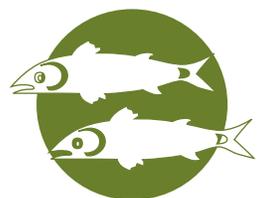




PHOTO: DAN QUELLO

# Natural Resources and Historic Areas

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





**ADOPTED AMENDMENTS**

<b>EFFECTIVE DATE</b>	<b>CPA#</b>	<b>CHANGES</b>
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.