

Regional Post-Construction Stormwater MODEL Ordinance

Final Model



For:

Yakima County

City of Yakima

City of Union Gap

City of Sunnyside

Regional Post-Construction Stormwater MODEL Ordinance

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1. General Provisions

1.1. Purpose

(General provision purpose statements are not specifically required by the NPDES permit, however their inclusion is useful to clarify the purpose of the ordinance)

1.1.1. The purpose of this ordinance is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in [JURISDICTION]. This ordinance seeks to meet that purpose through the following objectives:

1.1.1.1. To protect the safety and welfare of citizens, property owners, and businesses by minimizing the negative impacts of increased stormwater discharges from new land development and redevelopment.

1.1.1.2. To enable [JURISDICTION] to comply with the Eastern Washington Phase II Municipal Stormwater Permit, Washington Department of Ecology's *Guidance for UIC Wells that Manage Stormwater*, and applicable federal and state regulations.

1.1.1.3. To regulate the contribution of pollutants to the MS4 or UICs by stormwater discharges from development and redevelopment.

1.1.1.4. To protect the condition of state (and U.S.) waters for all reasonable public uses and ecological functions.

1.1.1.5. To provide long-term responsibility for and maintenance of stormwater BMPs.

1.1.1.6. To facilitate the integration of stormwater management and pollution control with other ordinances, programs, policies, and the comprehensive plan of [JURISDICTION].

1.1.1.7. To establish legal authority to carry out all the inspection and monitoring procedures necessary to ensure compliance with this ordinance.

1.1.1.8. To facilitate compliance with state and federal standards and permits by owners of construction sites, developments, and permanent stormwater BMPs within [JURISDICTION]. *(Center for Watershed Protection Model ordinance. Not all purposes in model ordinance used)*

1.2. Applicability

1.2.1. This ordinance shall be applicable to all land development or redevelopment, including, but not limited to, subdivision applications and grading applications, unless exempt pursuant to Section 1.3. These provisions apply to any new development or redevelopment site within [JURISDICTION] *(for County, Jurisdiction to be defined as Stormwater*

Utility as defined in County Code 12.09) that meets one (1) or more of the following criteria:

- 1.2.1.1. New development that disturbs one (1) acre or more.
- 1.2.1.2. Redevelopment that disturbs one (1) acre or more.
- 1.2.1.3. Development activities that are smaller than the minimum applicable criteria set forth above if such activities are part of a larger common plan of development, even though multiple, separate and distinct land development activities may take place at different times on different schedules. (*Municipal NPDES permit, S5.B.5*)

1.3. Exemptions

1.3.1. **Activities Exempt:** The following activities are exempt from this ordinance:

- 1.3.1.1. Private development that can provide for the on-site retention of the total water intercepted and collected by the development and the areas (improved or unimproved) lying and draining presently to and through the proposed development. (*Municipal NPDES permit, S5.B.5*)
Submittal to the [STORMWATER AUTHORITY] of a drainage plan, stamped by a professional engineer in Washington State, in accordance with [LOCAL JURISDICTION DRAINAGE CODE] is required to demonstrate this exemption. (*current County practice and subdivision code*)
- 1.3.1.2. Forest practices regulated under Title 222 WAC. Conversions of forest lands to other uses are not exempt. Silvicultural roads that are used to access other land uses subject to this ordinance are not exempt. (*Municipal NPDES permit, Appendix 1*)
- 1.3.1.3. Commercial agriculture practices involving working the land for production. Construction of impervious surfaces are not exempt. (*Municipal NPDES permit, Appendix 1*)
- 1.3.1.4. Construction of oil and gas field drilling sites, oil and gas field waste management pits, and access roads, as well as construction of oil and gas transportation and treatment support structure such as pipelines, natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations. (*Municipal NPDES permit, Appendix 1*) (*modified to clarify applicability to oil and gas field activities and supporting structures*)

1.3.2. **Road Maintenance:** The following road and parking area maintenance practices are exempt: (*Municipal NPDES permit, Appendix 1*)

- 1.3.2.1. Pothole and square cut patching;
- 1.3.2.2. Crack sealing;
- 1.3.2.3. Resurfacing with in-kind material without expanding the road prism;

