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# **Tualatin Comprehensive Plan**

[...]

## **PART II**

## **PLAN IMPLEMENTATION**

TECHNICAL MEMORANDA		
Background and Supporting Documents Adopted as part of the Comprehensive Plan		
Title	Adoption Date	Ordinance
Stormwater Master Plan	August 12, 2024	<u>1489-24</u>
Economic Opportunities Analysis	August 28, 2023	1480-23
Water Master Plan	July 10, 2023	1476-23
Housing Needs Analysis	December 14, 2020	1450-20
Parks and Recreation Master Plan	November 25, 2019	1427-19
Sewer Master Plan	November 25, 2019	1427-19
Transportation System Plan (TSP)	August 28, 2023;	1480-23;
	November 25, 2019;	1427-19;
	April 22, 2019;	1418-19;
	February 25, 2013	1354-13
Natural Resource Inventory and Local Wetlands	July 14, 1997	979-97
Inventory		
Historic Resource Technical Study and Inventory	May 24, 1993;	894-93;
	October 14, 1991	844-91
Area-Specific Concept Plans		
Basalt Creek Parks & Recreation Plan	August 12, 2024	<u>1490-24</u>
Basalt Creek Concept Plan	April 22, 2019	1418-19
Southwest Tualatin Concept Plan	April 25, 2011	1321-11
Northwest Tualatin Concept Plan	June 27, 2005	1191-05

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#### **CHAPTER 9 - PUBLIC FACILITIES AND SERVICES**

[...]

## **DRAINAGE PLAN AND SURFACE WATER MANAGEMENT STORMWATER MANAGEMENT**

The Tualatin Drainage Plan is the City's drainage plan. It was originally prepared by Robert A. Wright, Consulting Engineers in 1972 and adopted in 1975 (Ord. 280-75) and in 1979 as an element of the Tualatin Community Plan (Ord. 491-79). The Tualatin Drainage Plan is referenced in the Technical Memoranda. With the supporting technical material, the Tualatin Drainage Plan provides an overall view of the drainage system, its major problems and their solutions, and is the City's stormwater and surface water drainage policy.

The Tualatin Drainage Plan was updated in the fall of 1995 by the Hedges Creek Subbasin Plan. The HCS Plan is outlined in Chapter 1 of the HCSS Report and implements the recommended drainage and stormwater management activities and facilities. The HCS Plan relies on the technical data and analysis documented in the HCSS report. The HCSS Report and the HCS Plan identify the critical importance of the Hedges Creek Marsh to drainage, stormwater management and water quality in the subbasin. The HCS Plan provides for drainage improvements, stormwater detention requirements and a number of non-structural activities for better management of water quantity and water quality in the Hedges Creek Subbasin.

Map 14-1 is from Figure I-1 of the HCS Plan. It shows the drainage pattern revisions and drainage system improvements for the Hedges Creek Subbasin. The drainage pattern revisions and drainage system improvements shown in Map 14-1 are incorporated into the Tualatin Drainage Plan.

The HCSS Report is a comprehensive technical document that provides data and analysis of stormwater drainage in the Hedges Creek Subbasin. From an analysis of several alternatives, the report recommended specific management activities and facilities to control water quantity and quality problems associated with urban stormwater runoff in the Hedges Creek Subbasin. The HCS Plan incorporates the report's recommended activities and facilities.

The Northwest Tualatin Concept Plan 2005 identifies stormwater drainage options for the area west of Cipole Road and south of Pacific Highway 99W.

The Southwest Tualatin Concept Plan 2010 identifies stormwater drainage options for the area south of SW Tualatin-Sherwood Road and east of SW 124th Avenue, Goals and Policies.

The Stormwater Master Plan (2019) is adopted as a background document to the Comprehensive Plan as seen in Part II. Capital projects and related information is contained in the Stormwater Master Plan. The Plan supports regulatory directives under Clean Water Services (CWS).

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**Goal 9.3** Provide a plan for routing surface drainage through the City, utilizing the natural drainages where possible. Update the plan as needed with drainage studies of problem areas and to respond to changes in the drainage pattern caused by urban development.

