

March 6, 2018

Michael C. Robinson

Admitted in Oregon

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mrobinson@schwabe.com

VIA EMAIL

Mayor Dan Holladay
City of Oregon City City Commission
Oregon City City Hall
625 Center Street
Oregon City, OR 97045

RE: *James J. Nicita v. City of Oregon City*, LUBA No. 2016-045, Notice of Appellant
Judgment; Remand of Application to City of Oregon City

Dear Mayor:

This office represents the Applicant in the above matter, Historic Properties, LLC (the "Applicant"). The Oregon Land Use Board of Appeals ("LUBA") issued a "Notice of Appellant Judgment and Order On Costs" (the "Notice") on February 13, 2018. The Notice is LUBA's final opinion on the matter and states that "the appellate court decision in this case requires no change in our final opinion and order dated January 25, 2017" (**Exhibit 1**). LUBA's Notice returns jurisdiction of the Application to the City of Oregon City ("the City").

This letter requests that at the Oregon City City Commission's (the "City Commission") regularly scheduled meeting on April 4, 2018, that the City Commission remand the Application to the Oregon City Planning Commission ("the Planning Commission") for a limited *de novo* hearing to address the single basis for remand. The Oregon City Municipal Code ("the OCMC") does not require the City Commission to hold a public hearing on the remand of the Application to the Planning Commission. Further, with the exception of the single issue described below that was the basis for a remand, all other issues raised in this appeal have been finally resolved in favor of the Applicant and the City and may not be raised again. This is known as the "Law of the Case" doctrine.

LUBA's remand concerned Goal 5. LUBA held that the City must conduct an initial inquiry to determine if the new uses allowed by the Application could conflict with the Goal 5 resources and if the new uses would result in increased volume and velocity of stormwater and the possibility of increased levels of contaminants.

Accordingly, the Applicant asks that the City Commission return the Application to the Planning Commission with instructions that the Planning Commission hearing be limited to argument and evidence that are related to the Goal 5 remand issue.

Mayor Dan Holladay
March 6, 2018
Page 2

This letter is not the Applicant's letter under ORS 227.191, "Final Action Required Within 120 Days Following Remand of Final Land Use Decision." The Applicant has 180 days from the effective date of the final order to request that the City take final action on remand within one hundred twenty days of the letter. ORS 227.191(2)(a) The final date of the appellate order is February 13, 2018. The 180 day period ends on September 12, 2018. The Applicant will send the required letter under ORS 227.181 before the end of the 180 day period.

Thank you for your consideration of this request.

Sincerely,



Michael C. Robinson

MCR:gv

cc: Mr. Dan Fowler (*via email*) (*with encl.*)
Mr. Mark Foley (*via email*) (*with encl.*)
Ms. Laura Terway (*via email*) (*with encl.*)
Mr. Bruce Goldson (*via email*) (*with encl.*)
Ms. Carrie Richter (*via email*) (*with encl.*)

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1 BEFORE THE LAND USE BOARD OF APPEALS

2 OF THE STATE OF OREGON

3 JAMES J. NICITA,
4 *Petitioner,*

02/13/18 Am 10:09 LUBA

5
6 and

7
8 ELIZABETH GRASER-LINDSEY,
9 CHRISTINE KOSINSKI,
10 and PAUL EDGAR,
11 *Intervenors-Petitioners,*

12
13 vs.

14 CITY OF OREGON CITY,
15 *Respondent,*

16
17 and

18
19 HISTORIC PROPERTIES, LLC,
20 *Intervenor-Respondent.*

21
22 LUBA No. 2016-045

23
24 NOTICE OF APPELLATE JUDGMENT
25 AND ORDER ON COSTS

26
27 **APPELLATE JUDGMENT**

28 The Court of Appeals issued an opinion in *Nicita v. City of Oregon City*,
29 CA A164237, on July 6, 2017. The appellate judgment was filed on February
30 6, 2018. The appellate court decision in this case requires no change in our
31 final opinion and order dated January 25, 2017.

1 **COSTS**

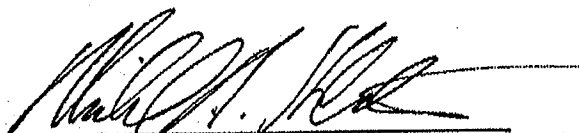
2 Petitioner, the prevailing party in this appeal, filed a cost bill requesting
3 award of the cost of his filing fee, in the amount of \$200. Petitioner also
4 requests return of his \$200 deposit for costs.

5 Respondent and intervenor-respondent do not object to petitioner's cost
6 bill.

7 Petitioner is awarded the cost of his filing fee, in the amount of \$200, to
8 be paid by respondent and intervenor-respondent. The Board shall return
9 petitioner's \$200 deposit for costs.

10 Dated this 13th day of February 2018.

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Michael A. Holstun
Board Member

Certificate of Mailing

I hereby certify that I served the foregoing Notice of Appellate Judgment and Order on Costs for LUBA No. 2016-045 on February 13, 2018, by mailing to said parties or their attorney a true copy thereof contained in a sealed envelope with postage prepaid addressed to said parties or their attorney as follows:

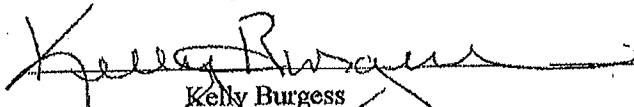
Elizabeth Graser-Lindsey
21341 S. Ferguson Road
Beavercreek, OR 97004

James J. Nicita
Attorney at Law
302 Bluff Street
Oregon City, OR 97045

Michael C. Robinson
Schwabe Williamson & Wyatt PC
1211 SW 5th Avenue Suite 1900
Portland, OR 97204

William K. Kabeiseman
Bateman Seidel
888 SW Fifth Avenue, Suite 1250
Portland, OR 97204

Dated this 13th day of February, 2018.



Kelly Burgess
Paralegal

Kristi Seyfried
Executive Support Specialist



A Division of Sisul Enterprises, Inc.

375 PORTLAND AVENUE, GLADSTONE, OREGON 97027

(503) 657-0188

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April 16, 2018

City of Oregon City
625 Center Street
Oregon City, OR 97045

ATTN: Planning Commission and Planning Staff

RE: LUBA Remand: ZC15-03 & PZ 15-01 (Historic Properties LLC)

Dear Planning Commission Chair Denise McGriff and Planning Commission:

This letter analyzes the difference in stormwater impact on Newell Creek from the most intense development allowed by the site's current zoning of R-3.5 (Medium Density Residential) and the uses allowed in the proposed zone of MUC-2 (Mixed Use Corridor) and whether the difference in the uses would negatively impact water quality in Newell Creek.

The City of Oregon City, being a part of the Metro Portland area, must meet the Environmental Protection Agency's (EPA) requirements for a National Pollutant Discharge Elimination System – Municipal Separate Storm Sewer System (MS4) Phase I (for populations greater than 100,000) Discharge Permit. In Oregon City's case, a permit between Oregon's Dept. of Environmental Quality (DEQ) and Clackamas County, the City of Oregon City and a number of other cities in the metro urban area of Clackamas County was last updated in 2012.

In response to the 2012 MS4 permit, the City of Oregon City updated its stormwater standards to comply with the MS4 permit, of which the Stormwater and Grading Design Standards, adopted by the City in 2015, was the result. All future improvements on the subject site must comply with the MS4 permit, as encompassed and addressed in the City's Stormwater and Grading Design Standards. While the City's Stormwater and Grading Design Standards does provide for some exceptions for very small scale development and areas within or near the floodplains, the size of the development for the subject site, based on the proposed zoning, will exceed those exceptions as the subject site is well outside any floodplain exception. Therefore, the development on the subject site must fully comply with the standards, or the building permits

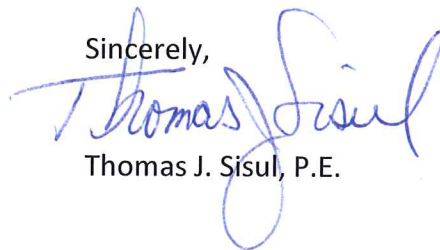
will not be issued. We also note that the requirements for water quality and water quantity control are the same, per the City's stormwater standards, for all zoning designations with respect to development or redevelopment. There is some small latitude allowed in methods used for treatment and water quantity control, to account for differing site conditions and development types, but the basic standards and requirements are the same, regardless of the type of facilities used. The water quantity discharge when designed in accordance with the City's standards, as any development on the subject site will be required to do, must be designed so that the *duration of peak flow rates from post-development conditions shall be less than or equal to the duration of peak flow rates from pre-development conditions for all peak flows between 42 percent of the 2-year peak flow rate up to the 10 year peak flow rate.*

To meet the City's standard any development on the subject site will need to construct water quality / water quantity control facilities. These facilities, will be designed in accordance with the City's BMP Sizing Tool Method or the Engineered Method, or other alternative acceptable to the City. When designed in accordance with the City's standards, the water quality facilities are designed to capture and treat 80% of the average annual rainfall runoff volume with a goal of 70% removal of total suspended solids. The water quality and water quantity facilities, are sized according to impervious area created or redeveloped.

Under R-3.5 zoning the maximum coverage (roof and pavement) permitted is 55% of the parcel. For the MUC-2 zoning, the maximum lot coverage is 90%. Therefore, for possible uses under the rezoning, that would create more impervious area (roofs or pavement), as compared to land that developed as residential subdivision, the stormwater facilities sizes will be larger as well.

Therefore, all permits and standards are required to be followed for any development to occur, assuring there will be no negative impact on Newell Creek, in terms of water quality or water quantity, based on the intensity of development on the subject site.

Sincerely,

A handwritten signature in blue ink, appearing to read "Thomas J. Sisul". The signature is fluid and cursive, with the first name "Thomas" and last name "Sisul" clearly legible. The signature is positioned above the printed name.

Thomas J. Sisul, P.E.



Environmental Technology Consultants

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Email: etc@etcEnvironmental.net

April 11, 2018

To: Ms. Denyse McGriff, Chair
Oregon City Planning Commission
698 Warner Parrott Road
Oregon City, OR 97045

RE: City of Oregon City File Nos. PZ 15-01 and ZC 15-03

Dear Oregon City Planning Commission,

I have been asked to comment on the above referenced applications, in particular the statement "The scope of this review is limited to argument and evidence related to whether the proposed amendment allows uses that could conflict with Newell Creek or any other designated Goal 5 resource on the site".

Synopsis: The proposed zone change will not have negative impacts environmental impacts on Newell Creek, for the following reasons. 1) Within the Newell Creek channel, associated wetlands and buffer area, any future development is significantly limited and regulated by Chapter 17.49 "Natural Resources Overlay District" of the Oregon City Zoning Code, as outlined and discussed in this letter. 2) Development on the remainder of the subject site, of which the zone change is proposed, must meet the water quality and quantity standards of the Oregon City Stormwater Standards as outlined in the letter by Mr. Thomas J. Sisul, P.E. dated April 16, 2018. 3) Any cut or fills within Newell Creek, or associated wetlands, must be permitted by the Oregon Dept. of State Lands and the US Corps of Engineers and must meet the regulations of other state and federal agencies through the two permitting agencies. While the proposed zone change (to mixed use corridor zoning MUC-2) will allow different uses than what is allowed under the current zoning (residential zonings R-3.5, R-6, and R-10), any future development, regardless of the zoning, must meet those protection requirements required under Chapter 17.49 and the Oregon City stormwater standards. Both of which have been put into place to specifically provide protection to Goal 5 resources, including Newell Creek, as well as those of state and federal agencies, for any permitting that may be required from such agencies.

My comments are limited to environmental issues and do not address economic, social, or energy consequences that could result from a decision to allow, limit or prohibit a conflicting use, (OAR 660-023-0010.2). Further my comments do not address new or changes to stormwater discharges into Newell Creek, as stormwater issues are addressed by Thomas Sisul, PE.

From the NICITA Third Assignment of Error:

"As part of that initial inquiry, the 23 city could consider whether the city's existing program to protect the 24 inventoried resources from the lower density residential development allowed Page 18 1 under the prior map designations is also adequate to ensure that new more 2 intensive uses will not conflict with protected resources. If a finding to that 3 effect, supported by substantial evidence, can be made, then no further inquiry 4 is needed. However, if the city's initial inquiry cannot eliminate the possibility 5 of conflicts from the new uses allowed by the

new map designations, the city must repeat any of the steps in the Goal 5 planning process that are necessary to ensure that the city's Goal 5 obligations with respect to protected resources continue to be met.^{13 8 9} We also note that in its brief, intervenor disputes petitioner's contention¹⁰ that the commercial, higher density uses made possible by the new map¹¹ designations will result in an increased volume and velocity of stormwater and¹² that the storm water will have increased levels of contaminants."

I performed a wetland delineation study on the property in 2012. My study re-delineated an expired study conducted by Peter Ryan in 2002, then working as a consultant. Since 2002, Mr. Ryan left private consulting to serve as a jurisdictional coordinator for the Department of State Lands, and in that capacity, he also reviewed and concurred with my 2012 study. These studies defined the legal boundaries of the wetlands and waterways known as Newell Creek on the properties. My study determined the boundaries of Newell Creek and some small connected wetlands where Newell Creek crossed the southern portion of the properties, more or less paralleling Beaver Creek Road. My study also surveyed the property for other Goal 5 resources, and found none meeting the criteria.

In Oregon City Goal 5 resources are defined by the Oregon City Comprehensive Plan, (OCCP). Section 5. "Open Spaces, Scenic and Historic Areas, and Natural Areas". The sections below are cited as reference:

Newell Creek Canyon is identified as an "unique and important habitat and ecological resource", (OCCP page 35).

Newell Creek and the Newell Creek Canyon are mentioned 17 times in the OCCP, including these sections identifying Newell Creek for preserving and protecting:

Goal 5.1, Open Space, (OCCP page 38).

Goal 5.2, Scenic Views and Scenic Sites, (OCCP page 38).

Section 6, Water Quality, (OCCP page 44).

Wetlands. The OCCP identifies wetlands as a Goal 5 resource: "Wetlands and their associated hydrology, soils, vegetation, and wildlife provide a wide range of valuable services to the public. Wetlands enable the City to efficiently meet a number of goals in maintaining the quality of life in Oregon City". "Important wetlands have been identified and mapped by the City and Metro in a Local Wetlands Inventory that will be the basis for protection measures through the Comprehensive Plan, implementing ordinances, and other measures.", (OCCP page 36). Newell Creek and its associated wetlands are mapped and identified on Section Map #4 in the "City of Oregon City Local Wetland Inventory", June 1999. (See the attached Figure 4).

Streams. The OCCP identifies streams as a Goal 5 resource: "Streams define the physical configuration of Oregon City and thus its land-use patterns, transportation patterns, and community functions. The Willamette and Clackamas rivers, major waterways of regional significance, border two sides of the city and create an aesthetic and recreational setting of great value to the city. Other principal streams are: Abernethy Creek and Newell Creek, tributaries of the Willamette River; these creeks create major topographic and ecologic areas within the city", (OCCP page 36).

Riparian Areas. The OCCP identifies riparian areas as a Goal 5 resource: "Policy 5.4.4, Ensure that riparian corridors along streams and rivers are conserved and restored to provide maximum ecological value to aquatic and terrestrial species, (OCCP page 40). Oregon City Chapter 17.49 defines the width of the protected riparian corridor. Chapter 17.49 extends this protection to areas surrounding wetlands as well.

Newell Creek and wetland areas are regulated by the United States Army Corps of Engineers, (USACE A.K.A., "The Corps"). In Oregon waterways and wetlands are co-managed by the Oregon Department of State Lands, and they determine what discharges are allowed within the wetlands and waterways. Stormwater is considered a discharge.

Oregon City Chapter 17.49 define and regulate a buffer area surrounding the wetlands and waterways. In Oregon City this buffer area is called the “Natural Resource Overlay District”, or NROD, and the City of Oregon City regulates and permits activities that are allowed within the NROD. The protected Goal 5 resource is then the waterways plus the wetlands plus the NROD area. I will refer to this area as “The Protected Resource” in the remainder of this letter.

660-023-0040 ESEE Decision Process

(I) Local governments shall develop a program to achieve Goal 5 for all significant resource sites based on an analysis of the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use. This rule describes four steps to be followed in conducting an ESEE analysis, as set out in detail in sections (2) through (5) of this rule. Local governments are not required to follow these steps sequentially, and some steps anticipate a return to a previous step. However, findings shall demonstrate that requirements under each of the steps have been met, regardless of the sequence followed by the local government. The ESEE analysis need not be lengthy or complex, but should enable reviewers to gain a clear understanding of the conflicts and the consequences to be expected. The steps in the standard ESEE process are as follows:

(a) Identify conflicting uses;

The current uses within the protected resource, some of which existed prior to the adoption of Chapter 17.49 and Oregon City’s Comprehensive Plan. Some of these would not be currently permissible under Chapter 17.49, and therefore would likely be discontinued with a repartition or zone change application are:

- Live stock grazing, (horses and goats currently).
- Barn for livestock.
- Garage.
- Garden area.
- Septic field (for the house 3391 Beaver Creek).
- Parking area.
- Church playground (portion).

The uses currently active that would be permissible under Chapter 17.49 with conditions are:

- Driveway access to the house at 3391 Beaver Creek Road. Although this use could remain allowed in a development scenario, the permittee intends to remove the house. Portions of the driveway will remain for access off Maple Lane Road, and possibly also for pedestrian access to riparian areas.
- Pedestrian bridge from Beaver Creek Rd to Church parking area. This will likely remain as pedestrian access as the properties are developed.
- Stormwater discharge (pipes from the commercial area on the South side of Beaver Creek discharge into Newell Creek). This use is not under any control or responsibility of the applicant.

(b) Determine the impact area;

For the purposes of this analysis, impactful uses are assumed not to overlap, and only the areas within the protected resource area were considered, although all of the identified uses also extended outside of the protected resource area:

Table 1. Determination of the Impact Area		
Areas of Impact in resource areas	SQFT	ACRES
Uses currently active that would not be permissible in areas regulated by Chapter 17.49:		
Grazing areas	19,403	0.45
Barn	611	0.01
Garage	298	0.01
Garden	2,567	0.06
Septic	658	0.02
Parking	1,033	0.02
Playground	56	0.00
TOTAL NOT PERMITTABLE	24,626	0.57
Uses currently active that would be permissible with conditions in areas regulated by Chapter 17.49:		
Driveway	3,500	0.08
Pedestrian Bridge	5,312	0.12
Stormwater	2,274	0.05
TOTAL PERMITTABLE WITH CONDITIONS	11,086	0.25
GRAND TOTAL AREA	35,712	0.82

(c) Analyze the ESEE consequences; and

Chapter 17.49.120, "Maximum disturbance allowance for highly constrained lots of record" does provide different levels of allowed encroachments into NROD areas as a function of zoning. However, none of the lots affected by this zoning change request meet the definition of a highly constrained lot of record, (Chapter 17.04.245 and 17.04.250). There are no other provisions of Chapter 17.49 where encroachments into NROD areas varies as a function of zoning. Therefore the requested action to change the zoning designation will not affect the allowed uses of the protected resource, nor does the change affect the size of the protected resource.

(d) Develop a program to achieve Goal 5.

No Goal 5 achieving program is believed to be necessary as the uses allowed and prohibited within the protected resource are not affected by this zoning change.

(2) Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site. The following shall also apply in the identification of conflicting uses:

(a) If no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. The determination that there are no conflicting uses must be based on the applicable zoning rather than ownership of the site. (Therefore, public ownership of a site does not by itself support a conclusion that there are no conflicting uses.)

The uses identified in Table 1 as “not permissible under Chapter 17.49” will be removed by the applicant should they proceed with their proposed development. I anticipate that development approvals will also condition the removals of these non-permissible existing uses.

(b) A local government may determine that one or more significant Goal 5 resource sites are conflicting uses with another significant resource site. The local government shall determine the level of protection for each significant site using the ESEE process and/or the requirements in OAR 660-023-0090 through 660-023-0230 (see 660-023-0020(1)).

No response required.

(3) Determine the impact area. Local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site.

The impact areas are identified in Table 1 and Figure 3.

(4) Analyze the ESEE consequences. Local governments shall analyze the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The analysis may address each of the identified conflicting uses, or it may address a group of similar conflicting uses. A local government may conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning. The local government may establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis. A local government may conduct a single analysis for a site containing more than one significant Goal 5 resource. The ESEE analysis must consider any applicable statewide goal or acknowledged plan requirements, including the requirements of Goal 5. The analyses of the ESEE consequences shall be adopted either as part of the plan or as a land use regulation.

No response required.

(5) Develop a program to achieve Goal 5. Local governments shall determine whether to allow, limit, or prohibit identified conflicting uses for significant resource sites. This decision shall be based upon and supported by the ESEE analysis. A decision to prohibit or limit conflicting uses protects a resource site. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5, provided it is supported by the ESEE analysis. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:

(a) A local government may decide that a significant resource site is of such importance compared to the conflicting uses, and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be prohibited.

The prohibited uses identified in Table 1 will be removed from the protected resource. This will eliminate the Goal 5 conflicting uses.

(b) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.

This decision will not be required as the conflicting uses will be removed from the protected resource.

(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.

The proposed zone changes the zoning of 10 parcels from their current zone to MUC-2. Three of the parcels have identified Goal 5 protected resources present, their current and proposed zone are shown in Table 2, below:

Table 2. Current and proposed zoning of properties with identified Goal 5 resources present.			
Lot #	Current Zoning	Proposed Zoning	Changes in allowed and disallowed uses that affect the protected resource:
TL 1201`	R-3.5	MUC-2	None
TL 1300	R-6	MUC-2	None
TL 3300	R-10	MUC-2	None
The full text of the zoning ordinances are shown in Appendix 2.			

Decision (c) will not be required as the conflicting uses will be removed from the protected resource, and because the changes in zoning designations do not affect the allowed or disallowed uses in the protected resource areas.

Stormwater. The increase in density and impervious surfaces that will result from the rezoning and redevelopment proposed does have the potential to increase the surge of stormwater sent to Newell Creek during rain events, and also the potential to increase pollutants entering the stream. This is a well-documented effect of urbanization. However, as discussed in Tom Sisul's letter of April 16, 2018, RE: "LUBA Remand: ZC15-03 & PZ 15-01 (Historic Properties LLC)", these effects are mitigated by the adoption and implementation of the 2012 MS4 permit that requires "All future improvements on the subject site must comply with the MS4 permit, as encompassed and addressed in the City's Stormwater and Grading Design Standards. While the City's Stormwater and Grading Design Standards does provide for some exceptions for very small-scale development and areas within or near the floodplains, the size of the development for the subject site, based on the proposed zoning, will exceed those exceptions as the subject site is well outside any floodplain exception. Therefore, the development on the subject site must fully comply with the standards, or the building permits will not be issued. We also note that the requirements for water quality and water quantity control are the same, per the City's stormwater standards, for all zoning designations with respect to development or redevelopment", (Tom Sisul, 2018).