- 1.3.2.4.Overlaying existing asphalt or concrete pavement with bituminous surface treatment (BST or “chip seal”), asphalt or concrete without expanding the area of coverage;
 - 1.3.2.5.Shoulder grading;
 - 1.3.2.6.Reshaping/regrading drainage systems; and
 - 1.3.2.7.Vegetation maintenance.
- 1.3.3. **Road Repair and Safety Improvement:** The following road, parking area maintenance, and road safety improvement practices are exempt:(*Municipal NPDES permit, Appendix 1*)
- 1.3.3.1.Removing and replacing a concrete or asphalt roadway to base course or subgrade or lower without expanding or improving the impervious surfaces.
 - 1.3.3.2.Repairing the roadway base or subgrade.
 - 1.3.3.3.Projects to improve motorized and/or non-motorized user safety that do not enhance the traffic capacity of a roadway. Safety improvement projects such as sidewalks, bike lanes, bus pullouts and other transit improvements that replace soft shoulder with curb-and-gutter on roadways with an average daily traffic volume of 7,500 vehicles or more are not exempt.(*Municipal NPDES permit, Appendix 1, as taken from the Stormwater Management Manual for Eastern Washington*)
 - 1.3.3.4.Overlaying existing gravel, asphalt or concrete with bituminous surface treatment (BST or “chip seal”) without expanding the area of coverage, or overlaying BST with asphalt, without expanding the area of coverage. For roads, these practices are exempt only if the traffic surface will be subject to an average daily traffic volume of less than 7,500 on an urban road or an average daily traffic volume of less than 15,000 vehicles on a rural road, freeway, or limited access control highway. For parking areas, these practices are exempt only if the traffic surface will be subject to less than 40 trip ends per 1,000 square feet of building area or 100 total trip ends.
- 1.3.4. **Linear construction projects:** Linear construction projects, such as pipeline or underground utility line installation, that do not result in the installation of any impervious surface and that replace the ground surface with in-kind material or materials with similar runoff characteristics are exempt.(*Municipal NPDES permit, Appendix 1*)
- 1.3.5. **Prior Approval:** Any part of a land development that was approved by [JURISDICTION’S PLAN APPROVING AUTHORITY] prior to the effective date of this ordinance. (*Center for Watershed Protection Model ordinance*)
- 1.3.6. Exempt projects may be subject to [APPLICABLE CONSTRUCTION STORMWATER OR EROSION & SEDIMENT CONTROL ORDINANCE] and [ILLICIT DISCHARGE ORDINANCE].

1.4. Authority

(General provision authority, compatibility, severability, and liability statements are not specifically required by the NPDES permit, however their inclusion is customary for stand alone ordinances)

1.4.1. This ordinance is adopted pursuant to authority conferred by and in accordance with the provisions of the State of Washington Water Pollution Control Law Chapter 90.48, Revised Code of Washington, and the Federal Water Pollution Control Act (the Clean Water Act) Title 33 United States Code, Section 1251 et seq. *(Center for Watershed Protection Model ordinance)*

1.5. Compatibility with Other Permit and Ordinance Requirements

1.5.1. This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law. The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence. *(Center for Watershed Protection Model ordinance)*

1.6. Severability

1.6.1. If the provisions of any article, section, subsection, paragraph, subdivision or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this ordinance. *(Center for Watershed Protection Model ordinance)*

1.7. Liability

1.7.1. Any person who undertakes or causes to be undertaken any land development shall ensure that soil erosion, sedimentation, increased pollutant loads and changed water flow characteristics resulting from the activity are controlled so as to minimize pollution of receiving waters. The requirements of this ordinance are minimum standards and a person's compliance with the same shall not relieve such person from the duty of enacting all measures necessary to minimize pollution of receiving waters. *(Center for Watershed Protection Model ordinance)*

1.7.2. By approving a plan under this regulation, [JURISDICTION] does not accept responsibility for the design, installation, and operation and maintenance of stormwater BMPs. *(Center for Watershed Protection Model ordinance)*

1.8. Authority Designated.

1.8.1. The [POSITION TITLE] of the [JURISDICTION] [DEPARTMENT] is hereby authorized and designated as the Official responsible for the enforcement and administration of this Title. The [POSITION TITLE] may designate employees within his division to act on his behalf. The use of the terms “Stormwater Authority,” “Administrative Authority,” “Code Official,” “Authority Having Jurisdiction” and similar such terms as contained in this ordinance and in the codes and standards adopted by reference under this ordinance shall be construed as referring to the [POSITION TITLE] of the [JURISDICTION] [DEPARTMENT] and their designees. *(adopted from existing County Building Code 13.04.010)*

(Design manual reference is optional under the NPDES permit. Adoption by reference avoids having specific design details within the ordinance and allows for periodic update of BMP standards to reflect new information on BMP performance. Most ordinances are written this way. This ordinance is specific with respect to plan contents and criteria; relying on the manuals as guidance rather than requirements)