**Policy 9.3.1** Coordinate the City's Drainage Plan and Stormwater Management regulations with the City's Floodplain District, Wetland Protection District and Natural Resource Protection Overlay District regulations, and with the plans of USA Clean Water Services and other regional, state, and federal agencies to achieve consistency among the plans.

<u>Policy 9.3.2</u> <u>Protect areas of the city with observed and/or reported instream erosion and hydromodification risk by requiring development to implement controls related to flow control.</u>

Policy 9.3.3 Increase water quality treatment throughout the City by expanding treatment area coverage through water quality retrofits and enhancing the level of treatment provided.

Continue working with state and regional agencies on surface water management and water quality Reduce sediment and other pollutants reaching the public storm and surface water system by implementing the Oregon Department of Environmental Quality (DEQ) and USA requirements for surface water management and water quality in the Tualatin River basin. Reduce soil erosion, manage surface water runoff and improve surface water quality.

**Policy 9.3.4** Identify and solve existing problems in the drainage system and plan for construction of drainage system improvements that support future development.

**Policy 9.3.5** Provide standards for surface water management and water quality by which development will be reviewed and approved. Review and update the standards as needed.

**Policy 9.3.6** Clearly indicate responsibilities for maintaining stormwater management and water quality facilities.

**Policy 9.3.7** Enforce drainage and stormwater management standards.

**Policy 9.3.8** Route stormwater runoff from the upper Hedges Creek Subbasin through the Wetland Protected Area marsh which as a wetland provides important drainage, stormwater management and water quality benefits.

**Policy 9.3.9** Protect the Wetland Protected Area marsh and its important drainage, stormwater management and water quality functions in the Hedges Creek Subbasin.

**Policy 9.3.**10 Require new development to provide onsite pollution reduction facilities when necessary to treat stormwater runoff prior to entering Hedges Creek and protect the marsh from urban stormwater pollutants.

**Policy 9.3.11** To reduce sedimentation and erosive stormwater flow volumes, require onsite stormwater detention facilities for new development in the Hedges Creek Subbasin upstream from the Wetland Protected Area marsh.

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**Policy 9.3.12** Consider opportunities to construct regional pollution reduction facilities to treat stormwater runoff prior to entering Hedges Creek and protect the marsh from urban stormwater pollutants.

Policy 9.3.13 Restrict beaver dam activity in the Wetland Protected Area marsh to retain the drainage flow through the marsh area and to reduce flooding between Teton Avenue and Tualatin Road. Implement beaver management techniques to selectively encourage/discourage beaver activity based on the characteristics of the stormwater drainage systems, topography, and vegetation.

**Policy 9.3.14** As outlined in the HCS Plan, the City will a Coordinate with Clean Water Services CWS with non-structural activities including to implement public education programs and water quality and management activity monitoring.

Policy 9.3.15 Comply with Metro's Urban Growth Management Functional Plan, Title 3.

<u>Policy 9.3.16</u> Develop and support a program for continual public water quality facility maintenance, including both routine maintenance and larger system restoration and redesign as needed.

<u>Policy 9.3.17</u> Validate and construct water quality retrofits, prioritizing project opportunities based on annual inspection efforts.

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## **Tualatin Municipal Code**

TMC 3-2-010 - Definitions.

[...]

USA means the Unified Sewerage Agency of Washington County.

## TMC 3-2-040 - Restrictions As to Use of Sanitary Sewer System.

[...]

(4) No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer:

[...]

- (k) Any waters or wastes containing phenols or other taste or odor-producing substances in such concentrations exceeding limits which may be established by <u>Clean Water Services</u> the USA-as necessary, after treatment of the composite sewage to meet the requirements of the state, federal or other public agencies of jurisdiction for such discharge to the receiving waters.
- (I) Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by <u>Clean Water Services</u> the <u>USA</u> in compliance with applicable state or federal regulations.