Summary. In addressing OAR 660-023-0030 and OAR 66-023-0040 I note that Newell Creek and the connected wetlands will be protected by Oregon City's chapter 17.49 that define Oregon City's Natural Resources Overlay District, (NROD). The NROD buffer and other protections are determined by Oregon City to adequately protect Goal 5 water resources. Newell Creek is determined to have perennial flows and is above reaches accessible to anadromous fish. It therefore is an "All other protected water features" as defined in Oregon City Table 17.49.110. The buffers will be 50FT beyond the 25% slope break, and so in this case will define buffers of no less than 50FT and up to 100FT wide.

It is the opinion of Environmental Technology Consultants that these protections afforded by Oregon City's Chapter 17.49 will adequately address OAR 660-023-0010, potential conflicting uses resulting from the proposed zone changes, and future developments that comply with Chapter 17.49, will not adversely affect the Goal 5 resources.

Conclusion. I believe there is a strong argument that the proposed redevelopment will actually improve the water quality Newell Creek. First, livestock, vehicles, and septic systems will be removed from the protected resource area. Second, and probably more important, the redevelopment will remove about 6 acres of buildings, roads and parking areas that do not have stormwater treatment, and replace them with structures that conform to current standards. This improvement was not discussed previously because it is mostly outside of the Goal 5 resource area. But it may well be the most significant effect the project will have on water quality.

Sincerely,

John McConnaughey

John McConnaughey, PWS
Wetland Scientist



Attachments:

Resume of John McConnaughey

Appendix 1: Figures:

Appendix 2: Oregon City Chapter 17.49 (NROD)

Appendix 3: Oregon City Zones

John McConnaughey
Professional Wetland Scientist (PWS #002009)
Fisheries Scientist

John McConnaughey is the Senior Wetland Scientist for Environmental Technology Consultants. He has 30 years experience working with wetlands, fisheries and fish habitat issues in the Northwest, Alaska and the South Pacific. He is skilled in sampling design, salmon life history analysis, habitat utilization, and analysis of salmon recovery issues.



Mr. McConnaughey has 10 years experience working on wetland permit issues in SW Washington and NW Oregon. In 2010 he completed a 5 year internship and certification program to become a registered Professional Wetland Scientist with the Society of Wetland Scientists. He has experience working on projects in most of the 36 Federal, State, County and City jurisdictions in the area.

His experience is diverse. Before coming to ETC, he served as a member of the Management Implementation Planning Team, (MIPT), an interagency team tasked to study the effects of a salmon supplementation project in the Yakima River in Central Washington. He also led a project to examine smolt passage and survival through a irrigation diversion facility. He has been a member of interagency and international scientific teams to study and recommend policy on commercial and recreational fisheries.

He has project and administrative experience; as the lead biologist on 9 fisheries research studies, as the manager of a giant clam hatchery, and as an analyst for the Alaska Dept of Fish and Game. He is proficient with statistical and data base software, and uses analytical skills to provide reports for agencies, legislators and publication.

**Degrees and
Certificates:**

M.S. (Fisheries Science), University of Alaska Southeast (1984)
B.S. (Biology), University of Oregon (1977)
Professional Certificate of Completion in Wetland Delineation, PSU (2009)
Commercial Pesticide Applicator license (for herbicide use in sensitive areas)
Wetland Delineation Training (PSU 2008 - 2009)
Fluvial & Lacustrine Systems (Geomax 1999)
Research SCUBA Diving (UASE 1984)

**Specialized
courses:**

Appendix 1 - Figures

Figure 1 – Protected Resource Areas

Figure 2 – Proposed Zone Change

Figure 3 – Existing Impacts to the Protected Resource

Figure 4 – Local Wetland Inventory Map with Requested Zone Change Area



0 25 50 100
Feet
1:1200

PRELIMINARY NROD BOUNDARY

25% SLOPE BREAK PRESUMED
TO FOLLOW BLACKBERRIES IN
THIS SECTION. MAY BE
REVISED WHEN TOPO IS
AVAILABLE FOR THIS AREA.

25% SLOPE BREAK.
NROD EXTENDS 50FT
BEYOND THIS LINE

FILL SLOPE, RETAINING WALL
AND DRIVEWAY ARE AN
"EXISTING PHYSICAL BARRIER"
PER 17.49.255.B.6. NROD DOES
NOT PROJECT THROUGH THE
BARRIER.

NROD DOES NOT PROJECT
ACROSS ROADWAYS
CONNECTED TO CITY STORM
SEWER SYSTEM, (17.49.255.B.6)

SLOPE BREAK IS EDGE
OF WETLAND IN THIS
SECTION.



environmental
technology
consultants

PO Box 821185
Vancouver, WA 98682
360-696-4403

PROTECTED RESOURCE AREA
NROD PRELIMINARY BOUNDARY DETERMINATION
PER TABLE 17.49.100 FOR A RESOURCE DESCRIBED AS "ALL
OTHER PROTECTED WATER FEATURES"

HILLTOP MASTER PLAN
HISTORIC PROPERTIES, LLC
1300 ST JOHN ADAMS ST, SUITE 100
OREGON CITY, OR 97045

Apr 20, 2018

SHEET

N



0 50 100 200
1:2307.06 Feet

Hwy 213

Maplelane Ct

Maplelane Rd

Comp Plan and
Zone Change
Request Area
Boundary

TL 1201

TL 1400

TL 1300

TL 1500

TL 1600

TL 6000

TL 3300

Beavercreek Rd

Maplelane Rd

Maplelane Rd

Thayer Rd

Thayer Ct



environmental
technology
consultants

PO Box 821185
Vancouver, WA 98682
360-696-4403

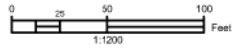
CPA-ZC BOUNDARY AREA AND TAX LOT
NUMBERS OF PARCELS INVOLVED

HILLTOP MASTER PLAN
HISTORIC PROPERTIES, LLC
1300 ST JOHN ADAMS ST, SUITE 100
OREGON CITY, OR 97045

Notes

Apr 20, 2018

SHEET
N3



LEGEND



CONFLICTING USE
IMPACT TO THE
PROTECTED RESOURCE

PLAYGROUND
56 SQFT

STORMWATER
2,274 SQFT

PEDESTRIAN
BRIDGE 5,312 SQFT

PARKING
1,033 SQFT

PASTURE 677
SQFT

BARN 611
SQFT

PASTURE
1,067 SQFT

DRIVEWAY
3,500 SQFT

PASTURE
9,122 SQFT

PASTURE
8,537 SQFT

GARAGE
298 SQFT

SEPTIC
658 SQFT

GARDEN
2,334 SQFT



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EXISTING CONFLICTING USES IN THE
PROTECTED RESOURCE AREA

HILLTOP MASTER PLAN
HISTORIC PROPERTIES, LLC
1300 ST JOHN ADAMS ST, SUITE 100
OREGON CITY, OR 97045

Apr 20, 2018

SHEET

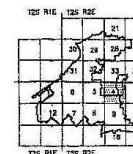
N3

T 3S R 2E Section 04

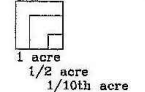
CITY OF OREGON CITY LOCAL WETLAND INVENTORY

LEGEND

- Urban Growth Boundary
- Wetland
- AC2 Wetland label
- Riparian label
- Sample site
- DSL DET wetland
- DSL label
- Mitigation wetland
- Site access not granted
- Stream



Wetland acreage



0 400 800
FEET

JUNE
1999

WETLAND INFORMATION IS SUBJECT TO CHANGE

This map is for planning purposes only. Mapped wetland and riparian boundaries were not flagged or surveyed (unless noted as a delineation study). Boundaries for on-site verified wetlands are accurate to within 25'. There may be exceptions or unmapped wetlands subject to regulation. In all cases, actual field conditions determine wetland boundaries. If site alteration work is proposed, you are advised to contact the Oregon Division of State Lands or the U.S. Army Corps of Engineers with regulatory questions. This study was funded by an Oregon Department of Land Conservation and Development periodic review planning grant.

City of Oregon City

320 Warner Milne Road
Oregon City, Oregon 97045

SHAPIRO

CPA-ZC
BOUNDARY
AREA

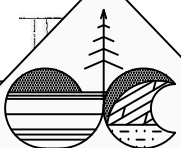
1999 LOCAL WETLAND INVENTORY SHOWING STREAMS AND
WETLAND ADOPTED AS GOAL 5 RESOURCES BY OREGON CITY'S
2004 COMPREHENSIVE PLAN

HILLTOP MASTER PLAN
HISTORIC PROPERTIES, LLC
1300 ST JOHN ADAMS ST, SUITE 100
OREGON CITY, OR 97045

Apr 20, 2018

SHEET

N4



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Appendix 2 – Chapter 17.49

Oregon City Chapter 17.49, “Natural Resources Overlay District”, or NROD. Document downloaded from <https://www.orcity.org/planning/oregon-city-municipal-code> on 4/17/2018.

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

Footnotes:

--- (25) ---

Editor's note— Ord. No. 08-1014, adopted July 1, 2009, repealed Chapter 17.49 in its entirety and enacted new provisions to read as herein set out. Prior to amendment, Chapter 17.49 pertained to WR Water Quality Resources Area Overlay District. See Ordinance Disposition List for derivation.

17.49.[0]10 - Purpose.

The Natural Resource Overlay District designation provides a framework for protection of Metro Titles 3 and 13 lands, and Statewide Planning Goal 5 resources within Oregon City. The Natural Resource Overlay District (NROD) implements the Oregon City Comprehensive Plan Natural Resource Goals and Policies, as well as Federal Clean Water Act requirements for shading of streams and reduction of water temperatures, and the recommendations of the Metro ESEE Analysis. It is intended to resolve conflicts between development and conservation of habitat, stream corridors, wetlands, and floodplains identified in the city's maps. The NROD contributes to the following functional values:

- A. Protect and restore streams and riparian areas for their ecologic functions and as an open space amenity for the community.
- B. Protect floodplains and wetlands, and restore them for improved hydrology, flood protection, aquifer recharge, and habitat functions.
- C. Protect upland habitats, and enhance connections between upland and riparian habitat.
- D. Maintain and enhance water quality and control erosion and sedimentation through the revegetation of disturbed sites and by placing limits on construction, impervious surfaces, and pollutant discharges.
- E. Conserve scenic, recreational, and educational values of significant natural resources.

The NROD ecological functions listed above are planned for integration with existing neighborhoods and new residential and commercial developments. The long-term goal of the NROD is to restore and enhance stream corridors, wetlands, and forests to more natural vegetated conditions, recognizing that existing homes and other existing uses will continue in the district. This chapter does not regulate the development within the identified water resource. Separate permits from the Division of State Lands and the Army Corp of Engineers may be required for work within a stream or wetland.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

General

17.49.020 - NROD identifying documents.

- A. The NROD protects as one connected system the habitats and associated functions of the streams, riparian corridors, wetlands and the regulated upland habitats found in Oregon City. These habitats and functions are described in the following documents upon which the NROD is based:
 - 1. The 1999 Oregon City Local Wetland Inventory.
 - 2. The Oregon City Water Quality Resource Area Map (Ord. 99-1013).
 - 3. 2004 Oregon City slope data and mapping (LIDAR).
 - 4. Metro Regionally Significant Habitat Map (Aerial Photos taken 2002).
 - 5. National Wetland Inventory (published 1992).
 - 6. Beaver Creek Road Concept Plan (adopted September 2008).
 - 7. Park Place Concept Plan (adopted April 2008).

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

The NROD provisions apply only to properties within the NROD as shown on the NROD Map, as amended.

The intent of these regulations is to provide applicants the ability to choose a clear and objective review process or a discretionary review process. The NROD provisions do not affect existing uses and development, or the normal maintenance of existing structures, driveways/parking areas, public facilities, farmland and landscaped areas. New public facilities such as recreation trails, planned road and utility line crossings and stormwater facilities, are allowed within the overlay district under prescribed conditions as described in Section 17.49.090. In addition, provisions to allow a limited portion of the NROD to be developed on existing lots of record that are entirely or mostly covered by the NROD ("highly constrained") are described in Section 17.49.120.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Editor's note— Ord. No. 10-1003, § 1(Exh. 1), adopted July 7, 2010, renamed section 17.49.020 from "How the NROD works" to "NROD identifying documents."

17.49.[0]30 - Map as reference.

This chapter applies to all development within the Natural Resources Overlay District as shown on the NROD Map, which is a regulatory boundary mapped ten feet beyond the required vegetated corridor width specified in section 17.49.110. The mapped NROD boundary is based on a GIS-supported application of the adopted documents, plans and maps listed in Sections 17.49.020A.1.—17.19.020A.8., however the adopted map may not indicate the true location of protected features. Notwithstanding changing field conditions or updated mapping approved by the city (and processed as a Type I Verification per OCMC 17.49.255), the applicant may choose to either accept the adopted NROD boundary or provide a verifiable delineation of the true location of the natural resource feature pursuant to the Type I or Type II procedure in accordance with this chapter. The NROD boundary shall be shown on all development permit applications and its location shall be verified in the field before development activity (including grading) commences. The official NROD map can only be amended by the city commission. Verification of the map shall be processed pursuant to Section 17.49.250.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.[0]35 - Addition of wetlands to map following adoption.

The NROD boundary shall be expanded to include a wetland identified during the course of a development permit review if it is within or partially within the mapped NROD boundary and meets the State of Oregon's definition of a "Locally Significant Wetland". In such cases the entire wetland and its required vegetated corridor as defined in Table 17.49.110 shall be regulated pursuant to the standards of this chapter. The NROD boundary shall be added to the NROD map by the community development director after the development permit becomes final.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.[0]40 - NROD permit.

An NROD permit is required for those uses regulated under Section 17.49.90, Uses Allowed under Prescribed Conditions. An NROD permit shall be processed under the Type II development permit procedure, unless an adjustment of standards pursuant to Section 17.49.200 is requested or the application is being processed in conjunction with a concurrent application or action requiring a Type III or Type IV development permit. Applications for development on properties affected by the NROD shall delineate or verify the exact location of the NROD as part of a Type I or II development review process unless exempted pursuant to section 17.40.080.

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.[0]50 - Emergencies.

The provisions of this ordinance do not apply to work necessary to protect, repair, maintain, or replace existing structures, utility facilities, roadways, driveways, accessory uses and exterior improvements in response to emergencies. After the emergency has passed, any disturbed native vegetation areas shall be replanted with similar vegetation found in the Oregon City Native Plant List pursuant to the mitigation standards of Section 17.49.180. For purposes of this section emergency shall mean any man-made or natural event or circumstance causing or threatening loss of life, injury to person or property, and includes, but is not limited to fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation disruptions, and disease.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.[0]60 - Consistency and relationship to other regulations.

- A. Where the provisions of the NROD are less restrictive or conflict with comparable provisions of the Oregon City Municipal Code, other City requirements, regional, state or federal law, the provisions that provides the greater protection of the resource shall govern.
- B. Compliance with Federal and State Requirements.
 - a. If the proposed development requires the approval of any other governmental agency, such as the Division of State Lands or the U.S. Army Corps of Engineers, the applicant shall make application for such approval prior to or simultaneously with the submittal of its development application to the City. The planning division shall coordinate City approvals with those of other agencies to the extent necessary and feasible. Any permit issued by the City pursuant to this chapter shall not become valid until other agency approvals have been obtained or those agencies indicate that such approvals are not required.
 - b. The requirements of this chapter apply only to areas within the NROD and to locally significant wetlands that may be added to the boundary during the course of development review pursuant to Section 17.49.035. If, in the course of a development review, evidence suggests that a property outside the NROD may contain a wetland or other protected water resource, the provisions of this chapter shall not be applied to that development review. However, the omission shall not excuse the applicant from satisfying any state and federal wetland requirements which are otherwise applicable. Those requirements apply in addition to, and apart from the requirements of the City's comprehensive plan and this code.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Prohibited, Exempted and Regulated Uses

17.49.[0]70 - Prohibited uses.

The following development and activities are not allowed within the NROD:

- A. Any new gardens, lawns, structures, development, other than those allowed outright (exempted) by the NROD or that is part of a regulated use that is approved under prescribed conditions. Note: Gardens and lawns within the NROD that existed prior to the time the overlay district was applied to a subject property are allowed to continue but cannot expand further into the overlay district.
- B. New lots that would have their buildable areas for new development within the NROD are prohibited.

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

- C. The dumping of materials of any kind is prohibited except for placement of fill as provided in subsection D. below. The outside storage of materials of any kind is prohibited unless they existed before the overlay district was applied to a subject property. Uncontained areas of hazardous materials as defined by the Oregon Department of Environmental Quality (ORS 466.005) are also prohibited.
- D. Grading, the placement of fill in amounts greater than ten cubic yards, or any other activity that results in the removal of more than ten percent of the existing native vegetation on any lot within the NROD is prohibited, unless part of an approved development activity.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.[0]80 - Uses allowed outright (exempted).

The following uses are allowed within the NROD and do not require the issuance of an NROD permit:

- A. Stream, wetland, riparian, and upland restoration or enhancement projects as authorized by the city.
- B. Farming practices as defined in ORS 215.203 and farm uses, excluding buildings and structures, as defined in ORS 215.203.
- C. Utility service using a single utility pole or where no more than one hundred square feet of ground surface is disturbed outside of the top-of-bank of water bodies and where the disturbed area is restored to the pre-construction conditions.
- D. Boundary and topographic surveys leaving no cut scars greater than three inches in diameter on live parts of native plants listed in the Oregon City Native Plant List.
- E. Soil tests, borings, test pits, monitor well installations, and other minor excavations necessary for geotechnical, geological or environmental investigation, provided that disturbed areas are restored to pre-existing conditions as approved by the community development director.
- F. Trails meeting all of the following:
 - 1. Construction shall take place between May 1 and October 30 with hand held equipment;
 - 2. Widths shall not exceed forty-eight inches and trail grade shall not exceed twenty percent;
 - 3. Construction shall leave no scars greater than three inches in diameter on live parts of native plants;
 - 4. Located no closer than twenty-five feet to a wetland or the top of banks of a perennial stream or ten feet of an intermittent stream;
 - 5. No impervious surfaces; and
 - 6. No native trees greater than one-inch in diameter may be removed or cut, unless replaced with an equal number of native trees of at least two-inch diameter and planted within ten feet of the trail.
- G. Land divisions provided they meet the following standards, and indicate the following on the final plat:
 - 1. Lots shall have their building sites (or buildable areas) entirely located at least five feet from the NROD boundary shown on the city's adopted NROD map. For the purpose of this subparagraph, "building site" means an area of at least three thousand five hundred square feet with minimum dimensions of forty feet wide by forty feet deep;
 - 2. All public and private utilities (including water lines, sewer lines or drain fields, and stormwater disposal facilities) are located outside the NROD;

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

3. Streets, driveways and parking areas where all pavement shall be located at least ten feet from the NROD; and
4. The NROD portions of all lots are protected by:
 - a. A conservation easement; or
 - b. A lot or tract created and dedicated solely for unimproved open space or conservation purposes.
- H. Site Plan and Design Review applications where all new construction is located outside of the NROD boundary shown on the city's adopted NROD map, and the NROD area is protected by a conservation easement approved in form by the city.
- I. Routine repair and maintenance of existing structures, roadways, driveways and utilities.
- J. Replacement, additions, alterations and rehabilitation of existing structures, roadways, utilities, etc., where the ground level impervious surface area is not increased.
- K. Measures mandated by the City of Oregon City to remove or abate nuisances or hazardous conditions.
- L. Planting of native vegetation and the removal of non-native, invasive vegetation (as identified on the Oregon City Native Plant List), and removal of refuse and fill, provided that:
 1. All work is done using hand-held equipment;
 2. No existing native vegetation is disturbed or removed; and
 3. All work occurs outside of wetlands and the top-of-bank of streams.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.[0]90 - Uses allowed under prescribed conditions.

The following uses within the NROD are subject to the applicable standards listed in Sections 17.49.100 through 17.49.190 pursuant to a Type II process:

- A. Alteration to existing structures within the NROD when not exempted by Section 17.49.080, subject to Section 17.49.130.
- B. A residence on a highly constrained vacant lot of record that has less than three thousand square feet of buildable area, with minimum dimensions of fifty feet by fifty feet, remaining outside the NROD portion of the property, subject to the maximum disturbance allowance prescribed in subsection 17.49.120.A.
- C. A land division that would create a new lot for an existing residence currently within the NROD, subject to Section 17.49.160.
- D. Land divisions when not exempted by Section 17.49.080, subject to the applicable standards of Section 17.49.160.
- E. Trails/pedestrian paths when not exempted by Section 17.49.080, subject to Section 17.49.170 (for trails) or Section 17.49.150 (for paved pedestrian paths).
- F. New roadways, bridges/creek crossings, utilities or alterations to such facilities when not exempted by Section 17.49.080.
- G. Roads, bridges/creek crossings Subject to Section 17.49.150.
- H. Utility lines subject to Section 17.49.140.
- I. Stormwater detention or pre-treatment facilities subject to Section 17.49.155.

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

- J. Institutional, industrial or commercial development on a vacant lot of record situated in an area designated for such use that has more than seventy-five percent of its area covered by the NROD, subject to subsection 17.49.120B.
- K. City, county and state capital improvement projects, including sanitary sewer, water and storm water facilities, water stations, and parks and recreation projects.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Development Standards

17.49.100 - General development standards.

The following standards apply to all Uses Allowed under Prescribed Conditions within the NROD with the exception of rights of ways (subject to Section 17.49.150), trails (subject to Section 17.49.170), utility lines (subject to Section 17.49.140), land divisions (subject to Section 17.49.160), and mitigation projects (subject to Section 17.49.180 or 17.49.190):

- A. Native trees may be removed only if they occur within ten feet of any proposed structures or within five feet of new driveways or if deemed not wind-safe by a certified arborist. Trees listed on the Oregon City Nuisance Plant List or Prohibited Plant List are exempt from this standard and may be removed. A protective covenant shall be required for any native trees that remain;
- B. The community development director may allow the landscaping requirements of the base zone, other than landscaping required for parking lots, to be met by preserving, restoring and permanently protecting habitat on development sites in the Natural Resource Overlay District.
- C. All vegetation planted in the NROD shall be native and listed on the Oregon City Native Plant List;
- D. Grading is subject to installation of erosion control measures required by the City of Oregon;
- E. The minimum front, street, or garage setbacks of the base zone may be reduced to any distance between the base zone minimum and zero in order to minimize the disturbance area within the NROD portion of the lot;
- F. Any maximum required setback in any zone, such as for multi-family, commercial or institutional development, may be increased to any distance between the maximum and the distance necessary to minimize the disturbance area within the NROD portion of the lot;
- G. Fences are allowed only within the disturbance area;
- H. Incandescent lights exceeding two hundred watts (or other light types exceeding the brightness of a two hundred watt incandescent light) shall be placed or shielded so that they do not shine directly into resource areas;
- I. If development will occur within the one hundred-year floodplain, the FEMA floodplain standards of Chapter 17.42 shall be met; and
- J. Mitigation of impacts to the regulated buffer is required, subject to Section 17.49.180 or 17.49.190.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.110 - Width of vegetated corridor.