1.9. Design Manuals

1.9.1. The [STORMWATER AUTHORITY] will utilize information including technical specifications of the latest edition of the Stormwater Manual for Eastern Washington, [or approved local equivalent], or another technical stormwater manual approved by Ecology, as the basis for decisions about design, implementation, maintenance, and performance of structural and non-structural post-construction stormwater BMPs. The Stormwater Management Manual for Eastern Washington, [or approved local equivalent], includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Use of BMPs from other technical stormwater manuals approved by Ecology shall be consistent with [JURISDICTION] climate, soils, and specific site conditions appropriate for said BMP use. Stormwater practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Eastern Washington NPDES Phase II Municipal Stormwater Permit requirements. *(Burlington, North Carolina ordinance modified for Eastern WA; Standards have been removed from wording to reflect that the manual is guidance and not regulatory)*

1.9.2. Use of BMPs not designed, constructed, and maintained in accordance with manuals identified in the preceding section *(insert reference)* shall be subject to [STORMWATER AUTHORITY] approval and must be monitored for performance to demonstrate that they meet the minimum water quality performance standards of the Eastern Washington NPDES Phase II Municipal Stormwater Permit requirements.

1.10. Amendments to Design Manuals

- 1.10.1. The Stormwater Management Manual for Eastern Washington, [or approved local equivalent], may be updated and expanded from time to time, based on advancements in technology and engineering, improved knowledge of local conditions, or local monitoring or maintenance experience. The most current version of the Stormwater Management Manual for Eastern Washington, [or approved local equivalent] is to be used where referenced by this ordinance. *(Center for Watershed Protection Model ordinance)*
- 1.10.2. Prior to amending or updating the [approved local equivalent] manual, proposed changes shall be publicized and made available for review, and an opportunity for comment by interested persons shall be provided *(Burlington, North Carolina ordinance)*.
- 1.10.3. If the specifications, guidelines, or other information in the Stormwater Management Manual for Eastern Washington, [or approved local equivalent], are amended subsequent to the submittal of an application for approval pursuant to this ordinance but prior to approval, the new information shall control and shall be utilized in reviewing the application and in implementing this ordinance with regard to the application. *(Burlington, North Carolina ordinance modified for Eastern WA)*

1.11. Right of entry

(insert Right of Entry language from adopted illicit discharge ordinance)

1. Definitions

(Definitions are not specifically required by the NPDES permit, however their inclusion is useful to clarify the ordinance)

- 1.1. **“Average Daily Traffic”** or **“ADT”** means the expected number of vehicles using a roadway. Projected average daily traffic volumes are considered in designing a roadway or roadway improvement. ADT volumes shall be estimated using “Trip Generation” published by the Institute of Transportation Engineers or from a traffic study prepared by a professional engineer or transportation specialist with expertise in traffic volume estimation. ADT volumes shall be estimated for the design year or expected life of the project (the intent is for treatment facilities to be added in the soonest period of disruptive construction). For project sites with seasonal or varied use, evaluate the highest period of expected traffic impacts. *(Municipal NPDES permit)*
- 1.2. **“Applicant”** means a person, party, firm, corporation, or other legal entity that proposes a development, construction or use on a site. *(existing County Code 16A.02.00)*
- 1.3. **“Building”** means any structure built for the support, shelter or enclosure of persons, animals, uses or property of any kind. Where this title requires, or where special authority granted pursuant to this title requires that a use shall

be entirely enclosed within a building, this definition shall be qualified by adding “and enclosed on all sides.” (*existing County Code 15.08.140*)

