services has developed a Surface Water Management Program to manage non-point source pollution impacts on water quality. The *Healthy Streams Plan*, a public education program, and watershed restoration projects are among the several activities undertaken to improve the water quality of streams and wetlands within the Tualatin River basin.

The City also has an important role in improving water quality. For example, it has committed staff and resources to implement the *Healthy Streams Plan*. This involves ongoing efforts to restore stream health and associated riparian areas, educating the public about how individual actions can improve water quality, and coordinating policies and actions with other jurisdictions and agencies. These actions help maintain compliance with Metro's *Urban Growth Management Functional Plan Title 13* and implement the *Nature in Neighborhoods Program*.



Tigard also seeks to improve water quality by adopting land use policies and regulations to prevent erosion and protect floodplains and other sensitive lands including tree groves, wetlands, and stream corridors. Land use regulations can also help reduce water pollution by reducing impervious surfaces, and requiring storm water retention and treatment on-site. In addition, the City can provide education about how low-impact development and green building techniques can conserve water and protect water quality. Furthermore, the City maintains a sewer extension program to connect properties to the City sewer system that rely on septic tanks and drain fields.



PHOTO: GRETCHEN BUEHNER

Water fountain at Elizabeth Price Park.

KEY FINDINGS:

- Water quality in the Tualatin River basin has been generally improving since the 1970s, despite continued urbanization in the watershed.
- In 2006, Oregon DEQ characterized both Fanno Creek and the Tualatin River as having “poor” water quality within the City of Tigard. However, this is an improvement from the “very poor” ranking received in 1995.
- Non-point sources are the largest contributors to water pollution in both Oregon and the Tualatin River basin.
- Within Tigard, run-off from impervious surfaces, pet waste, and erosion/sedimentation are the most problematic non-point sources of pollution.
- To enhance water quality, the City has an active program of tree planting, water quality facility construction (vegetated swales and retention basins), and stream corridor and wetland enhancements.
- The citizens of Tigard are concerned about the impact of growth on the community’s natural resources.



GOAL:

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

POLICIES:

1. The City shall require that all development complies with or exceeds regional, state, and federal standards for water quality.
2. The City shall continue cooperation with federal, state, and regional agencies in the management of Tigard's water resources and the implementation of plans and programs.
3. The City shall encourage the use of low impact development practices that reduce stormwater impacts from new and existing development.
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.
5. The City shall require measures to minimize erosion and storm run-off from development sites during and after construction.
6. The City shall continue to collaborate on informing the public of techniques and practices private individuals can employ to help correct water quality issues.
7. The City shall investigate and use, to the extent practical, measures that limit the community's effective impervious area.
8. The City shall lead by example and develop green concepts for stormwater management at City facilities.
9. The City shall encourage the Oregon Department of Transportation and Washington County to improve the quality of stormwater run-off from their facilities.
10. The City shall continue to facilitate the extension of the City's



wastewater system to neighborhoods without service within the Tigard Urban Service Area, provided:

- A. properties benefiting from the extension pay their fair share of the cost; and
- B. annexation occurs prior to any property receiving service.

RECOMMENDED ACTION MEASURES:

- i. Research and implement incentives that encourage development to minimize impervious surface coverage.
- ii. Continue to implement the CWS Healthy Streams Plan.
- iii. Work with the Tree Board to develop an urban tree management and preservation program that increases the canopy cover in Tigard.
- iv. Continue to inventory outfalls from non-treated stormwater systems, and identify alternatives for improving the water quality released from them.
- v. Encourage owners of property located in the 100-year floodplain to develop a management plan that will allow for their natural function in removing pollutants from the stream system.
- vi. Develop baseline measures of effectiveness for erosion control during construction.
- vii. Continue a grant program that would provide funds to organizations to develop educational programs.
- viii. Research the need and feasibility of public restrooms to provide sanitary facilities for the City's homeless population.

“The City shall continue to implement the CWS Healthy Streams Plan.”



- ix. Install signage and doggie waste bags to encourage the clean up of dog waste in public parks.
- x. Evaluate the City’s street cleaning practices to ensure they are performing up to their intended results.
- xi. Research the feasibility of a commercial parking lot cleaning program.
- xii. Inform the public about effects of flushing pharmaceuticals and develop a program to collect and properly dispose of them so they do not reach and contaminate our streams.
- xiii. Research the feasibility of incentives for new development and retrofits to use green concepts during parking lot construction.

Section 3: Land Resources Quality

Modern life inevitably leads to the production of waste. From the point in time when cities are first developed, and continuing throughout their occupancy, by-products of human activity must be collected and properly disposed of to protect the health of both people and the natural environment. To accomplish this, the state of Oregon and Metro has partnered to create laws, rules, and programs to direct reduction and efficient removal of waste. The Oregon Department of Environmental Quality (DEQ) is responsible for ensuring

“Modern life inevitably leads to the production of waste.”

compliance with state rules and statutes. DEQ is also responsible for preparing the *Oregon State Integrated Resource and Solid Waste Management Plan*.

Within the Portland Metropolitan Region, Metro has the responsibility for oversight and management of solid waste collection and disposal. This includes the responsibility to prepare and update the *Regional Solid Waste Management Plan*. The Regional Plan establishes the framework for coordinating most solid waste collection and disposal programs, directing waste reduction and recovery

efforts, identifying roles and responsibilities, and fulfilling DEQ’s requirement that the region have an overall waste reduction plan. The Regional Plan is also responsible for recommending ways to address the solid waste management impacts of future population and employment growth.



Tigard participates in Metro’s plan update process and implements the plan through the Washington County Cooperative, which includes a number of cities in Washington County. This regional collaboration is important to reducing the amount of waste generated and entering landfills.

At the local level, the City is responsible for regulating and managing solid waste and recycling collection services within the City limits, and reviewing collection rates and service standards. Garbage and recycling collection services are provided by private haulers who operate within established franchise boundaries. The City enters into franchise agreements with the private haulers for the removal of solid waste generated from residential, commercial, and industrial customers.

“Tigard’s residential recycling rate was 53.5% in 2005, while the commercial recycling rate was 22.7%.”

KEY FINDINGS:

- Per capita, generation of solid waste has increased annually by 3.2% over the last ten years in the Portland metropolitan region.
- The region had a 59% waste reduction rate in 2005, and has set a target of 64% by 2009.
- Tigard’s residential recycling rate was 53.5% in 2005, while the commercial recycling rate was 22.7%.
- Regionwide, there are significant opportunities for waste reduction improvements in the construction and business sectors.
- Oregon DEQ regulates hazardous waste collection, disposal, and cleanup programs. DEQ also provides education and technical programs to reduce risks associated with hazardous wastes.
- Metro maintains its own household hazardous waste recovery program in cooperation with DEQ.
- The citizens of Tigard are concerned about population increases and the impact upon the community.



GOAL:

- 6.3 Reduce the amount of solid waste entering landfills.

POLICIES:

1. The City shall continue collaborating with federal, state, and regional agencies in the development and implementation of solid waste management plans and programs.
2. The City shall regulate and manage solid waste and recycling collection services through franchise agreements that:
 - A. ensure recycling opportunities are accessible to all households, businesses, and institutions;
 - B. implement waste reduction measures through prevention and recovery efforts;
 - C. remain cost effective and environmentally sensitive; and
 - D. comply with applicable plans, policies, and laws.
3. The City shall collaborate with the appropriate agencies to ensure proper permitting, collection, disposal, and cleanup of hazardous wastes.
4. The City shall use public education to promote:
 - A. opportunities for recycling, composting, and reuse;
 - B. reduction of household hazardous waste and its proper disposal; and
 - C. reduction of solid waste generated from construction and business activities.
5. The City shall reduce the amount of solid waste associated with municipal operations.

RECOMMENDED ACTION MEASURES:

- i. Find long-term partners and plan a yearly E-Waste Collection Event, similar to the one in September 2006.
- ii. Start a composting program (including education) for City



employees, including the purchasing of compostable plates, utensils, and cups.

- iii. Research commercial and construction recycling programs that could be implemented in Tigard.
- iv. Develop and maintain a GIS database of DEQ hazardous waste permit sites and hazardous cleanup sites.
- v. Work with franchise haulers to adjust yard debris pick-up schedules to correspond with the demand during different seasons.
- vi. Research the possibility of expanding the number of items that can be recycled curbside.
- vii. Work with local businesses to act as collection points for household hazardous waste. For example, home centers would collect fluorescent light bulbs while paint stores would collect old, unused paint.
- viii. Work with other jurisdictions to consider the creation of a countywide Office of Sustainability.

“Research the possibility of expanding the number of items that can be recycled curbside.”



Hazards

*“Protecting people and property
from natural and man-made hazards.”*





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
01-03-08	2007-00002	Entire chapter updated by Ordinance 07-20.

SECTION COVER PHOTO: TVF&R
Firefighters.



Natural features provide a community with valuable resources but, under certain conditions, these resources may also present a hazard. For example, rivers and creeks are important for storm water conveyance, wildlife habitat, and water quality. However, these resources can quickly threaten property and people unless careful planning has documented flooding risk and adequate precautions are taken. The City’s commitment to protect people and property from hazards is based on Oregon Statewide Planning Goal 7. Goal 7 lists six hazard categories to be addressed by comprehensive plans. Four of these apply to the City of Tigard: wildfire, landslides, flooding, and earthquakes. In addition, the City is also vulnerable to harm from severe weather and man-made hazards.

GOAL 7: Areas Subject to Natural Hazards

“To protect people and property from natural hazards.”

Tigard’s citizens value a safe community where natural resources are protected and there is minimal danger from both natural and man-made hazards. Tigard residents value the importance of natural systems in protecting the community from hazards, and additionally recognize that although landslides, earthquakes, wildfires and floods occur naturally, the effects of these events are often made worse by human activities.

Hazards can have a significant negative impact on a community’s quality of life. It is important for the Comprehensive Plan to provide policy direction on how the City will manage hazardous conditions and events. Land use planning, development regulation and emergency management play key roles in assessing and reducing the risk to people and property from hazards. It is important for local governments to have an understanding of underlying natural conditions and past event history to develop hazard mitigation and prevention programs.

“Hazards can have a significant negative impact on a community’s quality of life.”

EARTHQUAKES:

Because hazards, such as earthquake faults and floodplains, extend across jurisdictional boundaries, it is essential to coordinate planning and emergency



response services regionwide and with the state and federal governments. For example, due to the scale and complexity of earthquakes, Tigard coordinates with the Oregon Department of Geology and Mineral Industries (DOGAMI). In addition to DOGAMI, Tigard coordinates with Metro, Washington County, and other jurisdictions to mitigate the risk associated with an earthquake. To minimize loss of life and property from earthquakes, the City requires all new commercial, industrial, and multi-family structures to conform to Oregon Structural Specialty Code requirements, while single-family construction must conform to the Oregon One and Two Dwelling Specialty Code for seismic category D1.



PHOTO: TVF&R

Wildfires in the interface zone can lead to property damage.

“In Tigard, wildfire is characterized by the Urban Interface Zone.”

WILDFIRE:

In Tigard, wildfire is characterized by the Urban Interface Zone, or the urban-rural fringe where homes and other structures are built onto a densely forested or natural landscape. The Oregon Department of Forestry implements the Oregon Forestland-Urban Interface Fire Program, which is expected to be fully implemented by 2011, in order to protect interface communities in Oregon from wildfire. The City of Tigard works with Tualatin Valley Fire and Rescue (TVF&R) to mitigate the effects

of wildfire. TVF&R is responsible for all fire prevention and education, and has the opportunity to comment on all development applications. TVF&R also maps the urban interface zone in Tigard. The Oregon Department of Environmental Quality (DEQ) controls both backyard and agricultural burning in Oregon; however, Tigard is within the DEQ permanent burn-ban area in an effort to reduce the risk of wildfire as a result of backyard burning.

LANDSLIDES:

People and property are best protected from landslides when building structures and roads are not built within areas prone to mass movement. Although landslides are a natural geologic process, the incidence of landslides and their impacts on people can be exacerbated by human activities. Such human activities include grading for road construction and development, excavation, drainage and groundwater alterations, and changes in vegetation. The City uses steep slopes to define sensitive lands in the Community Development Code and has special requirements for development in these areas. When light detection and ranging (LIDAR) information is available, the City will evaluate the effectiveness of this approach to identifying landslide hazards and limiting their impact on the community. Also, by retaining vegetation and natural drainageways in these areas, the City can work to identifying landslide hazards and limiting their impact on the community. The effects of landslides are often more widespread than the physical area they inhabit, as landslides can affect utility services, transportation systems, and critical lifelines.

FLOODING:

Floods are influenced by a number of factors, including the amount and intensity of precipitation, geography and geology, and development activity. The City of Tigard cannot control precipitation or the community’s soil type but can control development activity which contributes to, and is affected by, flooding. The City coordinates with several agencies to mitigate the risk of flooding. The FEMA designated floodplain is used to administer the national flood insurance program (NFIP). The floodplain serves as the FEMA flood hazard regulatory area. Within this area, development activities are regulated to minimize impacts on floodwater flows



PHOTO: CITY STAFF

Flooding in Fanno Creek Park.



and storage areas to reduce impacts from flood events. Oregon state law regulates development within the 100-year floodplain and Tigard complies through adoption of Metro’s Urban Growth Management Functional Plan, Title 3. The Sensitive Lands chapter of the Tigard Community Development Code implements Title 3 through the Clean Water Services’ Design and Construction Standards.

Floods can have a devastating impact on almost every aspect of the community, including private property damage, public infrastructure damage, and economic loss from business interruption. The City has been proactive in mitigating flood hazards by purchasing floodplain property. These areas, if left undisturbed, can act to store excess floodwater. The Oregon



PHOTO: CITY STAFF

Fanno Creek flooding Hall Blvd.

Division of State Lands (DSL), jointly with the U.S. Army Corps of Engineers, requires a permit for development within the waters of the United States. Any disturbance to a water body and its associated floodplain is covered through this process.

OTHER HAZARDS:

Tigard is also at risk of non-natural or man-made hazards. Although statewide planning goal 7 addresses natural hazards, other hazards are included in this chapter as the community is concerned about protection from non-natural hazards as well as natural hazards. Other hazards addressed by this section may include mass casualty transportation accidents, hazardous material releases, severe storms, terrorism, epidemics, and infestation. Tigard coordinates planning for non-natural hazardous occurrences with other jurisdictions and agencies from around the state.

KEY FINDINGS:

- The Cascadia Subduction Zone could potentially cause a 9+ magnitude earthquake, affecting Tigard.
- Tigard is subject to more frequent shallow earthquakes (crustal fault earthquakes). These events typically do not exceed magnitude 4, but could go up to magnitude 7.
- According to DOGAMI’s relative earthquake hazard data, fifty-eight percent of the City is subject to the greatest earthquake hazard level, with an additional 21% falling into the next hazard level. These areas include developed residential and commercial areas, as well as the Washington Square Regional Center.
- Wood-frame homes tend to withstand earthquakes better than unreinforced brick buildings.
- The City of Tigard requires all new commercial, industrial, and multifamily structures to conform to Oregon Structural Specialty Code requirements, while single-family construction must conform to the Oregon One and Two Family Dwelling Specialty Code for Seismic Category D1.
- The increasing number of homes being built in the urban interface zone is increasing the threat of wildfire in Tigard. More than 30% of all land in Tigard is vulnerable to wildfire.
- Tigard is within the Oregon Department of Environmental Quality’s permanent burn ban area, so backyard burning is not allowed anywhere within Tigard.
- The most common type of landslide in Washington County is caused by erosion.



PHOTO: CITY STAFF

Ceiling failure of a commercial building during a snowstorm.



- Landslides within Tigard have historically not caused major property damage. However, in other parts of the Portland metropolitan region they have caused considerable damage.
- It is estimated about 3% of the City's land, or 286 acres, is vulnerable to landslides.
- Human activities such as deforestation, stream alteration, and urban development within the Tualatin basin have significantly altered the hydrology of the watershed. This has resulted in increased water runoff and greater potential for flooding.
- Floods are Tigard's most frequently occurring natural disaster.
- The 100-year floodplain includes six streams and 7.9% of all land area in Tigard.
- As of June 2006, Tigard owns 34% of the 100-year floodplain.
- Tigard residents are concerned about the effects of all other hazards on the community.

GOAL:

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

POLICIES:

1. The City shall not allow development in areas having the following development limitations except where the developer demonstrates that generally accepted engineering techniques related to a specific site plan will make the area suitable for the proposed development:
 - A. areas having a severe soil erosion potential;
 - B. areas subject to slumping, earth slides, or movement;
 - C. areas having slopes in excess of 25%; or
 - D. areas having severe weak foundation soils.
2. The City shall favor the use of non-structural approaches to hazard mitigation.



3. The City shall coordinate land use and public facility planning with public safety providers (law enforcement, fire safety, and emergency service providers) to ensure their capability to respond to hazard events.
4. The City shall design and construct public facilities to withstand hazardous events with a priority on hazard protection of public services and facilities that are needed to provide emergency response services.
5. The City shall apply and enforce the most current building code standards to protect the built environment from natural disasters and other hazards.
6. The City shall enforce standards requiring the creation and maintenance of defensible space around habitable structures located in wildfire hazard areas.
7. The City shall comply with the Federal Emergency Management Agency (FEMA) flood regulations, which include standards for base flood levels, flood proofing, and minimum finished floor elevations.
8. The City shall prohibit any land form alterations or developments in the 100-year floodplain which would result in any rise in elevation of the 100-year floodplain.
9. The City shall not allow land form alterations or development within the 100-year floodplain outside the zero-foot rise floodway unless:
 - A. The streamflow capacity of the zero-foot rise floodway is maintained; and
 - B. Engineered drawings and/or documentation shows there will be no detrimental upstream or downstream effects in the floodplain area.

“The City shall enforce standards requiring the creation and maintenance of defensible space around habitable structures located in wildfire hazard areas.”



10. The City shall work with Clean Water Services to protect natural drainageways and wetlands as valuable water retention areas and, where possible, find ways to restore and enhance these areas.
11. The City shall comply with Metro Title 3 Functional Plan requirements for balanced fill and removal in the floodplain.
12. The City shall encourage pervious, and minimize impervious, surfaces to reduce storm water runoff.
13. The City shall retain and restore existing vegetation with non-invasive species in areas with landslide potential to the greatest extent possible.
14. The City shall work to reduce the risk of loss of life and damage to property from severe weather events.

RECOMMENDED ACTION MEASURES:

- i. Place land acquisition priorities on high hazard areas to be used for recreation or open space purposes.
- ii. Update and maintain accurate information regarding natural hazard risks and past events.
- iii. Publicize and maintain maps of high hazard areas.
- iv. Address planning for the protection of public facilities and services from hazards in the *Tigard Public Facilities Plan* and *Community Investment Plan*.
- v. Retrofit existing public facilities and services to contemporary standards to better withstand natural disasters and hazardous occurrences.
- vi. Recognize some existing buildings have not been built to contemporary building code standards and seek ways to encourage their retrofit to modern codes.
- vii. Design and Implement a natural hazards home inspection program.



- viii. Update and maintain a list of essential and critical facilities to be used in hazards planning.
- ix. Work with Tualatin Valley Fire and Rescue Community Safety Program to provide information and education about urban interface wildfire to Tigard citizens.
- x. Adopt the Tualatin Valley Fire and Rescue Wildfire Hazard Map and implement the Wildfire Hazard Mitigation section of the Oregon Residential Specialty Code.
- xi. Provide information and access to resources for property owners who wish to assess the ability of their buildings to withstand natural hazards.
- xii. Continue to maintain eligibility for the National Flood Insurance Program.
- xiii. Research and implement standards to ensure only appropriate land uses are allowed in high hazard areas.
- xiv. Complete the Tigard Natural Hazards Addendum to the Washington County Natural Hazards Mitigation Plan and include risk assessments and mitigation action items.

“Research and implement standards to ensure only appropriate land uses are allowed in high hazard areas.”

GOAL:

- 7.2 Protect people and property from non-natural hazardous occurrences.

POLICIES:

1. The City shall design, construct, and coordinate the surface transportation system to reduce the potential for mass casualty accidents and to provide the ability to evacuate when necessary.



2. The City shall encourage communication and coordination among a wide variety of agencies to respond to technological and man-made disasters.

RECOMMENDED ACTION MEASURES:

- i. Keep a current inventory of locations where hazardous materials might pose a danger to the public, including storage and transportation areas.
- ii. Update and maintain the Tigard *Emergency Operations Plan* to ensure essential governance and public safety services are available during a disaster.
- iii. Continue to work with the Washington County Office of Emergency Management to:
 - A. coordinate emergency preparedness education for Tigard residents;
 - B. provide ongoing responder training and exercises;
 - C. coordinate regionwide hazards response; and
 - D. provide hazards information and resources countywide.
- iv. Continue to implement the Community Emergency Response Team (CERT) Program for community members and City staff.
- v. Encourage projects that enhance medical treatment capabilities and capacity.



PHOTO: CITY STAFF

Tigard Emergency Operations Center (EOC) drill.



Parks, Recreation, Trails, and Open Space

“The community envisions a future where a wide variety of recreational opportunities are available through a diverse system of parks, trails, and open spaces.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
01-10-08	2007-00001	Entire chapter updated by Ordinance 07-22.

SECTION COVER PHOTO: KIM BRUN, PHOTO CONTEST ENTRANT
Early morning light (Cook Park).



Access to parks, recreation, trails, and open space enhances the livability of a community and contributes to the well-being of its residents. These amenities provide a variety of opportunities for residents and visitors to enjoy both active and passive activities, while also helping to preserve open space, wildlife habitat, and natural resources. Parks may also serve as informal meeting places to draw people together and create a sense of place. These public lands and facilities are highly appreciated by Tigard’s residents and the City is committed to their adequate provision. Statewide Planning Goal 8 requires Oregon jurisdictions to plan for recreational needs and this becomes especially important as the City begins to approach full development.

GOAL 8: Recreational Needs

“To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of recreational facilities, including destination resorts.”

The community envisions a future where a wide variety of recreational opportunities are available through a diverse system of parks, trails, and open spaces. This system would be distributed throughout the community and easily accessible from all neighborhoods.

It includes not only developed parks, but open spaces to protect natural resources that the community holds in high regard. The citizens also know that simply planning for and providing the opportunities is not enough, but funding must be secure to properly manage and maintain the system.



PHOTO: CITY STAFF

Summerlake Park playground.

The Tigard park system currently includes 169 acres of City parkland and 182 acres of greenway and other preservation-oriented sites. These figures equate to 3.7 acres of developed area and 4.0 acres of natural area per thousand residents. Most of this park and greenway land is located within the floodplain. In addition to parks and open spaces, Tigard has developed a successful trail program, consisting of 9 miles of completed trails. These trails provide both recreation opportunities and transportation links throughout the community. A major



source of parkland acquisition and development funds has come from the park System Development Charge (SDC) on new development, first imposed in 1977.