- A. Calculation of Vegetated Corridor Width within City Limits. The NROD consists of a vegetated corridor measured from the top of bank or edge of a protected habitat or water feature. The minimum required width is the amount of buffer required on each side of a stream, or on all sides of a feature if non-

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

linear. The width of the vegetated corridor necessary to adequately protect the habitat or water feature is specified in Table 17.49.110.

Table 17.49.110

Protected Water Feature Type (see definitions)	Slope Adjacent to Protected Water Feature	Starting Point for Measurements from Water Feature	Width of Vegetated Corridor (see Note 1)
Anadromous fish-bearing streams	Any slope	• Edge of bankfull flow	200 feet
Intermittent streams with slopes less than 25 percent and which drain less than 100 acres	< 25 percent	• Edge of bankfull flow	15 feet
All other protected water features	< 25 percent	• Edge of bankfull flow • Delineated edge of Title 3 wetland	50 feet
	≥25 percent for 150 feet or more (see Note 2)		200 feet
	≥25 percent for less than 150 feet (see Note 2)		Distance from starting point of measurement to top of ravine (break in ≥25 percent slope) (See Note 3) plus 50 feet.

Notes:

1. Required width (measured horizontally) of vegetated corridor unless reduced pursuant to the provisions of Section 17.49.050(I).
2. Vegetated corridors in excess of fifty feet apply on steep slopes only in the uphill direction from the protected water feature.
3. Where the protected water feature is confined by a ravine or gully, the top of the ravine is the break in the ≥25 percent slope.

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

- B. Habitat Areas within City Parks. For habitat and water features identified by Metro as regionally significant which are located within city parks, the NROD Boundary shall correspond to the Metro Regionally Significant Habitat Map.
- C. Habitat Areas outside city limit/within UGB. For habitat and water features identified by Metro as regionally significant which are located outside of the city limits as of the date of adoption of this ordinance, the minimum corridor width from any non-anadromous fish bearing stream or wetland shall be fifty feet.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.120 - Maximum disturbance allowance for highly constrained lots of record.

In addition to the General Development Standards of Section 17.49.100, the following standards apply to a vacant lot of record that is highly constrained by the NROD, per subsections 17.49.90(B) and 17.49.90(F):

- A. Standard for Residential Development. In the NROD where the underlying zone district is zoned Residential (R-10, R-8, R-6, R-5, R-3.5): the maximum disturbance area allowed for new residential development within the NROD area of the lot is three thousand square feet.
- B. Standard for all developments not located in R-10, R-8, R-6, R-5, and R-3.5. For all other underlying zone districts, including R-2 multifamily, the maximum disturbance area allowed for a vacant, constrained lot of record development within the NROD is that square footage which when added to the square footage of the lot lying outside the NROD portion equals twenty-five percent of the total lot area.
 - [1] Lots that are entirely covered by the NROD will be allowed to develop twenty-five percent of their area.
 - [1] Note: This can be determined by (1) Multiplying the total square footage of the lot by .25; (2) Subtracting from that amount the square footage of the lot that is located outside the NROD; (3) The result is the maximum square footage of disturbance to be allowed in the NROD portion of the lot. If the result is < or = to 0, no disturbance is permitted and the building shall be located outside of the boundary.
- C. In all areas of Oregon City, the disturbance area of a vacant, highly constrained lot of record within the NROD shall be set back at least fifty feet from the top of bank on Abernethy Creek, Newell Creek, or Livesay Creek or twenty-five feet from the top of bank of any tributary of the aforementioned Creeks, other water body, or from the delineated edge of a wetland located within the NROD area.
- D. If the highly constrained lot of record cannot comply with the above standards, a maximum one thousand five hundred square foot disturbance within the NROD area may be allowed.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.130 - Existing development standards.

In addition to the General Development Standards of Section 17.49.100, the following standards apply to alterations and additions to existing development within the NROD, except for trails, rights of way, utility lines, land divisions and mitigation projects. Replacement, additions, alterations and rehabilitation of existing structures, roadways, utilities, etc., where the ground level impervious surface area is not increased are exempt from review pursuant to Section 17.49.080J. As of June 1, 2010, applicants for alterations and additions to existing development that are not exempt pursuant to Section 17.49.080J. shall submit a Type II or Type III application pursuant to this section. The application shall include a site plan which delineates a permanent disturbance area that includes all existing buildings, parking and loading areas, paved or

APPENDIX 2 - OREGON CITY CHAPTER 17.49, NATURAL RESOURCES OVERLAY DISTRICT (NROD)

graveled areas, patios and decks. The same delineated disturbance area shall be shown on every subsequent proposal for alterations and additions meeting this standard.

- A. The following alterations and additions to existing development are permitted subject to the following standards.
 - 1. Alterations or additions that cumulatively total up to a maximum of five hundred square feet of additional disturbance area after June 1, 2010 shall be processed as a Type II permit pursuant to this chapter. The new disturbance area shall not encroach closer than one-half of the distance of the regulated NROD buffer.
 - 2. Alterations or additions that cumulatively exceed five hundred square feet of additional disturbance area or which propose encroachment closer than one-half of the distance of the regulated NROD buffer after June 1, 2010 shall be processed as a Type III permit pursuant to Section 17.49.200, Adjustment from Standards.
- B. Mitigation is required, subject to Section 17.49.180 or 17.49.190.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.140 - Standards for utility lines.

The following standards apply to new utilities, private connections to existing or new utility lines, and upgrades of existing utility lines within the NROD:

- A. The disturbance area for private connections to utility lines shall be no greater than ten feet wide;
- B. The disturbance area for the upgrade of existing utility lines shall be no greater than fifteen feet wide;
- C. New utility lines shall be within the right-of-way, unless reviewed under subsection D.
- D. New utility lines that cross above or underneath a drainage way, wetland, stream, or ravine within the NROD but outside of a right-of-way shall be processed as a Type III permit pursuant to Section 17.49.200, Adjustment from Standards.
- E. No fill or excavation is allowed within the ordinary high water mark of a stream without the approval of the Division of State Lands and/or the U.S. Army Corps of Engineers;
- F. The Division of State Lands must approve any work that requires excavation or fill in a wetland;
- G. Native trees more than ten inches in diameter shall not be removed unless it is shown that there are no feasible alternatives; and
- H. Each six to ten-inch diameter native tree cut shall be replaced at a ratio of three trees for each one removed. Each eleven-inch or greater diameter native tree shall be replaced at a ratio of five trees for each removed. The replacement trees shall be a minimum one-half inch diameter and selected from the Oregon City Native Plant List. All trees shall be planted on the applicant's site. Where a utility line is approximately parallel with the stream channel, at least half of the replacement trees shall be planted between the utility line and the stream channel.
- I. Mitigation is required, subject to Section 17.49.180 or 17.49.190.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.150 - Standards for vehicular or pedestrian paths and roads.

The following standards apply to public rights-of-way and private roads within the NROD, including roads, bridges/stream crossings, driveways and pedestrian paths with impervious surfaces:

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- A. Stream crossings shall be limited to the minimum number and width necessary to ensure safe and convenient pedestrian, bicycle and vehicle connectivity, and shall cross the stream at an angle as close to perpendicular to the stream channel as practicable. Bridges shall be used instead of culverts wherever practicable.
- B. Where the right-of-way or private road crosses a stream the crossing shall be by bridge or a bottomless culvert;
- C. No fill or excavation shall occur within the ordinary high water mark of a stream without the approval of the Division of State Lands and/or the U.S. Army Corps of Engineers;
- D. If the Oregon Department of State Lands (DSL) has jurisdiction over any work that requires excavation or fill in a wetland, required permits or authorization shall be obtained from DSL prior to release of a grading permit;
- E. Any work that will take place within the banks of a stream shall be conducted between June 1 and August 31, or shall be approved by the Oregon Department of Fish and Wildlife; and
- F. Mitigation is required, subject to Section 17.49.180 or 17.49.190.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Editor's note— Ord. No. 10-1003, § 1(Exh. 1), adopted July 7, 2010, renamed section 17.49.150 from "Standards for rights-of-ways" to "Standards for vehicular or pedestrian paths and roads."

17.49.155 - Standards for stormwater facilities.

Approved facilities that infiltrate stormwater on-site in accordance with Public Works Low-Impact Development standards, including but not limited to; vegetated swales, rain gardens, vegetated filter strips, and vegetated infiltration basins, and their associated piping, may be placed within the NROD boundary pursuant to the following standards:

- A. The forest canopy within the driplines of existing trees shall not be disturbed.
- B. Only vegetation from the Oregon City Native Plant List shall be planted within these facilities.
- C. Mitigation is required, subject to Sections 17.49.180 or 17.49.190.
- D. The storm water facility may encroach up to one-half the distance of the NROD corridor.
- E. The stormwater facility shall not impact more than one thousand square feet of the NROD. Impacts greater than one thousand square feet shall be process as a Type III application.
- F. The community development director may allow landscaping requirements of the base zone, other than landscaping required for parking lots, to be met by preserving, restoring and permanently protecting habitat on development sites within the Natural Resource Overlay District.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.160 - Standards for land divisions.

Other than those land divisions exempted by Section 17.49.070G., new residential lots created within the NROD shall conform to the following standards.

- A. For a lot for an existing residence currently within the NROD. This type of lot is allowed within the NROD for a residence that existed before the NROD was applied to a subject property. A new lot for an existing house may be created through a partition or subdivision process when all of the following are met:

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1. There is an existing house on the site that is entirely within the NROD area; and
2. The existing house will remain; and
3. The new lot is no larger than required to contain the house, minimum required side setbacks, garage, driveway and a twenty-foot deep rear yard, with the remaining NROD area beyond that point protected by a conservation easement, or by dedicating a conservation tract or public open space.

B. Subdivisions.

1. Prior to preliminary plat approval, the NROD area shall be shown either as a separate tract or part of a larger tract that meets the requirements of subsection 3. of this section, which shall not be a part of any parcel used for construction of a dwelling unit.
2. Prior to final plat approval, ownership of the NROD tract shall be identified to distinguish it from lots intended for sale. The tract may be identified as any one of the following:
 - a. Private open space held by the owner or a homeowners association; or
 - b. For residential land divisions, private open space subject to an easement conveying stormwater and surface water management rights to the city and preventing the owner of the tract from activities and uses inconsistent with the purpose of this document; or
 - c. At the owners option, public open space where the tract has been dedicated to the city or other governmental unit; or
 - d. Any other ownership proposed by the owner and approved by the city.
 - e. Tracts shall be exempt from minimum frontage requirements.

C. Partitions.

1. New partitions shall delineate the NROD area either as a separate tract or conservation easement that meets the requirements of subsection 2. of this section.
2. Prior to final plat approval, ownership and maintenance of the NROD area shall be identified to distinguish it from the buildable areas of the development site. The NROD area may be identified as any one of the following:
 - a. A tract of private open space held by the owner or homeowners association; or
 - b. For residential land divisions, a tract of private open space subject to an easement conveying stormwater and surface water management rights to the city and preventing the owner of the tract from activities and uses inconsistent with the purpose of this document; or
 - c. At the owners option, public open space where the tract has been dedicated to the city or other governmental unit;
 - d. Conservation easement area pursuant to Section 17.49.180G. and approved in form by the community development director;
 - e. Any other ownership proposed by the owner and approved by the community development director.
 - f. Tracts shall be exempt from minimum frontage requirements.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.170 - Standards for trails.

The following standards apply to trails within the NROD:

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- A. All trails that are not exempt pursuant to Section 17.49.80F., except as designated in the Oregon City Parks, Open Space and Trails Master Plans; and
- B. Mitigation is required, subject to Section 17.49.180 or 17.49.190.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.180 - Mitigation standards.

The following standards (or the alternative standards of Section 17.49.190) apply to required mitigation:

- A. Mitigation shall occur at a two-to-one ratio of mitigation area to proposed NROD disturbance area. Mitigation of the removal or encroachment of a wetland or stream shall not be part of this chapter and will be reviewed by the Division of State Lands or the Army Corp of Engineers during a separate review process;
- B. Mitigation shall occur on the site where the disturbance occurs, except as follows:
 - 1. The mitigation is required for disturbance associated with a right-of-way or utility in the right-of-way;
 - 2. The mitigation shall occur first on the same stream tributary, secondly in the Abernethy, Newell or Livesay Creek or a tributary thereof, or thirdly as close to the impact area as possible within the NROD; and
 - 3. An easement that allows access to the mitigation site for monitoring and maintenance shall be provided as part of the mitigation plan.
- C. Mitigation shall occur within the NROD area of a site unless it is demonstrated that this is not feasible because of a lack of available and appropriate area. In such cases, the proposed mitigation area shall be contiguous to the existing NROD area so the NROD boundary can be easily extended in the future to include the new resource site.
- D. Invasive and nuisance vegetation shall be removed within the mitigation area;
- E. Required Mitigation Planting. An applicant shall meet Mitigation Planting Option 1 or 2 below, whichever option results in more tree plantings, except that where the disturbance area is one acre or more, Mitigation Option 2 shall be required. All trees, shrubs and ground cover shall be selected from the Oregon City Native Plant List.

NOTE: Applications on sites where no trees are present or which are predominantly covered with invasive species shall be required to mitigate the site, remove the invasive species and plant trees and native plants pursuant to Option 2.

- 1. Mitigation Planting Option 1.
 - a. Option 1 - Planting Quantity. This option requires mitigation planting based on the number and size of trees that are removed from the site pursuant to Table 17.49.180E.1.a. Conifers shall be replaced with conifers. Bare ground shall be planted or seeded with native grasses and ground cover species.

Table 17.49.180E.1.a.—Required Planting Option 1

Size of Tree to be Removed (DBH)	Number of Trees and Shrubs to be Replanted
6 to 12"	2 trees and 3 shrubs

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13 to 18"	3 trees and 6 shrubs
19 to 24"	5 trees and 12 shrubs
25 to 30"	7 trees and 18 shrubs
Over 30"	10 trees and 30 shrubs

- b. Option 1 - Plant Size. Replacement trees shall be at least one-half inch in caliper on average, measured at six inches above the ground level for field grown trees or above the soil line for container grown trees. Oak, madrone, ash or alder may be one gallon size. Conifers shall be a minimum of six feet in height. Shrubs must be in at least one-gallon container size or the equivalent in ball and burlap, and shall be at least twelve inches in height at the time of planting. All other species shall be a minimum of four-inch pots;
 - c. Option 1 - Plant Spacing. Except for the outer edges of mitigation areas, trees and shrubs shall be planted in a non-linear fashion. Plant spacing for new species shall be measured from the driplines of existing trees when present. Trees shall be planted on average between eight and twelve feet on center, and shrubs shall be planted on average between four and five feet on center, or clustered in single species groups of no more than four plants, with each cluster planted on average between eight and ten feet on center.
 - d. Option 1 - Mulching and Irrigation. Mulch new plantings a minimum of three inches in depth and eighteen inches in diameters. Water new plantings one inch per week from June 30th to September 15th, for the three years following planting.
 - e. Option 1 — Plant Diversity. Shrubs shall consist of at least two different species. If ten trees or more are planted, no more than one-half of the trees may be of the same genus.
2. Mitigation Planting Option 2.
- a. Option 2 - Planting Quantity. In this option, the mitigation requirement is calculated based on the size of the disturbance area within the NROD. Native trees and shrubs are required to be planted at a rate of five trees and twenty-five shrubs per every five hundred square feet of disturbance area (calculated by dividing the number of square feet of disturbance area by five hundred, and then multiplying that result times five trees and twenty-five shrubs, and rounding all fractions to the nearest whole number of trees and shrubs; for example, if there will be three hundred thirty square feet of disturbance area, then three hundred thirty divided by five hundred equals .66, and .66 times five equals 3.3, so three trees must be planted, and .66 times twenty-five equals 16.5, so seventeen shrubs must be planted). Bare ground must be planted or seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.
 - b. Option 2 - Plant Size. Plantings may vary in size dependent on whether they are live cuttings, bare root stock or container stock, however, no initial plantings may be shorter than twelve inches in height.

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- c. Option 2 - Plant Spacing. Trees shall be planted at average intervals of seven feet on center. Shrubs may be planted in single-species groups of no more than four plants, with clusters planted on average between eight and ten feet on center.
- d. Option 2 — Mulching and Irrigation shall be applied in the amounts necessary to ensure eighty percent survival at the end of the required five-year monitoring period.
- e. Option 2 — Plant Diversity. Shrubs shall consist of at least three different species. If twenty trees or more are planted, no more than one-third of the trees may be of the same genus.

An alternative planting plan using native plants may be approved in order to create a new wetland area, if it is part of a wetlands mitigation plan that has been approved by the DSL or the U.S. Army Corps of Engineers (USACE) in conjunction with a wetland joint removal/fill permit application.

- F. Monitoring and Maintenance. The mitigation plan shall provide for a five-year monitoring and maintenance plan with annual reports in a form approved by the director of community development. Monitoring of the mitigation site is the on-going responsibility of the property owner, assign, or designee, who shall submit said annual report to the city's planning division, documenting plant survival rates of shrubs and trees on the mitigation site. Photographs shall accompany the report that indicate the progress of the mitigation. A minimum of eighty percent survival of trees and shrubs of those species planted is required at the end of the five-year maintenance and monitoring period. Any invasive species shall be removed and plants that die shall be replaced in kind. Bare spots and areas of invasive vegetation larger than ten square feet that remain at the end the five-year monitoring period shall be replanted or reseeded with native grasses and ground cover species.
- G. Covenant or Conservation Easement. Applicant shall record a restrictive covenant or conservation easement, in a form provided by the city, requiring the owners and assigns of properties subject to this section to comply with the applicable mitigation requirements of this section. Said covenant shall run with the land, and permit the city to complete mitigation work in the event of default by the responsible party. Costs borne by the city for such mitigation shall be borne by the owner.
- H. Financial Guarantee. A financial guarantee for establishment of the mitigation area, in a form approved by the city, shall be submitted before development within the NROD disturbance area commences. The city will release the guarantee at the end of the five-year monitoring period, or before, upon it's determination that the mitigation plan has been satisfactorily implemented pursuant to this section.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.190 - Alternative mitigation standards.

In lieu of the above mitigation standards of Section 17.49.180, the following standards may be used. Compliance with these standards shall be demonstrated in a mitigation plan report prepared by an environmental professional with experience and academic credentials in one or more natural resource areas such as ecology, wildlife biology, botany, hydrology or forestry. At the applicant's expense, the city may require the report to be reviewed by an environmental consultant.

- [A.] The report shall document the existing condition of the vegetated corridor as one of the following categories:

Good Existing Corridor:	Combination of trees, shrubs and groundcover are eighty percent present, and there is more than fifty percent tree canopy coverage in the vegetated corridor.
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Marginal Existing Vegetated Corridor:	Combination of trees, shrubs and groundcover are eighty percent present, and twenty-five to fifty percent canopy coverage in the vegetated corridor.
Degraded Existing Vegetated Corridor:	Less vegetation and canopy coverage than marginal vegetated corridors, and/or greater than ten percent surface coverage of any non-native species.

- B. The proposed mitigation shall occur at a minimum two-to-one ratio of mitigation area to proposed disturbance area;
- C. The proposed mitigation shall result in a significant improvement to Good Existing Condition as determined by a qualified environmental professional;
- D. There shall be no detrimental impact on resources and functional values in the area designated to be left undisturbed;
- E. Where the proposed mitigation includes alteration or replacement of development in a stream channel, wetland, or other water body, there shall be no detrimental impact related to the migration, rearing, feeding or spawning of fish;
- F. Mitigation shall occur on the site of the disturbance to the extent practicable. If the proposed mitigation cannot practically occur on the site of the disturbance, then the applicant shall possess a legal instrument, such as an easement, sufficient to carryout and ensure the success of the mitigation.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.200 - Adjustment from standards.

If a regulated NROD use cannot meet one or more of the applicable NROD standards then an adjustment may be issued if all of the following criteria are met. Compliance with these criteria shall be demonstrated by the applicant in a written report prepared by an environmental professional with experience and academic credentials in one or more natural resource areas such as ecology, wildlife biology, botany, hydrology or forestry. At the applicant's expense, the City may require the report to be reviewed by an environmental consultant. Such requests shall be processed under the Type III development permit procedure. The applicant shall demonstrate:

- A. There are no feasible alternatives for the proposed use or activity to be located outside the NROD area or to be located inside the NROD area and to be designed in a way that will meet all of the applicable NROD development standards;
- B. The proposal has fewer adverse impacts on significant resources and resource functions found in the local NROD area than actions that would meet the applicable environmental development standards;
- C. The proposed use or activity proposes the minimum intrusion into the NROD area that is necessary to meet development objectives;
- D. Fish and wildlife passage will not be impeded;
- E. With the exception of the standard(s) subject to the adjustment request, all other applicable NROD standards can be met; and
- F. The applicant has proposed adequate mitigation to offset the impact of the adjustment.

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(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Application Requirements

17.49.210 - Type II development permit application.

Unless otherwise directed by the NROD standards, proposed development within the NROD shall be processed as a Type II development permit application. All applications shall include the items required for a complete application by Sections 17.49.220—17.49.230, and Section 17.50.080 of the Oregon City Municipal Code as well as a discussion of how the proposal meets all of the applicable NROD development standards 17.49.100—17.49.170.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.220 - Required site plans.

Site plans showing the following required items shall be part of the application:

A. For the entire subject property (NROD and non-NROD areas):

1. The NROD district boundary. This may be scaled in relation to property liens from the NROD Map;
2. One hundred-year floodplain and floodway boundary (if determined by FEMA);
3. Creeks and other waterbodies;
4. Any wetlands, with the boundary of the wetland that will be adjacent to the proposed development determined in a wetlands delineation report prepared by a professional wetland specialist and following the Oregon Division of State Lands wetlands delineation procedures;
5. Topography shown by contour lines of two or one foot intervals for slopes less than fifteen percent and by ten-foot intervals for slopes fifteen percent or greater;
6. Existing improvements such as structures or buildings, utility lines, fences, driveways, parking areas, etc.
7. Extent of the required Vegetated Corridor required by Table 17.49.110.