- 1.4. “**Channel**” means an open conduit, either naturally or artificially created, which periodically or continuously contains moving water, or which forms a connecting link between two (2) bodies of water. (*existing County Code 16A.02.085*)
- 1.5. “**Construction**” means the assembly, placement, or installation of structures, roadways, transmission lines, and other improvements within a project site. (*existing County Code 16A.02.120*)
- 1.6. “**Dedication**” is the deliberate appropriation of land by an owner for any general and public uses, reserving to himself no other rights than such as are compatible with the full exercise and enjoyment of the public uses to which the property has been devoted. The intention to dedicate shall be evidenced by the owner by the presentment for filing of a final plat or short plat showing the dedication thereon; and the acceptance by the public shall be evidenced by the approval of such plat for filing by the appropriate governmental unit; provided, that no affirmative duty to maintain or improve any dedicated land shall devolve upon [JURISDICTION] except by resolution of the [GOVERNING BOARD OF JURISDICTION] adopted for the purpose of undertaking a specified duty or duties as to specifically described land. (*existing County Code 14.08.100*)
- 1.7. “**Design Storm**” means a prescribed hyetograph or precipitation distribution, and the total precipitation amount for a specific duration recurrence frequency. The design storm is used to estimate runoff for a hypothetical rainstorm of interest or concern for the purposes of analyzing existing drainage, designing new facilities, or assessing other impacts of a proposed project on the flow of surface water. (*Stormwater Management Manual for Eastern Washington*)
- 1.8. “**Detention**” means the release of stormwater runoff from the site at a slower rate than it is collected by the stormwater facility system, the difference being held in temporary storage with the goals of controlling peak discharge rates and providing gravity settling of pollutants. (*Stormwater Management Manual for Eastern Washington & Center for Watershed Protection Model ordinance*)
- 1.9. “**Development**” means new development, redevelopment, or both. See definitions for each. (*Stormwater Management Manual for Eastern Washington*)
- 1.10. “**Easement**” is a grant by a property owner to specific persons or to the public to use land for a specific purpose or purposes. (*existing County Code 14.08.110*)
- 1.11. “**Flood**” means an overflow or inundation that comes from a river or any other source, including (but not limited to) streams, tides, wave action, storm drains, or excess rainfall. Any relatively high stream flow overtopping the natural or

artificial banks in any reach of a stream. (*Stormwater Management Manual for Eastern Washington*)

- 1.12. **“Groundwater Recharge Volume (Rev)”** – The portion of the water quality volume (WQv) used to maintain groundwater recharge rates at development sites. (*Center for Watershed Protection Model ordinance*)
- 1.13. **“High ADT Roadways and Parking Areas”** means any road with ADT greater than 30,000 vehicles per day; and parking areas with more than 100 trip ends per 1,000 SF of gross building area or greater than 300 total trip ends are considered to be high-use traffic areas. Examples include commercial buildings with a frequent turnover of customers and other visitors. (*Municipal NPDES permit, Definitions*)
- 1.14. **“High-Use Sites”** generate high concentrations of oil due to high traffic turnover or the frequent transfer of oil and/or other petroleum products. High-use sites are land uses where sufficient quantities of free oil are likely to be present such that they can be effectively removed with special treatment. A high-use site is any one (1) of the following:
- A road intersection with expected ADT of 25,000 vehicles or more on the main roadway and 15,000 vehicles or more on any intersecting roadway, excluding projects proposing primarily pedestrian or bicycle use improvements; or
 - A commercial or industrial site with an expected trip end count equal to or greater than 100 vehicles per 1,000 square feet of gross building area (best professional judgment should be used in comparing this criterion with the following criterion); or
 - A customer or visitor parking lot with an expected trip end count equal to or greater than 300 vehicles (best professional judgment should be used in comparing this criterion with the preceding criterion); or
 - Commercial on-street parking areas on streets with an expected total ADT count equal to or greater than 7,500; or
 - Fueling stations and facilities; or
 - A commercial or industrial site subject to petroleum storage and transfer in excess of 1,500 gallons per year (not including locations where heating fuel is routinely delivered to end users and the annual amount of heating oil used at the site is the sole basis for the site meeting this definition; heating fuel handling and storage facilities are subject to this definition); or
 - A commercial or industrial site subject to use, storage, or maintenance of a fleet of 25 or more diesel vehicles that are over 10 (ten) tons gross weight (trucks, buses, trains, heavy equipment, etc.); or
 - Maintenance and repair facilities for vehicles, aircraft, construction equipment, railroad equipment or industrial machinery and equipment; or
 - Outdoor areas where hydraulic equipment is stored; or
 - Log storage and sorting yards and other sites subject to frequent use of forklifts and/or other hydraulic equipment; or
 - Railroad yards. (*Municipal NPDES permit, Definitions*)