The City does not sponsor a recreation program and is not served by a special park and recreation district. The *Tigard Park System Master Plan* covers the City proper and the unincorporated Urban Services Area. Subsequent to the master plan's adoption in 1999, the City added 19.3 acres of parkland and 24.1 acres of greenway. Because of population increases during the same period, the City's existing level of service through 2006 held steady at 7.7 acres of public parks and open space per thousand population.

KEY FINDINGS:



PHOTO: MARGARET DOHERTY

Reflected trees in Fanno Creek.

- The system of adding parks and related land and facilities in the City has kept up with growth in the seven years since the Park System Master Plan's adoption in 1999 (7.7 acres/1000 residents), but has not achieved the Plan's aspirational standard.

- Many areas of the City are park deficient.
- The land supply available for parks and open space is becoming smaller and more expensive.
- Given the level of development in Tigard, sufficient land for neighborhood parks is unavailable to meet the needs of underserved residential and non-residential areas.
- Many non-City-owned lands and facilities serve the park and leisure needs of Tigard residents.
- The City lacks a trail master plan to guide the development of the trail system and facilitate progress toward its completion.



- The City has regulations in place that effectively provide for block links and pedestrian connections in new neighborhoods. However, there are significant gaps in the off-street pedestrian system within older neighborhoods.
- Citizen groups have identified a trail route within Northeast Tigard that includes on and off street segments to connect with the City of Portland-adopted SW Communities trail network. Citizens have proposed that this route be considered for adoption into the Tigard trail plan.
- The trail officially identified by Tigard as the “Powerline Trail” is a segment of a larger inter-jurisdictional trail formally identified as the “Westside Trail” in the Metro Regional Trails Map.
- The City does not operate a recreation program and is not served by a special park and recreation district. Consequently, Tigard residents have limited opportunities to participate in recreation programs.
- Overall, City parklands are well maintained. Maintenance problems identified in the 1999 Tigard Park System Master Plan have been, or are being, addressed.
- The new Park SDC methodology sets a per-project percentage limit on the use of SDC funds. Some 63% of the cost of park improvements is assigned to non-SDC funding sources. At this time, the City does not have a stable source of revenue that can be used as the companion funding source for capital projects.
- Many of the projects identified in the Parks SDC parks capacity program are located in the Bull Mountain Urban Services Area, and not within the City limits.
- Tigard does not have a parks foundation. Such foundations provide local governments with important additional programs to finance park and open space projects.
- The City has been proactive in working with the Tigard Water District for the use of reservoir properties for open space. Partnership plans with the school district for the renovation and joint use of school playgrounds to meet neighborhood park needs have not been developed.
- Volunteers annually contribute thousands of hours to Tigard’s park system, and are a non-monetary funding source for park maintenance and improvements.



- In recent years, the City has developed and employed innovative methods to create more active park acreage to serve community needs. This has included making use of a state infrastructure loan program to expand Cook Park and making certain types of industrially zoned properties available for park uses.
- The citizens of Tigard value pedestrian and bicycle paths in the community and support the development of a well connected network.
- The citizens of Tigard value access to neighborhood parks and open space within a half mile of their homes.
- The citizens of Tigard are concerned about the impact of growth on the community’s natural resources.
- The citizen’s of Tigard are concerned about the lack of a public recreation program and the lack of an adequate number of parks in the community.



PHOTO: CITY STAFF

View of Summerlake from Summerlake Park.

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 recreation; and
 - B. undeveloped areas for nature-oriented recreation and the protection and enhancement of valuable natural resources within the parks and open space system.

POLICIES:

- 1. Tigard shall acquire, develop, and maintain a diverse system of parks, trails, open space, and recreational facilities that are safe, functional, and accessible to all of its population.



2. The City shall preserve and, where appropriate, acquire and improve natural areas located within a half mile of every Tigard resident to provide passive recreational opportunities.
3. The City shall seek to achieve or exceed the ideal park service level standard of 11.0 acres of parkland per thousand population.
4. The City shall endeavor to develop neighborhood parks [or neighborhood park facilities within other parks, such as a linear park] located within a half mile of every resident to provide access to active and passive recreation opportunities for residents of all ages.
5. The City shall develop other parks, including linear parks, special use facilities, urban plazas, skate parks, and pet areas, consistent with the descriptions and standards contained in the park system master plan.
6. The City shall acquire and manage some open spaces to solely provide protection of natural resources and other open spaces to additionally provide nature-oriented outdoor recreation and trail-related activities.
7. The City shall ensure public safety is a consideration in the planning, design, and management of parks, open spaces, and trails.
8. The City shall enforce park rules to protect public safety.
9. The City shall integrate green concepts into park and open space design, maintenance, and operations.
10. In addition to standing committees such as the Park and Recreation Advisory Board, and the Tree Board, the City shall continue to involve its residents and businesses as active participants and partners in all aspects of providing park and recreational services.

“The City shall seek to establish and manage a fully functional urban forest.”



11. The City shall ensure that the community at large is adequately informed of recreation opportunities and programs; issues affecting park, open space, and recreation services; and volunteer opportunities.
12. The City shall, either directly or in coordination with other stakeholders and agencies, seek opportunities to acquire public open space.
13. The City shall build and maintain partnerships with other governmental and private agencies and organizations to optimize funding and facility resources, and improve park and recreational opportunities.
14. When considering acquisition of new parkland and open space, the City shall identify funding for required maintenance and public safety activities.

15. The City shall require all development to pay a parks system development charge or to dedicate land in lieu of a park system development charge.



PHOTO: CITY STAFF

Woodard Park playground.

16. The City shall continue to encourage and recognize the important role of volunteers and community groups in meeting City park, trail, open space, and recreation needs, and in building stewardship and promoting community pride.
17. The City shall maintain and manage its parks and open space resources in ways that preserve, protect, and restore Tigard’s natural resources, including rare, or state and federally listed species, and provide “Nature in the City” opportunities.



18. The City shall provide funding for a high level of park, open space, and recreational facility maintenance.
19. The City shall seek to establish and manage a fully functional urban forest.
20. The City shall continue to improve access to neighborhood parks and other facilities in order to serve all citizens, regardless of ability.
21. Acceptance of any land donated for park purposes shall be based upon its usefulness and adaptability to the Park System Master Plan.
22. City-owned property may be used for private wetlands mitigation considered on a case-by-case basis.

RECOMMENDED ACTION MEASURES:

- i. Review and update the Parks System Master Plan every 5 years.
- ii. Develop master plans for each park that identify the locations and types of development that will occur in the park, preserve natural areas, and ensure development that promotes safe and aesthetically pleasing environments.
- iii. Consider and respond to Tigard’s social and demographic characteristics, including its cultural diversity, when planning for, and investing in, park improvements.
- iv. Consider the development of a partnership plan with the school district for the renovation and joint use of school grounds in park deficient areas to meet neighborhood park needs.
- v. Coordinate with and support Metro, Oregon State Parks, the National Park Service, and other agencies that provide parks, open spaces, and recreational activities in or near Tigard.
- vi. Promote a safe environment in the City’s parks and open spaces through on-going contact and coordination with public safety officials.



- vii. Consider the development of a marketing and communication plan to inform the public about the value of parks and the recreational services they provide.
- viii. Develop and distribute maps and brochures to educate users about the park and open space system and promote appropriate use.
- ix. Revise and update the Park System Development Charge (SDC) Methodology to reflect current land and development costs and to consider:



PHOTO: MARGARET DOHERTY

Morning at Cook Park.

- A. the development of a dependable, long term funding source, or sources, that can be used to provide the overall project costs assigned to non-SDC funding sources in the SDC study's capital improvement program;
 - B. adjustments to the extraterritorial (Urban Growth Area) improvement projects identified in the SDC capital improvement program; and
 - C. adjustments to the SDC fee structure that reflects realistic non-SDC revenue expectations.
- x. Seek timely voter approval to fund needed park and open space acquisitions and improvements.



- xi. Utilize alternative methods to acquire and develop open space, parks, and trails, including local improvement districts, purchase of easements and development rights, life estates, etc.
- xii. Work to increase grants and donations from new sources for operating and capital funding.
- xiii. Consider the establishment of a parks foundation to assist with fund raising, acquisition, and special projects.
- xiv. Explore additional ways to acknowledge and recognize sponsors and donors.
- xv. Continue to use park reservation fee schedules that provide cost recovery balanced against needed services. Provide services to City residents at lower costs than to non-residents.
- xvi. Continue efforts to involve the public in the allocation of, and request for, funds.
- xvii. Identify funding for required maintenance and management activities when considering acquisition of new parkland and open space.
- xviii. Where applicable, take into consideration the costs of public safety services when considering acquisition of new parkland and open space.
- xix. Make parks, trails, and open spaces universally accessible by as many people as possible.
- xx. Provide public access to public open space in ways that protect and preserve sensitive natural resources.
- xxi. Continue to seek the assistance of volunteer groups to help in developing and maintaining parks, trails, and open spaces.
- xxii. Create volunteer opportunities, and support those who want to participate in making ideas, projects, and events happen in their neighborhood parks.



- xxiii. Develop and apply administrative policies and procedures for use of volunteer resources.
- xxiv. Continue to develop and implement specific management plans and maintenance programs for the high level maintenance of all of the City's park and open space lands.
- xxv. Seek opportunities to introduce more environmentally-friendly, science-based maintenance practices, including measures to increase, re-use, and recycle programs, on-site filtration, integrated pest management, and other best management practices.
- xxvi. Develop and implement an urban forestry program to improve the condition of Tigard's urban forest through effective management decisions.
- xxvii. Include natural resources surveys and monitoring in the City's management of public open spaces and related natural resources.
- xxviii. Remove and control invasive species and noxious weeds in natural areas.
- xxii. Inform the public about maintenance and management requirements for the City's various types of parks, recreation facilities, trails, and open spaces, for example, by posting maintenance plans on the City webpage.

GOAL:

- 8.2 Create a Citywide network of interconnected on- and off-road pedestrian and bicycle trails.

POLICIES:

- 1. The City shall create an interconnected regional and local system of on- and off-road trails and paths that link together neighborhoods,



parcs, open spaces, major urban activity centers, and regional recreational opportunities utilizing both public property and easements on private property.

2. The City shall design and build greenway trails and paths to minimize their impact on the environment, including on wildlife corridors and on rare, and state or federally listed species.

RECOMMENDED ACTION MEASURES:

- i. Complete a trail system master plan to guide the development of the trail system and facilitate progress toward its completion.
- ii. Complete a Citywide inventory and prioritization of opportunities for short pathway connections that increase bicycle and pedestrian connectivity and complement the greenway and on-street bicycle/pedestrian systems.
- iii. Develop trail standards for the many trail systems, sizes, and materials needed in different settings.
- iv. Add to the park system master plan map:
 - A. The Tigard portions of two “regionally significant” trails (the Westside Trail (formerly, the Powerline Trail) and the Washington Square Loop Trail); and
 - B. The on- and off-street route identified by the citizen groups that connects the Washington Square Loop Trail with the Portland Urban Trail Number 5, which ends at SW Dickinson and SW 65th.
- v. Coordinate trail development and maintenance activities with natural resource management objectives and activities.
- vi. Where appropriate, furnish trails with amenities, such as interpretive and directional signage, benches, drinking fountains, parking and staging areas, and other services.



- vii. Use automated systems to systematically map and document trail easements, right-of-way dedications, proposed alignments, and current trail locations.

GOAL:

- 8.3 Provide Tigard residents with access to a broad range of recreational, cultural, and educational activities.

POLICIES:

- 1. The City shall endeavor to establish a comprehensive recreation program.
- 2. The City shall identify funding to provide a broad range of recreational opportunities.

RECOMMENDED ACTION MEASURES:

- i. Develop an information program to raise the public’s awareness of the importance of recreational facilities and programs to public well-being and community livability.
- ii. Identify potential partners, including school districts, special service districts, private providers, etc., for the provision of recreation programs.
- iii. Work with the community to assess appropriate elements for a recreation program.
- iv. Consider voter approval to fund needed recreation facilities and a recreation program.
- v. Assist, when appropriate, youth sports leagues and other non-profit recreation providers.



Economic Development

“The City shall have a strong and resilient local economy with a diverse portfolio of economic activity: retail, professional service, and industrial jobs.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
03-06-08	2007-00006	Entire chapter updated by Ordinance 08-02.

SECTION COVER PHOTO: CITY STAFF
Corporate Park located in the Tigard Triangle.



Economic activity is the lifeblood of any community: providing jobs, creating wealth, and generating tax revenue. Tigard's economy is intertwined with the economy of the region, the nation, and the world.

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.”

Tigard's location at the crossroads of several transportation routes has proven to be a major advantage. Other advantages include the relatively high educational attainment level of its citizens and its proximity to the high technology centers in Washington

County and major educational institutions such as Portland State University and Portland Community College. A recent study found that Tigard was a “hub for innovation” for a city its size, due to the comparatively high percentage of patents granted to individuals and small business.



PHOTO: CITY STAFF

Office building located in the Tigard Triangle.

Tigard residents envision a future economy that builds on these strengths. Tigard shall have a strong and resilient local economy with a diverse portfolio of economic activity: retail, professional service, and industrial jobs. The local economy shall provide for goods and services for local resident and business needs but also have the goal of expanding the “traded sector.” This sector sells goods and services outside the region to the broader state, national, and international markets and/or produces goods and services that normally would have to be imported to the community. These businesses bring income into the community or region and keep local income from going elsewhere.

Tigard's future economy may include activities whose characteristics are not foreseeable at this time such as live-work arrangements; light manufacturing combined with research and development; creative crafts and arts such as film, advertising, communications, etc. Therefore, the City's land use and other



regulatory practices shall be flexible and adaptive so as not to preclude desirable economic development opportunities.



PHOTO: BARBARA S. WALKER, PHOTO CONTEST ENTRANT
Tigard Area Chamber of Commerce.

Tigard is sometimes perceived as a bedroom community for nearby cities. This is not accurate. Tigard businesses provide 38,628 full and part time jobs in 2005 (State of Oregon Employment Department). This number is greater than the number of Tigard residents over the age of 16 in the workforce: 25,537 (O.E.D, 2006).

Seventy percent of Tigard residents work outside the City, so thousands of workers from throughout the region are regularly commuting to Tigard jobs (2000 Census). The City shall seek to expand the opportunities for residents to work closer to where they live. This will require promoting a mix of high quality housing opportunities for households with varying incomes.

Quality of life factors shall be promoted to attract economic investments and a skilled work force. Among these factors are an attractive and well-maintained community; high levels of public safety; accessible and responsive local government; availability of a variety of housing, good public schools; access to nature, high quality parks, leisure and recreation activities, safe and convenient multi-modal transportation opportunities, and smoothly running essential infrastructure.

State and Regional Policies: The Department of Land Conservation and Development (DLCD) and Metro have developed policies that address economic opportunities, which are based on Statewide Planning Goal 9.

A major emphasis of the Goal 9 policies is to preserve and protect land for industrial and employment uses. Metro has sought to implement this on a regional basis. Title 4 of the Metro Urban Growth Management Functional Plan identifies Industrial and Other Employment Areas that are important to the region.



Tigard has little available vacant land suitable for new large-scale industrial development. The City is severely limited in its ability to expand its boundaries, so the only way to designate new industrial land would be to re-zone existing land. This is unlikely to happen at a large scale. Alternately, the City could encourage industrial-type uses that are not as land intensive.

Tigard can ensure a strong economy with these desired characteristics by working on a formal economic development program. In the near term the Downtown Urban Renewal District has the potential to redevelop and attract additional employment and economic activity.

KEY FINDINGS:

- Tigard is home to a wide range of economic activity.
- Tigard does not have a formal city-wide economic development strategy.
- Tigard's location at the crossroads of important transportation corridors I-5, Hwy 217, and Hwy 99W is a major advantage in attracting economic activity.
- Approximately 31% of Tigard's land area is zoned for commercial, industrial, and mixed use purposes. These properties represent about 31% of the total assessed property value.
- The major commercial and mixed-use areas of the City are Washington Square, Tigard Triangle, Downtown Tigard, and the Hwy 99W corridor. Industrially zoned properties are generally located along the freight rail line, in between Fanno Creek and I-5.
- In 2005, Tigard public and private sectors provided 38,628 full and part time jobs. (This does not include self-employed workers.)
- In 2005, 3,124 businesses paid the Tigard business tax. About half of these businesses employ four people or fewer.

“The major commercial and mixed-use areas of the City are Washington Square, Tigard Triangle, Downtown Tigard, and the Hwy 99W corridor.”



- In Tigard, there are more jobs than people in the workforce living within the City boundaries. Seventy percent of residents commute outside the City; therefore, Tigard is a net attractor of commuters.
- The mean travel time to work for Tigard residents is 22.8 minutes.
- In Tigard, the Wholesale Trade sector has the largest amount of sales. The Retail sector has the largest annual aggregate payroll and largest number of workers.
- Financial Activities, Retail, and Construction are employment sectors with high Location Quotients (propensity to locate) in Tigard.
- Metro has designated approximately 1,100 acres of Industrial and Commercially zoned properties in Tigard as Title 4 Industrial and Employment Areas. Tigard will have to amend its code to limit the development of retail and service uses for some I-P zone properties.
- There has been no large-scale encroachment of retail/office uses in industrial areas in Tigard.
- In 1997 Metro assigned Tigard a capacity of 17,801 new jobs by the year 2017. Between 1997 and 2004, Tigard added approximately 3,800 jobs.
- Tigard's supply of industrially zoned land will likely be inadequate to meet the forecasted 2024 job demand in this area. It appears that there is an adequate supply of commercial land.
- Tigard has little vacant industrial land available to attract new large scale industrial development.
- A recent study found that Tigard was a "hub for innovation." A study of patents and communities by the research firm iPiQ found that in 2005, Tigard had a high percentage of patents granted to individuals and small businesses (29). The study attributed this to Tigard's lower rents and taxes attracting professionals from Portland and Beaverton.

GOAL:

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

**POLICIES:**

1. The City shall establish strategies to retain and encourage the growth of existing businesses.
2. The City shall actively encourage businesses that provide family-wage jobs to start up, expand, or locate in Tigard.
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.
4. The City shall address the public facility needs of business and economic development through identifying and programming needed public facilities and services within the Public Facility and Community Investment Plans.
5. The City shall promote well-designed and efficient development and redevelopment of vacant and underutilized industrial and commercial lands.
6. The City shall promote actions that result in greater, more efficient, utilization of its Metro-designated Employment and Industrial Areas.
7. The City shall limit the development of retail and service land uses in Metro-designated industrial areas to preserve the potential of these lands for industrial jobs.
8. The City shall participate and represent Tigard's interests in economic development activities and organizations at the regional, state, and federal levels.
9. The City shall strongly represent its interests at the regional, state, and federal levels to acquire transportation funding, including truck and rail

*“The
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freight movement needed to support existing business activity, attract new business, and improve general transportation mobility throughout the community.

10. The City shall strongly support, as essential to the region's economic future, the development of efficient regional multi-modal transportation systems throughout the Portland Metropolitan area.

11. The City shall develop industry clusters by encouraging the retention, expansion, and recruitment of industries that already have a presence in Tigard.



PHOTO: FOUGHT STEEL STAFF

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.

RECOMMENDED ACTION MEASURES:

- i. Develop a formal City of Tigard economic development program and strategy to implement the community's economic development goals and policies, and consider the creation of an economic development director position to develop and implement the program.
- ii. Develop and periodically update Comprehensive Economic Opportunities Analyses and other employment and economic development studies to determine the status of Tigard's economy including strengths, deficiencies, and trends.



- iii. Coordinate economic development activities with Metro, Washington County, Greenlight Greater Portland, Portland Regional Partners for Business, the Westside Economic Alliance, state agencies and other entities.
- iv. Investigate the potential of an “Economic Gardening” program in Tigard that provides information, infrastructure, and connections to local businesses with the potential for growth.
- v. Improve data collection on local economic trends by gathering up-to-date and accurate information from local, regional, state, and federal sources.
- vi. Support redevelopment of existing vacant and underutilized industrial and commercial lands rather than designating additional lands for these purposes.
- vii. Research strategies to inventory, assess, clean-up, and redevelop brownfields.
- viii. In view of the limits imposed on Tigard’s ability to expand its City limits by surrounding jurisdictions, develop strategies to increase employment growth through more intense and efficient use of existing lands.
- ix. Maintain updated land use inventories and associated characteristics of commercial, industrial, and other employment related land uses to assist in economic development planning and coordination with other jurisdictions/agencies.
- x. Consider implementing additional Urban Renewal Districts where feasible.
- xi. Develop a comprehensive “Area Plan” for the Tigard Triangle to promote its full development.
- xii. Increase opportunities for higher density housing and employment development in the Downtown Urban Renewal District, Washington Square Regional Center, Tigard Triangle, and



designated Corridors to enable more intense housing and employment uses to be located in close proximity to transit and other urban uses.

- xiii. Prioritize support for businesses identified as being able to develop into regional industry clusters.
- xiv. Improve media contacts and develop a branding / marketing effort to promote Tigard as a place to live and do business.

GOAL:

- 9.2 Make Tigard a center and incubator for innovative businesses, including those that focus on environmental sustainability.

POLICIES:

- 1. The City shall institute appropriate land use regulations to accommodate a contemporary mix of economic activities.

- 2. The City shall periodically review and update its policies, land use regulations, and other efforts to ensure the City's land use program is responsive to changes in the economic structure, and is adaptable to businesses changing development needs.



PHOTO: CITY STAFF

Beveland Street Coffee House & Essential Wellness Center.

- 3.. The City shall engage with state and regional economical development organizations and agencies to sustain and expand its current economic activities and be prepared for future economic trends.

**RECOMMENDED ACTION MEASURES:**

- i. Develop a strategy to increase the number of knowledge based and traded sector jobs that pay higher than national average wages.
- ii. Investigate ways to support local innovative businesses and economic activities, as evidenced by the relatively high number of patents granted to individuals and small business in Tigard.
- iii. Investigate the potential for a business incubator or innovation center that fosters the start-up of new innovative businesses and connects regional economic partners, businesses, higher education and venture capitalists.
- iv. Improve connections with major universities to promote research connections, and access to innovative business practices.
- v. Promote Downtown Tigard as a place for innovative and emerging business to expand or relocate.
- vi. Encourage programs that promote sustainable business practices (e.g., recycling, green building or other sustainable design features, the use of green or alternative energy, commute trip reduction programs).

GOAL:

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

POLICIES:

1. The City shall focus a significant portion of future employment growth and high-density housing development in its Metro-designated Town Center (Downtown); Regional Center (Washington Square); High Capacity Transit Corridor (Hwy 99W); and the Tigard Triangle.