B. Within the NROD area of the subject property:

1. The distribution outline of shrubs and ground covers, with a list of most abundant species;
2. Trees six inches or greater in diameter, identified by species. When trees are located in clusters they may be described by the approximate number of trees, the diameter range, and a listing of dominant species;
3. An outline of the disturbance area that identifies the vegetation that will be removed. All trees to be removed with a diameter of six inches or greater shall be specifically identified as to number, trunk diameters and species;
4. If grading will occur within the NROD, a grading plan showing the proposed alteration of the ground at two foot vertical contours in areas of slopes less than fifteen percent and at five foot vertical contours of slopes fifteen percent or greater.

C. A construction management plan including:

1. Location of site access and egress that construction equipment will use;
2. Equipment and material staging and stockpile areas;
3. Erosion control measures that conform to City of Oregon City erosion control standards;

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4. Measures to protect trees and other vegetation located outside the disturbance area.
- D. A mitigation site plan demonstrating compliance with Section 17.49.180 or 17.49.190, including:
 1. Dams, weirs or other in-water features;
 2. Distribution, species composition, and percent cover of ground covers to be planted or seeded;
 3. Distribution, species composition, size, and spacing of shrubs to be planted;
 4. Location, species and size of each tree to be planted;
 5. Stormwater management features, including retention, infiltration, detention, discharges and outfalls;
 6. Water bodies or wetlands to be created, including depth;
 7. Water sources to be used for irrigation of plantings or for a water source for a proposed wetland.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.230 - Mitigation plan report.

A mitigation plan report that accompanies the above mitigation site plan is also required. The report shall be prepared by an environmental professional with experience and academic credentials in one or more natural resource areas such as ecology, wildlife biology, botany, hydrology or forestry. The mitigation plan report shall, at a minimum, discuss:

- A. Written responses to each applicable Mitigation Standard [Section] 17.49.180 or 17.49.190 indicating how the proposed development complies with the mitigation standards;
- B. The resources and functional values to be restored, created, or enhanced through the mitigation plan;
- C. Documentation of coordination with appropriate local, regional, state and federal regulatory/resource agencies such as the Oregon Department of State Lands (DSL) and the United States Army Corps of Engineers (USACE);
- D. Construction timetables;
- E. Monitoring and Maintenance practices pursuant to Section 17.49.230.F and a contingency plan for undertaking remedial actions that might be needed to correct unsuccessful mitigation actions during the first five years of the mitigation area establishment.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Miscellaneous

17.49.240 - Density transfer.

The NROD allocates urban densities to the Non-NROD portions of properties located partially within the NROD, generally resulting in a substantial increase in net development potential.

For lots of record that are located within the NROD, additional density transfer credits are allowed, subject to the following provisions:

- A. Density may be transferred from the NROD to non-NROD portions of the same property or of contiguous properties within the same development site;
- B. The residential transfer credit shall be as follows: for new residential partitions and subdivisions, one-third of the area of the NROD tract or conservation easement area may be added to the net

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developable area outside of the tract or conservation easement area within the boundary of the development site in order to calculate the allowable number of lots.

- C. Permitted Modifications to Residential Dimensional Standards. In order to allow for a transfer of density pursuant to subsection B. above, the dimensional standards of the base zone may be modified in order minimize disturbance to the NROD. The permissible reductions are specified in Tables 17.49.240C.—17.49.240D.
- D. The applicant shall demonstrate that the minimum lot size of the underlying zone has been met. The area of the NROD in subsection B. above that is used to transfer density may be included in the calculation of the average minimum lot size.
- E. The applicant may choose to make the adjustments over as many lots as required. For example, the lot reduction could be spread across all the remaining lots in the proposed subdivision or partition or could be applied to only those needed to incorporate the areas of the NROD Tract.

Table 17.49.240 A
Lot Size Reduction

ZONE	Min. Lot Size (%)	Min. Lot Width	Min. Lot Depth
R-10	5,000 sq. feet	50'	65'
R-8	4,000 sq. feet	45'	60'
R-6	3,500 sq. feet	35'	55'
R-5	3,000 sq. feet	30'	50'
R-3.5	1,800 sq. feet	20'	45'

Table 17.49.240 B
Reduced Dimensional Standards for Detached Single-Family Residential Units

Size of Reduced Lot	Front Yard Setback	Rear Yard Setback	Side yard Setback	Corner Side	Lot Coverage
8,000—9,999 square feet	15 feet	20 feet	7/9 feet	15 feet	40%
6,000—7,999 square feet	10 feet	15 feet	5/7 feet	15 feet	40%

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4,000—5,999 square feet	10 feet	15 feet	5/5 feet	10 feet	40%
1,800—3,999 square feet	5 feet	15 feet	5/5 feet	10 feet	55%

Table 17.49.240 C

Reduced Dimensional Standards for Single-Family Attached or Two-Family Residential Units

Size of Reduced Lot	Front Yard Setback	Rear Yard Setback	Side yard Setback	Corner Side	Lot Coverage
3,500—7,000 square feet	10 feet	15 feet	5/0* feet	10 feet	40%
1,800—3,499 square feet	5 feet	15 feet	5/0* feet	10 feet	55%

*0 foot setback is only allowed on single-family attached units

- F. Transfers for properties zoned Commercial, Institutional, Industrial or Multi-Family uses the transfer credit is ten thousand square feet per acre of land within the NROD;
- G. The area of land contained in the NROD area may be excluded from the calculations for determining compliance with minimum density requirements of the land division code.
- H. The owner of the transferring property shall execute a covenant with the city that records the transfer of density. The covenant shall be found to meet the requirements of this section and be recorded before building permits are issued; and
- I. All other applicable development standards, including setbacks, building heights, and maximum lot coverage shall continue to apply when a density transfer occurs.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.250 - Verification of NROD boundary.

The NROD boundary may have to be verified occasionally to determine the true location of a resource and its functional values on a site. This may through a site specific environmental survey or, in those cases where existing information demonstrates that the NROD significance rating does not apply to a site-specific area. Applications for development on a site located in the NROD area may request a determination that

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the subject site is not in an NROD area and therefore is not subject to the standards of Section 17.49.100. Verifications shall be processed as either a Type I or Type II process.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.255 - Type I verification.

- A. Applicants for a determination under this section shall submit a site plan meeting the requirements of Section 17.49.220, as applicable.
- B. Alternatively, an applicant may request a Type I Verification determination by the community development director by making an application therefore and paying to the city a fee as set by resolution of the city commission. Such requests may be approved provided that there is evidence substantiating that all the requirements of this chapter relative to the proposed use are satisfied and demonstrates that the property also satisfies the following criteria, as applicable:
 - 1. No soil, vegetation, hydrologic features have been disturbed;
 - 2. No hydrologic features have been changed;
 - 3. There are no man-made drainage features, water marks, swash lines, drift lines present on trees or shrubs, sediment deposits on plants, or any other evidence of sustained inundation.
 - 4. The property does not contain a wetland as identified by the city's local wetland inventory or water quality and flood management areas map.
 - 5. There is no evidence of a perennial or intermittent stream system or other protected water feature. This does not include established irrigation ditches currently under active farm use, canals or manmade storm or surface water runoff structures or artificial water collection devices.
 - 6. Evidence of prior land use approvals that conform to the City's existing Water Quality Resource Area Overlay District.

There is an existing physical barrier between the site and a protected water feature, including:

- a. Streets, driveways, alleys, parking lots or other approved impervious areas wider than fifteen feet and which includes drainage improvements that are connected to the city storm sewer system, as approved by the city.
- b. Walls, buildings, drainages, culverts or other structures and which form a physical barrier between the site and the protected water features, as approved by the city.
- C. If a the city is not able to clearly determine, through the Type I verification process that the applicable criteria subsection B.1.—B.6. above are met the verification application shall be denied. An applicant may then opt to apply for an verification through the Type II process defined below.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.260. - Type II verification.

Verifications of the NROD which cannot be determined pursuant to the standards of Section 17.49.255 may be processed under the Type II permit procedure.

- A. Applicants for a determination under this section shall submit a site plan meeting the requirements of Section 17.49.220 as applicable.
- B. Such requests may be approved provided that there is evidence that demonstrates in an environmental report prepared by one or more qualified professionals with experience and

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credentials in natural resource areas, including wildlife biology, ecology, hydrology and forestry, that a resource function(s) and/or land feature(s) does not apply to a site-specific area.

- C. Verification to remove a recently developed area from the NROD shall show that all of the following have been met:
1. All approved development in the NROD has been completed;
 2. All mitigation required for the approved development, located within the NROD, has been successful; and
 3. The previously identified resources and functional values on the developed site no longer exist or have been subject to a significant detrimental impact.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

17.49.265 - Corrections to violations.

For correcting violations, the violator shall submit a remediation plan that meets all of the applicable standards of the NROD. The remediation plan shall be prepared by one or more qualified professionals with experience and credentials in natural resource areas, including wildlife biology, ecology, hydrology and forestry. If one or more of these standards cannot be met then the applicant's remediation plan shall demonstrate that there will be:

- A. No permanent loss of any type of resource or functional value listed in Section 17.49.10, as determined by a qualified environmental professional;
- B. A significant improvement of at least one functional value listed in section 17.49.10, as determined by a qualified environmental professional; and
- C. There will be minimal loss of resources and functional values during the remediation action until it is fully established.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

Appendix 3 – Chapter 17 (excerpts)

Oregon City Chapter 17 Zoning excerpts:

R-6, Single Family

R-10, Single Family

MCU, Mixed Use Corridor

Documents downloaded from <https://www.orcity.org/planning/oregon-city-municipal-code> on 4/17/2018.

Oregon City Municipal Code Chapter 17.16 – R-3.5 Dwelling District

17.16.010 Designated.

This residential district is designed for single-family attached and detached residential units and two-family dwellings on lot sizes of approximately three thousand five hundred square feet per dwelling.

17.16.020 Permitted Uses.

Uses permitted in the R-3.5 district are:

- A. Two-family dwellings (duplexes);
- B. Single-family detached residential units;
- C. Single-family attached residential units (Row houses with no more than six dwelling units may be attached in a row);
- D. Parks, playgrounds, playfields and community or neighborhood centers;
- E. Home occupations;
- F. Farms, commercial or truck gardening and horticultural nurseries on a lot not less than twenty thousand square feet in area (retail sales of materials grown on site is permitted);
- G. Temporary real estate offices in model homes located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- H. Accessory uses and buildings;
- I. Family day care provider, subject to the provisions of Section 17.54.050;
- J. Residential home per ORS 443.400
- K. Transportation facilities

17.16.030 Conditional Uses.

The following conditional uses are permitted in this district when authorized by and in accordance with the standards contained in Chapter 17.56:

- A. Golf courses, except miniature golf courses, driving ranges or similar commercial enterprises;
- B. Bed and breakfast inns / boarding houses;
- C. Cemeteries, crematories, mausoleums and columbariums;
- D. Child care centers and nursery schools;
- E. Emergency service facilities (police and fire), excluding correctional facilities;
- F. Residential care facility;
- G. Private and/or public educational or training facilities;
- H. Public utilities, including sub-stations (such as buildings, plants and other structures);
- I. Religious institutions
- J. Assisted living facilities; nursing homes and group homes for over 15 patients
- K. Live/work units

17.16.035- Master Plans

The following are permitted in this district when authorized by and in accordance with the standards contained in Chapter 17.65.

- A. Multi-family residential units

B. Cottage Housing

17.16.040 Dimensional Standards.

Dimensional standards in the R-3.5 district are:

- A. Minimum Lot Area.
 - 1. Residential uses, three thousand five hundred square feet per unit.
 - 2. Non-residential uses, zero minimum;
- B. Minimum lot width, twenty-five feet;
- C. Minimum lot depth, seventy feet;
- D. Maximum building height, two and one-half stories, not to exceed thirty-five feet;
- E. Minimum Required Setbacks.
 - 1. Front yard, five feet minimum setback,
 - 2. Front porch, zero feet minimum setback,
 - 2. Interior side yard,
 - Detached unit, 5 feet minimum setback
 - Attached unit, 7 feet minimum setback on the side that does not abut a common property line.
 - 3. Corner side yard, ten-foot minimum setback,
 - 4. Rear yard, fifteen-foot minimum setback,
 - 5. Rear porch, ten feet minimum setback.
 - 6. Attached and detached garages, twenty feet minimum setback from the public right-of-way where access is taken, except for alleys. Detached garages on an alley shall be setback a minimum of five feet.
- F. Garage Standards: See Section 17.21 – Residential Design Standards.
- G. Maximum Lot Coverage: The footprint of all structures 200 square feet or greater shall cover a maximum of 55 percent of the lot area.

17.16.050 Single-Family Attached Residential Units and Duplex Units.

The following standards apply to single-family dwellings, in addition to the standards in Section 17.16.040.

- A. Maintenance Easement. Prior to building permit approval, the applicant shall submit a recorded mutual easement that runs along the common property line. This easement shall be 10 feet in width. A lesser width may be approved by the Community Development Director if it is found to be sufficient to guarantee rights for maintenance purposes of structure and yard.
- B. Conversion of Existing Duplexes. Any conversion of an existing duplex unit into two single-family attached dwellings shall be reviewed for compliance with the requirements in Section 16 for partitions, Section 17.16 and the State of Oregon One and Two Family Dwelling Specialty Code prior to final recordation of the land division replat. (Ord. 99-1027 §4, 1999)

Oregon City Municipal Code

Chapter 17.12 - R-6 Single-Family Dwelling District

17.12.010 Designated.

This residential district is designed for single-family homes on lot sizes of approximately six thousand square feet.

17.12.020 Permitted Uses.

Permitted uses in the R-6 district are:

- A. Single-family detached residential units;
- B. Parks, playgrounds, playfields and community or neighborhood centers;
- C. Home occupations;
- D. Farms, commercial or truck gardening and horticultural nurseries on a lot not less than twenty thousand square feet in area (retail sales of materials grown on site is permitted);
- E. Temporary real estate offices in model homes located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- F. Accessory uses, buildings and dwellings;
- G. Family day care provider, subject to the provisions of Section 17.54.050.
- H. Residential home per ORS 443.400
- I. Cottage housing
- J. Transportation facilities

17.12.030 Conditional Uses.

The following conditional uses are permitted in this district when authorized by and in accordance with the standards contained in Chapter 17.56:

- A. Golf courses, except miniature golf courses, driving ranges or similar commercial enterprises;
- B. Bed and breakfast inns / boarding houses;
- C. Cemeteries, crematories, mausoleums and columbariums;
- D. Child care centers and nursery schools;
- E. Emergency service facilities (police and fire), excluding correctional facilities;
- F. Residential care facility;
- G. Private and/or public educational or training facilities;
- H. Public utilities, including sub-stations (such as buildings, plants and other structures);
- I. Religious institutions.
- J. Assisted living facilities; nursing homes and group homes for over 15 patients

17.12.040 Dimensional Standards.

Dimensional standards in the R-6 district are:

- A. Minimum lot areas, six thousand square feet;
- B. Minimum lot width, fifty feet;
- C. Minimum lot depth, seventy feet;
- D. Maximum building height, two and one-half stories, not to exceed thirty-five feet;
- E. Minimum required setbacks:

1. Front yard, ten feet minimum setback,
2. Front porch, five feet minimum setback,
2. Attached and detached garage, twenty feet minimum setback from the public right-of-way where access is taken, except for alleys. Detached garages on an alley shall be setback a minimum of five feet in residential areas.
3. Interior side yard, nine feet minimum setback for at least one side yard; five feet minimum setback for the other side yard,
4. Corner side yard, fifteen feet minimum setback,
5. Rear yard, twenty feet minimum setback,
6. Rear porch, fifteen feet minimum setback

F. Garage Standards: See Section 17.20 – Residential Design Standards.

G. Maximum Lot Coverage: The footprint of all structures 200 square feet or greater shall cover a maximum of 40 percent of the lot area.

Oregon City Municipal Code

Chapter 17.08 R-10 Single-Family Dwelling District

17.08.010 Designated.

This residential district is designed for areas of single-family homes on lot sizes of approximately ten thousand square feet.

17.08.020 Permitted Uses.

Permitted uses in the R-10 district are:

- A. Single-family detached residential units;
- B. Parks, playgrounds, playfields and community or neighborhood centers;
- C. Home occupations;
- D. Farms, commercial or truck gardening and horticultural nurseries on a lot not less than twenty thousand square feet in area (retail sales of materials grown on site is permitted);
- E. Temporary real estate offices in model homes located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- F. Accessory uses, buildings and dwellings;
- G. Family day care provider, subject to the provisions of Section 17.54.050.
- H. Residential home per ORS 443.400
- I. Cottage Housing
- J. Transportation facilities

17.08.030 Conditional Uses.

The following conditional uses are permitted in this district when authorized by and in accordance with the standards contained in Chapter 17.56:

- A. Golf courses, except miniature golf courses, driving ranges or similar commercial enterprises;
- B. Bed and breakfast inns / boarding houses;
- C. Cemeteries, crematories, mausoleums and columbariums;
- D. Child care centers and nursery schools;
- E. Emergency service facilities (police and fire), excluding correctional facilities;
- F. Residential care facility;
- G. Private and/or public educational or training facilities;
- H. Public utilities, including sub-stations (such as buildings, plants and other structures);
- I. Religious institutions.
- J. Assisted living facilities; nursing homes and group homes for over 15 patients

17.08.040 Dimensional Standards.

Dimensional standards in the R-10 district are:

- A. Minimum lot areas, ten thousand square feet;
- B. Minimum lot width, sixty-five feet;
- C. Minimum lot depth, eighty feet;
- D. Maximum building height, two and one-half stories, not to exceed thirty-five feet;
- E. Minimum required setbacks:

1. Front yard, twenty feet minimum setback,
 2. Front porch, fifteen feet minimum setback,
 3. Attached and detached garage, twenty feet minimum setback from the public right-of-way where access is taken, except for alleys. Detached garages on an alley shall be setback a minimum of five feet in residential areas.
 4. Interior side yard, ten feet minimum setback for at least one side yard; eight feet minimum setback for the other side yard,
 5. Corner side yard, fifteen feet minimum setback,
 6. Rear yard, twenty feet minimum setback,
 7. Rear porch, fifteen feet minimum setback..
- F. Garage Standards: See Section 17.20 – Residential Design Standards
- G. Maximum Lot Coverage: The footprint of all structures 200 square feet or greater shall cover a maximum of 40 percent of the lot area.

Oregon City Municipal Code

Chapter 17.29 “MUC” – Mixed Use Corridor District

17.29.010 Designated.

The Mixed Use Corridor (MUC) District is designed to apply along selected sections of transportation corridors such as Molalla Avenue, 7th Street and Beavercreek Road, and along Warner-Milne Road. Land uses are characterized by high-volume establishments such as retail, service, office, multi-family residential, lodging, recreation and meeting facilities, or a similar use as defined by the Community Development Director. A mix of high-density residential, office, and small-scale retail uses are encouraged in this District. Moderate density (MUC-1) and high density (MUC-2) options are available within the MUC zoning district. The area along 7th Street is an example of MUC-1, and the area along Warner-Milne Road is an example of MUC-2.

17.29.020 Permitted Uses--MUC-1 and MUC-2.

- A. Banquet, conference facilities and meeting rooms;
- B. Bed and breakfast and other lodging facilities for up to ten guests per night;
- C. Child care centers and/or nursery schools;
- D. Indoor entertainment centers and arcades
- E. Health and fitness clubs;
- F. Medical and dental clinics, outpatient; infirmary services;
- G. Museums, libraries and cultural facilities;
- H. Offices, including finance, insurance, real estate and government;
- I. Outdoor markets, such as produce stands, craft markets and farmers markets that are operated on the weekends and after six p.m. during the weekday;
- J. Postal services;
- K. Parks, playgrounds, play fields and community or neighborhood centers;
- L. Repair shops, for radio and television, office equipment, bicycles, electronic equipment, shoes and small appliances and equipment;
- N. Residential units, multi-family;
- O. Restaurants, eating and drinking establishments without a drive through;
- P. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
- Q. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores, and similar, provided the maximum footprint for a stand alone building with a single store or multiple buildings with the same business does not exceed sixty thousand square feet;
- R. Seasonal sales, subject to OCMC Chapter 17.54.060
- S. Assisted living facilities; nursing homes and group homes for over 15 patients
- T. Studios and galleries, including dance, art, photography, music and other arts;
- U. Utilities: basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers.
- V. Veterinary clinics or pet hospitals, pet day care.
- W. Home occupations
- X. Research and development activities

- Y. Temporary real estate offices in model dwellings located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- Z. Residential care facility
- AA. Transportation facilities

17.29.030 Conditional Uses--MUC-1 and MUC-2 Zones.

The following uses are permitted in this district when authorized and in accordance with the process and standards contained in Chapter 17.56:

- A. Ancillary drive-in or drive-through facilities
- B. Emergency service facilities (police and fire), excluding correctional facilities;
- C. Gas Stations;
- D. Outdoor markets that do not meet the criteria of Section 17.29.020(H);
- E. Public utilities and services including sub-stations (such as buildings, plants and other structures);
- F. Public and/or private educational or training facilities
- G. Religious institutions;
- H. Retail trade, including gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores and any other use permitted in the neighborhood, historic or limited commercial districts that have a footprint for a stand alone building with a single store in excess of sixty thousand square feet in the MUC-1 or MUC-2 zone;
- I. Hotels and motels, commercial lodging
- J. Hospitals
- K. Parking structures and lots not in conjunction with a primary use
- L. Passenger terminals (water, auto, bus, train)

17.29.040 Prohibited Uses in the MUC-1 and MUC-2 Zones.

The following uses are prohibited in the MUC District:

- A. Distributing, wholesaling and warehousing;
- B. Outdoor sales or storage
- C. Correctional Facilities.
- D. Heavy equipment service, repair, sales, storage or rental² (including but not limited to construction equipment and machinery and farming equipment)
- E. Kennels
- E. Motor vehicle and recreational vehicle sales and incidental service
- F. Motor vehicle and recreational vehicle repair / service
- G. Outdoor sales or storage,
- H. Self-service storage facilities

17.29.050 Dimensional Standards--MUC-1.

- A. Minimum lot areas: none.
- B. Maximum building height: forty feet or three stories, whichever is less.
- C. Minimum required setbacks if not abutting a residential zone: none.