- 1.15. **“Impaired Waters”** means those streams, rivers and lakes that currently do not meet their designated use classification and associated water quality standards under the Clean Water Act and listed on the most current State of Washington 303(d) list. *(Center for Watershed Protection Model ordinance, modified to specify listing on the 303(d) list)(Stormwater Management Manual for Eastern Washington definition considered, but is very general)*
- 1.16. **“Impervious surface”** means a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water. It includes most conventionally surfaced streets, roofs, sidewalks, driveways, parking lots, patios and other similar structures. *(existing County Code 15.08.325)*
- 1.17. **“Industrial Stormwater Permit”** means a National Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries that regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies. *(Center for Watershed Protection Model ordinance)*
- 1.18. **“Infiltration Facility”** means a drainage facility designed to use the hydrologic process of surface and stormwater runoff soaking into the ground, commonly referred to as a percolation, to dispose of surface and stormwater runoff. These facilities may be above grade or below grade. *(Stormwater Management Manual for Eastern Washington and Center for Watershed Protection Model ordinance)*
- 1.19. **“Infiltration”** means the downward movement of water from the land surface to the subsoil. *(Stormwater Management Manual for Eastern Washington)*
- 1.20. **“Land Development”** or **“Development”** means the division of land into lots or parcels in accordance with the [JURISDICTION] Subdivision Ordinance, and any clearing, excavation, dredging, drilling, filling, dumping, removal of earth and mineral materials, or other permanent or temporary modification of a site up to, but not including, construction as defined in this chapter. For the purpose of this chapter, “development” also means any manmade change to improved or unimproved real estate located within the special flood hazard area, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling, temporary or permanent storage of equipment and works defined in this chapter. *(existing County Code 16C.02.135, “Development”)*
- 1.21. **“Land Disturbing Activity”** means any activity that results in movement of earth, or a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to clearing, grading, filling, and excavation. Compaction associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices are not considered land-disturbing activity. *(Stormwater Management Manual for Eastern Washington)*

- 1.22. **“Low ADT Roadways and Parking Areas”** means urban roads with ADT fewer than 7,500 vehicles per day; rural roads and freeways with ADT less than 15,000 vehicles per day; and parking areas with less than 40 trip ends per 1,000 SF of gross building area or fewer than 100 total trip ends per day are considered to be low-use traffic areas. Examples include most residential parking, and employee-only parking areas for small office parks or other commercial buildings. Urban roads are located within designated Urban Growth Management Areas; rural roads are located outside designated Urban Growth Management Areas. Freeways, defined as fully controlled and partially controlled limited access highways, may be located either inside or outside of Urban Growth Management Areas. (*Municipal NPDES permit, Definitions*)
- 1.23. **“Maintenance Agreement”** means a legally recorded document that acts as a property deed restriction, and that provides for long-term maintenance of stormwater BMPs. (*Center for Watershed Protection Model ordinance*)
- 1.24. **“Moderate ADT Roadways and Parking Areas”** means urban roads with ADT between 7,500 and 30,000 vehicles per day; rural roads and freeways with ADT between 15,000 and 30,000 vehicles per day; and parking areas with between 40 and 100 trip ends per 1,000 SF of gross building area or between 100 and 300 total trip ends per day are considered to be moderate-use traffic areas. Examples include visitor parking for small to medium commercial buildings with a limited number of daily customers. Urban roads are located within designated Urban Growth Management Areas; rural roads are located outside designated Urban Growth Management Areas. Freeways, defined as fully controlled and partially controlled limited access highways, may be located either inside or outside of Urban Growth Management Areas. (*Municipal NPDES permit, Definitions*)
- 1.25. **“Moderate-Use Sites”** means moderate ADT roadways and parking areas (see definition above); primary access points for high-density residential apartments; most intersections controlled by traffic signals; and transit center bus stops. These sites are expected to generate sufficient concentrations of metals that additional runoff treatment is needed to protect water quality in non-exempt surface waters. (*Municipal NPDES permit, Definitions*)
- 1.26. **“Municipal Separate Storm Sewer System”** or **“MS4”** means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains): (i) 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 wastes, storm water, 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 section 208 of the CWA that discharges to waters of the United States; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as

defined at 40 CFR 122.2. (*Municipal NPDES permit, Definitions*). In the County, the MS4 is that portion regulated by the Eastern Washington Phase II Municipal Stormwater Permit.

- 1.27. “**National Pollutant Discharge Elimination System**” or “NPDES” means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology. (*Municipal NPDES permit, Definitions*)
- 1.28. “**New Development**” means land disturbing activities, including Class IV general forest practices development, including construction or installation of a building or other structure; creation of impervious surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development. (*Stormwater Management Manual for Eastern Washington*)
- 1.29. “**Nonpoint Source Pollution**” means pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources. (*Center for Watershed Protection Model ordinance*)
- 1.30. “**Non-Stormwater Discharge**” means any discharge to the storm drain system that is not composed entirely of stormwater. (*Center for Watershed Protection Model ordinance*)
- 1.31. “**Non-Structural Measure**” means a stormwater control and treatment technique that uses natural processes, restoration or enhancement of natural systems, or design approaches to control runoff and/or reduce pollutant levels. Such measures are used in lieu of or to supplement structural practices on a land development site. Non-structural measures include, but are not limited to: minimization and/or disconnection of impervious surfaces; development design that reduces the rate and volume of runoff; restoration or enhancement of natural areas such as riparian areas, wetlands, and forests; and on-lot practices such as rain barrels, cisterns, and vegetated areas that intercept roof and driveway runoff. (*Center for Watershed Protection Model ordinance*)
- 1.32. “**Owner(s)**” or “**Property owner(s)**” means the legal owner or owners of the property. (*existing County Code 15.02.020(148)*) As used herein, owner also refers to, in the appropriate context: (i) any other person authorized to act as the agent for the owner; (ii) any person who submits a stormwater management concept or design plan for approval or requests issuance of a permit, when required, authorizing land development to commence; and (iii) any person responsible for complying with an approved stormwater management design plan. (*Center for Watershed Protection Model ordinance*)