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.
3. The City shall commit to improving and maintaining the quality of community life (public safety, education, transportation, community design, housing, parks and recreation, etc.) to promote a vibrant and sustainable economy.
4. The City shall allow opportunities for home based businesses that are compatible with existing and planned residential living environments.

RECOMMENDED ACTION MEASURES:

“Adopt land use regulations and standards to ensure a well-designed and attractive urban environment.”

- i. Consider instituting design regulations to ensure that new commercial, mixed-use, and industrial development are well designed and make an aesthetic contribution to the community.
- ii. Increase Tigard’s supply of open space and recreational opportunities as an amenity to attract new businesses and their employees.
- iii. Promote Tigard’s cultural, historic, recreational, educational, and environmental assets as important marketing tools for the City’s business areas and neighborhoods.
- iv. Support environmental conservation and wildlife enhancement activities for their contribution to the local economy as quality of life amenities for residents, business owners, and their employees.
- v. Investigate ways to improve the appearance and function of Hwy 99W and other transportation corridors.
- vi. Develop high quality work force housing to increase the opportunity for employees who work in Tigard to also live in the community.



- vii. Streamline the City processes required to start or expand a business by techniques such as online permits and business tax applications.
- viii. Develop long-term and active working relationships between business organizations (such as the Tigard Area Chamber of Commerce), community groups, public agencies, and elected leadership.
- ix. Produce a “Doing Business in Tigard” packet for businesses.
- x. Support catalyst projects outlined in the Tigard Downtown Improvement Plan and make public investments in infrastructure such as streets, sidewalks, and public areas to leverage desirable development in the Downtown Urban Renewal District.
- xi. Attract new businesses and retain existing ones that will assist in creating an Urban Village in the Downtown Urban Renewal District.
- xii. Institute new land use regulations, including design regulations, to ensure high quality development in the Downtown.
- xiii. Work with Work Systems, Inc., Tigard-Tualatin School District, and Portland Community College on ensuring business employment needs and trends are in line with educational curriculums.
- xiv. Consider joining an international “Sister Cities” program to develop reciprocal cultural, educational, municipal, business, professional, and technical exchanges and projects with foreign cities.
- xv. Monitor emerging wireless and high-speed internet technologies to ensure competitively priced access for Tigard residents and businesses.
- xvi. Recognize and promote community events as having potential for positive economic impacts and as important for community identity.



Housing

“Provide opportunities to develop a variety of housing types that meet the needs, preferences, and financial capabilities of Tigard’s present and future residents.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
03-06-08	2007-00006	Entire chapter updated by Ordinance 08-02.

SECTION COVER PHOTO: CITY STAFF
New housing development in Tigard.



When it comes to housing, one size does not fit all. Each person seeking a new place to call home must find a suitable match between price, location, housing type, and lifestyle, which can be a daunting task. In Oregon, the state planning goals aim to broaden the available selection. Each jurisdiction, including Tigard, must provide the opportunity for different “sizes” of housing to fit residents’ varied needs, considering available land, price ranges, rent levels, and housing type.

GOAL 10: Housing

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

Some of the factors that local governments can influence are the supply of available residential land; the availability of public services; development regulations (density and design), and support for low and moderate income housing.

In the Portland metropolitan region, only land included in the Metro Urban Growth Boundary (UGB), an invisible line that separates rural areas from suburban, can be developed at residential densities requiring urban services. At the local level, each state and regional jurisdiction must inventory its buildable land, which is defined as vacant and re-developable land suitable for residential use, to determine housing capacity. Tigard maintains a buildable lands inventory (BLI) that tracks available residential land. Two state and Metro requirements help determine housing capacities on buildable land within the Portland Metropolitan Area – the state Metropolitan Housing Rule and Title 1 of Metro’s Urban Growth Management Functional Plan (Functional Plan). Both focus on increasing jurisdictions’ housing capacity in order to use land within the UGB efficiently.

“When it comes to housing, one size does not fit all.”

The Metropolitan Housing Rule (OAR 660-007/Division 7) established regional residential density and mix standards for communities within the Metro UGB. It set minimum residential density standards for new construction by jurisdiction. Tigard must provide for an overall density opportunity of 10 or more dwelling units per net buildable acre, as well as designate sufficient buildable land to provide the opportunity for at least 50% of new residential units to be attached housing (either single-family or multiple-family.)



Urban Growth Management Functional Plan

Metro implements Goal 10 through Title 1. To meet Title 1, each jurisdiction was required to determine its housing capacity and adopt minimum density requirements. Tigard adopted an 80% of minimum density requirement for development in 1998, which means that a development must build 80% of the maximum units allowed by the zoning designation. The City has committed to providing the development opportunity for an additional 6,308 dwelling units between 1998 – 2017. This number shows Tigard’s zoned capacity for additional dwelling units. It is an estimate based on the minimum number of dwelling units allowed in each residential zoning district, assuming minimum density requirements.

“The City of Tigard maintains an up-to-date buildable lands inventory.”

The City of Tigard maintains an up-to-date buildable lands inventory, a permit tracking system for development, as well as complying with Metro’s Functional Plan. The City is responsible for monitoring residential development. All of these tools aid the City in monitoring its progress toward the above goals, and determining if the opportunity remains for current and future residents to have diverse housing choices.

The City of Tigard maintains an up-to-date buildable lands inventory, a permit tracking system for development, as well as complying with Metro’s Functional Plan. The City is responsible for monitoring residential development. All of these tools aid the City in monitoring its progress toward the above goals, and determining if the opportunity remains for current and future residents to have diverse housing choices.

Tigard’s Geographic Limits to Growth

In the last several years, Washington County has urbanized significant areas of unincorporated land to the south and west of Tigard. It and service districts provide the minimum required facilities and services. The county’s actions, combined with state annexation law, make it is improbable that most of these developed lands will annex to Tigard. Urbanized unincorporated land forms a barrier between Tigard and unincorporated urban growth areas designated by Metro. Thus, Tigard is unlikely to expand its City boundaries in the future. The lack of vacant residential land will require Tigard to meet its housing capacity commitment within its current, mostly built-out, City limits. This will require actions to increase residential density within the appropriate areas such as along major transportation corridors, and within designated Regional and Town Centers. Thus, much new residential development will occur through urban infill and redevelopment.



Affordable Housing/ Special Needs Housing

Metro also addresses affordable housing in Title 7 of its Functional Plan. Title 7 includes voluntary affordable housing production goals and other affordable housing strategies. Tigard has undertaken a variety of voluntary actions to support and enhance opportunities for affordable housing, including offsetting City fees and charges for affordable housing, and a tax exemption for low income housing developed by nonprofits. Among the organizations involved in low income housing, special needs housing, and emergency housing, are Community Partners for Affordable Housing, Tualatin Valley Housing Partners, Luke-Dorf, and the Good Neighbor Center. Tigard is also part of the Washington County Housing Consortium that utilizes home and CDBG funds to provide housing opportunities.

KEY FINDINGS:

- Approximately two-thirds of Tigard is zoned for residential land uses (68.6%).
- There are 19,468 single-family and multi-family housing units in Tigard, with an additional 55 mobile homes and 14 manufactured homes. 63.5% of the total units are single-family and 36.5% are multi-family.
- Eighty-one percent of housing units were built after 1970.
- Most new housing built since 1994 has been single-family attached or detached (82%).
- The majority of Tigard residents own their homes (58%), with 41% paying rent (2000 Census).



PHOTO: PROVIDED BY HOLLAND RESIDENTIAL
Arbor Heights Apartments on Royalty Parkway.



- Over the last five years, Portland region housing prices have rapidly escalated. In Tigard, the 2005 median house price was \$269,900, up 18% from 2004, and 46% from 2000.
- The 1999 median household income for Washington County was \$52,122. For Tigard the median household income was \$51,581.

*“Tigard
itself does
not construct
affordable
low to
moderate
income
housing.”*

- In the Portland metropolitan area in 2005, the ratio of house prices to wages was 6.8. (\$41,623 median wage vs. \$282,900 median house value.) This compares to an average ratio of 5.5 for the United States as a whole.
- In a fall 2004 survey, apartment rents averaged \$705 a month, which would be affordable for households making \$28,200 or more annually, almost half of the median income. The 93% occupancy rate was lower than the optimal rate (95%), showing weaker demand; however, recent housing price increases could reverse this trend.
- In 2006, Tigard had approximately 7,115 rental units.
- There are 546 Tigard households with 1,322 people on the Washington County housing unified waiting list for Section 8 and public housing programs. Fifty-four percent of these households have children under the age of 18. Eighty-seven percent of these households make 30% or less of the 2003 annual median Washington County household income (\$16,200 or less).
- Metro included a voluntary production goal for Tigard of 319 affordable housing units for the period 2001-2006.
- Tigard itself does not construct affordable low to moderate income housing. Most of this housing in Washington County is constructed by non-profits using state and federal subsidies.
- A large portion of the 2005 BLI is zoned low density (54% is R-3.5 or R-4.5) or medium density (26% is R-7). No land zoned R-40 remains on the inventory. The majority of available lots are one acre or less in size.
- Between 1994 and 2006, 3,380 housing units have been built in the City. This is 54% of its Title 1 zoned capacity number of 6,308 units (Metro Title 1; based on 1996 boundaries).



- Based on this data, if the City developed its remaining residential buildable lands, an additional 2,879 to 3,456 units could be built.
- Since 1994 the overall density of residential construction Citywide has been 6.8 dwelling units per acre. It is expected that more attached residential units will be constructed through redevelopment and infill as remaining single-family residential land is developed.
- Areas such as Washington Square, Downtown Tigard, and the Tigard Triangle allow for higher density residential projects, but few high-density attached units have been built due to market conditions.



PHOTO: CITY STAFF

Row houses in Tigard.

GOAL:

- 10.1 Provide opportunities for a variety of housing types to meet the diverse housing needs of current and future City residents.

POLICIES:

1. The City shall adopt and maintain land use policies, codes, and standards that provide opportunities to develop a variety of housing types that meet the needs, preferences, and financial capabilities of Tigard’s present and future residents.
2. The City’s land use program shall be consistent with applicable state and federal laws.
3. The City shall support housing affordability, special-needs housing, ownership opportunities, and housing rehabilitation through programs administered by the state, Washington County, nonprofit agencies, and Metro.



4. The City shall adopt and maintain land use regulations that provide opportunities to develop housing for persons with special needs. The scale, design, intensity, and operation of these housing types shall be compatible with other land uses and located in proximity to supporting community services and activities.
5. The City shall provide for high and medium density housing in the areas such as town centers (Downtown), regional centers (Washington Square), and along transit corridors where employment opportunities, commercial services, transit, and other public services necessary to support higher population densities are either present or planned for in the future.
6. The City shall allow accessory dwelling units in appropriate residential districts, but shall require that they are compatible and blend into the overall residential environment.
7. The City shall comply with federal and state housing laws and applicable implementing administrative rules.

RECOMMENDED ACTION MEASURES:

- i. Update the City's Buildable Land Inventory regularly to monitor the rate of development and the availability of residential land.
- ii. Monitor regional and local housing trends and periodically review and update the City's land use policies and regulations accordingly to provide the range of housing development opportunities needed by Tigard's residents.
- iii. Allow manufactured homes on individual lots subject to standards to ensure their compatibility with single-family residential housing types.
- iv. Allow opportunities for accessory dwelling units in regional centers, town centers, and corridors per Metro requirements.
- v. Increase opportunities for higher density mixed use development in the Downtown Urban Renewal District, Washington



Square Regional Center, Tigard Triangle, and designated Corridors to enable residential uses to be located in close proximity to retail, employment, and public facilities, such as transit and parks.

- vi. Provide incentives to encourage the development of a range of housing choices at transit-supportive densities near existing and planned transit routes, and/or in proximity to major activity centers such as employment, commercial areas, schools, and recreation areas.
- vii. Lower development costs for affordable housing by subsidizing City fees and charges, giving higher priority to housing projects close to major activity centers and transit services.
- viii. Communicate the availability of local, state, and federal affordable housing incentives and subsidies to those involved in the housing industry.
- ix. Participate with other Portland Metropolitan area jurisdictions and agencies to address both local and regional affordable and workforce housing needs.
- x. Develop strategies to encourage affordable housing in the City's regional (Washington Square) and town centers (Downtown) and other areas designated for mixed use and high residential densities.
- xi. Coordinate with the Washington County Housing Authority, private non-profit housing corporations, H.U.D. and other federal, state, and regional agencies for the provision of subsidized housing programs in Tigard.
- xii. Increase Tigard's diversity of housing types through financial incentives and regulatory tools such as density transfer and

“Provide incentives to encourage the development of a range of housing choices...”



planned development standards; transit, and vertical oriented housing tax credits; voluntary inclusionary zoning, etc.

- xiii. Work with Metro and Washington County to determine the City's projected regional share of affordable, workforce, and special needs housing and to develop and implement strategies to accommodate projected local and regional needs.
- xiv. Work with the Washington County Housing Authority, and non-profit corporations to encourage preservation or replacement of affordable and special use housing when:
 - A. redevelopment occurs in older areas of the City;
 - B. single family dwellings are upgraded for sale or higher rent; or
 - C. apartments are converted to condominiums or to rentals that are more expensive.
- xv. Encourage the development of affordable housing when opportunities arise to redevelop public property and private institutional lands.
- xvi. Provide opportunities for affordable home ownership by:
 - A. Adapting the City's land use program to allow for the development of a variety of residential building types and ownership arrangements;
 - B. Supporting the activities of non-profit housing providers such as Habitat for Humanity and community land trusts; and
 - C. Supporting the efforts of Washington County Housing Authority and developers of affordable housing to utilize a variety of public and private subsidies and incentives.
- xvii. Support housing types, such as shared housing, accessory dwelling units, smaller homes, adult foster homes, and other assisted living arrangements that allow the elderly to remain in their community as their needs change.



GOAL:

10.2 Maintain a high level of residential livability.

POLICIES:

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

2. The City shall seek to provide multi-modal transportation access from residential neighborhoods to transit stops, commercial services, employment, and other activity centers.



PHOTO: CITY STAFF

Single-family residence.

3. The City shall commit to improving and maintaining the quality of community life public safety, education, transportation, community design; a strong economy, parks and recreation, etc.) as the basis for sustaining a high-quality residential environment.
4. The City shall protect the habitability and quality of its housing stock through code inspection services and enforcement.
5. The City shall encourage housing that supports sustainable development patterns by promoting the efficient use of land, conservation of natural resources, easy access to public transit and other efficient modes of transportation, easy access to services and parks, resource efficient design and construction, and the use of renewable energy resources.
6. The City shall promote innovative and well-designed housing development through application of planned developments and community design standards for multi-family housing.



7. The City shall ensure that residential densities are appropriately related to locational characteristics and site conditions such as the presence of natural hazards and natural resources, availability of public facilities and services, and existing land use patterns.

“The City shall regulate home-based businesses to prevent adverse impacts on residential areas.”

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.

9. The City shall require infill development to be designed to address compatibility with existing neighborhoods.

10. The City shall regulate home-based businesses (occupations) to prevent adverse impacts on residential areas.

RECOMMENDED ACTION MEASURES:

- i. Encourage future housing development on designated build-able lands in areas where public facilities and services can be most readily provided.
- ii. Develop infill design standards to ensure that new housing constructed within existing residential neighborhoods complements and is compatible with existing development.
- iii. Engage Tigard’s citizens in public policy decisions, programs, and projects to improve neighborhood quality of life such as improving public safety; providing high quality public



services; enhancing mobility and easy access to activity centers; improving community design; providing parks and open space; and promoting a green environment.

- iv. Promote Planned Development, density transfer, site and building design standards, and other regulations to protect natural areas preserve open spaces and enhance Tigard's residential environment.
- v. Develop standards to enhance livability for those living in housing adjacent to major streets such as appropriate setbacks, buffering and screening, noise mitigation, building orientation, landscaping, etc.
- vi. Update and maintain the City's land use regulations, engineering standards, and building codes to be consistent with federal and state requirements and responsive to current conditions and anticipated development trends.
- vii. Promote the maintenance of habitable housing in Tigard through Housing Inspection and Enhanced Housing Safety programs. Contribute to an Emergency Housing Fund to assist those who lose housing due to safety/habitability problems.
- viii. Encourage those who must make habitability and safety improvements to their homes to access low interest loan and grant programs offered by the Washington County Housing Rehabilitation Program.
- ix. Promote the habitability and quality of existing housing stock through means such as effective code enforcement and code violation follow-through, habitability standards, and rental licensing and inspection.
- x. Develop regulations, standards, educational tools, and incentives to induce property owners to maintain residential property to prevent blight and promote safe and healthy living environments.



- xi. Develop regulations and incentives to induce property owners to rehabilitate or redevelop deteriorated and marginally habitable residential properties.
- xii. Develop and enforce codes and regulations to abate public health and safety problems associated with residential properties being used for unlawful purposes.
- xiii. Establish and maintain standards to regulate non-residential accessory structures to protect the character and quality of existing neighborhoods.
- xiv. Provide incentives and technical assistance to make resource efficient (green) technologies and materials part of new development and the remodeling or retrofitting of existing development. Opportunities include energy conservation, water re-use, water quality enhancements, green building materials, solar heating/cooling, and drought tolerant landscaping etc.
- xv. Adopt clear and objective approval standards, criteria, conditions, and review processes for needed housing per state requirements.
- xvi. Develop partnerships with neighboring jurisdictions on multi-jurisdictional code enforcement issues.



PHOTO: MANAGENERGY.COM
Solar energy panels.



Public Facilities and Services

*“The community’s vision is for a future
where essential public facilities and
services are readily available to serve
the needs of the community.”*





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
01-03-08	2007-00004	Entire chapter updated by Ordinance 07-21.

SECTION COVER PHOTO: CITY STAFF
Tigard City Hall in autumn.



Public Facilities and Services addresses their appropriate coordination, location, and delivery in a manner that best supports the existing and proposed land uses. For the purposes of the Comprehensive Plan, Public Facilities and Services refers to Stormwater Management, Water Supply and Distribution, Wastewater Management, Community Facilities, and Private Utilities. The provision of these facilities and services is essential to a high quality of life and the health, safety, and welfare of the community. Their availability is also vital to promoting and sustaining a strong local and regional economy. For these reasons, the City and its partner agencies and districts must efficiently plan for the impacts of future growth and development on the facilities and services provided. Statewide Planning Goal 11 requires Oregon jurisdictions to adopt Comprehensive Plans that provide goals and policies as the basis to manage, maintain, and expand the public facilities and services of the community.

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.”

The community’s vision is for a future where essential public facilities and services are readily available to serve the needs of the community. They understand the importance of not only planning for and funding the facilities, but ensuring their continued maintenance. They also recognize the impact that new development places upon all services and want them to pay their fair share. The public library, senior center, public safety, and public schools especially are considered vital components of a high quality, livable community. Furthermore, it is recognized that expected population growth in the region will place increased pressure on existing public facilities and services.

The City of Tigard has adopted the City of Tigard *Public Facility Plan* (1991) as required by Oregon Administrative Rule 660-11. The City will make appropriate updates to the *Public Facility Plan* on a regular basis as part of the Periodic Review process as required by Oregon Administrative Rule 660-25.

Section 1: Stormwater Management

The City stormwater infrastructure is a mix of natural and piped systems. As with most urban areas, the reliance on piped stormwater has been important to transport the water from impervious surfaces to the natural systems and move it out of the community. To ensure the system operates effectively, the natural



components must remain in good condition to meet the primary objectives of protecting water quality and flood control. To accomplish these objectives, the City collaborates with Clean Water Services (CWS) in the planning and management of the system. The plans currently used for City efforts are the CWS *Stormwater Management Plan* (2006), which addresses water quality protection, and *Fanno Creek Watershed Management Plan* (1997), which addresses flood control in the City.

The 2006 *Stormwater Management Plan* (SWMP) is a requirement of the combined National Pollutant Discharge Elimination System (NPDES) and Municipal



PHOTO: CITY STAFF

Public Works building.

Separate Storm Sewer System (MS4) permits held by CWS. The SWMP is revised on a five-year cycle and was last updated in spring 2006. To implement the plan, the City has an inter-governmental agreement (IGA) with CWS as a “self-service provider.” This designation means the City has operation and maintenance authority over storm drain systems, water quality systems,

and roadside ditches under City jurisdiction. The IGA outlines the CWS work program standards that must be followed by the City.

The 1997 *Fanno Creek Watershed Management Plan* (Fanno Plan), prepared by CWS for all jurisdictions within the basin, is the principal plan for drainage in the City. The Fanno Plan covers 85% of Tigard (the remaining 15% of the jurisdiction drains directly to the Tualatin River) and has been adopted by the City. Included in the plan is an inventory of drainage structures, an evaluation of their adequacy of capacity, and recommended City infrastructure improvements to reduce flooding. Funding for these projects is available through the Storm Sewer Fund that results from the collection of system development charges.



In addition, the City is responsible for adopting policies and regulations that implement statewide land use goals to protect water quality and wildlife habitat. These policies and regulations must ensure that the impacts of new development on the stormwater infrastructure are minimized. One of the greatest impacts on stormwater infrastructure is the amount of impervious surface in a watershed. Impervious surfaces increase run-off into the stormwater system and increase the peak flow of storm events. Reducing the impervious surface coverage will encourage natural filtration and help to reduce the stormwater infrastructure needs, as well as reduce problems associated with scouring and erosion of stream channels from storm events.

Although CWS does not have land use authority, they have been involved in reducing the impacts of stormwater by developing the CWS *Design and Construction Standards* (2007) that have been adopted by, and are implemented by, the City. A city engineer performs the task of evaluating the stormwater infrastructure design during the development review process to make sure the standards are met.

In addition to the CWS *Design and Construction Standards* (2007), the City has adopted voluntary habitat friendly development provisions that may be utilized during new development. The provisions seek to protect wildlife habitat that has been identified within the community and includes low impact development practices that are meant to reduce stormwater flow.

Funding for the stormwater system is generated from two sources. The first is from System Development Charges (SDCs) that are assessed on new developments that cannot provide their own water quantity and quality facilities. The money is placed in the Storm Sewer Fund and used for capital projects. The second, the Surface Water Management Fee, is a monthly charge that is collected on utility bills. The City keeps a portion of this fee for operations and maintenance of the stormwater infrastructure.

“...the City has adopted voluntary habitat friendly development provisions that may be utilized during new development.”



KEY FINDINGS:

- The expansion and maintenance of stormwater infrastructure is an important factor affecting growth and development.
- Objectives of the stormwater system are the protection of water quality and flood control and are addressed through the CWS *Stormwater Management Plan* (2006) and the *Fanno Creek Watershed Management Plan* (1997).
- The City maintains stormwater pipes, catch basins, outfalls, and water quality facilities; which includes ponds, swales, filter systems, detention pipes and tanks.
- Impervious surfaces, undersized bridges and culverts, and inadequate infrastructure contribute to localized flooding.
- The citizens of Tigard are concerned about population increases and the impact upon the community.
- The citizens of Tigard are concerned about the impact of growth on the community's natural resources.
- The citizens of Tigard are concerned about the future of public services, which includes safety, schools and infrastructure.