- D. Minimum required interior and rear yard setbacks if abutting a residential zone: twenty feet, plus one-foot additional yard setback for every one-foot of building height over thirty-five feet.
- E. Maximum Allowed Setbacks.
 - 1. Front yard: five feet (may be extended with Site Plan and Design Review Section 17.62.055).
 - 2. Interior side yard: none.
 - 3. Corner side setback abutting street: thirty feet provided the Site Plan and Design Review requirements of Section 17.62.055 are met.
 - 4. Rear yard: none.
- F. Maximum lot coverage of the building and parking lot: eighty percent.
- G. Minimum required landscaping (including landscaping within a parking lot): twenty percent.

17.29.060 Dimensional Standards--MUC-2.

- A. Minimum lot area: none.
- B. Minimum floor area ratio: 0.25.
- C. Minimum building height: twenty-five feet or two stories except for accessory structures or buildings under one thousand square feet.
- D. Maximum building height: sixty feet.
- E. Minimum required setbacks if not abutting a residential zone: none.
- F. Minimum required interior and rear yard setbacks if abutting a residential zone: twenty feet, plus one foot additional yard setback for every two feet of building height over thirty-five feet.
- G. Maximum Allowed Setbacks.
 - 1. Front yard: five feet (may be expanded with Site Plan and Design Review Section 17.62.055).
 - 2. Interior side yard: none.
 - 3. Corner side yard abutting street: twenty feet provided the site plan and design review requirements of Section 17.62.055 are met.
 - 4. Rear yard: none.
- H. Maximum site coverage of building and parking lot: ninety percent.
- I. Minimum landscaping requirement (including parking lot): ten percent.

17.29.070 Floor Area Ratio (FAR).

Floor area ratios are a tool for regulating the intensity of development. Minimum FARs help to achieve more intensive forms of building development in areas appropriate for larger-scale buildings and higher residential densities.

A. Standards

- a. The minimum floor area ratios contained in 17.29.050 and 17.29.060 apply to all non-residential and mixed-use building development, except stand-alone commercial buildings less than 10,000 square feet in floor area.
- b. Required minimum FARs shall be calculated on a project-by-project basis and may include multiple contiguous blocks. In mixed-use developments, residential floor space will be included in the calculations of floor area ratio to determine conformance with minimum FARs.
- c. An individual phase of a project shall be permitted to develop below the required minimum floor area ratio provided the applicant demonstrates, through covenants

applied to the remainder of the site or project or through other binding legal mechanism, that the required density for the project will be achieved at project build out.

Expiration Date: March 1, 2017

Permit Number: 101348

File Number: 108016

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGE PERMIT

Oregon Department of Environmental Quality
811 SW Sixth Ave., Portland OR 97204-1390
Telephone: 503-229-5630

Issued pursuant to Oregon Revised Statute 468B.050 and the Federal Clean Water Act

ISSUED TO:

Clackamas County
City of Gladstone
City of Happy Valley
City of Johnson City
City of Lake Oswego
City of Milwaukie
City of Oregon City
City of Rivergrove
City of West Linn
City of Wilsonville
Oak Lodge Sanitary District
Clackamas County Service District
No. 1
Surface Water Management Agency of
Clackamas County

SOURCES COVERED BY THIS PERMIT:

This permit covers all existing and new discharges of stormwater from the Municipal Separate Storm Sewer System (MS4) within the services boundaries of the incorporated cities and within the service areas of Clackamas County Service District No. 1, Oak Lodge Sanitary District, and the portion of Surface Water Management Agency of Clackamas County in the UGB.

COUNTY: Clackamas


RECEIVING WATERBODIES:

Basin(s): Willamette River
Sub-basin(s): Lower Willamette River, Clackamas River, Tualatin River
Waterbody(s): Carli Creek, Clackamas River, Cow Creek, Deer Creek, Johnson Creek, Kellogg Creek, Mt. Scott Creek, Phillips Creek, Richardson Creek, Rock Creek, Sieben Creek, Springbrook Creek, Willamette River, Tryon Creek, Fanno Creek, Tualatin River, and Oswego Lake

WASTE LOAD ALLOCATIONS: A Total Maximum Daily Load (TMDL) that includes wasteload allocations for urban stormwater has been established for the Willamette River Basin, including the Lower Willamette River, Clackamas River and Tualatin River subbasins, Springbrook Creek, and Oswego Lake. Waste load allocations are addressed in Schedule D of this permit.

EPA REFERENCE NO.: ORS108016

This permit is issued in response to Application Number 972510 received on August 29, 2008.


Dennis Ades, Surface Water Management Section Manager


Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the co-permittee is authorized to discharge municipal stormwater to waters of the state in conformance with the requirements and conditions set forth in the attached schedules. Where conflict exists between specific conditions (found in Schedules A-D) and general conditions (Schedule F), the specific conditions supersede the general conditions.

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SCHEDULE A

Controls and Limitations for Stormwater Discharges from Municipal Separate Storm Sewer Systems

1. Prohibit Non-stormwater Discharges

The co-permittees must effectively prohibit non-stormwater discharges into the MS4 unless such discharges are otherwise permitted under Subsection A.4.a.xii., another NPDES permit or other applicable state or federal permit, or are otherwise exempted or authorized by the Department.

2. Reduce Pollutants to the Maximum Extent Practicable

Each co-permittee must reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP). Compliance with this permit and implementation of a stormwater management program, including the Department-approved Stormwater Management Plan (SWMP), establishes this MEP requirement, unless or until the Department reopens the permit as provided in Oregon Administrative Rule (OAR) 340-045-0040 and 0050 to require additional controls.

3. Implement the Stormwater Management Plan

The co-permittees must continue to implement and assess the effectiveness of its Department-approved SWMP. The SWMP must guide each co-permittee in the implementation of its stormwater management program.

- a. The SWMPs and any Department-approved amendments thereto, are hereby incorporated into the permit by reference. The applicable SWMP is as follows:
 - i. For Clackamas County: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on October 7, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - ii. For the City of Gladstone: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on August

- 13, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
- iii. For the City of Happy Valley: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on October 6, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - iv. For the City of Johnson City: The SWMP is the proposed SWMP submitted with the NPDES permit re-application, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - v. For the City of Lake Oswego: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on October 6, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - vi. For the City of Milwaukie: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on November 17, 2011, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - vii. For the City of Oregon City: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on August 12, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - viii. For the City of Rivergrove: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on October 6, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - ix. For the City of West Linn: The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on August 10, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - x. For the City of Wilsonville: The SWMP is the proposed SWMP submitted with the

NPDES permit re-application and amendment received by the Department on August 16, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.

- xi. For Clackamas County Service District No. 1 (CCSD#1): The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on October 6, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - xii. For Surface Water Management Agency of Clackamas County (SWMACC): The SWMP is the proposed SWMP submitted with the NPDES permit re-application and amendment received by the Department on October 6, 2010, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
 - xiii. For Oak Lodge Sanitary District: The SWMP is the proposed SWMP submitted with the NPDES permit re-application, the addition of the special conditions specified in Schedule D.8., and any subsequent changes made to the SWMP in accordance with the conditions of this permit.
- b. Each co-permittee is responsible for compliance within its jurisdiction as identified in this permit, and is not responsible for compliance outside of its jurisdiction.
 - c. The SWMP must be electronically available through direct incorporation into the co-permittee's website or other similar method approved by the Department.

4. Stormwater Management Plan Requirements

Each co-permittee must implement a SWMP that outlines the practices, techniques or provisions associated with protecting water quality and satisfying requirements of this permit and includes measurable goals for the stormwater program elements identified in subsections a-h. The measurable goals must identify actions the permittee will undertake to implement best management practices (BMPs), and include, where appropriate, the frequency, timeline and/or location where the BMP actions will occur.

- a. **Illicit Discharge Detection and Elimination:** Co-permittees must continue to implement a program to detect, remove, and eliminate illicit discharges to the MS4. The program must:
 - i. Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the co-permittee's MS4.
 - ii. Include documentation in an enforcement response plan or similar document by November 1, 2012 describing the enforcement response procedures the co-permittee will implement when an illicit discharge investigation identifies a responsible party.

- iii. Develop or identify pollutant parameter action levels that will be used as part of the field screening. The action levels will identify concentrations for identified pollutants that, if exceeded, will require further investigation, including laboratory sample analyses, to identify the source of the illicit discharge. The pollutant parameter action levels and rationale for using the action levels must be documented in an enforcement response plan or similar document, and reported to the Department by November 1, 2012.
- iv. Conduct annual dry-weather inspection activities during the term of the permit. By November 1, 2012, the dry-weather inspection activities must include annual field screening of identified priority locations documented by the co-permittee. Priority locations must, where possible, be located at an accessible location downstream of any source of suspected illegal or illicit activity or other location as identified by the co-permittee. Priority locations must be based on an equitable consideration of hydrological conditions, total drainage area of the location, population density of the location, traffic density, age of the structures or buildings in the area, history of the area, land use types, personnel safety, accessibility, historical complaints or other appropriate factors as identified by the co-permittee. The dry-weather field screening activities must occur after an antecedent dry period of at least 72-hours. The dry-weather field screening activities must be documented and include:
 1. General observations, including visual presence of flow, turbidity, oil sheen, trash, debris or scum, condition of conveyance system or outfall, color, odor and any other relevant observations related to the potential presence of non-storm water or illicit discharges.
 2. Field Screening - If flow is observed, and the source is unknown, a field analysis must be conducted to determine the cause of the dry-weather flow. The field analysis must include sampling for pollutant parameters that are likely to be found based upon the suspected source of discharge or by other effective investigatory approaches or means to identify the source or cause of the suspected illicit discharge. Where appropriate, field screening pollutant parameter action levels identified by the permittee must be considered. Suspected sources of discharge include, but are not limited to, sanitary cross-connections or leaks, spills, seepage from storage containers, non-stormwater discharges or other residential, commercial, industrial or transportation-related activities.
 3. Laboratory Analysis – If general observations and field screening indicate an illicit discharge and the presence of a suspected illicit discharge cannot be identified through other investigatory methods, the co-permittee must collect a water quality sample for laboratory analyses for ongoing discharges. The water quality sample must be analyzed for pollutant parameters or identifiers that will aid in the determination of the source of the illicit discharge. The types of pollutant parameters or identifiers may include, but are not limited to genetic markers, industry-specific toxic pollutants, or other pollutant parameters that may be specifically associated with a source type.

- v. Identify response procedures to investigate portions of the MS4 that, based on the results of general observations, field screening, laboratory analysis or other relevant information, such as a complaint or referral, indicates the likely presence of an illicit discharge. The response procedures must reflect the goal to eliminate the illicit discharge in an expeditious manner, as specified in subsection vii. below.
- vi. Maintain a system for documenting illicit discharge complaints or referrals, and suspected illicit discharge investigation activities.
- vii. Once the source of an illicit discharge is determined, the co-permittee must take appropriate action to eliminate the illicit discharges, including an initial evaluation of the feasibility to eliminate the discharge, within 5 working days. If the co-permittee determines that the elimination of the illicit discharge will take more than 15 working days due to technical, logistical or other reasonable issues, the co-permittee must develop and implement an action plan to eliminate the illicit discharge in an expeditious manner. The action plan must be completed within 20 working days of determining the source of an illicit discharge. In lieu of developing and implementing an individual action plan for common types of illicit discharges, the co-permittee may document and implement response procedures, a response plan or similar document. The action plan, response procedures, response plan or similar document must include a timeframe for elimination of the illicit discharge as soon as practicable.
- viii. Describe and implement procedures to prevent, contain, respond to and mitigate spills that may discharge into the MS4. Spills, or other similar illicit discharges, that may endanger human health or the environment must be reported in accordance with all applicable federal and state laws, including proper notification to the Oregon Emergency Response System.
- ix. In the case of a known illicit discharge that originates within the co-permittee's MS4 regulated area and that discharges directly to a storm sewer system or property under the jurisdiction of another municipality, the co-permittee must notify the affected municipality as soon as practicable, and at least within one working day of becoming aware of the discharge.
- x. In the case of a known illicit discharge that is identified within the co-permittee's MS4 regulated area, but is determined to originate from a contributing storm sewer system or property under the jurisdiction of another municipality, the co-permittee must notify the contributing municipality or municipality with jurisdiction as soon as practicable, and at least within one working day of identifying the illicit discharge.
- xi. Maintain maps identifying known co-permittee-owned MS4 outfalls discharging to waters of the State. The dry-weather screening priority locations must be specifically identified on maps by November 1, 2012. If the co-permittee identifies the need to modify these maps, the maps must be updated in digital or hard-copy within six months of identification.

- xii. Unless the following non-stormwater discharges are identified in a particular case as a significant source of pollutants to waters of the State by the permittee or the Department, they are not considered illicit discharges and are authorized by this permit: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated groundwater infiltration; uncontaminated pumped ground water; discharges from potable water sources; start up flushing of groundwater wells; potable groundwater monitoring wells; draining and flushing of municipal potable water storage reservoirs; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; charity car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash waters; discharges of treated water from investigation, removal and remedial actions selected or approved by the Department pursuant to Oregon Revised Statute (ORS) Chapter 465; and, discharges or flows from emergency fire fighting activities. If any of these non-stormwater discharges under the co-permittee's jurisdiction is a significant source of pollutants, the permittee must develop and require implementation of appropriate BMPs to reduce the discharge of pollutants associated with the source.
- b. **Industrial and Commercial Facilities:** The co-permittee must continue to implement a program to reduce pollutants in stormwater discharges to the MS4 from facilities the co-permittee identified as being subject to a Department-issued industrial stormwater NPDES permit, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986, and facilities that have been identified as contributing a significant pollutant load to the MS4. The co-permittee must:
- i. Screen existing and new industrial facilities to assess whether they have the potential to be subject to an industrial stormwater NPDES permit or have the potential to contribute a significant pollutant load to the MS4.
 - ii. Within 30 days after the facility is identified, notify the industrial facility and the Department that an industrial facility is potentially subject to an industrial stormwater NPDES permit.
 - iii. Implement an updated strategy to reduce pollutants in stormwater discharges to the MS4 from industrial and commercial facilities where site-specific information has identified a discharge as a source that contributes a significant pollutant load to the MS4. The strategy must include a description of the rationale for identifying commercial and industrial facilities as a significant contributor, and establish the priorities and procedures for inspection of and implementation of stormwater control measures. This strategy must be implemented by July 1, 2013, and applied within one calendar year from the date a new source contributing a significant pollutant load to the MS4 has been identified.
- c. **Construction Site Runoff Control:** Co-permittees must continue to implement a program to reduce pollutants in stormwater runoff to the MS4 from construction activities. The program must:

- i. Include ordinances or other enforceable regulatory mechanisms that require erosion prevention and sediment controls to be designed, implemented, and maintained to prevent adverse impacts to water quality and minimize the transport of construction-related contaminants to waters of the State. By November 1, 2014, the construction site runoff control program ordinances or other enforceable regulatory mechanism must apply to construction activities that result in a land disturbance of 1,000 square feet or greater.
 - ii. Require construction site operators to develop erosion prevention and sediment control site plans, and to implement and to maintain effective erosion prevention and sediment control best management practices.
 - iii. Require construction site operators to prevent or control non-stormwater waste that may cause adverse impacts to water quality, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.
 - iv. Describe site plan review procedures to ensure that stormwater BMPs are appropriate and address the construction activities being proposed. At a minimum, construction site erosion prevention and sediment control plans for sites disturbing one acre or greater must be consistent with the substantive requirements of the State of Oregon's 1200-C permit site erosion prevention and sediment control plans.
 - v. Co-permittees must perform on-site inspections in accordance with documented procedures and criteria to ensure that the approved erosion prevention and sediment control plan is properly implemented. Inspections of construction sites must include disturbed areas of the site, material and waste storage areas, stockpile areas, construction site entrances and exits, sensitive areas, discharge locations to the MS4, and, if appropriate, discharge locations to receiving waters. Inspections must be documented, including photographs and monitoring results as appropriate.
 - vi. Describe in an enforcement response plan or similar document the enforcement response procedures the co-permittee will implement. The enforcement response procedures must ensure construction activities are in compliance with the ordinances or other regulatory mechanisms.
- d. **Education and Outreach:** Co-permittees must implement an education and outreach program designed to achieve measurable goals based on target audiences, specific stormwater quality issues in the community, or identified pollutants of concern. The program must:
- i. Continue to implement a documented public education and outreach strategy that promotes pollutant source control and a reduction of pollutants in stormwater discharges. The strategy must identify targeted pollutants of concern, the targeted audience, specific education activities, and the entity or individual responsible for implementation. The public education and outreach strategy may incorporate cooperative efforts with other MS4 regulated permittees or efforts by other groups or

organizations provided a mechanism is developed and implemented to track the public education and outreach efforts within the MS4 regulated area and the results of such efforts are reported annually.

- ii. Provide educational materials to the community or conduct equivalent outreach activities describing the impacts of stormwater discharges on water bodies and the steps or actions the public can take to reduce pollutants in stormwater runoff.
 - iii. Provide public education on the proper use and disposal of pesticides, herbicides, fertilizers and other household chemicals.
 - iv. Provide public education on the proper operation and maintenance of privately-owned or operated stormwater quality management facilities.
 - v. Provide notice to construction site operators concerning where education and training to meet erosion prevention and sediment control requirements can be obtained.
 - vi. Conduct or participate in an effectiveness evaluation to measure the success of public education activities during the term of this permit. The effectiveness evaluation must focus on assessing changes in targeted behaviors. The results of the effectiveness evaluation must be used in the adaptive management of the education and outreach program, and reported to the Department no later than July 1, 2015.
 - vii. Include training for co-permittee employees involved in MS4-related activities, as appropriate. The training should include stormwater pollution prevention and reduction from municipal operations, including, but not limited to, parks and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, discharges from non-emergency fire fighting-related training activities, and stormwater system maintenance.
 - viii. Promote, publicize and facilitate public reporting of illicit discharges through the use of newspapers, newsletters, utility bills, door hangers, radio public service announcements, videos, televised council meetings, brochures, signs, posters or other effective methods.
- e. **Public Involvement and Participation:** Co-permittees must implement a public participation approach that provides opportunities for the public to effectively participate in the development, implementation and modification of the co-permittee's stormwater management program. The approach must include provisions for receiving and considering public comments on the monitoring plan due to the Department by September 1, 2012, annual reports, SWMP revisions, and the TMDL pollutant load reduction benchmark development.
- f. **Post-Construction Site Runoff:** Co-permittees must continue to implement their post-construction stormwater pollutant and runoff control program.

- i. By November 1, 2014, the post-construction stormwater pollutant and runoff control program applicable to new development and redevelopment projects that create or replace impervious surfaces must meet the conditions described in this subsection. The minimum project threshold applicable to each co-permittee post-construction stormwater pollutant and runoff control program is identified in Table A-1. The post-construction stormwater site runoff permit conditions are as follows:
 - 1) Incorporate site-specific management practices that target natural surface or predevelopment hydrologic functions as much as practicable. The site-specific management practices should optimize on-site retention based on the site conditions;
 - 2) Reduce site specific post-development stormwater runoff volume, duration and rates of discharges to the municipal separate storm sewer system (MS4) to minimize hydrological and water quality impacts from impervious surfaces;
 - 3) Prioritize and include implementation of Low-Impact Development (LID), Green Infrastructure (GI) or equivalent design and construction approaches; and,
 - 4) Capture and treat 80% of the annual average runoff volume, based on a documented local or regional rainfall frequency and intensity.

TABLE A-1	
Post-Construction Minimum Thresholds – Impervious Surface Area	
Co-Permittee	Minimum Project Threshold (ft²)
Clackamas County*	5,000
City of Gladstone	5,000
City of Happy Valley	5,000
City of Johnson City	5,000
City of Lake Oswego	3,000
City of Milwaukie	1,000
City of Oregon City	5,000
City of Rivergrove	5,000
City of West Linn	1,000
City of Wilsonville	5,000
Oak Lodge Sanitary District	1,000
*Includes jurisdictional areas within CCSD#1, SWMACC, and jurisdictional areas with post-construction program oversight by the Clackamas County Department of Transportation and Development.	

- ii. The co-permittee must identify, and where practicable, minimize or eliminate ordinance, code and development standard barriers within their legal authority that inhibit design and implementation techniques intended to minimize impervious surfaces and reduce stormwater runoff (e.g., Low Impact Development, Green Infrastructure). Such modifications to ordinance, code and development standards are only required to the extent they are permitted under federal and state laws. The co-permittee must review ordinance, code and development standards for modification, minimization or elimination, and appropriately modify ordinance, code or development standard barriers

by November 1, 2014. If an ordinance, code or development standard barrier is identified at any time subsequent to November 1, 2014, the applicable ordinance, code or development standard must be modified within three years.

- iii. To reduce pollutants and mitigate the volume, duration, time of concentration and rate of stormwater runoff, the co-permittee must develop or reference an enforceable post-construction stormwater quality management manual or equivalent document by November 1, 2014 that, at a minimum, includes the following:
 - 1) A minimum threshold for triggering the requirement for post-construction stormwater management control and the rationale for the threshold.
 - 2) A defined design storm or an acceptable continuous simulation method to address the capture and treatment of 80% of the annual average runoff volume.
 - 3) Applicable LID, GI or similar stormwater runoff reduction approaches, including the practical use of these approaches.
 - 4) Conditions where the implementation of LID, GI or equivalent approaches may be impracticable.
 - 5) BMPs, including a description of the following:
 - a. Site-specific design requirements;
 - b. Design requirements that do not inhibit maintenance; and,
 - c. Conditions where the BMP applies.
 - 6) Pollutant removal efficiency performance goals that maximize the reduction in discharge of pollutants.
- iv. The co-permittee must review, approve and verify proper implementation of post-construction site plans for new development and redevelopment projects applicable to this section.
- v. Where a new development or redevelopment project site is characterized by factors limiting use of on-site stormwater management methods to achieve the post-construction site runoff performance standards, such as high water table, shallow bedrock, poorly-drained or low permeable soils, contaminated soils, steep slopes or other constraints, the Post-Construction Stormwater Management program must require equivalent pollutant reduction measures, such as off-site stormwater quality management. Off-site stormwater quality management may include off-site mitigation, such as using low impact development principles in the construction of a structural stormwater facility within the sub-watershed, a stormwater quality structural facility mitigation bank or a payment-in-lieu program.
- vi. A description of the inspection and enforcement response procedures the co-permittee will follow when addressing project compliance issues with the enforceable post-construction stormwater management performance standards.