- 1.33. **“Permanent Stormwater BMP”** means a stormwater best management practice (BMP) that will be operational after the construction phase of a project and that is designed to become a permanent part of the site for the purposes of managing stormwater runoff. (*Center for Watershed Protection Model ordinance*)
- 1.34. **“Pollutant Generating Impervious Surfaces”** or **“PGIS”** are surfaces that are considered to be significant sources of pollutants in stormwater runoff. Such surfaces include those that are subject to vehicular use, industrial activities, or storage of erodible or leachable materials that receive direct rainfall or run-on or blow-in of rainfall. Metal roofs are considered to be PGIS unless coated with an inert, non-leachable material. Roofs that are subject to venting of manufacturing, commercial or other indoor pollutants are also considered PGIS. A surface, whether paved or not, shall be considered PGIS if it is regularly used by motor vehicles. The following are considered regularly-used surfaces: roads, unvegetated road shoulders, bike lanes within the traveled lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways. (*Municipal NPDES permit, Definitions*)
- 1.35. **“Private Development”** or **“Private”** as used in this chapter shall mean any land development or redevelopment upon property other than property owned in fee or leased by the [JURISDICTION] or a trust or authority of which the [JURISDICTION] is a beneficiary. It is understood that certain portions of private property upon which the [JURISDICTION] or a trust or authority of which the [JURISDICTION] is a beneficiary has an easement, right-of-way or street is also within the definition of public property. (*adopted from Oklahoma City Code, 13-400(c) – Private Property*)
- 1.36. **“Private Inspector”** means an independent agency or private entity that is retained by the applicant to conduct inspections and submit documentation to the [STORMWATER AUTHORITY] in accordance with this ordinance, and that is certified by the [STORMWATER AUTHORITY] to conduct such inspections. (*Center for Watershed Protection Model ordinance*)
- 1.37. **“Public Development”** or **“Public”** as used in this chapter shall mean any land development or redevelopment upon any real property, or interest therein, belonging to the [JURISDICTION] or a trust or authority of which the [JURISDICTION] is a beneficiary. Public development shall also include private development whenever all or a portion thereof will eventually be dedicated or provided for ownership, operation and/or maintenance to the [JURISDICTION] or a public trust or authority of which the [JURISDICTION] is a beneficiary. (*adopted from Oklahoma City Code, 13-400(g) – Public Property*)
- 1.38. **“Receiving Stream or Channel”** means the body of water or conveyance into which stormwater runoff is discharged. (*Center for Watershed Protection Model ordinance*)

- 1.39. **“Recharge”** means the replenishment of underground water reserves. (*Center for Watershed Protection Model ordinance*)
- 1.40. **“Redevelopment”** means on a site that is already substantially developed, the replacement or improvement of impervious surfaces, including buildings and other structures, and replacement or improvement of impervious parking and road surfaces, that is not part of a routine maintenance activity. (Any new impervious surfaces created by a redevelopment project are subject to the requirements for new development.) (*Stormwater Management Manual for Eastern Washington*)
- 1.41. **“Responsible Party”** means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns that is named on a stormwater maintenance agreement as responsible for long-term operation and maintenance of one (1) or more stormwater BMPs. (*Center for Watershed Protection Model ordinance*)
- 1.42. **“Retention”** means the process of collecting and holding surface and stormwater runoff with no surface outflow. (*Stormwater Management Manual for Eastern Washington*)
- 1.43. **“Rural Roads”** means roads located outside designated Urban Growth Management Areas. (*Municipal NPDES permit, Definitions*)
- 1.44. **“Stream”** means an area where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the passage of water including, but not limited to, hydraulically sorted sediments, or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. The channel or bed need not contain water year-round. This definition is not meant to include irrigation ditches, canals, stormwater runoff devices or other entirely artificial watercourses, unless they are used to convey streams naturally occurring prior to construction. Those topographic features that resemble streams but have no defined channels (i.e., swales) shall be considered streams when hydrologic and hydraulic analyses done pursuant to a development proposal predict formation of a defined channel after development. (*Stormwater Management Manual for Eastern Washington*)
- 1.45. **“Stop Work Order”** means an order issued that requires that all construction activity on a site be stopped. (*Center for Watershed Protection Model ordinance*)
- 1.46. **“Stormwater Authority”** means the department or agency, and its authorized agents, which is responsible for coordinating the review, approval, and permit process as defined by this ordinance. (*Center for Watershed Protection Model ordinance*)
- 1.47. **“Stormwater Best Management Practice (BMP)”** means the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in