GOAL:

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

POLICIES:

1. The City shall require that all new development::
 - A. construct the appropriate stormwater facilities or ensure construction by paying their fair share of the cost;
 - B. comply with adopted plans and standards for stormwater management; and
 - C. meet or exceed regional, state, and federal standards for water quality and flood protection.
2. The City shall continue to collaborate with Clean Water Services in the planning, operation, and maintenance of a comprehensive stormwater management system.



3. The City shall require the stormwater management system to comply with all applicable federal, state, and regional regulations and programs.
4. The City shall require a property to be located within the City limits prior to receiving City stormwater services.
5. The City shall require maintenance access to all stormwater infrastructure and easements.
6. The City shall maintain streams and wetlands in their natural state, to the extent necessary, to protect their stormwater conveyance and treatment functions.
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.
8. The City shall develop sustainable funding mechanisms:
 - A. for stormwater system maintenance;
 - B. to improve deficiencies within the existing system; and
 - C. to implement stormwater system improvements identified in the Capital Improvement Plan.

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

RECOMMENDED ACTION MEASURES:

- i. Adopt natural resource and habitat friendly development standards that utilize incentives for developers to incorporate green concepts into their design.
- ii. Review and modify the Community Development Code, as needed, to include effective regulations to implement the stormwater management goals and policies.



- iii. Identify and map problematic stormwater drainage areas in the community.
- iv. Research alternative funding strategies for use in improving identified problem stormwater drainage areas in the community.
- v. Develop partnerships to produce and distribute informational materials that outline the benefits of low impact development practices and green street concepts.
- vi. Develop and implement a Capital Replacement Program for the stormwater system.

Section 2: Water Supply and Distribution

The City of Tigard provides water to the Tigard Water Service Area. This area includes most of the City's residents and also the City of Durham, King City, and the Bull Mountain area of unincorporated Washington County; which is represented by the Tigard Water District. The northeast corner of the City is supplied water by the Tualatin Valley Water District (TVWD), which operates independently from the City of Tigard.

The TVWD is governed by a five-member Board of Commissioners and operates under the TVWD *Water Master Plan/Management Plan* (2007). Tigard has no role in the operation or management of TVWD, but has collaborated with them on long-term supply studies and is also capable of sharing water in emergency situations.

The City of Tigard took over the provision of water to the Tigard Water Service Area from the Tigard Water District in 1994. During the transfer of supply responsibilities, an IGA created oversight for the water system through the Intergovernmental Water Board (IGWB), which consists of a member from Tigard, Durham, King City, Tigard Water District, and one at-large member. The IGWB advises Tigard City Council on issues relating to rate setting and water supply.

The City owns and operates the water distribution system under license from the Oregon Department of Human Services and the Oregon Water Resources



Department. The *Water Distribution Hydraulic Study* (2000) is the current master plan for the City water supply system. The study provides direction for system improvements, including storage and distribution.

Although the City owns a few wells, nearly 90% of the water supply is purchased from wholesale water providers such as the Portland Water Bureau (PWB). The City signed a 10-year agreement in summer 2006 to continue purchasing water from PWB.



PHOTO: CITY STAFF

In addition, the City purchases water from the City of Lake Oswego, which draws its water from the Clackamas River Basin. This lack of a City-owned supply has been identified as an important issue for the future and three long-term supply feasibility studies are in progress. The studies are in collaboration with neighboring jurisdictions and will evaluate various options for partnerships in securing a long-term supply.

During periods of high water demand, the City can supplement its supply with water from City-owned aquifer storage and recovery (ASR) wells and native groundwater wells. Additional supply is available for purchase from the Joint Water Commission (JWC). Water from the JWC is delivered via the City of Beaverton system, making it Tigard's only fluoridated supply. The City also has system inter-ties with Tualatin and the Lake Grove Water District that allows sharing water under emergency conditions.

In 2005, the Oregon Departments of Human Services and Environmental Quality conducted a source water assessment on Tigard's groundwater. Within the Tigard water service area, 50 sites were identified as potential sources of drinking water contamination, if managed improperly.

The City of Tigard Water System is set up as an enterprise fund. The budget needs no money from the City general fund, and operates based solely on revenue the Water System creates. System Development Charges for new



construction and connections, and rates for water consumption are the two main sources of revenue for the budget.

KEY FINDINGS:

- The expansion and maintenance of water supply and distribution infrastructure is an important factor affecting growth and development.
- Two water providers operate within the City of Tigard; this requires collaboration to define future roles.
- The City of Tigard Water Service provides potable water distributed through a network of reservoirs, pump stations, and pipes up to 36” in diameter.
- Feasibility studies will help to provide direction for the City’s long-term supply options.
- The City has experienced a decrease in total and per capita consumption from 2001 to 2005 due to repairs made in water line leaks, rising costs, and the Water Conservation Program.
- The *Water Demand Forecast Report (2006)* projects future annual water demand could range from 2,732 to 3,229 million gallons in the Tigard Water Service Area.
- The citizens of Tigard are concerned about population increases and the impact upon the community.
- The citizens of Tigard are concerned about the future of public services, which includes safety, schools and infrastructure.

GOAL:

- 11.2 Secure a reliable, high quality, water supply to meet the existing and future needs of the community.

POLICIES:

1. The City shall prioritize securing an interest in a high quality, long-term water supply, which is financially feasible and reliable, to serve the Tigard Water Service Area.
2. The City shall develop and maintain a water system master plan to coordinate the improvement and expansion of Tigard Water Service Area infrastructure to serve current and projected demand.



3. The City shall require maintenance access to all public water infrastructure and easements.
4. The City shall coordinate with Tualatin Valley Water District to require adequate supply and pressure to meet consumption and fire protection needs for the portion of Tigard served by the District.
5. The City shall ensure Tigard Water Service operations remain financially self-supporting.
6. The City shall require all new connections within the Tigard Water Service Area to pay a system development charge.
7. The City shall comply with all state and federal laws and regulations relating to potable water.
8. The City shall require all new development needing a water supply to :
 - A. connect to a public water system;
 - B. pay a system development charge and other costs associated with extending service;
 - C. ensure adequate pressure and volume to meet consumption and fire protection needs; and
 - D. extend adequately sized water lines with sufficient pressure to the boundaries of the property for anticipated future extension.
9. The City shall encourage water conservation through informational programs and maintenance of the system.
10. The City shall prohibit activities that have the potential for contamination of the municipal water supply.

“The City shall encourage water conservation through informational programs and maintenance of the system.”



RECOMMENDED ACTION MEASURES:

- i. Develop partnerships with neighboring jurisdictions in securing a long term water supply.
- ii. Construct water distribution facilities in areas with minimal visual impact upon the community.
- iii. Identify and map developed properties that are not connected to the municipal water supply.
- iv. Continue funding a maintenance program that ensures adequate pressure and flow, protects water quality, and minimizes water loss.
- v. Identify areas of the City with low water pressure and implement solutions to address these issues.
- vi. Regularly review and update the Community Development Code as it applies to potable water.
- vii. Continue producing and distributing informational materials related to water supply and conservation.
- viii. Update water system development charges as needed.
- ix. Research and implement a system development charge structure that doesn't penalize residential structures for installing a fire sprinkler system.
- x. Develop and implement a Capital Replacement Program for the water distribution system.
- xi. Survey the community to gauge their attitude regarding a fluoridated water supply.

Section 3: Wastewater Management

Wastewater services within Tigard are managed through an agreement between



the City and CWS. The agreement assigns the City enforcement of design and construction standards, rules and regulations, and rates and charges governing the use of, and connection to, the wastewater system. In return, CWS acts as the regional wastewater authority that provides, owns, and maintains sewer lines with a diameter of 24 inches or greater (the City owns less than 24-inch lines), as well as pump stations and treatment facilities. CWS is also responsible for the planning of wastewater collection in the Tualatin River basin.

CWS owns and operates the Durham Wastewater Treatment Facility. The facility is operating under the basin-wide NPDES permit and is in compliance with Clean Water Act regulations. The City has an IGA with Clean Water Services to perform management and maintenance tasks on City-owned wastewater infrastructure to ensure continued compliance with the regulations.

The CWS *Collection System Master Plan Update* (2000) is the current plan for wastewater collection in the Tualatin basin, including the City of Tigard. The primary focus of the plan was to analyze future capacity of the system; it was found that all existing lines within the City of Tigard have adequate capacity to accommodate anticipated growth.

The City has also developed the Sanitary Sewer Facility Plan Map to help prioritize projects and schedule improvements to the system through the Capital Improvement Plan (CIP). The facility map is continuously revised, and shows the locations of all current and proposed lines within the City. The map allows the City to plan for new construction and also identify developed neighborhoods not currently being served by the wastewater system.

The Neighborhood Sewer Extension Program was established in 1996 by the City to extend public infrastructure to unconnected neighborhoods. This program encourages property owners to retire septic systems and connect to the City sewer system. The program does require property owners, upon connection, to reimburse the City for a fair share of the total cost. To encourage

“Wastewater services within Tigard are managed through an agreement between the City and Clean Water Services (CWS).”



participation, the City also established the Neighborhood Sewer Reimbursement District Incentive Program that provides options for limiting the financial burden on the property owner.

In addition to the operation and maintenance of the existing wastewater system, the City is responsible for implementing the CWS *Design and Construction Standards* (2007). Land use applicants are required to obtain a Public Facility Permit when connecting to City owned wastewater infrastructure and must comply with the standards as part of the development review process. This function is outlined in the IGA between CWS and Tigard and is carried out by a City engineer.

Funding for the wastewater system is generated from three sources. First, developers finance the construction of new sewer lines needed to service their new developments. Secondly, during the building permit process, a connection fee is collected by the City. Most of the fee is transferred to CWS, but a portion of the fee is retained by the City for system improvements. Finally, the monthly sewer service fee is collected on the utility bill and a portion is retained by the City for operations and maintenance of the wastewater system.

KEY FINDINGS:

- The expansion and maintenance of wastewater infrastructure is an important factor affecting growth and development.
- The City coordinates the expansion, operation, and maintenance of wastewater infrastructure through an IGA with CWS as a “self-service provider.”
- The City owns and maintains wastewater mainlines sized 6 to 21 inches in diameter.
- A number of unserved neighborhoods have been provided the opportunity to connect through the Neighborhood Sewer Extension Program. Additional neighborhoods have been identified as potential participants in the program.
- The citizens of Tigard are concerned about population increases and the impact upon the community.
- The citizens of Tigard are concerned about the impact of growth on the community’s natural resources.



- The citizens of Tigard are concerned about the future of public services, which includes safety, schools, and infrastructure.

GOAL:

11.3 Develop and maintain a wastewater collection system that meets the existing and future needs of the community.

POLICIES:

1. The City shall require that all new development:
 - A. connect to the public wastewater system and pay a connection fee;
 - B. construct the appropriate wastewater infrastructure; and
 - C. comply with adopted plans and standards for wastewater management.
2. The City shall continue to collaborate with Clean Water Services in the planning, operation, and maintenance of a comprehensive wastewater management system for current and projected Tigard residents.
3. The City shall require the wastewater management system to comply with all applicable federal, state, and regional regulations and programs.
4. The City shall require maintenance access to all wastewater infrastructure and easements.
5. The City shall prohibit the repair or replacement of septic tank systems within the City, to the extent it has jurisdiction, unless it is not feasible to connect to the wastewater system.
6. The City shall require a property to be located within the City limits prior to receiving City wastewater services.
7. The City shall require wastewater fees to be adequate to fund the operations and maintenance of the system.

“The Citizens of Tigard are concerned about population increases and the impact upon the community.”



RECOMMENDED ACTION MEASURES:

- i. Collaborate with Washington County Department of Health and Human Services on developing an efficient protocol for notification of failed septic systems.
- ii. Regularly review and update fees and charges to ensure they are sufficient to meet the needed operational costs.
- iii. Identify and map properties not connected to the public wastewater system.
- iv. Continue the sewer extension program in order to encourage all properties to connect to the public wastewater system.
- v. Continue a proactive maintenance program to prolong the life of the infrastructure.
- vi. Develop and implement a Capital Replacement Program for the wastewater collection system.

Section 4: Community Facilities

The City of Tigard provides many community services, while special districts supply a portion of the facilities and services that make the community what it is today. All of these facilities and services must maintain a level of service that is adequate for the current population and, at the same time, must plan for and accommodate future growth and development within Tigard. This is why collaboration during the development process is essential to ensuring the services will be available and funding options will continue to exist with an acceptable level of service.



PHOTO: CITY STAFF

Tigard Senior Center.



City-owned facilities include the Tigard Public Library, the Senior Center, and a number of administrative and equipment storage facilities. The library is a new facility that was funded by a community bond measure and opened to the public in 2004. The library offers a wide range of services and programs and acts as a community center for Tigard residents. The library has experienced a significant increase in use since the new facility was opened.

The Senior Center is a hub of activities for the aging population in the community. Social events, classes, and meal services are a few of the offerings. Other City-owned facilities are dispersed around the community and house various City personnel and equipment. These facilities are vitally important to support the provision of public services to the community.

Two public school districts serve the City of Tigard's school-age children: Tigard-Tualatin and Beaverton. Only Tigard-Tualatin owns property and

operates schools within the Tigard City limits. Both districts have seen steady growth over the years and are an important component of reviewing development applications to ensure school capacity is not exceeded. Additionally, this working relationship is important to finding appropriate sites for new school facilities that will limit the impacts to the neighborhood and traffic flow.

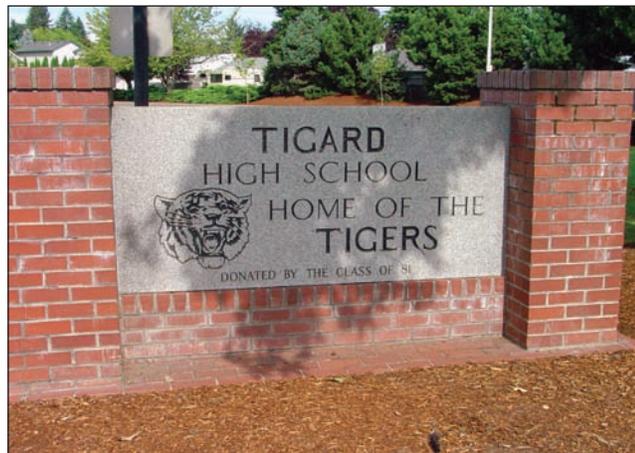


PHOTO: CITY STAFF

Tigard High School.

Public safety is a critical component of a livable community. There must be adequate and effective services, as well as the necessary infrastructure, to respond to emergencies in a timely and efficient manner. This not only applies to the current population and built environment within the City, but also to new growth and development.

The Tigard Police Department provides police services, while Tualatin Valley Fire & Rescue (TVFR) provides fire protection and emergency services for the



community. Both have an intergovernmental agreement with the Washington County Consolidated Communications Agency (WCCCA) for 911 service and public safety communications. TVFR is a fire district that covers 210 square miles, has a five-member board of directors and is funded through a permanent tax rate on properties within the district.

One way for Tigard Police and TVFR to gauge their level of service is by tracking their incident response time. Both pride themselves on quick response time to calls for service, but as development occurs, added traffic volumes and the associated congestion can cause a delay in response time. This has



PHOTO: TIGARD POLICE STAFF

Tigard police dog "Baxter."

led to, and will continue to lead to, the need for emergency services to expand their services and facilities in order to continue providing adequate service.

Since growth and development will impact both fire and police services, Tigard Police and TVFR have the opportunity for review and comment during the land use application process. They evaluate proposed projects to ensure an adequate level of service exists for the development, and no impediments will occur to hamper the ability to perform their functions. For TVFR, street design and placement is very important for access and egress of its equipment. A well connected street network is also essential to improving response times, for both fire and police services. During the land use application process, TVFR reviews hydrant locations, adequacy of firefighting water supplies, and viability of apparatus access to ensure meeting fire code requirements.

In addition to providing a built environment that is accessible for safety equipment, the City has adopted the Oregon statewide minimum fire code, and performs inspections on new construction. The fire code outlines the required equipment for various development types and sizes. Homeowners can voluntarily take steps to reduce risk of fire by installing equipment and providing a defensible space around structures that are located in an area at risk of wildfire.



KEY FINDINGS:

- Growth and development will place increasing demands on the Police Department, which has an average response time that has increased by 16% over the 5 year period from 2002 to 2006.
- Areas of high population density and commercial areas, particularly Washington Square Mall, place high demands on the Tigard Police Department.
- TVFR provides fire protection services for the City through an IGA.

- The dependability of fire protection is based in part on the distribution and capacity of the City water supply.
- The City owns all fire hydrants within its boundaries.
- The community has an ISO fire insurance rating of 2, one of 15 in Oregon.



PHOTO: TVF&R

Tualatin Valley Fire & Rescue (TVF&R) Fire Station #51.

- Street widths must be adequate for fire equipment access and egress, which may conflict with development that is promoting a pedestrian-friendly environment through narrower streets.
- Appropriate fire detection and suppression equipment installed at the time of development is cost-effective and invaluable in reducing the community's risk to fire.
- Two public school districts serve the City of Tigard's school-age children: Tigard-Tualatin and Beaverton. The school district boundary dates back to 1910, prior to Tigard's incorporation.
- In both 1993 and 2006 City surveys, Tigard residents named schools, education or school funding as top issues for the community (ranking 6th and 4th, respectively).
- TTSD owns a number of properties in Tigard. The Beaverton School District does not own any property within Tigard.



- TTSD estimates slow steady growth: 4.6% rate by 2010, with no additional schools planned for City limits.
- Beaverton School District is experiencing rapid growth and is looking for land for a future school in the southwestern quadrant of their district, which includes schools attended by Tigard residents.
- The new library has experienced increased usage (80% increase in visits from 1996 to 2006) since its completion, and as growth and development occur in the community, additional pressure will be put on the services offered.
- The library is valued as a community center for public meetings and other events.
- Although not all City departments are directly involved in land use planning, their provision of services is affected by growth and development. These impacts on government services must be considered during the land use application process, as well as additional facilities that would be needed to house them.
- City sustainability programs will be evaluated for inclusion in the Capital Improvement Plan and may have an impact on future building renovations as it relates to the *Tigard Community Development Code*.
- The citizens of Tigard are concerned about population increases and the impact upon the community.
- The citizens of Tigard are concerned about the future of public services, which includes safety, schools and infrastructure.



PHOTO: SALLY SCHOOLMASTER

Tigard Public Library at dusk.

GOAL:

- 11.4 Maintain adequate public facilities and services to meet the health, safety, education, and leisure needs of all Tigard residents.



POLICIES:

1. The City shall support the provision of accessible public facilities and services through ensuring adequate administrative and general governance services.
2. The City shall continue to develop and maintain a Capital Improvement Plan to help provide for the orderly provision of public facilities and services.
3. The City shall coordinate the expansion and equitable, long-term funding of public facilities and services with the overall growth of the community.
4. The City shall require that all new development:
 - A. can be provided fire and police protection;
 - B. provide Tigard Police, Tualatin Valley Fire and Rescue, and the school districts the opportunity to comment on the proposal;
 - C. have sufficient fire hydrants and fire flow;
 - D. have a street layout and design that is accessible by emergency vehicles; and
 - E. have buildings that meet fire and building code requirements.
5. The City shall work in conjunction with partner agencies and districts in the planning and locating of their new facilities.
6. The City shall provide library services that are accessible to the community and are sufficient to meet user demands.
7. The City shall coordinate with the school districts to address capacity needs associated with population growth.
8. The City shall locate appropriate municipal administration offices and services in downtown Tigard.
9. The City shall ensure the Senior Center is accessible and available to serve the needs of the aging population in the community.



10. The City shall:

- A. plan for and provide sufficient resources to respond to emergencies;
- B. coordinate and collaborate with the appropriate jurisdictions, agencies, and districts for emergency response;
- C. participate in emergency preparedness exercises on a periodic basis; and
- D. maintain an Emergency Operations Plan that is updated on a regular basis.

RECOMMENDED ACTION MEASURES:

- i. Continue using the 5-year planning period as the foundation of the Capital Improvement Plan and continue implementing the Council approved projects each fiscal year.
- ii. Work with public safety agencies and districts to protect their ability for continued service provision.
- iii. Review the Community Development Code to identify locational barriers to constructing new schools and fire stations.
- iv. Research and identify funding sources to maintain and expand City services.
- v. Use current and future technologies to educate, alert, warn, and direct citizens to action in the event of major emergencies and disasters.
- vi. Work with Tualatin Valley Fire and Rescue to inform the community about the risks of urban interface wildfire.
- vii. Plan and locate emergency evacuation routes outside of flood prone areas.
- viii. Implement and update the 20-year Facility Plan for the continued stewardship of public buildings.



Section 5: Private Utilities

Telecommunications, electricity, video, and natural gas service are provided to residents and business owners within the City of Tigard by private utilities. These private utilities pay an annual right-of-way usage fee to the City as outlined in the *Tigard Municipal Code*. This protects the public's past and ongoing investments in rights-of-way and other public lands. The fee also adheres to an equity principle that private companies should pay for the privilege of using public property to conduct business, just as they pay for the privilege of using private property to conduct business.

The services provided by these private companies and the associated infrastructure are essential to the community. As growth and development occurs within the community, the City must require that these services are available and coordinate their extension during the development process, while at the same time protecting the primary intended use of public rights-of-way and other public properties. This coordination and cooperation between the various entities helps to avoid conflict with current and planned infrastructure in the right-of-way and provides fair opportunity to access the right-of-way. Additionally, uncoordinated utility installations in the public right-of-way may result in multiple street cuts and increased public costs to maintain curbs, gutters, streets, and sidewalks.

The placement of utilities in the public right-of-way is regulated by the *Tigard Community Development Code*. During the development review process, a city engineer approves plans showing the location of utilities. New development is typically required to place utilities underground unless they are already in existence above ground, or where the action would not be



PHOTO: CITY STAFF

New development with underground utilities.

feasible. In certain cases, where undergrounding is not feasible and the utility crosses or is adjacent to a public right-of-way, an in-lieu of fee may be assessed



and placed into a fund that is used to move existing utilities underground elsewhere in the City.

The City has also recognized the demand for wireless communication services and adopted regulations for the facilities necessary to provide them. The infrastructure needed to support the services has a visual impact upon the community and collocation efforts are encouraged by the City to minimize that impact. Collocation is the practice of placing the communication equipment of two or more companies on one structure (wireless tower).

KEY FINDINGS:

- Telecommunications, electricity, video, and natural gas service are provided to residents and business owners within the City of Tigard by private utilities. These private utilities pay an annual right-of-way usage fee to the City as outlined in the *Tigard Municipal Code*.
- As growth and development occurs within the community, the City must ensure that private utility services are available and coordinate their extension during the development process.
- Collocation of wireless communication equipment and the location of the towers upon which the equipment resides have a direct visual impact upon the community.
- As an equity principle, private companies should pay for the privilege of using public property to conduct business.
- A key task of the City is to protect the public's investments and the primary intended use of these assets.