- g. **Pollution Prevention for Municipal Operations:** The co-permittee must continue to implement a program to reduce the discharge of pollutants to the MS4 from properties owned or operated by the co-permittee for which the co-permittee has authority, including, but not limited to, parks and open spaces, fleet and building maintenance facilities, transportation systems and fire-fighting training facilities. The co-permittee must conduct, at a minimum, the following program activities:
- i. Operate and maintain public streets, roads and highways in a manner designed to minimize the discharge of stormwater pollutants to the MS4, including pollutants discharged as a result of deicing activities;
 - ii. Implement a management program to control and minimize the use and application of pesticides, herbicides and fertilizers on co-permittee-owned properties;
 - iii. By July 1, 2013, inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal facilities that are used to treat, store or dispose municipal waste, such as yard, landscaping, or catch-basin cleaning waste, and are not already covered under a 1200 series NPDES, a DEQ solid waste permit, or other permit designed to reduce the discharge of pollutants;
 - iv. Limit infiltration of seepage from the municipal sanitary sewer system to the MS4;
 - v. Implement a strategy to prevent or control the release of materials related to fire-fighting training activities; and,
 - vi. Assess co-permittee flood control projects to identify potential impacts on the water quality of receiving water bodies and determine the feasibility of retrofitting structural flood control devices for additional stormwater pollutant removal. The results of this assessment must be incorporated and considered along with the results of the Stormwater Retrofit Assessment required by this permit.
- h. **Stormwater Management Facilities Operation and Maintenance Activities:**
- i. By July 1, 2013, the co-permittee must inventory and map stormwater management facilities and controls, and implement a program to verify that stormwater management facilities and controls are inspected, operated and maintained for effective pollutant removal, infiltration and flow control. At a minimum, the program must include the following:
 - 1. Legal authority to inspect and require effective operation and maintenance;
 - 2. A strategy to inventory and map public and private stormwater management facilities as provided under Schedule A.4.h.ii.; and,
 - 3. Public and private stormwater facility inspection and maintenance requirements for stormwater management facilities that have been inventoried and mapped as provided

under Schedule A.4.h.ii.

- ii. As part of the Stormwater Management Facilities Inspection and Maintenance program, the co-permittee must implement a strategy that guides the long-term maintenance and management of all co-permittee-owned and identified privately-owned stormwater structural facilities. At a minimum, the strategy must describe the following:
 1. Co-permittee-owned or operated stormwater management facilities
 - a. Inventory and mapping process;
 - b. Inspection and maintenance schedule;
 - c. Inspection, operation and maintenance criteria and priorities;
 - d. Description of inspector type and staff position or title; and,
 - e. Inspection and maintenance tracking mechanisms.
 2. Privately-owned or operated stormwater management facilities
 - a. Procedures for and types of stormwater facilities that will be inventoried and mapped. At a minimum, the inventory and mapping must include the following:
 - i. Private stormwater management facilities for new development and redevelopment projects constructed under the co-permittee's post-construction management manual or equivalent document after January 15, 2012;
 - ii. Private stormwater management facilities identified by the co-permittee and used to estimate the pollutant load reduction as part of the TMDL benchmark evaluation; and,
 - iii. Any major private stormwater management facilities or structural controls.
 - b. Inspection criteria, rationale, priorities, frequency and procedures for inspection of private stormwater facilities that have been inventoried and mapped;
 - c. Required training or qualifications to inspect private stormwater facilities;
 - d. Reporting requirements; and,
 - e. Inspection and maintenance tracking mechanism.
5. **Hydromodification Assessment:** The co-permittee must conduct an initial hydromodification assessment and submit a report by July 1, 2015 that examines the hydromodification impacts related to the co-permittee's MS4 discharges, including erosion, sedimentation, and alteration to stormwater flow, volume and duration that may cause or contribute to water quality degradation. The report shall describe existing efforts and proposed actions the co-permittee has identified to address the following objectives:
- a. Collect and maintain information that will inform future stormwater management decisions

related to hydromodification based on local conditions and needs;

- b. Identify or develop strategies to address hydromodification information or data gaps related to waterbodies within the co-permittee's jurisdiction;
- c. Identify strategies and priorities for preventing or reducing hydromodification impacts related to the co-permittee's MS4 discharges; and,
- d. Identify or develop effective tools to reduce hydromodification.

6. Stormwater Retrofit Strategy Development: The co-permittee must develop a stormwater quality retrofit strategy identified in a plan that applies to developed areas identified by the co-permittee as impacting water quality and that are underserved or lacking stormwater quality controls.

- a. The stormwater retrofit strategy must be based on a co-permittee-defined set of stormwater quality retrofit objectives and a comprehensive evaluation of a range of stormwater quality retrofit control measures and their appropriate use. The co-permittee-defined objectives must incorporate progress towards applicable TMDL wasteload allocations. Development of the stormwater retrofit strategy must allow for public comment and consider public input.
- b. The co-permittee must develop and submit a stormwater retrofit plan to the Department by July 1, 2015 that the co-permittee will use to guide the implementation of its stormwater retrofit strategy. The stormwater retrofit plan must describe or reference the following:
 - i. Stormwater retrofit strategy statement and summary, including objectives and rationale;
 - ii. Summary of current stormwater retrofit control measures being implemented, and current estimate of annual program resources directed towards stormwater retrofits;
 - iii. Identification of developed areas or land uses impacting water quality that are high priority retrofit areas;
 - iv. Consideration of new stormwater control measures;
 - v. Preferred retrofit structural control measures, including rationale;
 - vi. A retrofit control measure project or approach priority list, including rationale, identification and map of potential stormwater retrofit locations where appropriate, and an estimated timeline and cost for implementation of each project or approach.
- c. By July 1, 2014, each co-permittee must identify one stormwater quality improvement project, at a minimum, to be initiated, constructed or implemented during the permit term. The project must target the reduction of applicable TMDL pollutant parameters. The project must be associated with a Capital Improvement Project or other municipal retrofit project or strategy.

7. **Implementation Schedule:** The following implementation schedule provides a summary of due dates for the new permit conditions identified in Schedule A.

PERMIT CONDITION	SUMMARY OF IMPLEMENTATION SCHEDULE ACTIVITIES	DUE DATE
Illicit Discharge Detection and Elimination – A.4.a.	1. Document enforcement response procedures	November 1, 2012
	2. Develop or identify pollutant parameter action levels	November 1, 2012
	3. Identify and map dry-weather screening priority locations	November 1, 2012
Industrial and Commercial Facilities – A.4.b	1. Implement industrial and commercial facility inspection and stormwater control program	July 1, 2013
Education and Outreach – A.4.d.	1. Conduct or participate in effectiveness evaluation	July 1, 2015
Post-Construction Site Runoff – A.4.f.	1. Implement updated post-construction site runoff program	November 1, 2014
Pollution Prevention for Municipal Operations – A.4.g.	1. Inventory and assess municipal operations	July 1, 2013
Structural Stormwater Controls Operation and Maintenance Activities – A.4.h.	1. Implement structural stormwater controls operation and maintenance program	July 1, 2013
Hydromodification Assessment – A.5.	1. Conduct hydromodification assessment and submit report	July 1, 2015
Stormwater Retrofit Strategy Development – A.6.	1. Develop stormwater retrofit strategy and submit stormwater retrofit plan	July 1, 2015
	2. Identify stormwater quality improvement project	July 1, 2014
	3. Construct or implement stormwater quality improvement project	Permit expiration date

SCHEDULE B

Monitoring and Reporting Requirements

- 1. MONITORING PROGRAM** - Each co-permittee must continue to implement a monitoring program to support adaptive stormwater management and the evaluation of stormwater management program effectiveness in reducing the discharge of pollutants from the MS4.
 - a. The monitoring program must incorporate the following objectives:
 - i. Evaluate the source(s) of the 2004/2006 303(d) listed pollutants applicable to the co-permittee's permit area;
 - ii. Evaluate the effectiveness of Best Management Practices (BMPs) in order to help determine BMP implementation priorities;
 - iii. Characterize stormwater based on land use type, seasonality, geography or other catchment characteristics;
 - iv. Evaluate status and long-term trends in receiving waters associated with MS4 stormwater discharges;
 - v. Assess the chemical, biological, and physical effects of MS4 stormwater discharges on receiving waters; and,
 - vi. Assess progress towards meeting TMDL pollutant load reduction benchmarks.
 - b. The monitoring program must include environmental monitoring that incorporates the requirements identified in Table B-1. The requirements in Table B-1 become effective with the approval of the monitoring plan in accordance with Schedule B.2.d., and no later than October 1, 2012.

**Table B-1 - Gladstone
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	One (1) site	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Instream Biological Monitoring	Conduct or contribute to an instream biological monitoring project/task.		
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of Gladstone within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil		
Special Conditions: 1) The monitoring frequency reflects the required number of sample events per monitoring location. 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.			
Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:			
<u>Field</u> Dissolved Oxygen pH Temperature Conductivity	<u>Conventional</u> <i>Escherichia coli</i> (E. coli) Hardness Biochemical Oxygen Demand (BOD ₅) Total Suspended Solids (TSS) Total Dissolved Solids (TDS) Volatile Solids (VS)	<u>Nutrients</u> Nitrate (NO ₃) Ammonia Nitrogen (NH ₃ -N) Total Phosphorus (TP) Ortho-Phosphorus (O-PO ₄)	<u>Metals (Total Recoverable & Dissolved)</u> Copper Lead Zinc

**Table B-1 – Johnson City
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	One (1) Site	Five (5) events/permit term	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:			
<u>Field</u> Dissolved Oxygen pH Temperature Conductivity	<u>Conventional</u> <i>Escherichia coli</i> (E. coli) Hardness Biochemical Oxygen Demand (BOD ₅) Total Suspended Solids (TSS) Total Dissolved Solids (TDS) Volatile Solids (VS)	<u>Nutrients</u> Nitrate (NO ₃) Ammonia Nitrogen (NH ₃ -N) Total Phosphorus (TP) Ortho-Phosphorus (O-PO ₄)	<u>Metals (Total Recoverable & Dissolved)</u> Copper Lead Zinc

**Table B-1 – Lake Oswego
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	Seven (7) monitoring sites	Twelve (12) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring – Wet Weather	Two (2) sites	Two (2) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients; Flow
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury (Total & Dissolved)
Instream Biological Monitoring	Ten (10) monitoring sites	One (1) event/permit term	N/A
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of Lake Oswego within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2012 and September 30, 2013. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2014 and September 30, 2015. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

<u>Field</u>	<u>Conventional</u>	<u>Nutrients</u>	<u>Metals (Total Recoverable & Dissolved)</u>
Dissolved Oxygen	<i>Escherichia coli</i> (E. coli)	Nitrate (NO ₃)	Copper
pH	Hardness	Ammonia Nitrogen (NH ₃ -N)	Lead
Temperature	Biochemical Oxygen Demand (BOD ₅)	Total Phosphorus (TP)	Zinc
Conductivity	Total Suspended Solids (TSS)	Ortho-Phosphorus (O-PO ₄)	
	Total Dissolved Solids (TDS)	<u>Mercury (Total & Dissolved)</u>	
	Volatile Solids (VS)	Mercury	
		Methyl Mercury	

**Table B-1 - Milwaukie
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	One (1) site	Four (4) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Continuous Instream Monitoring	One (1) monitoring station	Ongoing	Temperature Conductivity Dissolved Oxygen Total Dissolved Solids pH
Stormwater Monitoring – Wet Weather	One (1) site	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury (Total & Dissolved)
Instream Biological Monitoring	Conduct or contribute to an instream biological monitoring project/task.		
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of Milwaukie within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2012 and September 30, 2013. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2014 and September 30, 2015. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

Field	Conventional	Nutrients	Metals (Total Recoverable & Dissolved)
Dissolved Oxygen pH Temperature Conductivity	<i>Escherichia coli</i> (E. coli) Hardness Biochemical Oxygen Demand (BOD ₅) Total Suspended Solids (TSS) Total Dissolved Solids (TDS) Volatile Solids (VS)	Nitrate (NO ₃) Ammonia Nitrogen (NH ₃ -N) Total Phosphorus (TP) Ortho-Phosphorus (O-PO ₄) <u>Mercury (Total & Dissolved)</u> Mercury Methyl Mercury	Copper Lead Zinc

**Table B-1 - Oregon City
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	Six (6) Sites	Four (4) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring – Wet Weather	Two (2) sites	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients;
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury
Instream Biological Monitoring	Conduct or contribute to an instream biological monitoring project/task.		
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of Oregon City within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2012 and September 30, 2013. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2014 and September 30, 2015. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

<u>Field</u>	<u>Conventional</u>	<u>Nutrients</u>	<u>Metals (Total Recoverable & Dissolved)</u>
Dissolved Oxygen	<i>Escherichia coli</i> (E. coli)	Nitrate (NO ₃)	Copper
pH	Hardness	Ammonia Nitrogen (NH ₃ -N)	Lead
Temperature	Biochemical Oxygen Demand (BOD ₅)	Total Phosphorus (TP)	Zinc
Conductivity	Total Suspended Solids (TSS)	Ortho-Phosphorus (O-PO ₄)	
	Total Dissolved Solids (TDS)	<u>Mercury (Total & Dissolved)</u>	
	Volatile Solids (VS)	Mercury	
		Methyl Mercury	

**Table B-1 – West Linn
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	Three (3) sites	Five (5) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring – Wet Weather	One (1) site	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury
Instream Biological Monitoring	Conduct or contribute to an instream biological monitoring project/task.		
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of West Linn within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2012 and September 30, 2013. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2014 and September 30, 2015. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

<u>Field</u>	<u>Conventional</u>	<u>Nutrients</u>	<u>Metals (Total Recoverable & Dissolved)</u>
Dissolved Oxygen	<i>Escherichia coli</i> (E. coli)	Nitrate (NO ₃)	Copper
pH	Hardness	Ammonia Nitrogen (NH ₃ -N)	Lead
Temperature	Biochemical Oxygen Demand (BOD ₅)	Total Phosphorus (TP)	Zinc
Conductivity	Total Suspended Solids (TSS)	Ortho-Phosphorus (O-PO ₄)	
	Total Dissolved Solids (TDS)	<u>Mercury (Total & Dissolved)</u>	
	Volatile Solids (VS)	Mercury	
		Methyl Mercury	

**Table B-1 - Wilsonville
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	Three (3) sites	Four (4) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring – Wet Weather	One (1) site	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury
Instream Biological Monitoring	Conduct or contribute to an instream biological monitoring project/task.		
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of Wilsonville within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2013 and September 30, 2014. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2015 and September 30, 2016. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

Field Dissolved Oxygen pH Temperature Conductivity	Conventional <i>Escherichia coli</i> (E. coli) Hardness Biochemical Oxygen Demand (BOD ₅) Total Suspended Solids (TSS) Total Dissolved Solids (TDS) Volatile Solids (VS)	Nutrients Nitrate (NO ₃) Ammonia Nitrogen (NH ₃ -N) Total Phosphorus (TP) Ortho-Phosphorus (O-PO ₄) <u>Mercury (Total & Dissolved)</u> Mercury Methyl Mercury	<u>Metals (Total Recoverable & Dissolved)</u> Copper Lead Zinc
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**Table B-1 – Clackamas County, City of Happy Valley, and Clackamas County Service District No. 1
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	Eight (8) sites	Nine (9) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Instream Biological Monitoring	Eight (8) sites	One (1) event/permit term	N/A
Geomorphic Condition Monitoring	Seven (7) sites	One (1) event/permit term	N/A
Stormwater Monitoring – Wet Weather	Four (4) sites	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury (Total & Dissolved)
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the co-permittees within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) The Geomorphic Condition monitoring must reflect a generally accepted geomorphic assessment methodology (e.g., Reconnaissance Level Assessment, Rapid Resource Inventory for Sediment and Stability Consequences). The methodology must be documented or referenced in the monitoring plan.
- 4) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2013 and September 30, 2014. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2015 and September 30, 2016. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

Field	Conventional	Nutrients	Metals (Total Recoverable & Dissolved)
Dissolved Oxygen	<i>Escherichia coli</i> (E. coli)	Nitrate-Nitrite (NO ₃)	Copper
pH	Hardness	Ammonia Nitrogen (NH ₃ -N)	Lead
Temperature	Biochemical Oxygen Demand (BOD ₅)	Total Phosphorus (TP)	Zinc
Conductivity	Total Suspended Solids (TSS)	Ortho-Phosphorus (O-PO ₄)	
	Total Dissolved Solids (TDS)	Mercury (Total & Dissolved)	
		Mercury	
		Methyl Mercury	

**Table B-1 – City of Rivergrove and Surface Water Management Agency of Clackamas County
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	One (1) site	Nine (9) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Instream Biological Monitoring	One (1) site	One (1) event/permit term	N/A
Stormwater Monitoring – Wet Weather	One (1) site	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury (Total & Dissolved)
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the co-permittees within the jurisdictional areas and the following: <u>Insecticides</u> : Bifenthrin, Cypermethrin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; <u>Herbicides</u> : Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, <u>Fungicides</u> : Chlorothalonil, Propiconazole, Myclobutanil.		
Special Conditions: 1) The monitoring frequency reflects the required number of sample events per monitoring location. 2) The Instream Biological Monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan. 3) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2013 and September 30, 2014. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2015 and September 30, 2016. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the ‘Field Analyte’ category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.			
Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:			
Field Dissolved Oxygen pH Temperature Conductivity	Conventional <i>Escherichia coli</i> (E. coli) Hardness Biochemical Oxygen Demand (BOD ₅) Total Suspended Solids (TSS) Total Dissolved Solids (TDS) Volatile Solids (VS)	Nutrients Nitrate-Nitrite (NO ₃) Ammonia Nitrogen (NH ₃ -N) Total Phosphorus (TP) Ortho-Phosphorus (O-PO ₄) Mercury (Total & Dissolved) Mercury Methyl Mercury	Metals (Total Recoverable & Dissolved) Copper Lead Zinc

**Table B-1 – Oak Lodge Sanitary District
Environmental Monitoring**

Monitoring Type	Monitoring Location(s)	Monitoring Frequency	Pollutant Parameter Analyte(s)
Instream Monitoring	Three (3) sites	Four (4) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring – Wet Weather	Three (3) sites	Three (3) events/year	Field; Conventional; Metals (Total Recoverable & Dissolved); Nutrients
Stormwater Monitoring - Mercury	One (1) site	See Special Condition #3	Mercury
Instream Biological Monitoring	Conduct or contribute to an instream biological monitoring project/task.		
Pesticide Monitoring	Conduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task. The pesticide pollutant parameters that must be considered for purposes of this requirement include any pesticides currently used by the City of Wilsonville within the jurisdictional areas and the following: Insecticides: Bifenthrin, Cypermethin or Permethrin, Imidacloprid, Fipronil, Malathion, Carbaryl; Herbicides: Triclopyr, 2,4-D, Glyphosate & degradate (AMPA), Trifluralin, Pendimethalin; and, Fungicides: Chlorothalanil, Propiconazole, Myclobutanil		

Special Conditions:

- 1) The monitoring frequency reflects the required number of sample events per monitoring location.
- 2) The Instream Biological monitoring must follow a generally accepted biological monitoring methodology (e.g., DEQ Benthic Macroinvertebrate Protocol for Wadeable Rivers and Streams). The methodology must be documented or referenced in the monitoring plan.
- 3) Oil & Grease monitoring must use the Silica Gel Treated Hexane Extractable Material analytical method.
- 4) Mercury stormwater monitoring during one wet-weather storm event and one dry-weather storm event must be conducted between October 1, 2013 and September 30, 2014. A second wet-weather storm event and dry-weather storm event must be monitored between October 1, 2015 and September 30, 2016. The co-permittee may request in writing beginning October 1, 2014 that monitoring of the second storm events be eliminated, and these events may be eliminated only after written approval by the Department is received by the co-permittee. Wet-weather storm event monitoring must occur between October 1 and April 30. Dry-weather storm event monitoring must occur between May 1 and September 30. EPA Method 1669 ultra clean sampling protocol must be used to collect samples. Monitoring for total and dissolved mercury must be performed according to USEPA method 1631E with a quantitation limit of 0.5 ng/L. Monitoring for total and dissolved methyl mercury must be performed according to USEPA method 1630 with a quantitation limit of 0.05 ng/L. Samples for pollutant parameters in the 'Field Analyte' category and TSS must be collected during each mercury monitoring sample event and analyzed in accordance with approved analytical methods.

Pollutant parameter(s) identified in each analyte category in Table B-1 are as follows:

<u>Field</u>	<u>Conventional</u>	<u>Nutrients</u>	<u>Metals (Total Recoverable & Dissolved)</u>
Dissolved Oxygen	<i>Escherichia coli</i> (E. coli)	Nitrate (NO ₃)	Copper
pH	Hardness	Ammonia Nitrogen (NH ₃ -N)	Lead
Temperature	Biochemical Oxygen Demand (BOD ₅)	Total Phosphorus (TP)	Zinc
Conductivity	Total Suspended Solids (TSS)	Ortho-Phosphorus (O-PO ₄)	
	Total Dissolved Solids (TDS)	<u>Mercury (Total & Dissolved)</u>	
	Oil & Grease	Mercury	
		Methyl Mercury	

2. MONITORING PLAN - The co-permittee must develop and implement an approved monitoring plan by October 1, 2012. Prior to submission of the monitoring plan to the Department, the co-permittee must provide an opportunity to receive comments from the public. The monitoring plan must be submitted to the Department for review no later than September 1, 2012, and incorporate the following elements:

- a. Identifies how each monitoring objective identified in Schedule B.1.a. is addressed and the sources of information used. The co-permittee may use Stormwater Management Plan measurable goals, environmental monitoring activities, historical monitoring data, stormwater modeling, national stormwater monitoring data, stormwater research or other applicable information to address the monitoring objectives.
- b. Describes the role of the monitoring program in the adaptive management of the stormwater program.
- c. Describes the relationship between environmental monitoring and a long-term monitoring program strategy.
- d. Describes the following information for each environmental monitoring project/task:
 - i. Project/task organization
 - ii. Monitoring objectives, including:
 - a. Monitoring question and background;
 - b. Data analysis methodology and quality criteria; and,
 - c. Assumptions and rationale;
 - iii. Documentation and record-keeping procedures;
 - iv. Monitoring process/study design, including monitoring location, description of sampling event or storm selection criteria, monitoring frequency and duration, and responsible sampling coordinator;
 - v. Sample collection methods and handling/custody procedures;
 - vi. Analytical methods for each water quality parameter to be analyzed;
 - vii. Quality control procedures, including quality assurance, the testing, inspection, maintenance, calibration of instrumentation and equipment; and,
 - viii. Data management, review, validation and verification.
- e. The monitoring plan may be modified without prior Department approval if the following conditions are met. For conditions not covered in this section, the co-permittee must provide the Department with a 30-day notice of the proposed modification to the monitoring plan, and receive written approval from the Department prior to implementation of the proposed modification. If the Department does not respond to the permittee within 30

days, the permittee may proceed with implementation of the proposed modification without written approval.