combination, prevent or reduce the release of pollutants and other adverse impacts to receiving waters. (*Municipal NPDES permit, Definitions*)

- 1.48. **“Stormwater Management”** means the use of structural or non-structural practices that are designed to reduce stormwater runoff pollutant loads, discharge volumes, peak flow discharge rates and detrimental changes in stream temperature that affect water quality and habitat. (*Center for Watershed Protection Model ordinance*)
- 1.49. **“Stormwater Runoff”** or **“Stormwater”** means runoff during and following precipitation and snowmelt events, including surface runoff, drainage and interflow (*Municipal NPDES permit, Definitions*)
- 1.50. **“Structure”** means anything constructed or erected, even partially, including buildings, which requires location on the ground or attached to something having a location on the ground (*existing County Code 15.02.020(189)*).
- 1.51. **“Waters of the state”** includes those waters as defined as “waters of the United States” in 40 CFR 122.2 within the geographic boundaries of Washington State and “waters of the state” as defined in Chapter 90.48 RCW which includes: lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington. (*Municipal NPDES permit, Definitions*)
- 1.52. **“Water Quality Volume (WQv)”** means the storage needed to capture and treat 90% of the average annual stormwater runoff volume. Numerically (WQv) will vary as a function of long term rainfall statistical data. (*Center for Watershed Protection Model ordinance*)
- 1.53. **“Wetland”** or **“Wetlands”** means that area inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands specifically intentionally created from non-wetland areas to mitigate conversion of wetlands, if permitted by the county. (*existing County Code 16A.02.425*)
- 1.54. **“Underground Injection Control”** or **“UIC”** or **“UIC well”** means a manmade sub-surface fluid distribution system designed to discharge fluids into the ground and consists of an assemblage of perforated pipes, drain tiles, or other similar mechanisms, or a dug hole that is deeper than the largest surface dimension (*Washington Department of Ecology “Guidance for UIC Wells That Manage Stormwater, Dec. 2006*)
- 1.55. **“Upland flow”** means stormwater runoff from lands upslope of a project site.

- 1.56. “Urban Roads” means roads located within designated Urban Growth Management Areas. Partially controlled limited access highways located inside of Urban Growth Management Areas are considered urban roads. *(Municipal NPDES permit, Definitions)*

2. Procedures and Requirements

(Submittal of a Stormwater site plan by public and private development projects is required by the NPDES permit; the requirements of plans is specified in this section)

- 2.1. **Stormwater Site Plan Required:** A stormwater site plan containing all appropriate information as specified in this Ordinance shall be submitted to the [STORMWATER AUTHORITY] in conjunction with the final subdivision plat, final site plan, construction plan, or any other land development plan subject to this ordinance, as described in Section 1.2. *(Center for Watershed Protection Model ordinance)*
- 2.2. **Stormwater Site Plan Content:** The stormwater site plan must ensure that the requirements and criteria in this ordinance are being complied with and that opportunities are being taken to minimize adverse post-development stormwater runoff impacts from the project. Stormwater site plans generally contain maps, charts, graphs, tables, photographs, narrative descriptions, explanations, citations to supporting references, a record of all major permit decisions, and other information as may be necessary for a complete review of the plan as determined by the [STORMWATER AUTHORITY]. *Center for Watershed Protection Model ordinance)* Minimum plan contents include: *(Metropolitan North Georgia Planning District, unless otherwise noted, using terminology from the Stormwater Management Manual for Eastern Washington. Few ordinances nationwide specify plan contents within the ordinance.)*
- 2.2.1. Common address, parcel number(s), and legal description of site.
- 2.2.2. Existing Conditions Evaluation. The existing conditions evaluation for topography, drainage patterns and contributory areas, soils, ground cover, presence of critical areas, adjacent areas, existing development, existing stormwater facilities, and adjacent on- and off-site utilities shall include: a topographic map of existing site conditions with the drainage basin(s) boundaries indicated; acreage, soil types and land cover of areas for each sub-basin affected by the project; all perennial and intermittent streams and other surface water features; all existing stormwater conveyances and structural control facilities; direction of flow and exits from the site; analysis of runoff provided by off-site areas upstream of the project site; and methodologies, assumptions, site parameters and supporting design calculations used in analyzing the existing conditions site hydrology.
- 2.2.2.1. Projects shall use a maximum contour interval of 2 feet. *(Spokane Regional Stormwater Manual)*