GOAL:

- 11.5 Private utilities provide the needed energy and communication services for the community.

POLICIES:

1. The City shall require that all new development:
 - A. secure the required energy and communication utilities;



- B. place new utilities underground, when feasible, or pay an in-lieu-of fee when crossing or adjacent to a public right-of-way; and
 - C. provide necessary easements for energy and communication services.
- 2. The City shall require the placement of existing services underground, when feasible, or pay an in-lieu-of fee during redevelopment or street construction.
 - 3. The City shall coordinate with private utilities during installation to minimize public costs to maintain curbs, gutters, streets, and sidewalks.
 - 4. The City shall require the collocation of wireless communication services on existing towers whenever possible.
 - 5. The City shall manage the siting of wireless communication towers to minimize visual impacts on the community.
 - 6. The City shall manage private utility use of the public rights-of-way and other public lands to:
 - A. protect the primary intended use of these assets;
 - B. provide fair opportunity to access these assets, including those involved in emerging technologies;
 - C. protect the public's past and ongoing investments by assessing sufficient charges for the privilege of using these public assets; and
 - D. ensure the community has equitable access to essential private utilities.

RECOMMENDED ACTION MEASURES:

- i. Identify and map areas that are conducive to using in-lieu-of fees for placing utility lines under ground during City projects.
- ii. Continue implementing no-pavement-cut policies on identified streets.
- iii. Review and improve the protocol for collocating wireless communication services.
- iv. Research the feasibility of and survey the community support for a City-owned wireless internet cloud.



Transportation

*“To provide and encourage a safe, convenient,
and economic transportation system.”*





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
07-22-09	2009-00002	Goal 12.1, Policy 2.C, Ordinance 09-09.

SECTION COVER PHOTO: REX CAFFALL
TriMet's Westside Express Service (WES)



Transportation planning has been defined as “...the process by which transportation improvements or new facilities are systematically conceived, tested as to present and future adequacy, and programmed for future construction. Modern transportation planning emphasizes the total transportation system. It considers all modes of transport which are economically feasible to a state, region, or urban area.” (Goodman & Freund, Principals and Practices of Urban Planning, “Transportation Planning”)

GOAL 12: Transportation

Transportation which requires local jurisdictions “to provide and encourage a safe, convenient, and economic transportation system.”

The transportation plan for Tigard reaches beyond the Tigard Planning Area and includes traffic and transportation impacts within other areas of the southwest sub-region of the Portland Metropolitan Area. METRO acts as the regional coordinator for transportation planning throughout the Portland Metropolitan Area. The other major service district impacting Tigard is Tri Met which is charged with the responsibility for providing public transportation throughout the metropolitan area.

The Comprehensive Plan proposes a land use plan that encourages and facilitates balanced transportation development for the City. The plan recognizes that land use and transportation investments are interconnected and that relationship should be reinforced to produce an acceptable urban environment.

Detailed historical information concerning transportation in the Tigard Urban Planning Area is available in the “Comprehensive Plan Report: Transportation.” Detailed current information is available in the 2001 Tigard Transportation System Plan.

The 2001 Tigard Transportation System Plan updates the comprehensive plan and policies. However, it does not fully replace all elements of the comprehensive plan adopted prior to the 2001 TSP. For this reason, a new Section has been added to the beginning of the Transportation Policies Section to encompass the system wide changes developed as part of the TSP process. Some of

“Modern transportation planning emphasizes the total transportation system.”



this information is repeated and expanded upon in other policy sections. Where a policy or implementation strategy specifically conflicts with the updated TSP, the specific policy or implementation strategy has been deleted.

Section 1: Transportation System

KEY FINDINGS

- There are 22 intersections near or at capacity based on the 2001 Tigard Transportation System Plan.
- There is no continuous bicycle network in Tigard.
- There are significant gaps in the sidewalk system with few interconnected locations linking to schools, retail, parks, and transit.
- Segments of Highway 217 and I-5 are over capacity and ORE 99W will continue to serve more through traffic in the future.
- Future traffic models indicate ORE 99W and half of the signalized traffic intersections fail within 20 years assuming no improvements are made.
- Travel time data on Highway 217 indicates that some of the slowest travel speed on the facility occurs in Tigard due to existing capacity issues and the need for interchange improvements.
- In the development of the transportation system plan, seven goals were identified which were used as the guidelines for the development of the policies and implementation strategies. The goals were: livability, balanced transportation system, safety, performance, accessibility, goods movement, and coordination.

GOAL:

12.1 Transportation System

POLICIES:

1. Plan, design, and construct transportation facilities in a manner which enhances the livability of Tigard by:
 - A. Proper location and design of transportation facilities.



- B. Encouraging pedestrian accessibility by providing safe, secure and desirable pedestrian routes.
 - C. Addressing issues of excessive speeding and through traffic on local residential streets through a neighborhood traffic program. The program should address corrective measures for existing problems and assure that development incorporates traffic calming.
2. Provide a balanced transportation system, incorporating all modes of transportation (including motor vehicle, bicycle, pedestrian, transit and other modes) by:
- A. The development of and implementation of public street standards that recognize the multi-purpose nature of the street right-of-way for utility, pedestrian, bicycle, transit, truck and auto use.
 - B. Coordination with TriMet, and/or any other transit providers serving Tigard, to improve transit service to Tigard. Fixed route transit will primarily use arterial and collector streets in Tigard. Development adjacent to transit routes will provide direct pedestrian accessibility.
 - C. Construction of bicycle lanes on all arterials and collectors within Tigard consistent with the bicycle master plan, with the exception of collectors within the downtown urban renewal district. All schools, parks, public facilities, and retail areas shall strive to have direct access to a bikeway.
 - D. Construction of sidewalks on all streets within Tigard. All schools, parks, public facilities, and retail areas shall strive to have direct access to a sidewalk.
 - E. Development of bicycle and pedestrian plans which link to recreational trails.
 - F. Design local streets to encourage a reduction in trip length by providing connectivity and limiting out-of-direction travel and provide connectivity to activity centers and destinations with a priority for bicycle and pedestrian connections.
 - G. Tigard will participate in vehicle trip reduction strategies developed

“Encouraging pedestrian accessibility by providing safe, secure, and desirable pedestrian routes.”



- regionally targeted to achieve non-single occupant vehicle levels outlined in table 1.3 of the regional transportation plan.
- H. Tigard will support the development of a commuter rail system as part of the regional transit network.
3. Strive to achieve a safe transportation system by the development of street standards, access management policies and speed controls when constructing streets, and by making street maintenance a priority and through a comprehensive program of engineering, education, and enforcement.
- A. Design of streets should relate to their intended use.
 - B. Design safe and secure pedestrian and bikeways between parks and other activity centers in Tigard.
 - C. Designate safe and secure routes to schools for each school. Any new residential project should identify the safe path to school for children
 - D. Refine and maintain access management standards for arterial and collector streets to improve safety in Tigard.
 - E. Establish a city monitoring system that regularly evaluates, prioritizes, and mitigates high accident locations within the city.
 - G. New roadways shall meet appropriate lighting standards. Existing roadways shall be systematically retrofitted with roadway lighting.
 - H. Require new development to provide safe access to and to gain safe access from a publicly dedicated and improved street (i.e. dedicate right-of-way, if not already on a public street, and install improvements in rough proportionality to the development's impact) and provide safe access.
4. Set and maintain transportation performance measures that:
- A. Set a minimum intersection level of service standard for the City of Tigard and requires all public facilities to be designed to meet this standard.
 - B. Set parking ratios to provide adequate parking, while providing an incentive to limit the use of the single occupant vehicle.
 - C. Encourage working with other transportation providers in Washington County, including TriMet, metro and ODOT to develop, operate and maintain intelligent transportation systems, including coordination of traffic.



5. Develop transportation facilities which are accessible to all members of the community and minimize out of direction travel by:
 - A. The design and construction of transportation facilities to meet the requirements of the Americans with Disabilities Act.
 - B. The development of neighborhood and local connections to provide adequate circulation in and out of the neighborhoods.
 - C. Work with Washington county and ODOT to develop an efficient arterial grid system that provides access within the City, and serves through City traffic.
6. Provide for efficient movement of goods and services through the design of arterial routes, highway access, and adjacent land uses in ways that facilitate the efficient movement of goods and services and the safe routing of hazardous materials consistent with federal and state guidelines.
7. Implement the transportation system plan (tsp) in a coordinated manner by coordinating and cooperating with adjacent agencies (including Washington county, Beaverton, Tualatin, Lake Oswego, city of Portland, TriMet, Metro and ODOT) when necessary to develop transportation projects which benefit the region as a whole in addition to the City of Tigard.

RECOMMENDED ACTION MEASURES:

- i. Design streets and highways to respect the characteristics of the surrounding land uses, natural features, and other community amenities.
- ii. Develop and maintain a pedestrian plan in Tigard, outlining pedestrian routes. Develop sidewalk standards to define various widths, as necessary, for city street types.
- iii. Develop and maintain a program of street design standards and criteria for neighborhood traffic management (NTM) for use in new development and existing neighborhoods. Measures to be developed may include (but are not limited to) narrower streets, speed humps, traffic circles, curb/sidewalk extensions, curving streets, diverters and/or other measures, as developed as part of a city NTM plan.



- iv. Develop and maintain a series of system maps and design standards for motor vehicles, bicycle, pedestrian, transit and truck facilities in Tigard.
- v. The regional transportation plan (RTP) and TriMet service plans will be the guiding documents for development of Tigard's transit plan. The city should provide input to TriMet regarding their specific needs as they annually review their system. This input should focus on improving service (coverage and frequency) to under-served areas. New transit service should be considered concurrent to street improvements when significant street extensions are completed. The city should encourage land intensive uses to locate near transit ways and require high intensity uses (i.e. large employment, commercial sites) to provide transit facilities. When bus stops reach 75 boardings per day, bus shelters should be considered in development review. Sidewalks should be available within $\frac{1}{4}$ mile from all transit routes and transit should be provided to schools and parks.
- vi. Develop a bicycle plan which connects key activity centers (such as schools, parks, public facilities and retail areas) with adjacent access. Standards for bicycle facilities within Tigard will be developed and maintained. Where activity centers are on local streets, connections to bicycle lanes shall be designated.
- vii. Develop a pedestrian plan which connects key activity centers with adjacent access. Require sidewalks to be constructed on all streets within Tigard.
- viii. Standards for pedestrian facilities within Tigard will be developed and maintained.
- ix. The bicycle and pedestrian plans will need to indicate linkages between recreational and basic pedestrian networks. A primary facility in Tigard should link together Fanno creek, Tualatin River and the BPA right-of-way in the west of Tigard. Design standards for recreational elements will need to be developed and maintained.



- x. Revise the code to require new streets built to provide connectivity to incorporate traffic management design elements, particularly those which inhibit speeding. As a planning standard, require local streets to have connections every 530 feet in planning local and neighborhood streets. The purpose of this policy is to provide accessibility within Tigard, with a focus on pedestrian connectivity. Pedestrian connectivity can be provided via pedestrian/bike paths between cul-de-sacs and/or greenways where auto connectivity does not exist or is not feasible.
- “To provide accessibility within Tigard, with a focus on pedestrian connectivity”*
- xi. Support development of a commuter rail system connecting the south metro area to the Beaverton/Hillsboro area, with stop(s) in Tigard.
- xii. A functional classification system shall be developed for Tigard which meets the city’s needs and respects needs of other agencies (Washington County, Metro, ODOT). Appropriate design standards for these roadways will be developed by the appropriate jurisdiction.
- xiii. Place a high priority on routine street maintenance to preserve its infrastructure investment and improve safety.
- xiv. Undertake a process of defining school routes for pedestrians by working with the school district, citizens and developers.
- xv. Develop guidelines to provide access control standards and apply these standards to all new road construction and new development. For roadway reconstruction, existing driveways shall be compared with the standards and a reasonable attempt shall be made to comply (consolidating driveway accesses or relocating driveways to a lower classification street are examples).



- xvi. Develop a process to review traffic accident information regularly to systematically identify, prioritize and remedy safety problems. Working with the county, develop a list of high collision sites and projects necessary to eliminate such problems. Require development applications to identify and mitigate for high collision locations if they generate 10% increase to existing traffic on an approach to a high collision intersection. Washington County's Safety Priority Indexing System (SPIS) could be used as a basis for determining high collision locations.
- xvii. Include paths to schools, parks, and town center areas as priority roadway lighting locations.
- xviii. Require development to provide right-of-way (if needed) and safe access as determined by application of the city's development code and standards for design. Require that the minimum city standards be met for half-street adjacent to developing property for a development to proceed (with consideration of rough proportionality). Apply this policy to both pedestrians and motor vehicles.
- xix. Monitor Metro and Washington County's current work to develop a level of service standard. Level of service e (and demand-to-capacity ratio of 1.0 or less), highway capacity manual, chapters 15, 16, and 17 (or subsequent updated references) is recommended to balance provision of roadway capacity with level of service and funding. ODOT, Metro, and Washington County performance standards should be considered on state or county facilities and for 2040 concept areas (as defined in table 1.2 of the RTP). The City will work to make the arterial & collector street systems operate effectively to discourage "cut-through" traffic on neighborhood and local streets.
- xx. Work toward the eventual connection of streets identified on the transportation plan map as development occurs, as funds are available and opportunities arise.
- xxi. As outlined in title 6 of the metro urban growth management functional plan, develop access connection standards. The arterial street system should facilitate street and pedestrian connectivity.



- xxii. Work with federal agencies, the public utility commission, the oregon department of energy and odot to assure consistent laws and regulations for the transport of hazardous materials.
- xxiii. Maintain plan and policy conformance to the regional transportation plan and transportation planning rule (oar 660-012). Seek compatibility with all adjacent county and city jurisdiction plans.

Section 2: Trafficways

KEY FINDINGS

- A need exists to place all of the existing public local and collector streets in the Tigard city limits under the city's jurisdiction.
- According to a Washington County computer study 48 60% of Tigard residents work outside of the Washington County area.
- Between 77 83% of Tigard residents commute to work by auto as single occupants.
- Major congestion problems within the city have resulted from the rapid population growth since 1970, creating a need for major street improvements.
- Corridor study for Pacific Hwy99W has not been prepared by Metro. It is the only major trafficway within the region which has not been studied. Pacific Highway, the major trafficway through the City, has the highest traffic volumes, congestion and accident[s] rates within the city. There is a need to prepare a corridor study for pacific highway. The City, Metropolitan Service District and [the] state should coordinate such a study.
- Many of the streets in Tigard are dead ended which adds to the congestion on existing completed streets. Therefore, a number of street connections need to be constructed.
- A major concern of the community regarding transportation is the need to maintain and improve the livability of residential areas in the face of increasing population and transportation requirements.
- The City needs to develop a strategy to coordinate public street improvements with private sector improvements to achieve the most effective use of the limited dollars available for road development and improvement.



- Major residential growth during the planning period is expected to occur in the westerly and southerly areas of Tigard. Both of these areas lack adequate improved trafficways.
- A need exists during the planning period to complete a collector street system between Scholls Ferry Road, Walnut Street, Gaarde Street, Bull Mountain Road, and Pacific Highway. The location of these connections needs to be coordinated between the City, county, state, and [the] Metropolitan service district.
- A need exists to complete the collector street system within the Tigard Triangle area to make more of this area accessible to developers, employers, and employees.

GOAL:

12.2 Trafficways.

POLICIES:

1. The City shall plan for a safe and efficient street and roadway system that meets current needs and anticipated future growth and development.
2. The City shall provide for efficient management of the transportation planning process within the City and the metropolitan area through cooperation with other federal, state, regional and local jurisdictions.
3. The City shall require as a precondition to development approval that:
 - A. Development about a publicly dedicated street or have adequate access approved by the appropriate approval authority;
 - B. Street right of way be dedicated where the street is substandard in width;
 - C. The developer commit to the construction of the streets, curbs and sidewalks to city standards within the development;
 - D. Individual developers participate in the improvement of existing streets, curbs and sidewalks to the extent of the development's impacts;
 - E. Street improvements be made and street signs or signals be provided when the development is found to create or intensify a traffic hazard;



- F. Transit stops, bus turnout lanes and shelters be provided when the proposed use of a type which generates transit ridership;
 - G. Parking spaces be set aside and marked for cars operated by disabled persons and that the spaces be located as close as possible to the entrance designed for disabled persons; and
 - H. Land be dedicated to implement the bicycle/pedestrian corridor in accordance with the adopted plan.
- 4. A change in roadway classification, or location shall require an amendment to the comprehensive plan transportation map, , the map will be amended by designating the location of the roadway and designating its classification.
 - 5. The City shall support the goals and objectives of the Oregon Department of Transportation to improve traffic flow and capacity at the interchange of I-5 and Highway 217/Kruse way. However, the City retains the prerogative to review, comment, and concur with the actual alignments of the project.
 - 6. The City shall adopt the following transportation improvement strategy in order to accommodate planned land uses in the Tigard triangle:
 - A. Highway 99W should be widened to 6 lanes throughout the study area (tool box). This improvement should be constructed in the short term. In the event that widening highway 99 to six lanes is prohibitive due to physical constraints, the Dartmouth extension could potentially provide needed northeast-to-southwest travel demand.
 - B. 72nd Avenue should be widened to four lanes with left turn lanes at major intersections and the Hunziker/Hampton overcrossing should be constructed. These two improvements will provide additional roadway capacity for circulation within the triangle and for access to and from the triangle via 72nd Avenue. Construction of the Hunziker/Hampton overcrossing would have the additional advantages of eliminating geometric deficiencies at the highway 217/72nd avenue interchange; thereby providing further additional capacity at this interchange. For the buildout scenario (2015), these improvements will provide adequate capacity in the vicinity of the highway 217/72nd avenue interchange.



- C. The Hampton/Hunziker connection is only justified based on its operational relief to the 72nd interchange. Further study should be conducted to examine alternative measures to relieve this situation in a more cost effective way. Further study may indicate that extending Hampton further southwesterly (to connect with Hall Boulevard in The vicinity of McDonald Street) may better accommodate projected travel demand. Short of constructing this structure, a direct ramp instead of a loop ramp from southbound 72nd Avenue to northbound Highway 217 would provide additional capacity in the vicinity of the Highway 217/72nd Avenue interchange.
- D. Access from Dartmouth to northbound Highway 217 is critical to Tigard triangle traffic circulation; therefore, it should be studied as part of the Highway 217 corridor analysis to be performed by ODOT and Metro. Under existing conditions, there is significant roadway congestion near the Highway 99W/Highway 217 interchange. Construction of the Dartmouth extension and access to northbound highway 217 would mitigate congestion at this interchange because motorists in this area of the Tigard triangle would have the option to access northbound Highway 217 from Dartmouth or Highway 99W.
- E. Analysis indicates that there is a long term (20-30 years) need for Dartmouth Road to continue over Highway 217 and potentially south to Hall Boulevard as well as for extending the collector-distributor roads from the Highway 217/72nd Avenue interchange through the Highway 217/Highway 99W interchange. The Highway 217 corridor analysis to be performed by Metro and ODOT should consider the advantages and disadvantages of these improvements. The Dartmouth extension to Hall Boulevard should be constructed only if further system improvements to Hall Boulevard are made concurrently. If additional capacity is not added to Hall Boulevard south of where the Dartmouth extension would be connected, the effectiveness of this connection would be diminished. Alternatively, another roadway could be constructed that provides a connection from the Dartmouth extension to Hall Boulevard in the vicinity of McDonald Street.
- F. Adopt the functional classification plan for streets internal to the Tigard triangle as shown on figure 1. The following policies apply to local streets within the Tigard triangle:
 - 1. Local street spacing shall be a maximum of 660 feet.



2. Access way spacing shall be a maximum of 330 feet.
 3. Spacing of signalized intersections on major arterials shall be a minimum of 600 feet.
 4. Existing rights of way will, to the greatest extent possible, be utilized for a local street system. Right of way vacations will be considered only when all other policies in this subsection are met.
- G. The transportation projects described in this section should be added to the City of Tigard's transportation system plan. The City, ODOT, and Metro should work to include these improvements in regional and state implementation programs.
- (rev. Ord. 91-13; ord. 96-42)
7. The City shall adopt the following pedestrian, bicycle and public transit improvement strategy in order to accommodate existing and planned land uses in the Washington Square Regional Center:
- A. Commuter rail service and station: Washington County has proposed commuter rail services from Wilsonville to Beaverton on the existing freight line to the west of Highway 217. The City supports a commuter rail station in the vicinity of the north: mall to nimbus overcrossing.
 - B. Pedestrian improvements – SW Greenburg Road: construct pedestrian improvements on SW Greenburg Road between SW Hall Boulevard and Highway 217 to improve pedestrian crossing opportunities and safety.
 - C. Pedestrian improvements - SW Hall Boulevard: construct pedestrian crossing refuge (median) on SW Hall Boulevard between SW Pfaffle Street and SW Locust Street to improve pedestrian crossing opportunities and safety.
 - D. Pedestrian and bicycle improvements - SW Locust Street: Realign SW 90th Avenue across SW Locust Street to provide a four-legged intersection at Locust Street. Construct curb extensions, sidewalks, and bicycle lanes to provide improved non-auto accessibility across and along Locust Street.
 - E. Pedestrian access improvements - Washington Square Mall: Construct pedestrian improvements (e.g. sidewalks, landscaping, and connections from parking to the mall and surrounding arterials) in the Washington Square Mall area.