- i. The co-permittee is unable to collect or analyze any sample, pollutant parameter, or information due to circumstances beyond the co-permittee's control. These circumstances may include, but are not limited to, abnormal climatic conditions, unsafe or impracticable sampling conditions, equipment vandalism or equipment failures that occur despite proper operations and maintenance; or,
 - ii. The modification does not reduce the minimum number of data points, which are a product of monitoring location, frequency, and length of permit term, or eliminate pollutant parameters identified in Table B-1.
- f. Modifications to the monitoring plan in accordance with Schedule B.2.e. must be documented in the subsequent annual report by describing the rationale for the modification, and how the modification will allow the monitoring program to remain compliant with the permit conditions.

3. SAMPLING AND ANALYSIS – The co-permittee must exercise due diligence in collecting and analyzing all environmental monitoring samples required by this permit. All monitoring must be conducted in accordance with design and procedures identified in Schedule B.2.d.

- a. Instream monitoring
 - i. A minimum of 50 percent of the water quality sample events must be collected during the wet season (October 1 to April 30).
 - ii. Each unique sample event must occur at a minimum of 14 days apart.
- b. Stormwater monitoring
 - i. All water quality samples must be collected during a storm event that is greater than 0.1 inch of rainfall.
 - ii. When possible, samples must be collected after an antecedent dry period of a minimum of 24 hours.
 - iii. The intra-event dry period must not exceed 6 hours, unless a 24-hr flow-weighted composite sample collection method is employed.
 - iv. Sample Collection Method: A flow-weighted composite sample must be collected during stormwater runoff producing events that represent the local or regional rainfall frequency and intensity, including event types that may be expected to yield high pollutant loads/concentrations.

- 1. A time-composite sampling method or grab sampling method may be used for an environmental monitoring type, project or task, if the monitoring plan identifies the infeasibility of the flow-weighted composite sampling method or

flow-weighted composite sampling is scientifically unwarranted based upon the development of plan requirements identified in Schedule B.2.d. For time composite sampling or grab sampling to be considered valid for the purpose of this permit requirement, the rationale for the use of these alternative sampling methods and sampling procedures must be described in the monitoring plan.

2. The flow-weighted sampling method requirement is not applicable to the collection of samples for the pollutant parameters requiring the grab sampling method, such as bacteria, oil & grease, pH or volatiles or for samples collected for purposes of insecticide, herbicide and fungicide monitoring.

3. Grab samples may be collected during any part of a storm event which produces sufficient runoff for sampling. The grab samples must be collected in a manner to minimize any potential bias in the results.

- v. Flow or rainfall data must be collected, estimated or modeled for each stormwater monitoring event, including storm events when mercury monitoring is conducted. If flow or rainfall is modeled or estimated, the procedure must be described in the monitoring plan.
 - c. Samples must be analyzed in accordance with EPA approved methods listed in the most recent publication of 40 CFR 136. Sample shipment and analysis for total and dissolved mercury and methyl mercury must adhere to the methods referenced in DEQ's "Mercury Monitoring Requirements for Willamette Basin Permittees" memo. The analysis must utilize appropriate Quality Assurance/Quality Control protocols, such as routinely analyzing replicates, blanks, laboratory control samples and spiked samples, and quantitation limits appropriate for the sampling objective. Field analytical kits are acceptable if the kits use a method approved under 40 CFR 136. This requirement does not apply to illicit detection and discharge elimination field screening activities conducted by the co-permittee as required by Schedule A.4.a.iv. Use of alternative test procedures must be done in accordance with 40 CFR 136.
 - d. If an approved analytical method is not identified in 40 CFR 136, the co-permittee may use a suitable analytical method if the method is described in the monitoring plan, and submitted to the Department for review and approval prior to use.
 - e. Analyzed samples must comply with preservation, transportation and holding time recommendations cited in 40 CFR 136, in the most recent edition of Standard Methods for the Examination of Water and Wastewater, a DEQ management directive, or as applicable to the analytical method if no approved analytical method in 40 CFR 136 or the most recent edition of Standard Methods for the Examination of Water and Wastewater exists.
 - f. Analytical data must be available to the Department in a useable electronic format.
4. **COORDINATED MONITORING** –Environmental monitoring conducted to meet a permit condition in Table B-1 may be coordinated among co-permittees or conducted on behalf of a co-

permittee by a third party. Each co-permittee is responsible for environmental monitoring in accordance with Schedule B requirements. The co-permittee may utilize data collected by another permittee, a third party, or in another co-permittee's jurisdiction to meet a permit condition in Table B-1 provided the co-permittee establishes an agreement prior to conducting coordinated environmental monitoring.

- 5. ANNUAL REPORTING REQUIREMENT** – The co-permittee must submit, by November 1 of each year, an annual report for the time period July 1 of the previous year through June 30 of the same year. One printed copy and an electronic copy must be submitted to the appropriate Department regional office. An electronic copy must also be made available on the co-permittee's website and/or other similar method approved by the Department. Each co-permittee is responsible for the portion of the annual report applicable to its jurisdiction. Each annual report must contain:
- a. The status of implementing the stormwater management program and each SWMP program element, including progress in meeting the measurable goals identified in the SWMP.
 - b. Status or results, or both, of any public education program effectiveness evaluation conducted during the reporting year and a summary of how the results were or will be used for adaptive management.
 - c. A summary of the adaptive management process implementation during the reporting year, including any proposed changes to the stormwater management program (e.g., new BMPs) identified through implementation of the adaptive management process.
 - d. Any proposed changes to SWMP program elements that are designed to reduce TMDL pollutants to the MEP.
 - e. A summary of total stormwater program expenditures and funding sources over the reporting fiscal year, and those anticipated in the next fiscal year.
 - f. A summary of monitoring program results, including monitoring data that are accumulated throughout the reporting year and any assessments or evaluations conducted.
 - g. Any proposed modifications to the monitoring plan that are necessary to ensure that adequate data and information are collected to conduct stormwater program assessments.
 - h. A summary describing the number and nature of enforcement actions, inspections, and public education programs, including results of ongoing field screening and follow-up activities related to illicit discharges.
 - i. A summary, as it relates to MS4 discharges, describing land use changes, Urban Growth Boundary (UGB) expansion, land annexations, and new development activities that occurred within these areas during the reporting year. The number of new post-construction permits issued and an estimate of the total new and replaced impervious surface area related to development projects that commenced during the reporting year must also be included.

- j. A summary, as related to MS4 discharges, describing concept planning or other activities conducted in preparation of UGB expansion or land annexation, if anticipated for the following year.
 - k. In addition to the elements listed under Schedule B.5.a. through B.5.i., the annual report submitted by November 1, 2015 must include:
 - i. The TMDL Pollutant Load Reduction Evaluation as described in Schedule D.3.c.
 - ii. The Wasteload Allocation Attainment Assessment as described in Schedule D.3.b.
 - iii. The 303(d) evaluation as described in Schedule D.2.
- 6. MS4 PERMIT RENEWAL APPLICATION PACKAGE** - At least 180 days prior to permit expiration, the co-permittee must submit a permit renewal application package to support their proposed modifications to the SWMP for the renewed permit. One printed copy and an electronic copy must be submitted to the appropriate DEQ regional office. An electronic copy must also be made available on the co-permittee's website or other similar method approved by the Department. The application package must include an evaluation of the adequacy of the proposed SWMP modifications in reducing pollutants in discharges from the MS4 to the MEP. The application package must contain:
- a. Proposed program modifications including the modification, addition or removal of BMPs incorporated into the SWMP, and associated measurable goals.
 - b. The information and analysis necessary to support the Department's independent assessment that the co-permittee's stormwater management program addressed the requirements of the existing permit. Co-permittees must also describe how the proposed management practices, control techniques, and other provisions implemented as part of the stormwater program were evaluated using a co-permittee-defined and standardized set of objective criteria relative to the following MEP general evaluation factors:
 - i. Effectiveness – program elements effectively address stormwater pollutants.
 - ii. Local Applicability – program elements are technically feasible considering local soils, geography, and other locale specific factors.
 - iii. Program Resources – program elements are implemented considering availability to resources and the co-permittees stormwater management program priorities.
 - c. An updated estimate of total annual stormwater pollutant loads for applicable TMDL pollutants or applicable surrogate parameters, and the following pollutant parameters: BOD₅, COD, nitrate, total phosphorus, dissolved phosphorus, cadmium, copper, lead and zinc. The estimates must be accompanied by a description of the procedures for estimating pollutant loads and concentrations, including any modeling, data analysis and calculation methods.
 - d. A proposed monitoring program objectives matrix and proposed monitoring plan including the information required in Schedule B.2.d. for each proposed monitoring project/task.
 - e. A description of any MS4 service area expansions that are anticipated to occur during the

following permit term and a finding as to whether or not the expansion is expected to result in a substantial increase in area, intensity or pollutant loads.

- f. A fiscal evaluation summarizing program expenditures for the current permit cycle and projected program allocations for next permit cycle.
- g. Updated MS4 maps, including the service boundary of the MS4, projected changes in land use and population densities, anticipated Urban Growth Boundary expansion or areas planned to be incorporated through land annexation, location of co-permittee-owned operations, facilities or properties with storm sewer systems, and the location of facilities issued an industrial NPDES permit that discharge to the MS4.
- h. If applicable, the established TMDL pollutant load reduction benchmarks, as required in Schedule D.3.d.

SCHEDULE C

Compliance Conditions and Dates

Compliance conditions and dates are not included at this time.

SCHEDULE D

Special Conditions

1. Legal Authority

Each co-permittee must maintain adequate legal authority through ordinance(s), interagency agreement(s) or other means to implement and enforce the provisions of this permit.

2. 303(d) Listed Pollutants

- a. The requirements of this section apply to receiving waters listed as impaired on the 303(d) list without established TMDL waste load allocations to which the co-permittee's MS4 discharges. The co-permittee must:
 - i. Review the applicable pollutants that are on the 2004/2006 303(d) list, or the most recent USEPA list if approved within three years of the issuance date of this permit, that are relevant to the co-permittee's MS4 discharges by November 1, 2015. Based on a review of the most current 303(d) list, evaluate whether there is a reasonable likelihood for stormwater from the MS4 to cause or contribute to water quality degradation of receiving waters.
 - ii. Evaluate whether the BMPs in the existing SWMP are effective in reducing the 303(d) pollutants. If the co-permittee determines that the BMPs in the existing SWMP are ineffective in reducing the applicable 303 (d) pollutants, the co-permittee must describe how the SWMP will be modified or updated to address and reduce these pollutants to the MEP.
 - iii. By November 1, 2015, submit a report summarizing the results of the review and evaluation, and that identifies any proposed modifications or updates to the SWMP that are necessary to reduce applicable 303(d) pollutants to the MEP.

3. Total Maximum Daily Loads (TMDLs)

- a. **Applicability:** The requirements of this section apply to the co-permittee's MS4 discharges to receiving waters with established TMDLs or to receiving waters with new or modified TMDLs approved by EPA within three years of the issuance date of this permit. Established TMDLs are noted on page 1 of this permit. Pollutant discharges for those parameters listed in the TMDL with applicable wasteload allocations (WLAs) must be reduced to the maximum extent practicable through the implementation of BMPs and an adaptive management process.
- b. **Wasteload Allocation Attainment Assessment:** The co-permittee must complete an assessment of WLA attainment, including identifying information related to the type and extent of BMPs necessary to achieve pollutant load reductions associated with an established TMDL WLA and the financial costs and other resources that may be associated with the implementation, operation and maintenance of BMPs. The results of the assessment must be submitted to the Department by November 1, 2015.

- c. TMDL Pollutant Load Reduction Evaluation: Progress towards reducing TMDL pollutant loads must be evaluated by the co-permittee through the use of a pollutant load reduction empirical model, water quality status and trend analysis, and other appropriate qualitative or quantitative evaluation approaches identified by the co-permittee. The results of this TMDL pollutant load reduction evaluation must be described in a report and submitted to the Department by November 1, 2015. The report must contain the following:
 - i. The rationale and methodology used to evaluate progress towards reducing TMDL pollutant loads.
 - ii. An estimate of current pollutant loadings without considering BMP implementation, and an estimate of current pollutant loadings considering BMP implementation for each TMDL parameter with an established WLA. The difference between these two estimated loads is the pollutant load reduction.
 - iii. A comparison of the estimated pollutant loading with and without BMP implementation to the applicable TMDL WLA.
 - iv. A comparison of the estimated pollutant load reduction to the estimated TMDL pollutant load reduction benchmark established for the permit term, if applicable.
 - v. A description of the estimated effectiveness of structural BMPs.
 - vi. A description of the estimated effectiveness of non-structural BMPs, if applicable, and the rationale for the selected approach.
 - vii. A water quality trend analysis, as sufficient data are available, and the relationship to stormwater discharges for receiving waterbodies within the co-permittee's jurisdictional area with an approved TMDL. If sufficient data to conduct a water quality trend analysis is unavailable for a receiving waterbody, the co-permittee must describe the data limitations. The collection of sufficient data must be prioritized and reflected as part of the monitoring project/task proposal required in Schedule B.6.d.
 - viii. A narrative summarizing progress towards the applicable TMDL WLAs and existing TMDL benchmarks, if applicable. If the co-permittee estimates that an existing TMDL benchmark was not achieved during the permit term, the co-permittee must apply their adaptive management process to reassess the SWMP and current BMP implementation in order to address TMDL pollutant load reduction over the next permit term. The results of this reassessment must be submitted with the permit renewal application package described in Schedule B.6.; and,
 - ix. If the co-permittee estimates that TMDL WLAs are achieved with existing BMP implementation, the co-permittee must provide a statement supporting this conclusion.
- d. Establishment of TMDL Pollutant Reduction Benchmarks: A TMDL pollutant reduction benchmark must be developed for each applicable TMDL parameter where existing BMP implementation is not achieving the WLA. An updated TMDL pollutant reduction benchmark must be submitted with the permit renewal application at least 180 days prior to expiration of this permit, as follows:
 - i. The TMDL pollutant load reduction benchmark must reflect:
 1. Additional pollutant load reduction necessary to achieve the benchmark estimated for the current permit term, if not achieved per Schedule D.3.c.iv.; and,

2. The pollutant load reduction proposed to achieve additional progress towards the TMDL WLA during the next permit term.
- ii. The TMDL pollutant load reduction benchmark submittal must include the following:
 1. An explanation of the relationship between the TMDL wasteload allocations and the TMDL benchmark for each applicable TMDL parameter;
 2. A description of how SWMP implementation contributes to the overall reduction of the TMDL pollutants during the next permit term;
 3. Identification of additional or modified BMPs that will result in further reductions in the discharge of the applicable TMDL pollutants, including the rationale for proposing the BMPs; and,
 4. An estimate of current pollutant loadings that reflect the implementation of the current BMPs and the BMPs proposed to be implemented during the next permit term.

4. Adaptive Management

Each co-permittee must follow an adaptive management approach to assess annually and modify, as necessary, any or all existing SWMP components and adopt new or revised SWMP components to achieve reductions in stormwater pollutants to the MEP. The adaptive management approach must include routine assessment of the need to further improve water quality and protection of beneficial uses, review of available technologies and practices, review of monitoring data and analyses required in Schedule B, review of measurable goals and tracking measures, and evaluation of resources available to implement the technologies and practices. The co-permittee must submit a description of the process for conducting this adaptive management approach during the permit term by November 1, 2012.

5. SWMP Revisions

The co-permittee may revise their SWMP during the permit term in accordance with the following procedures:

- i. Adding BMPs, controls or requirements to the SWMP may be made at any time. The co-permittee must provide notification to the Department prior to implementation, and submit a summary of such revisions to the Department in the subsequent annual report.
- ii. Reducing, replacing or eliminating BMP components, controls or requirements from the SWMP require submittal of a written request to the Department at least 60 days prior to the planned reduction, replacement, and/or elimination. The co-permittee's request must provide information that will allow the Department to determine within 60 days if the nature or scope of the SWMP is substantially changed, and include the following:
 1. Proposed reduction, replacement or elimination of the BMP(s), control, or requirement and schedule for implementation.
 2. An explanation of the need for the replacement, reduction or elimination.
 3. An explanation of how the replacement or reduction is expected to better achieve the goals of the stormwater management program or how the elimination is a result of the satisfactory completion of the BMP component, control or requirement.
- iii. The co-permittee must not implement a reduction, replacement or elimination of a BMP

until approved by the Department. If a request is denied, the Department must send the co-permittee a written response providing a reason for the decision.

- iv. Adding, reducing, replacing or eliminating BMPs in the SWMP are considered permit revisions, and such revisions are minor or major permit modifications. Revisions that substantially change the nature and scope of the BMP component, control or requirement will be considered a major permit modification. Revisions requested by the permittee or initiated by the Department will be made in accordance with 40 CFR §§124.5, 122.62, or 122.63, and OAR 340-045-0040 and 0055.
- v. Revisions initiated by the Department will be made in writing, set forth the time schedule for the co-permittee to develop the revisions, and offer the co-permittee the opportunity to propose alternatives to meet the objective of the requested revisions.

6. CITY OF GLADSTONE: Conduct Stormwater Master Planning

- a. The City of Gladstone must complete and submit a stormwater master plan to the Department by January 1, 2014. The stormwater master plan must identify stormwater quality controls to reduce the discharge of pollutants from the municipal separate storm sewers, and may focus on the identification of capital improvement projects for stormwater quality.

7. OAK LODGE SANITARY DISTRICT and CLACKAMAS COUNTY: TMDL Pollutant Load Reduction Evaluation and Intergovernmental Agreement

- a. Oak Lodge Sanitary District and Clackamas County must evaluate TMDL pollutant load reductions representing jurisdictional areas identified on the Oak Lodge Sanitary District MS4 Regulatory Map. The evaluation must use a pollutant load reduction empirical model and may incorporate the results of a water quality status and trend analysis for waterbodies to which the Oak Lodge Sanitary District and Clackamas County MS4 discharges. The evaluation must reflect the estimated TMDL pollutant loads and estimated pollutant load reductions for all applicable TMDL pollutant parameters as estimated for the year of 2010. The results of this TMDL pollutant load reduction evaluation must be described in a report and submitted to the Department by November 1, 2013. The report must include all of the information required in Schedule D.3.c.i-ix. Completion of activities to achieve compliance with this condition may not be conducted in lieu of requirements described in Schedule D.3.
- b. Oak Lodge Sanitary District and Clackamas County must develop a TMDL pollutant reduction benchmark for each applicable TMDL parameter where existing BMP implementation is not achieving the WLA. The TMDL pollutant reduction benchmark may be used for purposes of comparison, as required in Schedule D.3.c.iv.
- c. Oak Lodge Sanitary District and Clackamas County must submit an intergovernmental agreement or equivalent document by November 1, 2013 describing the co-permittee that will maintain lead jurisdictional responsibility for the requirements identified in Schedule A.4.a-h., Schedule D.2, and Schedule D.3 within the geographical areas identified on the Oak Lodge Sanitary District MS4 Regulatory Map.

8. SWMP Measurable Goals

The following conditions must be incorporated into the City of Gladstone SWMP by May 1, 2012:

- a. **BMP Require Erosion Control for New and Redevelopment:** Update City Municipal Code provisions related to erosion and sediment control by January 1, 2014 in order to reflect permit requirements and accurately describe coordination with Clackamas County.
- b. **BMP Conduct Erosion Control Inspections and Enforcement:** Add measurable goal that a minimum of one unscheduled inspection is conducted at all active construction sites.
- c. **BMP Minimize Impacts Associated with Landscape Maintenance Activities:** Add measurable goal to implement the Integrated Pest Management Guidelines for the City of Gladstone on all public parks, roadsides and open space areas.
- d. **BMP Implement a Program to Reduce the Impact of Stormwater Runoff from Municipal Facilities:** Modify measurable goal to ensure inventory of municipal facilities, and the identification and implementation of strategies designed to reduce the impact of stormwater runoff from these municipal facilities is completed by January 1, 2013.
- e. **BMP Coordinate with the Local Fire Department related to Pollutant Discharge from Fire Fighting Training Activities:** Modify the measurable goal under the first bullet point to contact the City fire chief to determine what activities are conducted to minimize pollutant discharge associated with fire fighting training activities by November 1, 2012.

The following conditions must be incorporated into the City of Johnson City SWMP by May 1, 2012:

- f. **BMP JC-3:** Modify measurable goal to reflect the review, approval and verification of new development and redevelopment post-construction stormwater management plans for all new development and redevelopment projects subject to the post-construction site runoff program.

The following conditions must be incorporated into the City of Lake Oswego SWMP by May 1, 2012:

- g. **BMP EC1:** Add measurable goal to provide wet-weather construction requirements with all erosion and sediment control permits issued between October 1 and May 31.
- h. **BMP EC2:** Modify measurable goal under the second bullet point to add that a minimum of one unscheduled inspection is conducted at all active construction sites.
- i. **BMP PEST1:** Modify measurable goal to develop a process for the inventory of pesticides applied to permittee-owned or operated property by November 1, 2012. Upon development of the inventory process, annually inventory pesticide use on permittee-owned or operated property.
- j. **BMP PEST1:** Add measurable goal to require all pesticide applicators applying pesticides to permittee-owned or operated property maintain an operator certification.
- k. **BMP PEST2:** Modify measurable goal to continue to implement the City of Lake Oswego's Integrated Pest Management (IPM) practices, and by November 1, 2014, update the City of Lake Oswego's IPM practices to reflect generally accepted integrated pest management principles.
- l. **BMP OM4:** Modify measurable goal to ensure inventory of municipal facilities, implementation and tracking of the program designed to reduce the impact of stormwater runoff from municipal facilities is completed by January 1, 2013.

The following conditions must be incorporated into the City of Milwaukie SWMP by May 1, 2012:

- m. BMP Conduct Street Sweeping and Roadway Repair Activities:** Modify measurable goal to schedule and conduct routine road repair during dry-weather conditions.
- n. BMP Minimize Water Quality Impacts Associated with Landscape Management Practices:** Add second bullet point under measurable goal to develop and implement Integrated Pest Management guidelines by November 1, 2014.
- o. BMP Implement a Program to Reduce the Impact of Stormwater Runoff from Municipal Facilities:** Modify measurable goal to ensure procedures are drafted by the start-up of facility operation, and that final procedures are implemented within 6 months of operation.

The following conditions must be incorporated into the City of Oregon City SWMP by May 1, 2012:

- p. BMP 3-3:** Add third bullet point under the measurable goals to reflect one unscheduled inspection.
- q. BMP 7-4:** Add third bullet point under the measurable goals to develop Geographical Information System map layer that identifies high priority inspection areas by June 30, 2013, and conduct visual inspections during routine catch basin cleaning in the areas identified on the high priority area map layer.
- r. BMP 7-5:** Modify measurable goals to contact and provide educational information to minimize pollutant discharges associated with fire fighting training activities to Clackamas County Fire District #1 by November 1, 2012.