- (o) Industrial plants may be required to have separate collection systems; one system to be installed for customary sanitary sewerage connected directly to the City system; a second system to be installed to collect processing wastes from shop sinks, floor drains, wash stations, plating or cleaning works, and all other industrial waste sources. The second system is to discharge into an exterior concrete sump of sufficient capacity to hold at least one day's discharge from these sources and be connected to the City system only by a valved overflow. The sump shall be readily accessible for inspection and analysis by the City and <u>Clean Water Services</u> the <u>USA</u>, and only properly treated or neutralized wastes will be allowed to flow into the City system. The City reserves the right to require that City approval be secured for each incident of discharge.
- (5) The interpretation of technical provisions of this ordinance, review of plans and specifications required thereby, determination of the suitability of alternate materials and types of construction and the development of rules and regulations covering unusual conditions not inconsistent with the requirements of this ordinance shall be made by the City and, where necessary, in consultation with Clean Water Services the USA.

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## TMC 3-2-050 - Industrial Wastes.

[...]

(6) No statement contained in this article shall be construed as preventing any special agreement or arrangement between the City and <u>Clean Water Services</u> <u>USA</u> and any industrial concern whereby industrial wastes of unusual strength or character may be accepted by the City and <u>Clean Water Services</u> <u>USA</u> for treatment, subject to payment therefor by the industrial concern and subject to such terms and conditions as might be required by either agency.

#### TMC 3-5-060 - Permit Process.

(1) Applications for an Erosion Control Permit. Application for an Erosion Control Permit shall include an Erosion Control Plan which contains methods and interim facilities to be constructed or used concurrently and to be operated during construction to control erosion. The plan shall include either:

[...]

(b) Techniques and methods contained and prescribed in the Soil Erosion Control Matrix and Methods, outlined in TMC 3-5.190 or the <u>Clean Water Services' Design and Construction (D&C) Standards and Erosion Prevention and Sediment Control Planning and Design Manual Control Plans Technical Guidance Handbook, City of Portland and Unified Sewerage Agency, January, 1991.</u>

## TMC 3-5-220 - Criteria for Requiring On-Site Detention to be Constructed.

f 1

On-site facilities shall be constructed when any of the following conditions exist:

- (3) There is a site within the boundary of the development which would qualify as a regional detention site under criteria or capital plan adopted by <u>Clean Water Services</u> the <u>Unified Sewerage Agency</u>.
- (4) The site is located in the Hedges Creek Subbasin as identified in the Tualatin Drainage Stormwater Master Plan and surface water runoff from the site flows directly or indirectly into the Wetland Protected Area (WPA) as defined in TDC 71.020. Properties located within the Wetland Protection District as described in TDC 71.010, or within the portion of the

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- subbasin east of SW Tualatin Road are excepted from the on-site detention facility requirement.
- (5) The site is located in the Basalt Creek Subbasin, as identified in the Tualatin Stormwater Master Plan. Properties located in the Basalt Creek Subbasin must meet hydromodification, subject to conformance with Clean Water Services' Design and Construction (D&C) Standards and must provide permanent on-site stormwater quantity detention facilities designed to meet the 2-year, 10-year, and 25-year storm events.

### TMC 3-5-240 - On-Site Detention Design Method.

- (1) The procedure for determining the detention quantities is set forth in <u>Clean Water Services'</u>
  <u>Design and Construction (D&C) Standards or other applicable agency requirements</u> <u>Section 4.4 Retention/Detention Facility Analysis and Design, King County, Washington, Surface Water Design Manual, January, 1990, except subchapters 4.4.5 Tanks, 4.4.6 Vaults and <u>Figure 4.4.4G Permanent Surface Water Control Pond Sign</u>. This reference shall be used for procedure only. The design criteria shall be as noted herein. Engineers desiring to utilize a procedure other than that set forth herein shall obtain City approval prior to submitting calculations utilizing the proposed procedure.</u>
- (2) For single family and duplex residential subdivisions, stormwater quantity detention facilities shall be sized for the impervious areas to be created by the subdivision, including all residences on individual lots at a rate of 2,640 square feet of impervious surface area per dwelling unit, plus all roads which are assessed a surface water management monthly fee under Clean Water Services Unified Sewerage Agency rules. Such facilities shall be constructed as a part of the subdivision public improvements. Construction of a single family or duplex residence on an existing lot of record is not required to construct stormwater quantity detention facilities.
- (3) All developments other than single family and duplex, whether residential, multi-family, commercial, industrial, or other uses, the sizing of stormwater quantity detention facilities shall be based on the impervious area to be created by the development, including structures and all roads and impervious areas which are assessed a surface water management monthly fee under <u>Clean Water Services</u> <u>Unified Sewerage Agency</u> rules. Impervious surfaces shall be determined based upon building permits, construction plans, site visits or other appropriate methods deemed reliable by City.