- F. Identify potential bicycle network alignments with connections to existing bikeways, neighborhoods and activity centers, with particular emphasis on extending the Fanno Creek bikeway along Ash Creek.
- G. Construct a pedestrian trail within and/or around the red tail public golf course. This presents an opportunity to provide a safe neighborhood walking/exercise area and to serve more of the population using existing resources.
- H. Provide pedestrian/bicycle connections on local streets to, from, and within new developments and redevelopments.
- I. Identify potential bicycle network alignments with connections to existing bikeways, neighborhoods, and activity centers, with particular emphasis on extending the Fanno Creek bikeway along Ash Creek.
- J. Shuttle/people mover: Develop local area transit service operating between the Washington Square Mall area, the Nimbus/Cascade districts, and Lincoln Center. The service could use the proposed connections across Highway 217. Initially a shuttle bus, in the future this service could be converted to some type of fixed route system.
- K. Transit center improvements: Construct capacity and facility improvements (e.g. real time transfer information, lighting, covered connections to the mall, and additional bus bays) to the existing transit center at the Washington Square Mall.
- L. Transit system improvements: The City supports transit routing and frequency improvements in the regional center. TriMet has provided an outline of potential service improvements and planning that would need to occur to implement these improvements. The range of improvements include relocating the transit center to provide better connections into the mall, coordinating park and ride facilities with the future commuter rail service, providing bus stop improvements in the regional center area, and decreasing transit service headways. Tigard, TriMet, and employers or developers in the district, should begin to develop a transit improvement plan for the district.
- M. Travel demand management program: The City recognizes the importance of developing a travel demand management program for the regional center area. Key features of this program will be a transportation management association (TMA) that coordinates the means of decreasing demand for single occupant vehicles within the regional center area, parking management strategies, transit system improvements, and travel demand management programs. The



- City of Tigard, Beaverton, Washington County, TriMet, METRO, ODOT, and employers in the area should begin to work together to refine this framework into a detailed plan for the area.
(rev. Ord. 02-12)
8. The City shall adopt the following auto and roadway improvement strategy in order to accommodate existing and planned land uses in the Washington Square Regional Center:
- A. Near term traffic operations improvements: small-scale roadway operations improvement projects shall be implemented in the near future. These improvements correct existing system deficiencies or provide needed pedestrian, bicycle or transit facilities:
 - 1. Develop signal timing improvements on Greenburg Road between Highway 217 and the Washington Square Mall.
 - 2. Construct a separate eastbound right turn lane from Hall Boulevard to Scholls Ferry Road. This could require Hall Boulevard overcrossing improvements.
 - 3. Construct pedestrian improvements throughout the district.
 - 4. Develop a shuttle system connecting Lincoln Center, Washington Square Mall and Nimbus Business Park.
 - 5. Evaluate and confirm that the southbound Hall Boulevard right-turn only lane into the Washington Square Mall at Palmbled Lane should be eliminated. Restripe as appropriate.
 - 6. Develop signal timing improvements on Hall Boulevard that include capabilities to allow buses that have fallen behind schedule to travel to the front of the queue and travel through the signal prior to other traffic (“queue jumping capabilities”).
 - 7. Develop direct access from the Washington Square Mall to the Target store so that motorists do not have to travel on Hall Boulevard when traveling between the two facilities.
 - 8. In cooperation with the city of Beaverton and TriMet, identify a new park & ride site to replace the existing site that was intended to be temporary.
 - B. Highway 217 improvements: Identify and plan for the implementation of improvements to Highway 217 and its interchanges between Interstate 5 and Highway 26.
 - C. North: Mall to Nimbus Connection: Construct a bridge over Highway 217 connecting the Washington Square Mall with the Nimbus Business center. The bridge would include a two-lane



roadway, bike lanes, sidewalks, and facilities for transit. The bridge is intended to be a facility for local travel within the regional center.

- D. SW Nimbus Avenue: There are two components of the SW Nimbus Avenue improvements:
 - 1. North of Scholls Ferry Road: Modify the existing roadway (north of Scholls Ferry Road) to a 3-lane facility with parking, bike lanes, and sidewalks. Potential for streetscape improvements including solid median with specific turn slots to individual properties.
 - 2. Nimbus to Greenburg connection: Extend SW Nimbus Avenue to meet Greenburg Road. This would be a 5-lane roadway with bike lanes and sidewalks, but no on-street parking.
- E. SW Lincoln Street: Modify Lincoln Street to provide a 3-lane section with parking, bike lanes, and sidewalks between SW Locust Street and SW Oak Street.
- F. SW Hall Boulevard: The Washington Square Regional Center task force identified this project as the fifth priority for implementation in the regional center area. The project would first be constructed to 3-lane standards with sidewalks and bike lanes at five lane limits between Oleson Road and Highway 217. If after other project recommendations have been constructed, it is found that Hall Boulevard still needs to be a five-lane facility, the roadway would then be widened again. In the interim, and as possible, the City of Tigard or ODOT would acquire the right of way necessary for a five-lane section.

As a three or five-lane facility, this project includes landscaped median with designated left turn pockets that also provide for improved pedestrian crossing opportunities. This is consistent with Metro the Regional Boulevard Designation for Hall Boulevard.
- G. SW Cascade Avenue: improve the existing roadway (north and south of Scholls Ferry Road) to 3-lane standard with parking, bike lanes, and sidewalks. Potential for streetscape improvements including solid median with specific turn slots to individual properties.
- H. SW Locust Street: Modify Locust Street between Hall Boulevard and Greenburg Road to include a three-lane section with parking, bike lanes, sidewalks, and other streetscape improvements to maintain as a lower speed street.
- I. SW Oak Street: Modify the roadway to provide 2-lane section with



- parking, bike lanes, and sidewalk between SW Hall Boulevard and SW Lincoln Street.
- J. Washington Square Internal Roads: Construct improvements to existing Washington square Mall internal circulation roads to public street standards with bike lanes and sidewalks.
 - K. Adopt the functional classification plan for streets internal to the Washington Square Regional Center as shown on figure 1. The following policies apply to local streets within the regional center:
 - 1. Local street spacing shall be a maximum of 530 feet.
 - 2. Access way spacing shall be a maximum of 330 feet.
 - 3. Spacing of signalized intersections on major arterials shall be a minimum of 600 feet.
 - 4. Existing rights of way will, to the greatest extent possible, be utilized for a local street system. Right of way vacations will be considered only when all other policies in this subsection are met.
 - L. The transportation projects described in this section should be added to the city of Tigard's transportation system plan. The City, ODOT, and Metro should work to include these improvements in regional and state implementation programs.

RECOMMENDED ACTION MEASURES:

- i. The City shall develop, adopt, and implement a master street plan that anticipates all needed trafficway improvements so as to plan for the necessary available resources to develop these streets when they are needed.
- ii. The City shall develop, maintain, and implement a capital improvements program which:
 - A. Is consistent with the land use policies of the comprehensive plan;
 - B. Encourages a safe, convenient, and economical transportation system;
 - C. Furthers the policies and implementation strategies of the city's comprehensive plan;
 - D. Considers a variety of transit modes within the right-of-ways;
 - E. Meets local needs for improved transportation services;



- F. Pursues and establishes other funding sources from the federal, state, regional and/or local agencies; and
 - G. Designates the timing of such projects to ensure their installation when those facilities are needed.
- iii. The City shall specify street design standards within the Tigard community development code.
 - iv. The City shall maintain the carrying capacity of arterials and collectors by reducing curb cuts and other means of direct access, and requiring adequate right-of-way and setback lines as part of the development process. The community development code shall state the access requirements for each street classification.
 - v. The City's Tigard Community Development Code shall require developers of land to dedicate necessary right-of-way[s] and install necessary street improvements to the City's standards when such improvements have not been done prior to the developer's proposals. These necessary dedications may be required upon approval of any development proposal.
 - vi. The City shall control and limit the number of access points and will signalize trafficways in a manner that provides for a consistent flow of traffic and therefore minimizes or reduces vehicular emissions.
 - vii. The City shall include provisions in the Tigard Community Development Code which addresses the aesthetic quality of the transportation system to ensure community livability and to minimize the effects on abutting properties. This can be accomplished through:
 - A. Building setback requirements;
 - B. Requirements for landscaping and screening and through other site design criteria for visual enhancement;
 - C. Limiting residential land uses along major arterial trafficways; and
 - D. Sign controls.



- viii. The City shall coordinate their planning efforts with adjacent cities and other agencies e.g., Beaverton, Portland, Tualatin, Washington County, Metro, TriMet and ODOT.
- ix. The City shall work out reciprocal agreements with other agencies for exchanging information pertinent to local transportation planning.

Section 3: Public Transportation

KEY FINDINGS

- Since the oil embargos of the 1970s, the cost of motor fuels has increased fourfold.
- The Tri County Metropolitan Transportation District of Oregon (TriMet) is responsible for providing public transportation to the residents of Multnomah, Washington and Clackamas counties.
- Presently, there are eleven (11) bus lines that service the Tigard area.
- Public transit offers the community an opportunity to reduce traffic and pollution as well as increase energy efficiency.
- Work trips and shopping trips are most conducive to mass transportation.
- The proposed downtown TriMet Tigard Transfer Center will increase service and lessen travel time for riders.

GOAL:

12.3 Public Transportation

POLICIES:

1. The City shall coordinate with TriMet to provide for a public transit system within the planning area which:
 - A. Meets the needs of both the current and projected, for the Tigard community;



- B. Addresses the special needs of a transit dependent population;
 - C. Reduces pollution and traffic; and
 - D. Reduces energy consumption.
2. The City shall encourage the expansion and use of public transit by:
- A. Locating land intensive uses in close proximity to transit ways;
 - B. Incorporating provisions into the community development code which require development proposals to provide transit facilities; and
 - C. Supporting efforts by TriMet and other groups to provide for the needs of the transportation disadvantaged.

RECOMMENDED ACTION MEASURES:

- i. The City shall request TriMet to extend service to areas within the city that do not currently have service.
- ii. In the City's Community Development Code, the City shall require large developments to provide transit facilities e.g., pull offs and shelters, if such developments are located adjacent to transit routes.
- iii. The City shall propose land use densities, within the comprehensive plan, along transit oriented corridors that support public transportation service.
- iv. The City shall work with TriMet and other transit providers to encourage transit service for the transit dependent population e.g., the poor and handicapped.
- v. The City shall encourage its citizens to use mass transit systems, where possible, to make greater effectiveness of the transit system while reducing automobile usage.
- vi. The City shall coordinate with the transit providers to encourage carpooling and investigate if there is a local need for carpooling in the Tigard area.



Section 4: Transportation for the Disadvantaged

KEY FINDINGS:

- TriMet is responsible for providing handicapped transit accessibility including coordination of special transit services by social service agencies.
- TriMet conducts the detailed special handicapped transit planning necessary to identify required service improvements and adopt a plan for meeting federal requirements for handicapped accessibility.

GOAL:

12.4 Transportation for the Disadvantaged

POLICIES:

1. The City shall coordinate with Washington County, TriMet and other regional and state agencies in the identification and accommodation of individuals with special transportation needs.

RECOMMENDED ACTION MEASURES:

- i. The City shall require, through the implementation process, that parking spaces be set aside and marked for disabled persons [parking] and that such spaces be located in convenient locations.
- ii. The City shall continue to coordinate with [the] appropriate agencies in the identification and accommodation of those individuals with special transportation needs.

Section 5: Pedestrian and Bicycle Pathways

KEY FINDINGS:

- As the City of Tigard continues to grow, more people may rely on the bicycle and pedestrian pathways for utilitarian as well as for recreational purposes.



- In 1974, the City Council adopted a comprehensive pedestrian/bicycle pathway plan.
- The City has required adjacent development to install that portion of the bicycle/pedestrian pathways shown on the adopted plan which abuts the development.
- The City has implemented portions of the adopted plan through the city's overlay program.
- The adopted bicycle/pedestrian plan provides for a dual function pathway system; bicycles and pedestrians use the same system.

GOAL:

12.5 Pedestrian and Bicycle Pathways

POLICIES:

1. The City shall locate bicycle/pedestrian corridors in a manner which provides for pedestrian and bicycle users, safe and convenient movement in all parts of the city, by developing the pathway system shown on the adopted pedestrian/bikeway plan.

RECOMMENDED ACTION MEASURES:

- i. The city shall review each development request adjacent to areas proposed for pedestrian/bike pathways to ensure that the adopted plan is properly implemented, and require the necessary easement or dedications for the pedestrian/bicycle pathways.
- ii. The City shall review and update the adopted pedestrian/bikeway plan on a regular basis to ensure all developing areas have accessibility to the pedestrian/bikeway system.
- iii. The City shall coordinate with Washington County to connect the City's pedestrian/bike pathway system to the county's system.
- iv. City codes shall include provisions which prohibit motor driven vehicles on designated and maintained pedestrian/bicycle pathways.



Section 6: Railroads

KEY FINDINGS:

- Tigard is serviced by Southern Pacific and Burlington Northern railroad lines which carry strictly freight through the City limits.
- Within the downtown area each railroad company has its own tracking and the usage of those lines is based on the railroads' needs.
- There should only be one set of railroad tracks traversing the downtown area. The City is in the process of discussing this issue with both railroads.
- Many of the commercial and industrial businesses within Tigard rely on the railroads for the shipping and receiving of goods.
- The City is currently coordinating the upgrading of all the railroad crossings within Tigard with the railroads.

GOAL:

12.6 Railroads

POLICIES:

1. The City shall cooperate with the railroads in facilitating rail freight service to those commercial and industrial businesses within the city that depend on railroad service.

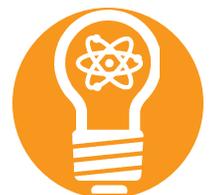
RECOMMENDED ACTION MEASURES:

- i. The City shall continue to coordinate with the Southern Pacific and Burlington Northern Railroads to provide adequate railroad service.
- ii. The City shall designate adequate commercial and industrial land within close proximity to existing railroad service lines to ease railroad accessibility to those businesses that rely on the service.
- iii. The City shall coordinate with the railroads to combine the tracking within the downtown area.
(rev. Ord. 02-03)



Energy Conservation

“Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
01-10-08	2007-00001	Entire chapter updated by Ordinance 07-22.

SECTION COVER PHOTO: ALBERT SHIELDS

City Inspector Rick Bolen checks for proper insulation at a residence.



Our way of life is powered by energy. From the construction process to home heating to getting around the community, affordable and reliable energy sources are counted upon to sustain our needs. Energy also drives the economy and has a significant impact on the environment. These roles are important to consider when planning for future sources, distribution, conservation efforts, land use, transportation, and development patterns. The City's commitment to manage land use to conserve energy is based on Oregon Statewide Planning Goal 13.

GOAL 13: Energy Conservation

“Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based on sound economic principles.”

Tigard residents envision a future where access to reliable energy supplies and their use do not degrade the environmental quality of the community. They recognize the importance of renewable energy resources for the economy, the value in conservation efforts, and the significance of land use and transportation planning on energy consumption. Public transportation and a well-connected bicycle and pedestrian network are services greatly supported by the community. The community also recognizes that the City can employ new techniques and technologies in municipal operations, as well as encouraging citizens to take a personal interest in energy consumption and conservation.

The City of Tigard currently has no energy resources and no future plans to develop any generation or supply facilities. The Oregon Department of Energy (DOE) has taken the statewide lead by planning to ensure an adequate, affordable, and clean energy supply is available for Oregonians. The DOE produces the *Oregon Energy Plan* on a biennial basis. It assesses energy demand and supply in the state, identifies issues affecting energy, and presents an action plan to meet the goals of the plan.

Energy conditions and future issues identified by the 2005-2007 *Oregon Energy Plan* include:

- Unstable energy pricing and supply will continue to affect communities as it did in 2002 when Oregonians spent 50% more per unit of energy to heat their homes than in 1998.
- World oil production may peak in the next decade and begin a long-term decline. Coupled with a growth in worldwide demand, peak oil will maintain or increase already high oil prices.



- Natural gas supplies from North America are declining, while prices have doubled in the past five years. Worldwide competition for the gas is also expected to increase.

“Tigard has the ability to affect energy conservation efforts through developing efficient land use and transportation plans that reduce automobile trips.”

To address these issues, the *Oregon Energy Plan* recommends conservation efforts for households, businesses, industry, and transportation, as well as developing clean and renewable energy resources. These efforts can provide insulation from, and reduce the community’s vulnerability to, volatile pricing and supplies. They are also consistent with statewide planning Goal 13 for maximizing the conservation of all forms of energy. Building efficiency standards, the Leadership in Energy and Environmental Design (LEED) rating system, and weatherization programs are options for promoting energy conservation in buildings. Metro’s *Regional Transportation Plan* (RTP) is required to address energy conservation, efficiency, and alternative transportation options under state and federal law. Options include driving less, buying fuel-efficient vehicles, or using alternative fuels.

Tigard has the ability to affect energy conservation efforts through developing efficient land use and transportation plans that reduce automobile trips. This includes promoting compact mixed use communities, and transit use and development.

The City can lead by example in utilizing alternative energies and becoming more energy efficient in municipal operations. Tigard can also challenge residents to reach energy conservation goals set by the community.

KEY FINDINGS:

- Transportation is the largest use of energy in the state at 38%. A considerable reduction in energy use can be made with individuals altering their habits related to the use of motor vehicles.
- The City has no energy generation or supply facilities and therefore the community’s energy supply and pricing is controlled by forces beyond its direct influence.



- A number of alternative fuel options exist for motor vehicles, but supplies and availability are limited.
- Large energy uses which the City has control over include street lighting, water transfer pumps, heating and cooling of municipal buildings, and the motor vehicle pool.

- Solar-generated power and wood heating are the two most common options available to the community for producing their own energy. Wood heating can be problematic to air quality due to the release of fine particulate matter.



PHOTO: CITY STAFF

Hybrid city vehicle.

- Weatherization, energy efficient building materials and appliances, and alternative energy sources can all reduce energy consumption in buildings.
- The citizens of Tigard value pedestrian and bicycle paths in the community and support the development of a well connected network.
- The citizens of Tigard value access to bus service in the community.
- The following land use planning strategies can result in a more energy-efficient community:
 - A. establishing mixed-use zones to encourage working, living, and shopping in the same neighborhood;
 - B. providing opportunities for increased density along public transit lines;
 - C. support a public transit system that is reliable, connected, and efficient;
 - D. building a bicycle and pedestrian network that is connected, safe, and accessible;
 - E. connecting streets for efficiency and reducing congestion; and
 - F. re-use of vacant and underutilized land.



GOAL:

13.1 Reduce energy consumption.

POLICIES:

1. The City shall promote the reduction of energy consumption associated with vehicle miles traveled through:

“The City shall implement and enforce state energy efficiency standards during the building permit review process.”

- A. land use patterns that reduce dependency on the automobile;
- B. public transit that is reliable, connected, and efficient; and
- C. bicycle and pedestrian infrastructure that is safe and well connected.

2. The City shall implement regional and state regulations, plans, and programs that promote energy conservation.

3. The City shall require future development to consider topography, vegetation, and solar access during the design phase to reduce demands for artificial heating, cooling, and lighting.

4. The City shall implement and enforce state energy efficiency standards during the building permit review process.

5. The City shall take a leadership role in local energy matters by:

- A. designing and developing public facilities, wherever possible, that take advantage of alternative energy sources and conserve energy in operations;
- B. conducting energy audits on existing City facilities and implementing cost-effective recommendations as soon as possible;
- C. investigating and participating in, when feasible, green energy programs, which use renewable energy resources; and



D. continuing to investigate new technologies that can reduce municipal energy consumption.



PHOTO: CITY STAFF

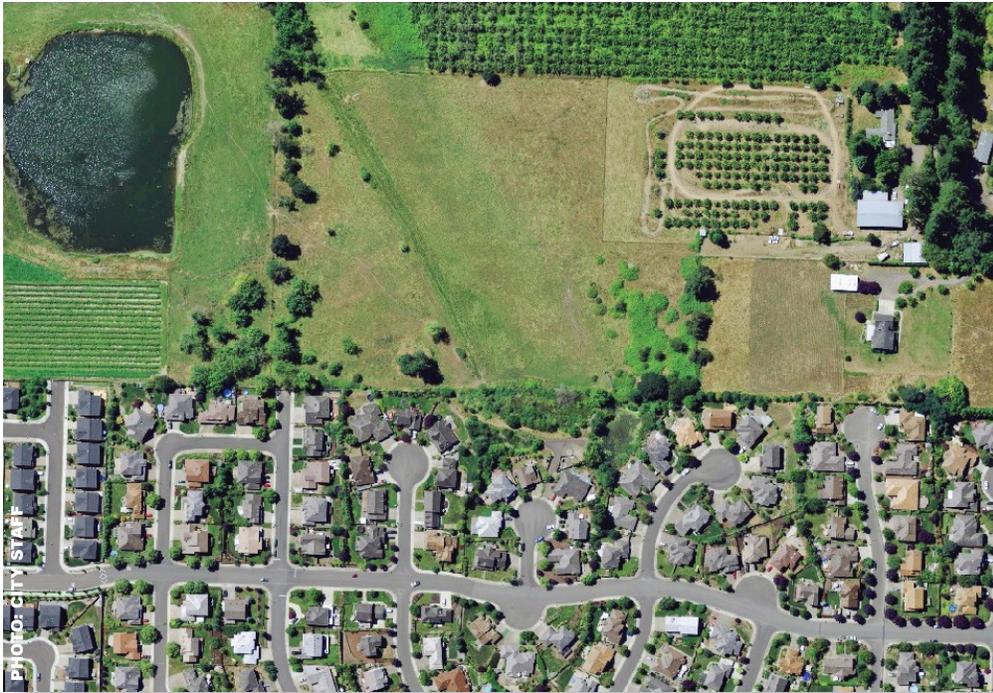
6. The City shall support energy conservation by:

Solar panels used to convert energy from the sun.

- A. encouraging designs that incorporate Leadership in Energy and Environmental Design (LEED) or other accepted standards or achieve a minimum certification;
- B. informing the public about personal actions that can be taken to improve energy efficiency and reduce energy consumption;
- C. directing the private sector to the variety of available incentives programs; and
- D. providing flexibility in the land use process to take advantage of solar radiation.

RECOMMENDED ACTION MEASURES:

- i. Create a process that requires new development to consider topography, vegetation, and solar access during the design phase.
- ii. Develop target decreases for energy consumption associated with municipal operations.
- iii. Purchase a percentage of Green Energy for municipal operations and then challenge the community to do the same.
- iv. Research and implement incentives and development codes that would encourage energy efficiency in new developments.
- v. Survey the community about energy consumption and identify top concerns that could be addressed through conservation incentives.



Urbanization

“To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
11-13-08	2008-00006	Entire chapter updated by Ordinance 08-15.

SECTION COVER PHOTO: CITY STAFF
Illustration of Urban Growth Boundary.



A significant challenge faced by many communities is how to manage growth, particularly the transition from rural to urban land uses, or redevelopment to more intense land uses. As Tigard moves into the future, the City must manage growth for the benefit of its citizens and businesses. The City must ensure that growth decisions result in high-quality development, protect natural resources, provide services in a coordinated and logical manner, and are fiscally sound. The thoughtful planning of growth will help to accommodate future population and employment, while addressing the community’s desire for a high quality of life.

“As Tigard moves into the future, the City must manage growth for the benefit of its citizens and businesses.”

The goals and policies contained in this chapter establish the basis for Tigard’s growth management decisions as they pertain to new lands that may be added to the City. The policies also provide guidance on the City’s commitment to coordinating the provision of public facilities and services to urban development, to help curb urban sprawl, and addressing the urbanization of unincorporated lands. Coordination with the City’s regional partners is particularly important to the successful implementation of these policies.

GOAL 14: Urbanization

“To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.”