The following conditions must be incorporated into the City of West Linn SWMP by May 1, 2012:

- s. BMP Conduct Erosion Control Inspections and Enforcement:** Modify the measurable goal under the first bullet point to conduct an initial and final inspection at all construction sites with erosion control plan for appropriate erosion control. Add fourth bullet point to measurable goals that ensures a minimum of one additional erosion control inspection is conducted during active construction at all sites.
- t. BMP Conduct Street Area Repair:** Modify measurable goal to ensure all road maintenance and repair activities will include appropriate erosion control practices that address water quality impacts.
- u. BMP Implement a Program to Reduce the Impact of Stormwater Runoff from Municipal Facilities:** Modify measurable goal to ensure inventory of municipal facilities, and the identification and implementation of strategies designed to reduce the impact of stormwater runoff from these municipal facilities is completed by January 1, 2013.
- v. BMP Control Infiltration and Cross Connections to the Stormwater Conveyance System:** Modify the measurable goal under the first bullet point to investigate for cracking and breakage, and repair as necessary based on the results of the inspection, a minimum of 5,000 linear feet of sanitary sewer annually.

The following conditions must be incorporated into the City of Wilsonville SWMP by May 1, 2012:

- w. BMP Routine Road Maintenance:** Modify second bullet point under measurable goal to schedule and conduct routine road repair during dry-weather conditions.
- x. BMP Municipal Facility Stormwater Management:** Modify measurable goal to ensure inventory of municipal facilities, and the identification and implementation of strategies designed to reduce the impact of stormwater runoff from these municipal facilities is completed by January 1, 2013.

The following conditions must be incorporated into the CCSD#1 and City of Happy Valley SWMP by May 1, 2012:

- y. BMP 9:** Add fifth bullet point to measurable goals to conduct a minimum of one unscheduled inspection at all active construction sites.
- z. BMP 22:** Add second bullet point to measurable goal to develop and implement an Integrated Pest Management Plan by December 31, 2012.
- aa. BMP 24:** Modify measurable goal to reflect that all planned stormwater Capital Improvement Projects will be developed to address water quality in accordance with the applicable Watershed Action Plan.
- bb. BMP 26:** Add a third bullet point to measurable goals to conduct conveyance system condition assessment by June 30, 2013.

The following conditions must be incorporated into the SWMACC and City of Rivergrove SWMP by May 1, 2012:

- cc. BMP 9:** Add third bullet point to measurable goals to conduct a minimum of one unscheduled inspection at all active construction sites.
- dd. BMP 22:** Add second bullet point to measurable goal to develop and implement an Integrated Pest Management Plan by December 31, 2012.
- ee. BMP 26:** Add a third bullet point to measurable goals to conduct conveyance system condition assessment by January 1, 2013.

The following conditions must be incorporated into the Oak Lodge Sanitary District SWMP by May 1, 2012:

- ff.** Add an OLSD Best Management Practice Summary table for each BMP identified under the planning measures, public education/outreach measures, structural measures, operations and maintenance measures, and illicit discharge measures section identified in Appendix A of the 2010 MS4 annual report. The tables must include information related to the BMP, BMP Description, Schedule for Implementation, and Performance Measure (i.e., Measurable Goal) as identified in Appendix A of the 2010 MS4 annual report. The tables must also incorporate and align with the information for BMPs described in the July 2008 SWMP.
- gg.** Add measurable goals to BMPs for the conveyance system components, catch basins and pollution control manholes in Section 4.1.1. of the SWMP to annually inspect storm sewers, culverts, inlets, ditches, swales, catch basins and pollution control manholes owned or operated by Oak Lodge Sanitary District.

The following conditions must be incorporated into the Clackamas County Department of Transportation and Development SWMP by May 1, 2012:

- hh. BMP 7:** Add a second bullet point under the measurable goal to conduct a minimum of one unscheduled inspection at all active construction sites.
- ii. BMP 15:** Modify the first bullet point under the measurable goals to formally adopt the 2009 ODOT Routine Road Maintenance Manual by January 1, 2013. Add a third bullet point under the measurable goals to inspect 100% ditches on a 3-year cycle. Add a fourth bullet point under measurable goals to clean 100% of catch basins on a 3-year cycle. Add a fifth bullet point under measurable goals to sweep arterial roads a minimum of four times per year.

9. Implementation Schedule

The following implementation schedule provides a summary of due dates for the permit conditions identified in Schedule B & Schedule D.

PERMIT CONDITION	SUMMARY OF IMPLEMENTATION SCHEDULE ACTIVITIES	DUE DATE
Monitoring Plan and Environmental Monitoring – B.1.b, B.2 & Table B-1	1. Submit monitoring plan	September 1, 2012
	2. Implement an approved monitoring plan	October 1, 2012
Annual Report – B.5	1. Submit annual report	November 1 - annually
Permit Renewal Application Package – B.6	1. Submit permit renewal package	180 days prior to permit expiration
303(d) List Evaluation – D.2	1. Submit 303(d) list evaluation report	November 1, 2015
Total Maximum Daily Load (TMDL) – D.3	1. Submit Wasteload Allocation Attainment Assessment	November 1, 2015
	2. Submit TMDL Pollutant Load Reduction Evaluation	November 1, 2015
	3. Submit TMDL Pollutant Load Reduction Benchmark	180 days prior to permit expiration
Adaptive Management – D.4	1. Submit Adaptive Management Approach	November 1, 2012
SWMP Measurable Goals – D.6	1. Incorporate SWMP Measurable Goal conditions	May 1, 2012

10. Definitions:

- a. **Adaptive Management:** A structured, iterative process designed to refine and improve stormwater programs over time by evaluating results and adjusting actions on the basis of what has been learned.
- b. **Antecedent dry period:** The period of dry time between precipitation events greater than 0.1 inch of precipitation.
- c. **Best Management Practices (BMPs):** The schedule of activities, controls, prohibition of practices, maintenance procedures and other management practices designed to prevent or

reduce pollution. BMPs also include treatment requirements, operating procedures and practices to control stormwater runoff.

- d. **Dry-weather field screening pollutant parameter action levels:** Pollutant concentrations or concentration ranges used by a co-permittee to identify an illicit discharge may be present and further investigation is needed.
- e. **Green Infrastructure (GI):** A comprehensive approach to water quality protection defined by a range of natural and built systems and practices that use or mimic natural hydrologic processes to infiltrate, evapotranspire, or reuse stormwater runoff on the site where the runoff is generated.
- f. **Illicit Discharge:** Any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater except discharges authorized under Section A.4.a.xii., discharges permitted by a NPDES permit or other state or federal permit, or otherwise authorized by the Department.
- g. **Impervious Surface:** Any surface resulting from development activities that prevents the infiltration of water or results in more runoff than in the undeveloped condition. Common impervious surfaces include: building roofs, traditional concrete or asphalt paving on walkways, driveways, parking lots, gravel roads, and packed earthen materials.
- h. **Instream:** A location within the defined bed and banks of a waterway that carries perennial or intermittent flows of surface water for all or part of the year, including rivers and creeks.
- i. **Low Impact Development (LID):** A stormwater management approach that seeks to mitigate the impacts of increased runoff and stormwater pollution using a set of planning, design and construction approaches and stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater, and can occur at a wide range of landscape scales (i.e., regional, community and site).
- j. **Maximum Extent Practicable (MEP):** The statutory standard that establishes the level of pollutant reductions that operators of regulated MS4s must achieve. This standard is considered met if the conditions of the permit are met.
- k. **Measurable Goals:** BMP objectives or targets used to identify progress of SWMP implementation. Measurable goals are prospective and, wherever possible, quantitative. Measurable goals describe *what* the co-permittee intends to do and *when* they intend to do it.
- l. **Redevelopment:** A project on a previously developed site that results in the addition or replacement of impervious surface.
- m. **Replace or Replacement:** The removal of an impervious surface that exposes soil followed by the placement of an impervious surface. Replacement does not include repair or maintenance activities on structures or facilities taken to prevent decline, lapse or cessation in the use of the existing impervious surface as long as no additional hydrologic impact results

from the repair or maintenance activity.

- n. **Stormwater Management Program:** A comprehensive set of activities and actions, including policies, procedures, standards, ordinances, criteria, and best management practices established to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.
- o. **Time of Concentration:** Travel time for a drop of water to travel from most hydrologically remote location in a defined catchment to the outlet for that catchment where remoteness relates to time of travel rather than distance.
- p. **TMDL Pollutant Load Reduction Benchmark (TMDL benchmark):** An estimated total pollutant load reduction target for each parameter or surrogate, where applicable, for waste load allocations established under an EPA-approved TMDL. A benchmark is the anticipated pollutant load reduction goal to be achieved during the permit cycle through the implementation of the stormwater management program and BMPs identified in the SWMP. A benchmark is used to measure the effectiveness of the stormwater management program in making progress toward the waste load allocation, and is a tool for guiding adaptive management. A benchmark is not a numeric effluent limit; rather it is an estimated pollutant reduction target that is subject to the maximum extent practicable standard. Benchmarks may be stated as a pollutant load range based upon the results of a pollutant reduction empirical model.
- q. **Water Quality Trend Analysis:** A statistical analysis of in-stream water quality data to identify improvement or deterioration.
- r. **Waters of the State:** Lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters) that are located wholly or partially within or bordering the state or within its jurisdiction.

SCHEDULE F

NPDES Permit General Conditions for Municipal Separate Storm Sewer Systems

SECTION A. STANDARD CONDITIONS

1. Duty to Comply with Permit

The co-permittees must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of the Clean Water Act and Oregon Revised Statutes (ORS) 468B.025, and 40 Code of Federal Regulations (CFR) §122.41(a), and grounds for an enforcement action. Failure to comply is also grounds for the Department to modify, revoke, or deny renewal of a permit.

2. Penalties for Water Pollution and Permit Condition Violations

- a. ORS 468.140 allows the Department to impose civil penalties up to \$10,000 per day for violation of a term, condition, or requirement of a permit. Additionally 40 CFR §122.41(a) provides that any person who violates any permit condition, term, or requirement may be subject to a federal civil penalty not to exceed \$32,500 per day for each violation.
- b. Under ORS 468.943 and 40 CFR §122.41(a), unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to \$25,000 imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense.
- c. Under ORS 468.946, a person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape or be carried into the waters of the state is subject to a Class B felony punishable by a fine not to exceed \$200,000 and up to 10 years in prison. Additionally, under 40 CFR §122.41(a) any person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a federal civil penalty not to exceed \$100,000, and up to 6 years in prison.

3. Duty to Mitigate

The co-permittees must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply

If any or all of the co-permittees wish to continue an activity regulated by this permit after the expiration date of this permit, the co-permittee must apply to have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Department may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
- b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
- d. The permittee is identified as a Designated Management Agency or allocated a waste load under a Total Maximum Daily Load (TMDL)
- e. New information or regulations
- f. Modification of compliance schedules
- g. Requirements of permit reopener conditions
- h. Correction of technical mistakes made in determining permit conditions
- i. Determination that the permitted activity endangers human health or the environment
- j. Other causes as specified in 40 CFR §§122.62, 122.64, and 124.5

The filing of a request by the co-permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. The permittee must comply with all terms, conditions of the permit pending approval.

6. Toxic Pollutants

The co-permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights and Other Legal Requirements

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References

Except for effluent standards or prohibitions established under OAR 340-041-0033 for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees

The co-permittee must pay the fees required by OAR 340-045-0070 to 0075.

The co-permittee must pay annual compliance fees by the last day of the month prior to when the permit was issued. For example, if the permit was issued or last renewed in April, the due date will be March 31st. If the payment of annual fees is 30 days or more past due, the permit registrant must pay 9% interest per annum on the unpaid balance. Interest will accrue until the fees are paid in full. If the Department does not receive payment of annual fees when they are due, the Department will refer the account to the Department of Revenue or to a private

collection agency for collection.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The co-permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the permittees only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Activity Not a Defense

It must not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

3. Removed Substances

Solids or other pollutants removed in the course of maintaining the MS4 must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required under this Permit must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points may not be changed without notification to and the approval of the Department.

2. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this permit or subsequent permit actions.

3. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of not more than \$10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both.

4. Additional Monitoring by the Co-permittees

If the co-permittees monitor any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or as specified in this permit, the results of this

monitoring must be included in the calculation and reporting of the data submitted in annual reports required by Schedule B. Such increased frequency must also be indicated.

5. Retention of Records

The co-permittees must retain records of all monitoring information, including: all calibration, maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

6. Records Contents

Records of monitoring information must include:

- a. The date, exact place, time, and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

7. Inspection and Entry

The co-permittees must allow the Department representative upon the presentation of credentials to:

- a. Enter upon a co-permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location within the MS4.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee must comply with OAR chapter 340, division 52, "Review of Plans and Specifications" and 40 CFR §122.41(1)(I). Except where exempted under OAR chapter 340, division 52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Anticipated Noncompliance

The co-permittees must give advance notice to the Department of any planned changes in the

permitted facility or activities that may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new co-permittee(s) provided the transferee(s) acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification, revocation, and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act (see 40 CFR §122.61; in some cases, modification or revocation and reissuance is mandatory). The co-permittees must notify the Department when a transfer of property interest takes place that results in a change of co-permittee(s).

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Duty to Provide Information

The co-permittees must furnish to the Department within a reasonable time any information that the Department requests to determine compliance with this permit. The co-permittees must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When a co-permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

6. Signatory Requirements

All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

7. Falsification of Information

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison. Additionally, according to 40 CFR §122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance must, upon conviction, be punished by a federal civil penalty not to exceed \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

SECTION E. DEFINITIONS

1. *CFR* means Code of Federal Regulations.
2. *Clean Water Act* or *CWA* means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483 and 97-117; 33 U.S.C. 1251 et seq.
3. *Department* means Department of Environmental Quality.
4. *Director* means Director of the Department of Environmental Quality.
5. *Flow-Weighted Composite Sample* means a sample formed by collection and mixing discrete samples taken periodically and based on flow.
6. *Grab Sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
7. *Illicit Discharges* means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.
8. *Major Outfall* means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activities (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).
9. *mg/L* means milligrams per liter.
10. *mL/L* means milliliters per liter.
11. *MS4* means a municipal separate storm sewer system.
12. *Municipal Separate Storm Sewer System* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):
 - a. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian Tribal organization, or a designated and approved management agency under §208 of the CWA that discharges to waters of the United States;
 - b. Designed or used for collection or conveying stormwater;
 - c. Which is not a combined sewer; and
 - d. Which is not part of a Publicly Owned Treatment Works (POTW) as defined by 40 CFR §122.2.
13. *Outfall* means a point source as defined by 40 CFR §122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
14. *Permit* means the NPDES municipal separate storm sewer system (MS4) permit specified herein, authorizing the permittees listed on Page 1 of this permit to discharge from the MS4.
15. *Stormwater* means stormwater runoff, snowmelt runoff, and surface runoff and drainage.
16. *Year* means calendar year except where otherwise defined.

17.16.020 - Permitted uses.

Uses permitted in the R-3.5 district are:

- A. Two-family dwellings (duplex);
- B. Single-family detached residential units;
- C. Single-family attached residential units (Row houses with no more than six dwelling units may be attached in a row);
- D. Parks, playgrounds, playfields and community or neighborhood centers;
- E. Home occupations;
- F. Farms, commercial or truck gardening and horticultural nurseries on a lot not less than twenty thousand square feet in area (retail sales of materials grown on-site is permitted);
- G. Temporary real estate offices in model homes located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- H. Accessory uses, buildings and dwellings;
- I. Family day care provider, subject to the provisions of Section 17.54.050;
- J. Residential home per ORS 443.400;
- K. Transportation facilities.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 13-1003, § 1(Exh. 1), 7-17-2013)

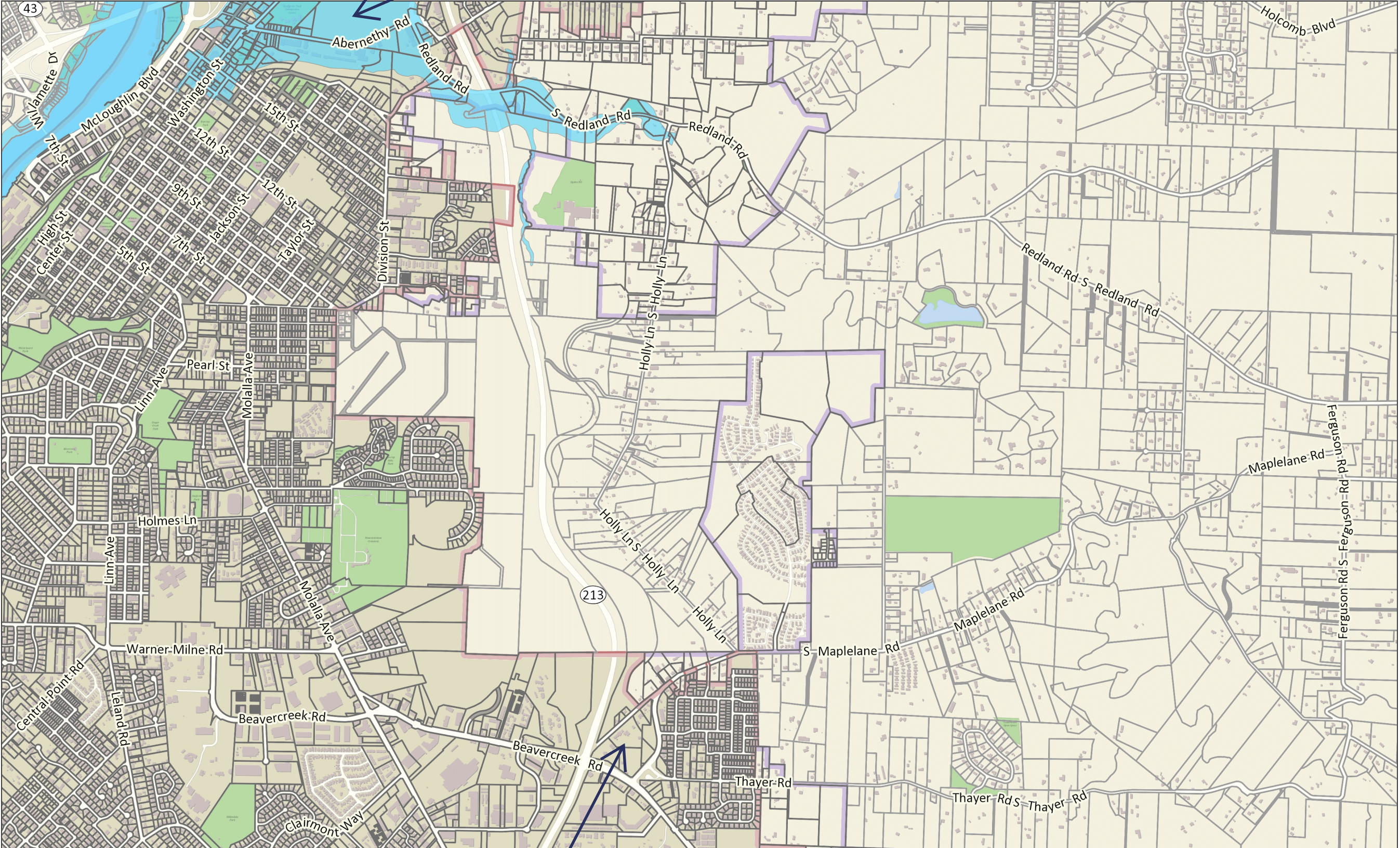
17.29.020 - Permitted uses—MUC-1 and MUC-2.

~~Lined through~~ uses indicate uses, excluded from the permitted uses for the subject site per the original land use comprehensive and zone change application request.

- A. Banquet, conference facilities and meeting rooms;
- B. Bed and breakfast and other lodging facilities for up to ten guests per night;
- C. Child care centers and/or nursery schools;
- D. Indoor entertainment centers and arcades;
- E. Health and fitness clubs;
- F. ~~Medical and dental clinics, outpatient; infirmary services;~~
- G. ~~Museums, libraries and cultural facilities;~~
- H. Offices, including finance, insurance, real estate and government;
- I. Outdoor markets, such as produce stands, craft markets and farmers markets that are operated on the weekends and after six p.m. during the weekday;
- J. ~~Postal services;~~
- K. Parks, playgrounds, play fields and community or neighborhood centers;
- L. ~~Repair shops, for radio and television, office equipment, bicycles, electronic equipment, shoes and small appliances and equipment;~~
- M. Residential units, multi-family;
- N. ~~Restaurants, eating and drinking establishments without a drive through;~~
- O. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
- P. ~~Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores, marijuana pursuant to Section 17.54.110, and similar, provided the maximum footprint for a stand-alone building with a single store or multiple buildings with the same business does not exceed sixty thousand square feet;~~
- Q. Seasonal sales, subject to OCMC Section 17.54.060;
- R. Assisted living facilities; nursing homes and group homes for over fifteen patients;
- S. Studios and galleries, including dance, art, photography, music and other arts;
- T. Utilities: Basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers;
- U. Veterinary clinics or pet hospitals, pet day care;
- V. Home occupations;
- W. Research and development activities;
- X. Temporary real estate offices in model dwellings located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- Y. Residential care facility;
- Z. Transportation facilities;
- AA. Live/work units, pursuant to Section 17.54.105—Live/work units.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 13-1003, § 1(Exh. 1), 7-17-2013; Ord. No. 13-1017, § 1(Exh. 1), 4-16-2014; Ord. No. 16-1008, § 1(Exh. A), 10-19-2016, ballot 11-8-2016)

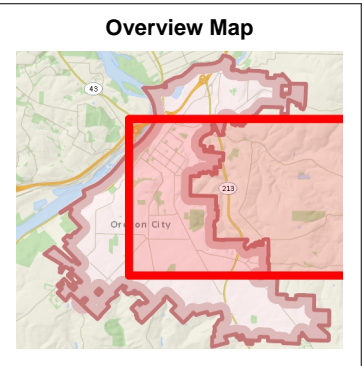
Blue represents flood plain areas **Oregon City GIS Map**



Legend

- Taxlots
- Taxlots (Outside UGB)
- Unimproved ROW
- FEMA 2008 - 100 yr Floodplain
- City Limits
- UGB
- Basemap

Notes



The City of Oregon City makes no representations, express or implied, as to the accuracy, completeness and timeliness of the information displayed. This map is not suitable for legal, engineering, surveying or navigation purposes. Notification of any errors is appreciated.



Subject Site