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## **Tualatin Development Code**

## **CHAPTER 38 - SIGN REGULATIONS**

TDC 38.050. - Exempt Signs.

The following signs are exempt from the regulations of this Chapter, but may be subject to other regulations of the City.

(1) Signs authorized and installed by <u>Clean Water Services</u> the <u>Unified Sewerage Agency</u> or public utilities, such as electricity, natural gas, telephone and cable television, which are directly related to utility facilities in the public right-of-way and easements, and which aid public safety, identify the location of underground or aboveground facilities, or assist the public utility in repairing or maintaining its facilities. Signs erected for office uses, storage yards and other primary activities of the agency or company are not exempt.

## CHAPTER 72 NATURAL RESOURCE PROTECTION OVERLAY DISTRICT (NRPO)

TDC 72.056. - Vegetated Corridors of Sensitive Areas.

Lands subject to these regulations are also subject to the regulations in <u>Clean Water Services'</u> the Unified Sewage Agency's Design and Construction Standards.

#### **CHAPTER 74 PUBLIC IMPROVEMENT REQUIREMENTS**

[...]

TDC 74.630. - Storm Drainage System.

- (1) Storm drainage lines must be installed to serve each property in accordance with City standards. Storm drainage construction plans and calculations must be submitted to the City Manager for review and approval prior to construction.
- (2) The storm drainage calculations must confirm that adequate capacity exists to serve the site. The discharge from the development must be analyzed in accordance with the City's Storm and Surface Water Regulations.
- (3) If there are undeveloped properties adjacent to the proposed development site which can be served by the storm drainage system on the proposed development site, the applicant must extend storm drainage lines to the common boundary line with these properties. The lines must be sized to convey expected flows to include all future development from all up

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stream areas that will drain through the lines on the site, in accordance with the <u>adopted</u> Stormwater Master <del>Tualatin Drainage</del> Plan in TDC Chapter 14.

TDC 74.650. - Water Quality, Storm Water Detention and Erosion Control.

The applicant must comply with the water quality, stormwater detention and erosion control requirements in the <u>Tualatin Municipal Code</u> <u>Surface Water Management Ordinance</u>. If required:

- (1) On subdivision and partition development applications, prior to approval of the final plat, the applicant must arrange to construct a permanent on-site water quality facility and stormwater detention facility and submit a design and calculations indicating that the requirements of the <u>Tualatin Municipal Code</u> <u>Surface Water Management Ordinance</u> will be satisfied and obtain a Stormwater Connection Permit from Clean Water Services; or
- (2) On all other development applications, prior to issuance of any building permit, the applicant must arrange to construct a permanent on-site water quality facility and stormwater detention facility and submit a design and calculations indicating that the requirements of the <a href="Tualatin Municipal Code">Tualatin Municipal Code</a> Surface Water Management Ordinance will be met and obtain a Stormwater Connection Permit from Clean Water Services.
- (3) For on-site private and regional non-residential public facilities, the applicant must submit a stormwater facility agreement, which will include an operation and maintenance plan provided by the City, for the water quality facility for the City's review and approval. The applicant must submit an erosion control plan prior to issuance of a Public Works Permit. No construction or disturbing of the site must occur until the erosion control plan is approved by the City and the required measures are in place and approved by the City.