One of the primary tools used in Oregon to control sprawl, preserve valuable resource lands, and promote the coordinated and logical provision of public facilities and services is the urban growth boundary. Tigard is located within the Portland Metropolitan Urban Growth Boundary (UGB), where Metro has the responsibility for establishing and managing the UGB in order to accommodate urban growth in the region for the next 20 years. The development of the initial UGB for the region began in 1976 and was adopted in 1980 by Metro Council and acknowledged by the Land Conservation and Development Commission as being in compliance with Statewide Planning Goals.



Metro has expanded the UGB a number of times over the years and currently Metro’s management of the UGB is regulated through Title 11 of the *Metropolitan Urban Growth Management Functional Plan (UGMFP)*. The UGMFP is a result of the state requiring Metro to develop goals and objectives to show consistency with the Statewide Planning Goals, particularly the efficient use of existing urban land to protect against unnecessary urban encroachment into prime agricultural and forest land. The Metro goals and objectives, adopted in the mid-1990s as the *Regional Urban Growth Goals and Objectives (RUGGO)*, are part of the *Regional Framework Plan (1997)*. The Regional Framework Plan includes *Metro’s 2040 Growth Concept (1995)*, which is intended to result in a more compact urban form. The UGMFP implements RUGGO and contains several requirements for local implementation, including accommodating Metro’s 2040 Growth Concept.



PHOTO: CITY STAFF

Tigard greenspace.

Tigard’s geographic relationship to the UGB has not changed over time as its city limits have never at any time touched, or approached, the UGB. This is a result of Tigard being surrounded on the north, east, and south borders by the adjacent cities of Beaverton, Portland, Lake Oswego, Durham, Tualatin, and King City, while the west border of Tigard is separated

from the UGB by the unincorporated Bull Mountain area that currently contains urban level development. Expansion of the Tigard city limits requires annexation of the already developed unincorporated urban lands. Experience has shown that property owners are, for the most part, reluctant to annex when they have access to urban services and benefits; those provided by the county and service districts, and those located within Tigard such as parks, library, emergency police response, employment, and shopping opportunities.

More efficient use of existing and underdeveloped City lands and unincorporated urban level development are the primary issues facing the City’s growth



management decisions. There are few large, vacant parcels of developable land remaining in the City, but there are significant opportunities for redevelopment. The City's downtown and major transportation corridors present feasible opportunities. Pertaining to unincorporated development, the City has operated under an Urban Planning Area Agreement with Washington County since 1983 that recognizes Tigard as the ultimate governance provider within the Urban Planning Area (UPA). However, almost all of the unincorporated area has been urbanized by Washington County.

The current UPA encompasses the city limits as well as unincorporated areas of Bull Mountain and Metzger, but does not include the 2002 West Bull Mountain (areas 63 and 64) additions to the UGB. As required by Oregon Revised Statute 195, the City has also entered into the Tigard Urban Service Agreement with agencies/districts that provide services within Tigard Urban Services Area (TUSA). The agreement outlines the role, provision, area, and planning/coordination responsibilities for service providers operating with the TUSA. The TUSA is important to the City, particularly the planning and coordinating with special districts, because it helps the City to ensure the best services are provided to its citizens. The Agreement was last updated in July 2006 and again identifies Tigard as the ultimate governance provider to the TUSA, which coincides with the UPA.

The City put forward a plan to annex the unincorporated Bull Mountain area of the TUSA to voters in 2004. City of Tigard residents overwhelmingly passed the measure, but residents in the area to be annexed soundly defeated it, thus leaving the status quo. Then in 2006 an incorporation effort took place to form the City of Bull Mountain and was again turned down by voters.

The issue of unincorporated urban level development gets more complex as Washington County master plans areas 63 and 64 without answering the question as to who will provide governance and urban services. The position of the City of Tigard is that cities are better equipped to provide governance and urban level services than counties. Until areas 63 and 64 can be included within a city, the City of Tigard opposes the provision of services that would allow for urban level development within the areas.

Additionally, Washington County is collaborating with Metro jurisdictions to identify urban and rural reserves that will dictate any needed future UGB expansions. The provision and financing of public services and facilities to these areas remains unclear and a major growth management question for the City of Tigard in planning for the future.



The City of Tigard is committed to providing its residents with governance and urban services in an efficient and cost effective manner. Any expansion of the City boundary must ensure that public facilities and services are adequate to support the area and those benefiting from the services pay their fair share.

KEY FINDINGS:

- Metro manages the expansion of the Portland Metropolitan Urban Growth Boundary.

“The City of Tigard is committed to managing urban growth wisely and providing efficient and cost effective services to its residents.”

- The *Regional Urban Growth Goals and Objectives* are intended to result in more compact urban growth.
- The City of Tigard has entered into agreements with Washington County that identifies the City as the ultimate governance provider in the designated Tigard Urban Service Area.
- Almost all of the City’s currently identified Urban Services Area has been urbanized in unincorporated Washington County.
- Unless current state law and county policies change, it is not realistic that Tigard will annex and provide services to urban growth boundary expansion areas 63 and 64.
- The provision and financing of services to areas 63 and 64 is a major growth management question for the City.
- The City of Tigard is committed to managing urban growth wisely and providing efficient and cost effective services to its residents.

- The citizens of Tigard are concerned about growth and its impact upon the community’s natural resources, existing development, and public services.

GOAL:

- 14.1. Provide and/or coordinate the full range of urban level services to lands and citizens within the Tigard City limits.

**POLICIES:**

1. The City shall only approve the extension of City services:
 - A. where applications for annexation for those properties have been approved; or
 - B. in circumstances where applicable state and county health agencies have declared a potential or imminent health hazard pursuant to ORS 431.705 to 431.760 (Health Hazard Annexation or Service District Formation); or
 - C. as outlined in the intergovernmental agreement regarding water provision within the Tigard Water Service Area.
2. The City shall maintain, and amend when necessary, agreements with Washington County that recognizes the City as the ultimate provider of governance and identified services to the Tigard Urban Services Area.
3. The City shall, as needed, coordinate and/or participate in planning activities or development decisions within the Tigard Urban Services Area.
4. The City shall protect the existing and future delivery of City services and only support the formation of a new service district, or expansion of existing districts, that will not create a conflict within the Tigard Urban Services Area.
5. The City shall enter into and maintain intergovernmental agreements with service districts operating within the Tigard Urban Service Area to:
 - A. define short and long term service provision roles;
 - B. specify the terms and conditions of withdrawal of territory from service districts and the transition of capital facility ownership and administration to the City;
 - C. provide for the coordination of plans and programs to eliminate duplicity and minimize conflict; and
 - D. ensure that services are provided consistent with the City's adopted Public Facility Plan.



RECOMMENDED ACTION MEASURES:

- i. Regularly review the Tigard Urban Services Agreement with Washington County and amend it as necessary.
- ii. Coordinate the review of land use proposals in the Tigard Urban Services Area with Washington County and mandate annexation of development that requires City services.
- iii. Ensure the City is represented in planning efforts for unincorporated urban lands within the Urban Growth Boundary.
- iv. Regularly review existing intergovernmental agreements with service providers operating within the Tigard Urban Services Area and propose amendments as needed.
- v. Encourage the City, County and service districts to adopt compatible facility design standards.
- vi. Coordinate the development and implementation of the City’s Public Facilities and Capital Improvement Plans with Washington County, service districts and other service providers within the Tigard Urban Services Area.

GOAL:

- 14.2. Implement the Tigard Urban Services Agreement through all reasonable and necessary steps, including the appropriate annexation of unincorporated properties.

POLICIES:

- 1. The City shall assign a Tigard zoning district designation to annexed property that most closely conforms to the existing Washington County zoning designation for that property.
- 2. The City shall ensure that capacity exists, or can be developed, to provide needed urban level services to an area when approving annexation.
- 3. The City shall approve proposed annexations based on findings that the request:



- A. can be accommodated by the City’s public facilities and services; and
 - B. is consistent with applicable state statute.
4. The City shall evaluate and may require that parcels adjacent to proposed annexations be included to:
- A. avoid creating unincorporated islands within the City;
 - B. enable public services to be efficiently and effectively extended to the entire area; or
 - C. implement a concept plan or sub-area master plan that has been approved by the Planning Commission or City Council.
5. The City shall maintain its right to annex property as allowed by state statute.
6. The City shall periodically update and/or amend its Public Facility Plan to ensure the predictable and logical provision of urban services for areas anticipated to be within the Tigard city limits.

“The City shall ensure that capacity exists, or can be developed, to provide needed urban level services to an area when approving annexation.”

RECOMMENDED ACTION MEASURES:

- i. Periodically review and update the City’s annexation methods and encourage property owners within the unincorporated Tigard Urban Services Area to annex based upon the benefits associated of being within the City limits.
- ii. Clearly communicate and maintain a positive dialog with unincorporated residents within the Tigard Urban Services Area regarding the benefits associated with being a City resident.
- iii. Utilize and promote incentives, as appropriate, to encourage owners of unincorporated properties to annex to the City.



- iv. Develop criteria and procedures to encourage and, when necessary, require owners of adjacent parcels to also annex to the City when neighboring parcel(s) annex.

GOAL:

- 14.3. Promote Tigard citizens' interests in urban growth boundary expansion and other regional and state growth management decision.

POLICIES:

1. The City shall support regional and state growth management decisions, while promoting policy that supports cities as the best building blocks of an efficient, stable, and compact urban region.
2. The City shall support regional Urban Growth Boundary management decisions that promote the development of an efficient and compact urban form, prevent future unincorporated urban development, and prevent urban sprawl.
3. The City shall maintain the low-density residential character of its existing single family residential neighborhoods and accommodate more intense urban land uses in its regional and town centers and within major transportation corridors to be consistent with Statewide Planning Goals and the Metro Framework Plan.
4. The City shall only support the formation or expansion of service districts or special county funding levies if these actions will not cause the expansion of unincorporated urban areas.

RECOMMENDED ACTION MEASURES:

- i. Encourage Metro to adopt requirements that new lands added to the Urban Growth Boundary be planned for urbanization by existing cities and annexed prior to development.
- ii. Work with the state, Metro and other jurisdictions to resolve legislative and jurisdictional policy barriers to city annexation of new lands that are added to the Urban Growth Boundary.



- iii. Encourage the state and Metro to establish criteria for the formation of new municipal governments to ensure they be fiscally sustainable and consistent with state and regional growth management objectives.
- iv. Work with Washington County, its cities, Metro, and others to address:
 - A. public service equity issues associated with unincorporated urban development; and
 - B. prevent blight conditions associated with underserved urban development.
- v. Take an active role in discussions relating to state and regional efforts to develop equitable ways to fund public infrastructure needed to better provide for existing needs and support projected employment and population growth.

PHOTO: UNIVERSITY OF OREGON



Tigard Downtown



Future Vision:

— a visual refinement
of the TDIP

January, 2009

Special Planning Areas — Downtown

“Areas identified as needing additional planning attention due to their unique circumstances and value to the community.”





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
04-24-07	2006-00002	Entire chapter updated by Ordinance 07-07.

SECTION COVER PHOTO: RENA SIMON, UNIVERSITY OF OREGON
Front cover of the 2009 Tigard Downtown Future Vision document.



Downtown Tigard Urban Renewal District

Citizens have expressed a desire to create a “heart” for their community: a place to live, work and play, and to serve as a community gathering place.

Main Street and the surrounding area have served as Tigard’s historic center, dating back to around 1907. Planning for Downtown Tigard’s revitalization has been a long-term process, stretching back at least 25 years. The most recent effort dates back to 2002, with the announcement of plans for a Washington County Commuter rail line with a planned station in downtown Tigard. This inspired a small group of citizens and business owners to work on ideas for Downtown to capitalize on Commuter Rail. A state Transportation and Growth Management (TGM) grant facilitated the hiring of consultants and a more extensive planning process. A Task Force of 24 citizens was formed to guide the plan’s development. The planning process incorporated high levels of citizen involvement, including community dialogues, workshops, open houses, and a public survey.

“Planning for Tigard’s revitalization has been a long-term process, stretching back at least 25 years.”

The TGM grant and planning process resulted in the Tigard Downtown Improvement Plan (TDIP). The TDIP set forth a vision to create “a vibrant and active urban village at the heart of the community that is pedestrian oriented, accessible by many modes of transportation, recognizes and uses natural resources as an asset, and features a combination of uses that enable people to live, work, play, and shop in an environment that is uniquely Tigard.”

An Urban Renewal Plan was developed to implement the TDIP. The tools provided by urban renewal, including Tax Increment Financing, are intended to attract private investment and facilitate the area’s redevelopment. Tigard voters approved the use of Tax Increment Financing for Urban Renewal in the May 2006 election.



KEY FINDINGS:

- The Urban Renewal Area contains approximately 193.71 acres (including 49.57 acres of right-of-way) and comprises 2.6% of the City's 7496 acres of total land area. It contains 193 individual properties. The current land uses are dominated by development with little pedestrian-friendly orientation. Outside of Main Street, the existing buildings do not create a sense of place and cohesive function, but rather appear to be spread out and auto-dependent. Block sizes are large for a downtown.
- In general, downtown properties have low improvement to land (I:L) ratios. Healthy I:L ratios for downtown properties range between 7.0 -10.0 or more. In Tigard's Urban Renewal Area 2004-05 I:L averages were 1.43 for commercial properties and 2.79 for multi-family residential. (Report accompanying the City Center Urban Renewal Plan.)
- Under existing conditions, Downtown is underdeveloped and lacks the mix of high quality commercial, office, residential, and public uses suitable for an urban village.
- The Area is served by two major transportation corridors (Hwy 99W and Hall Blvd.) with heavy traffic levels. Many of the other Downtown streets lack complete sidewalks. In general, there are poor linkages to and within the Downtown.
- Railway tracks also bisect the Downtown. A planned system upgrade will make both commuter and freight train operation more efficient and less disruptive to automobile traffic.
- Fanno Creek flows through downtown and is the most notable natural feature. The creek, part of its floodplain, and associated wetlands are part of a 22-acre City park with a multi-use path.
- The majority of the Downtown is zoned Central Business District (CBD). While the current CBD zone allows the mix of uses necessary for a successful downtown, the regulations lack the language to guide new development to be consistent with the preferred urban form. As a result, the area has developed without many of the pedestrian-oriented qualities specified in the Tigard Downtown Improvement Plan and Metro's 2040 Growth Concept.
- The Tigard Urban Renewal Area encompasses the original Plan area and several additional tax lots, which are zoned R-4.5, R-12 (PD), R-25, C-G



(General Commercial) and C-P (Professional/ Administrative Commercial.) Several of these tax lots are located to the northwest of Hwy 99W. These additional zones do not permit mixed use development, which is crucial for successful downtowns.

- According to the Comprehensive Plan Issues and Values Summary, Downtown is important to Tigard residents; many use it on a weekly basis. Many would like it to see improvements so it will become a gathering place for the community.
- Tigard Beyond Tomorrow's Community Character & Quality of Life section includes a goal to achieve a future where "the Main Street area is seen as a 'focal point' for the community," and "a clear direction has been established for a pedestrian-friendly downtown and is being implemented."
- The passage of the Urban Renewal measure in May 2006 by 66% of voters also shows strong community support for Downtown's revitalization.
- Title 6 of the Urban Growth Management Functional Plan requires local jurisdictions to adopt land use and transportation plans that are consistent with Metro guidelines for Town Centers.

*"Downtown
is important
to Tigard
residents;
many use it
on a weekly
basis."*

GOAL:

- 15.1 The City will promote the creation of a vibrant and active urban village at the heart of the community that is pedestrian oriented, accessible by many modes of transportation, recognizes natural resources as an asset, and features a combination of uses that enable people to live, work, play, and shop in an environment that is uniquely Tigard.

RECOMMENDED ACTION MEASURES:

- i. Provide public, including members of the development community, with regular informational updates on Urban Renewal progress and an accounting of funds spent by the City Center Development Agency.



GOAL:

15.2 Facilitate the development of an urban village.

POLICIES:

1. New zoning, design standards, and design guidelines shall be developed and used to ensure the quality, attractiveness, and special character of the Downtown as the “heart” of Tigard, while being flexible enough to encourage development.
2. The downtown’s land use plan shall provide for a mix of complementary land uses such as:
 - A. retail, restaurants, entertainment and personal services;
 - B. medium and high-density residential uses, including rental and ownership housing;
 - C. civic functions (government offices, community services, public plazas, public transit centers, etc);
 - D. professional employment and related office uses; and
 - E. natural resource protection, open spaces and public parks.
3. The City shall not permit new land uses such as warehousing; auto-dependant uses; industrial manufacturing; and industrial service uses that would detract from the goal of a vibrant urban village.
4. Existing nonconforming uses shall be allowed to continue, subject to a threshold of allowed expansion.
5. Downtown design, development and provision of service shall emphasize public safety, accessibility, and attractiveness as primary objectives.
6. New housing in the downtown shall provide for a range of housing types, including ownership, workforce, and affordable housing in a high quality living environment.
7. New zoning and design guidelines on Main Street will emphasize a “traditional Main Street” character.



RECOMMENDED ACTION MEASURES:

- i. Develop design guidelines and standards that encourage attractive and inviting downtown commercial and residential architecture with quality design and permanent materials, particularly in the building fronts and streetscape. Also develop appropriate density, height, mass, scale, architectural, and site design guidelines.
- ii. Utilize form based code principles in ways that are consistent with state planning laws and administrative rules.
- iii. Adopt non-conforming use standards appropriate to a downtown in transition.
- iv. Develop code measures to mitigate any compatibility issues when new downtown development occurs in close proximity to the downtown’s commuter rail line.
- v. Provide areas in the downtown where community events, farmer’s markets, festivals and cultural activities can be held.
- vi. Designate the downtown area as the preferred location for Tigard’s civic land uses.
- vii. Promote an awareness of the downtown’s history through measures such as public information, urban design features, and preservation of historic places.



PHOTO: CITY STAFF

Tigard business owner at a Downtown Open House interacting with Planning Commissioners Karen Fishel and Stuart Hasman.



- viii. Monitor performance of design guidelines, standards and related land use regulations and amend them as necessary.

GOAL:

- 15.3 Develop and Improve the Open Space System and Integrate Natural Features into downtown.

POLICIES:

- 1. Natural resource functions and values shall be integrated into downtown urban design.
- 2. The Fanno Creek Public Use Area, adjacent to Fanno Creek Park, shall be a primary focus and catalyst for revitalization.
- 3. Development of the downtown shall be consistent with the need to protect and restore the functions and values of the wetland and riparian area within Fanno Creek Park.



PHOTO: CITY STAFF

Fanno Creek Park.

RECOMMENDED ACTION MEASURES:

- i. Acquire property and easements to protect natural resources and provide public open space areas, such as park blocks, plazas and mini-parks.
- ii. Develop “green connections” linking parks and greenways with adjacent land uses, public spaces and transit.



- iii. Incorporate public art into the design of public spaces.
- iv. Enhance the landscape and habitat characteristics of Fanno Creek as a key downtown natural resource.
- v. Develop and implement strategies to address concerns with homeless persons and vagrancy in the Downtown and Fanno Creek Park.

“Enhance the landscape and habitat characteristics of Fanno Creek as a key downtown natural resource.”

GOAL:

- 15.4 Develop comprehensive street and circulation improvements for pedestrians, automobiles, bicycles, and transit.

POLICIES:

1. The downtown shall be served by a complete array of multi-modal transportation services including auto, transit, bike, and pedestrian facilities.
2. The downtown shall be Tigard’s primary transit center for rail and bus transit service and supporting land uses.
3. The City, in conjunction with TriMet, shall plan for and manage transit user parking to ensure the downtown is not dominated by “park and ride” activity.
4. Recognizing the critical transportation relationships between the downtown and surrounding transportation system, especially bus and Commuter Rail, Highway 99W, Highway 217 and Interstate 5, the City shall address the downtown’s transportation needs in its Transportation System Plan and identify relevant capital projects and transportation management efforts.
5. Streetscape and public area design shall focus on creating a pedestrian friendly environment without the visual dominance by automobile-oriented uses.



6. The City shall require a sufficient, but not excessive, amount of parking to provide for downtown land uses. Joint parking arrangements shall be encouraged.

RECOMMENDED ACTION MEASURES:

- i. Develop comprehensive street and circulation improvements for pedestrians, automobiles, bicycles, and transit.
- ii. Develop a circulation plan that emphasizes connectivity to, from, and within the downtown in the design and improvement of the area's transportation system, including developing alternative access improvements to downtown, such as connections across Hwy 99W.
- iii. Address public safety and land use compatibility issues in the design and management of the downtown's transportation system.
- iv. Investigate assigning different roadway designations within the general area of the downtown as means to support transportation access to Town Center development such as the Oregon Department of Transportation's Special Transportation Area (STA) and Urban Business Area (UBA).
- v. Implement an integrated downtown pedestrian streetscape and landscape plan.
- vi. Acquire property and easements to implement streetscape and landscape plans, and develop needed streets, pathways, entrances to the Commuter Rail Park and Ride lot, and bikeways.
- vii. Express the themes of an urban village and green heart by utilizing the "unifying elements" palette from the Streetscape Design Plan to design streetscape improvements.
- viii. Emphasize sustainable practices in street design through innovative landscaping and stormwater management, and provision of multi-modal infrastructure.
- ix. Encourage sustainability features in the design of Downtown buildings.



- x. Encourage the formation of a Downtown Parking and Transportation Management Association.
- xi. Incorporate the Downtown’s public investment / facility needs into the City’s Public Facility Plan and implementing Community Investment Plan.



Glossary

*“Definitions of key terms
found in the document.”*





ADOPTED AMENDMENTS

EFFECTIVE DATE	CPA#	CHANGES
11/27/08	2008-00009	Adopted by Ordinance 08-17.

SECTION COVER PHOTO: SALLY SCHOOLMASTER
Tigard Library, 2nd Floor.



100-year Floodplain — An area of land adjacent to a river, stream, lake, estuary, or other water body that the Federal Emergency Management Agency (FEMA) identifies as having a 1% chance of being inundated by flood waters in any year.

Active Recreation — Active recreation refers to physical participation in activities involving games, sporting events or similar activities which often require specific constructed facilities to accommodate the activity such as sporting fields, courts, aquatic facilities, buildings, etc. Active recreation may also include unstructured play or other leisure activities requiring facilities such as playgrounds, dog play areas, skate parks, etc.

Active Recreation Facilities — These are public or private facilities such as described above that accommodate those who wish to engage in structured or unstructured active recreation, play, or leisure activities.

Adaptive Management — A management approach that seeks to improve the effectiveness of a policy or process by establishing measurable baseline conditions and desired end goals, periodically measuring the success of existing actions against those goals, and making corrections as necessary to improve success.

Affordable Housing — The accepted definition found in federal and state programs is housing that costs a household no more than 30% of its gross income for rent and utilities.

Biodiversity — The full range of variety and variability within and among living organisms and the ecological complexes in which they occur; encompasses ecosystem or community diversity, species diversity, and genetic diversity.

Citizen — An inhabitant of a city or town, specifically one entitled to its privileges or franchises.

Citizen Involvement Program — A program established by a city or county to ensure the extensive, ongoing involvement of local citizens in planning. Such programs are required by Statewide Land Use Planning Goal 1, “Citizen Involvement,” and contain or address the six components described in that goal.



Clean Water Services (CWS) — A public utility committed to protecting water resources in the Tualatin River Watershed through innovative wastewater and stormwater services, flood management projects, water quality and stream enhancement projects, fish habitat protection, and more.

Cluster — A grouping of development. Specifically, the locations of structures on a given site in one area leaving the remainder of the land in open space.

Committee for Citizen Involvement (CCI) — A local group appointed by a governing body for these purposes: assisting the governing body with the development of a program that promotes and enhances citizen involvement in land use planning; assisting in the implementation of the citizen involvement program; and evaluating the process being used for citizen involvement.

Community Recreation Facilities — The wide variety of indoor and outdoor sports and leisure facilities publicly owned and operated to promote the health and well-being of the community. Some are used primarily for active recreation, others designated for passive uses, with some overlap among or within individual facilities.

Community Parks — Provide a variety of active and passive recreational opportunities for all age groups and are generally larger in size and serve a wider base of residents than neighborhood parks. Community parks often include developed facilities for organized group activity as well as facilities for individual and family activities.

Compatibility — The ability of adjacent and/or dissimilar land uses to co-exist without aesthetic, environmental, and/or operational conflicts that would prevent persons to enjoy, occupy, or use their properties without interference. A variety of remedies to compatibility conflicts are normally provided in a jurisdiction's land use program; including limited land use designation, buffering, screening, site and building design standards, transportation facility design, etc.

Development — Any man-made change to improved or unimproved real property, including, but not limited to, construction, installation or alteration of a building or other structure, change of use, land division, establishment or termination of a right of access, storage on the land, grading, clearing, removal or placement of soil, paving, dredging, filling, excavation, drilling or removal of trees.



Downtown Tigard — The area of the City that is included within the Urban Renewal District.

Economic Gardening — Strategies and programs aimed at helping a community’s existing businesses and entrepreneurs grow into healthy, vibrant companies with a strong employment base.

Efficient Use of Land — Utilization of urban lands in a way that prevents urban sprawl, maximizes the use of existing infrastructure, reduces the need for automobile travel, conserves energy, and provides for easy access to needed goods and services. The efficient use of land also means the application of development principles that result in less land being utilized to accommodate specific uses, thus resulting in compact urban development.

Effective Impervious Area — Impervious area such as rooftops, streets, sidewalks, and parking areas do not allow water to drain into the soil. Impervious area that collects and drains the water directly to a stream or wetland system via pipes or sheet flow is considered “effective impervious area”, because it effectively drains the landscape. Impervious area that drains to landscaping, swales, parks and other pervious areas is considered “ineffective” because the water is allowed to infiltrate through the soil and into ground water, without a direct connection to the stream or wetland.

Employment and Industrial Areas — Areas identified in Title 4 of the Metro Urban Growth Management Functional Plan as being important to the region’s economy. These areas are subject to certain limitations on the type and scale of non-industrial uses.

Encourage — Support, advocate, or take affirmative action to achieve a particular community objective.

Environmental Performance Standards — See the Tigard Community Development Code Chapter 18.725.

Family Wage — The income necessary for a family to make ends meet without any public or private assistance.

Feasible — Reasonably capable of being done, executed, or effected with the means at hand and circumstances as they are; practicable.



Federal Emergency Management Agency (FEMA) — The federal agency responsible for administering the National Flood Insurance Program

Fine Particulate Matter — Air pollution comprised of solid particles or liquid droplets that are less than 10 microns in diameter or less than 2.5 microns in diameter. Particles in these size ranges are of great concern because they can be inhaled deeply into the lungs where they can remain for years.

Floodplain — The area adjoining a stream, tidal estuary, or coast that is subject to regional flooding.

Franchise Agreements — The right to provide service granted to a person pursuant to the Tigard Municipal Code, including the establishment of rates by the City.

Full Service Recreation Facilities — A collection of facilities that provide a diverse array of recreation choices and allow for a wide spectrum of programs and activities that meet the recreational and leisure needs of community residents.

Functions and Services — The physical, chemical, and biological processes or attributes that contribute to the self-maintenance of a natural system and the benefits human populations derive, either directly or indirectly, from them. An example of a function is the provision of wildlife habitat or the trapping of nutrients, while a service would be supporting the food chain or provision of clean water.

Goal — A general statement indicating a desired end or the direction the City will follow to achieve that end.

Green Concepts and Practices — Refers to measures to increase re-use and recycling programs, on-site filtration, integrated pest management, the utilizing of existing and emerging technologies for conservation and energy efficiency, demand management, and other best management and operation practices.

Greenspace/Greenway — An area of protected or reserved public or private land that has important natural resource characteristics such as flood plains, wildlife habitat, water quality functions, natural scenic qualities, etc. Greenspaces/Greenways may provide for low impact passive recreation activities such as walking, nature study, and, where appropriate, biking.



Habitat — An area upon which fish and/or wildlife depends in order to meet their requirements for food, water, mobility, security, and reproduction.

Habitat Friendly Development Practices — Broad range of development techniques and activities that reduce the detrimental impact on fish and wildlife habitat relative to traditional development practices. Examples include clustering development to avoid habitat, using alternative materials and designs such as pier, post, or piling foundations designed to minimize tree root disturbance, managing stormwater on-site to help filter rainwater and recharge groundwater sources, collecting rooftop water in rain barrels for reuse in site landscaping and gardening, and reducing the amount of effective impervious surface created by development.

Hazardous Tree — A tree or tree part that is likely to fail and cause damage or injury, and the likelihood exceeds an acceptable level of risk.

Hazardous Waste — A solid waste (solid waste includes solids, liquids and compressed gases) that possesses at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or that appears on federal or state official lists of hazardous wastes. A solid waste is a hazardous waste if is:

- Defined by Title 40 of the Code of Federal Regulations (CFR), Part 261 as a hazardous waste; or
- A “state-only” waste defined as hazardous in the State of Oregon. Oregon includes six categories of waste in OAR 340-101-0033.

Healthy Streams Plan — Approved by CWS in June 2005, the goal of the plan is to utilize scientific knowledge and innovation to improve watershed and stream health for community benefit.

Historic and Cultural Resources — Historic and prehistoric sites, structures, districts, landscapes, objects, and other evidences of human activities that represent facets of the history, or ongoing cultural identity, of a Nation, Oregon, or Tigard.

Household Hazardous Waste — Any discarded, useless, or unwanted chemical materials or products that are or may be hazardous or toxic to the public or the environment and are commonly used in or around households. Residential waste that is ignitable, corrosive, reactive, or toxic. Examples include solvents, pesticides, cleaners, and paints.



Impervious Surface — A solid surface, such as streets, parking lots, and roofs, that prevents rain from being absorbed into the soil, thereby increasing the amount of water runoff that typically reaches a receiving stream.

Industry Cluster — Groups of similar and related firms in a defined geographic area that share common markets, technologies, worker skill needs, and which are often linked by buyer-seller relationships.

Innovative Business — A business involved in the creation of new knowledge (invention); the transformation of new knowledge into new products, processes, systems or services (translation) ; and/or the creation of economic value with new products, processes, systems or service (commercialization).

Intelligent Transportation Systems — A broad range of diverse technologies which, when applied to our current transportation system, can help improve safety, reduce congestion, enhance mobility, minimize environmental impacts, save energy, and promote economic productivity.

Intergovernmental Agreement (IGA) — The most common method, usually in the form of a signed legal contract, for neighboring jurisdictions to cooperate on providing services or implementing programs.

Invasive Species — A non-native species whose introduction does, or is likely to cause, economic or environmental harm, or harm to human health. An invasive species can be a plant, animal, or any other biologically viable species that enters an ecosystem beyond its native range.

Landslides — The downslope movement of rock, soil, or related debris that is a natural hazard.

Leadership in Energy and Environmental Design (LEED) — A broadly accepted private benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.



Linear Parks — Park or greenspace that may provide opportunities for trail-oriented outdoor recreation along built or natural corridors, connect residences to major community destinations, and may also provide some active and passive recreation facilities to meet neighborhood needs, especially in areas not adequately served by traditional neighborhood parks.

Low Impact Development (LID) Practices — An approach to land development that uses various land use planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs. LID still allows land to be developed, but in a cost-effective manner that helps mitigate potential environmental impacts.

Metro — The regional government of the Portland metropolitan area. The elected Metro Council is the policy setting body of the regional government.

Mixed Use Zoning — An area of land within the Tigard city limits designated for buildings or structures with a variety of complementary and integrated uses, such as, but not limited to, residential, office, manufacturing, retail, public or entertainment, in a compact urban form.

Municipal Separate Storm Sewer System (MS4) Permit — Required by Section 208 of the Clean Water Act and held by Clean Water Services, the permit requires the implementation of stormwater pollution prevention plans or stormwater management programs (both using best management practices) that effectively reduce or prevent the discharge of pollutants into receiving waters.

National Ambient Air Quality Standards — Established by the United States Environmental Protection Agency, the standards are designed to regulate air pollutants that are harmful to people and the environment. Primary standards are set at levels meant to protect human health, including sensitive populations such as children, the elderly, and individuals suffering from respiratory disease. Secondary standards are designed to protect public welfare (e.g. building facades, visibility, crops, and domestic animals).

National Pollution Discharge Elimination System (NPDES) Permit — Held by Clean Water Services, the permit is required by the Clean Water Act, which prohibits anybody from discharging “pollutants” through a “point source” into a “water of the United States” unless they have an NPDES permit.



The permit contains limits on what can be discharged, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people’s health. In essence, the permit translates general requirements of the Clean Water Act into specific provisions tailored to the operations of each person discharging pollutants.

Natural Area — City-owned land and water that has substantially retained its natural character and provides important habitat for plant, animal, or aquatic life. Such areas are not necessarily completely natural or undisturbed, but can be significant for the study of natural, historic, scientific, or paleontological features, or for the appreciation of natural features.

Natural Resources — Resources and resource systems identified in Statewide Planning Goal 5. Examples include: fish and wildlife habitats, wetlands, streams and associated riparian corridors, groundwater, and rare and endangered fish and wildlife, plants, and plant communities.

Natural Systems — Interactive, interrelated, and interdependent elements forming a complex whole that exists in or is formed by nature. Hydrologic and ecological systems are two examples.

Nature in Neighborhoods Program — A Metro region conservation initiative that brings people and government together to ensure a healthy urban ecosystem. The initiative will align the region’s conservation programs behind a strategic effort to protect clean water and healthy natural areas for fish, wildlife and people. It will add more hands-on capacity for conservation education and habitat restoration.

Neighborhood Parks — The foundation of the parks and recreation system, they provide accessible recreation and social opportunities to nearby residents. When developed to meet neighborhood recreation needs, school sites may serve as neighborhood parks.

Open Space — Public or privately owned areas, either undeveloped or minimally developed, intended for either active or passive outdoor recreation. Open spaces may include developed facilities that support outdoor recreation and trail-oriented recreation, or areas solely set aside for the nature-oriented recreation and the protection of natural resources, such as fish and wildlife habitat.



Park Services — A generic term used to refer to parks, recreation, trails, and open spaces collectively.

Parks System Development Charges — Charges assessed to new developments for the acquisition and development of parks, open spaces, and paved trails. They are assessed based on the cost of providing these services to new City patrons.

Passive Recreation — This is recreation activity which does not usually require specialized facilities. Passive recreation typically involves unstructured activities such as walking for pleasure, picnicking, gardening, nature viewing, etc.

Passive Recreation Facilities — These facilities may consist of minimal structures, such as pathways, benches, picnic tables, etc., intended to accommodate unstructured, low levels of leisure activity on undeveloped, or minimally developed, public or private land.

Pocket Parks — Provide recreation opportunities for residents in areas not adequately served by neighborhood parks, such as town centers or areas of high density development.

Policy — A statement identifying Tigard's position and a definitive course of action. Policies are more specific than goals. They often identify the City's position in regard to implementing goals. However, they are not the only actions the City can take to accomplish goals.

Promote — Support, advocate, or take affirmative action to achieve a particular community objective.

Proven Community Need — A need supported by evidence that is required to amend land use map(s), which ensures that the new land use being proposed is needed in the community in that particular location, versus other appropriately designated and developable sites.

Public Facilities and Services — Publicly funded infrastructure and services, such as public safety, sanitary sewers, domestic water, water quality, parks, transportation, governance, etc. that are required for the community's safety, health, welfare, prosperity, and quality of life.



Public Facility Plan — A support document or documents to the Comprehensive Plan that describes the sewer, water, and transportation facilities needed to support the land uses and densities designated in the Plan. It is less specific than a Capital Improvements Program and required by Oregon law for cities with a population of 2,500 or more.

Public Interest — Shared interests often expressed as commonly held values that are perceived to be of general benefit to the whole community and the welfare of the general public versus that of specific entities, and which warrant recognition, promotion, and protection by the City.

Rare — An organism or plant community that is recognized and listed as exceptionally unique, uncommon or scarce by a federal, state, or regional governmental body or agency. Rare species may also be listed as threatened or endangered under the Federal or Oregon Endangered Species Acts.

Recommended Action Measure — A statement outlining a specific City project or standard, which if executed, would implement goals and policies. Recommended action measures also refer to specific projects, standards, or courses of action the City desires other jurisdictions to take in regard to specific issues. These statements also define the relationship the City desires to have with other jurisdictions and agencies in implementing Comprehensive Plan goals and policies.

Regionally Significant Habitat — Areas identified as providing benefits to fish and wildlife, and classified for protection based on habitat quality and importance, economic and social value of the land, and current development status.

Renewable Energy — Energy sources that are either inexhaustible (solar, wind) or replenished over a short period of time (low impact hydro, biomass, geothermal). Most renewable energy ultimately comes from the sun - indirectly in the case of wind, water, and biomass; directly in the case of solar power generation. Natural gas and coal, for example, are not renewable because their use consumes fossil fuel reserves at a much quicker rate than they can be replenished.

Rent — Payment for the use of City property for private wetlands mitigation. The term is used in the 1996 COT resolution (Res 96-42) pertaining to such use.



Right-of-Way Usage Fee — Annual payment calculated as a percentage of gross revenue and assessed to all persons using a utility system or facility in the right-of-way to provide service to customers within the City of Tigard.

Riparian Corridor — A Goal 5 resource area adjacent to a river, lake, or stream, and consisting of the area of transition from an aquatic ecosystem to a terrestrial ecosystem. It includes the water areas, fish habitat, adjacent riparian areas, and wetlands.

Riparian Habitat — Areas located within and dependent upon the unique habitat elements provided within a riparian corridor.

Sensitive Lands — Areas containing steep slopes, wetlands, drainageways, or floodplain as defined in the Tigard Community Development Code.

Severe Weather Hazards — This broadly defined hazard category includes windstorms, severe winter hazards (e.g., snow, ice, prolonged cold), thunderstorms, tornadoes, drought, prolonged extreme heat and other weather conditions that disrupt vital regional systems and threaten lives and property.

Significant Habitat — Areas classified through the work of the Tualatin Basin Partners for Natural Places and adopted as part of Metro’s Regionally Significant Habitat Areas and identified on the Tigard Significant Habitat Areas Map.

Solar Access — Ability of sunlight to reach a solar collector unimpeded by trees, fences, buildings, or other obstruction.

Solid Waste Collection and Disposal — Act of ensuring that any material no longer usable by the generator, producer, or the source of the material is properly disposed of or resource-recovered by another person.

Special Needs Housing — Housing units which are available to a specific population, such as elderly, disabled, homeless, or people recovering from drug or alcohol abuse.

Special Use Area — Public recreation lands that are specialized or single purpose in nature. Examples are dog parks, skate parks, golf courses, display gardens, recreation centers, and a wide range of other activities and facilities.



Stormwater — Precipitation that accumulates in natural and/or constructed storage and conveyance systems during and immediately following a storm event.

Stormwater Management — Functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control, and/or convey stormwater.

Stream Corridor — Area adjacent to a perennial or intermittent creek or river that protects the water quality functions of the stream as well as fish and wildlife habitat.

Support — To aid the cause, policy, or interests of, or contribute to the progress or growth of.

Sustainable (Sustainability) — Using, developing and protecting resources at a rate and in a manner that enables people to meet their current needs and also provides that future generations can meet their own needs. Sustainability requires simultaneously meeting environmental, economic and community needs.

System Development Charge — A reimbursement fee, an improvement fee, or a combination thereof, assessed or collected at the time of increased usage of a capital improvement or the issuance of a development permit, building permit, or connection to the capital improvement.

Tigard Urban Planning Area — A site specific area within the Metro Regional Urban Growth Boundary consisting of lands within Tigard’s city limits, and contiguous unincorporated land for which both the City and Washington County maintain an interest in Comprehensive Planning. Tigard and Washington County have entered into an Urban Planning Area Agreement (UPAA) to coordinate land use and public facility planning activities and service provision within the areas.

Tigard Urban Services Area (TUSA) — A site specific area within the Metro Regional Urban Growth Boundary consisting of lands within Tigard’s city limits, and contiguous unincorporated lands. This area is co-terminus with the Tigard Urban Planning Area. Within the TUSA Agreement, Tigard is designated as the ultimate service provider of specific urban services. Also in the agreement, Washington County recognizes Tigard as the ultimate local governance provider to all of the territory within the TUSA, including unincorporated properties.



Total Maximum Daily Load (TMDL) — Calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant’s sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality.

Traded Sector — Business sectors that sell goods and services outside the region to the broader state, national, and international markets; and/or produces goods and services that normally would have to be imported into the community. These businesses bring income into the community or region and keep local income from going elsewhere.

Trails and Connectors — Public access routes for commuting and trail-oriented recreational activities including sidewalks, bikeways, multi-use trails, and paths.

Up-to-date — Being in accord with relevant facts, knowledge, techniques, styles, etc.

Upland Habitat — All habitats beyond a riparian corridor. Examples include oak prairie, ponderosa pine/oak camas prairie, mixed conifer forest, etc.

Urban Growth Boundary — Managed by Metro, a boundary that acts as a tool to protect forest and farmland from urban sprawl and promotes the efficient use of land, public facilities and services inside the boundary.

Urban Forest — All the trees located within the city limits, including both remnants of native forests and planted landscapes.

Urban Forest, Diverse — An urban forest that contains a variety and abundance of differing composition, structure, and function. Diversity in composition means variation in species, genetics, abundance and age. Diversity in structure means variation and abundance of vertical and horizontal arrangement, heterogeneity, forest density, micro-climates, and visual quality. Diversity in function means variation and abundance of ecological services, stages of succession, and value as green infrastructure.



Urban Interface Zone — The zone is located at the urban-rural fringe where homes and other structures are built onto a densely forested or natural landscape.

Wastewater System — An underground carriage system that is responsible for transporting sewage from houses, businesses, and industry to a treatment facility. In the City of Tigard, they are operated separately and independently of the stormwater system. Sanitary lines generally consist of laterals (services to a particular unit), mains, and manholes (or other various forms of traps).

Wetland — An area that is inundated or saturated by surface water or groundwater at a frequency or duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wildfire — Any fire occurring on wildlands that requires suppression response.

Workforce Housing — Workforce housing can be rental and ownership market housing units that are affordable to households with incomes between 60-120% of median family income.

Comprehensive Plan Map Legend

RESIDENTIAL USE DESIGNATIONS

Low-Density Residential — These areas will provide low-density residences (1 to 5 units to the net acre) and necessary urban services to maintain single-family residential neighborhoods. This designation includes the R-1, R-2, R-3.5, and R-4.5 zones.

Medium-Density Residential — These areas will provide medium-density residences (6 to 12 units to the net acre) and necessary urban services to maintain a stable mixture of single-family and multi-family neighborhoods. This designation includes the R-7 and R-12 zones.

Medium-High Density Residential — These areas will provide medium-high-density residences (13 to 25 units to the net acre) and necessary urban services to allow housing of all types, but focused primarily on multiple-family neighborhoods. This designation includes the R-25 zone.



High-Density Residential — These areas will provide high-density residences (26 to 40+ units to the net acre) and the necessary urban services to allow multiple-family neighborhoods. This designation includes the R-40 zone.

COMMERCIAL USE DESIGNATIONS

Central Business District — The area deemed appropriate for high intensity mixed use development allowing commercial and office, as well as higher density residential uses of a minimum of 40 units per acre. This designation includes the CBD zone.

Community Commercial — These areas are intended to provide locations for retail and service uses, which primarily have a neighborhood orientation. Medium-density residential uses will also be accommodated on or above the second story. This designation includes the C-C zone.

General Commercial — These areas are intended to provide for major retail goods and services, generally for the traveling public, and be located along major traffic ways. This designation includes the C-G zone.

Neighborhood Commercial — These areas are intended for the concentration of small commercial and personal service activities and related uses necessary to satisfy the daily shopping and related needs of nearby residents. This designation includes the C-N zone.

Professional Commercial — These areas are deemed appropriate for business and professional offices and related uses. This designation includes the C-P zone.

MIXED USE DESIGNATIONS

Mixed Use Commercial — These areas are intended to accommodate high-density office buildings, retail, and service uses, as well as mixed use developments and medium high and high-density (25 to 50 units to the net acre) residential uses. Larger buildings with parking under, behind, or alongside the structures will be encouraged. The designation includes the MUC and MUC-1 zones.

Mixed Use Employment — These areas are intended to accommodate development concepts characterized by retail, office, and commercial services use, with business park and research facilities. High-density residential development will be encouraged. The designation includes the MUE zone.



Mixed Use Employment 1 and Mixed Use Employment 2 — These areas are intended to accommodate office, research and development, and light manufacturing. Limited commercial and retail services are allowed, as well as residential uses compatible with the employment character of the area. The designation includes the MUE-1 and MUE-2 zones.

Mixed Use Residential 1 and Mixed Use Residential 2 — These areas are intended to accommodate mixed uses with medium high and high-density residential development. Limited commercial and retail services that provide benefits and amenities to the residents are allowed. These areas should have a high degree of pedestrian amenities, recreation opportunities, and access to transit. The designation includes the MUR-1 and MUR-2 zones.

INDUSTRIAL USE DESIGNATIONS

Heavy Industrial — These areas are deemed appropriate for intensive manufacturing, processing, or assembly of semi finished or finished products, including fabrication, and whose operating characteristics are potentially incompatible with most other land uses. The designation includes the I-H zone.

Light Industrial — These areas are deemed appropriate for industrial activities which include manufacturing, processing, assembling, packaging, or treatment of products from previously prepared materials and which are devoid of nuisance factors that would adversely affect other properties. The designation includes the I L and I P zone.

OTHER DESIGNATIONS

Open Space — These areas are designated for retention in a natural state and for development of recreational uses.

Public Institution — These areas are designated for municipal uses, school uses, or other public uses.