- 2.2.2.2. Contour intervals of less than 2 feet may be required in flat locations to demonstrate current and proposed drainage performance and siting of facilities.
- 2.2.2.3. At the discretion of [**JURISDICTION**], larger scale projects or those located in areas of sufficient relief, such as a large lot subdivision, may use the best available topographic information; this may involve contours on a scale larger than the 2-foot minimum. (*Spokane Regional Stormwater Manual*)
- 2.2.2.4. Site limitations shall be identified, including: (*Stormwater Management Manual for Eastern Washington*)
 - 2.2.2.4.1. Areas with high potential for erosion and sediment deposition (based on soil properties, slope, etc.);
 - 2.2.2.4.2. Locations of sensitive and critical areas (e.g., vegetative buffers, wetlands, steep slopes, floodplains, geologic hazard areas, streams, etc.);
 - 2.2.2.4.3. Observation of potential runoff contribution from off-site basins;
 - 2.2.2.4.4. Adjacent properties and(or) projects that have a history of stormwater problems, noting whether the cause of the problem(s) has been determined; and
 - 2.2.2.4.5. Adjacent properties and(or) projects where geotechnical investigations have identified shallow bedrock, high groundwater, seasonally perched groundwater, or clay lenses in the substrata.
- 2.2.2.5. Geotechnical Site Characterization Report. A geotechnical site characterization and report is required to demonstrate suitability of a site for stormwater disposal. A geotechnical site characterization is required for:
 - 2.2.2.5.1. Projects proposing infiltration (drywells, detention facilities receiving credit for pond bottom infiltration, etc.) or non-standard drainage systems; (*Spokane Regional Stormwater Manual*)
 - 2.2.2.5.2. Projects located within or draining to a problem drainage area, flood-prone basin, or study area as determined by the [**STORMWATER AUTHORITY**]; (*Spokane Regional Stormwater Manual*)
 - 2.2.2.5.3. Projects with administrative conditions requiring a geotechnical site characterization. (*Spokane Regional Stormwater Manual*)
 - 2.2.2.5.4. In areas where there has been a long-standing record of satisfactory performance of standard subsurface disposal facilities and no drainage problems are known to exist, the geotechnical site characterization requirement may be reduced or waived after a formal written request from the project proponent's engineer has been reviewed and accepted by the

[STORMWATER AUTHORITY]. (*Spokane Regional Stormwater Manual*)

2.2.2.5.5. When subsurface disposal is proposed:

- Test borings and/or test pits are required and shall be located within the footprint of proposed stormwater disposal facilities;
- For each facility, a minimum of one (1) subsurface exploration shall be performed for up to 1200 square feet of disposal area. Another subsurface exploration shall be performed for each additional 15,000 square feet, or fraction thereof, of disposal area. For a linear roadside swale, a minimum of one (1) subsurface exploration shall be performed every 500 feet, staggered on both sides of the road, unless site conditions or test results indicate that additional explorations are necessary. Subsurface explorations and sampling shall be conducted according to applicable standards of the American Society for Testing and Materials (ASTM);
- Unless otherwise recommended by the geotechnical engineer, subsurface explorations shall extend to a depth of H plus 5 feet below the stormwater facility, where H is equivalent to the maximum head of water within the facility. For example, for a double depth drywell with a maximum head of 10 feet, the minimum required depth of exploration below the drywell is 15 feet, or 25 feet below the proposed rim of drywell. (*Spokane Regional Stormwater Manual*)

2.2.3. Permanent Stormwater Control Plan. The description, scaled drawings and design calculations for the proposed post-development condition shall be identified in a Permanent Stormwater Control Plan, that shall include:

2.2.3.1. Drainage Report

- 2.2.3.1.1. A map and/or drawing or sketch of the stormwater management facilities, including the location of nonstructural site design features and the placement of existing and proposed structural stormwater controls, including design water surface elevations, storage volumes available from zero to maximum head, location of inlet and outlets, location of bypass and discharge systems, and all orifice/restrictor sizes;
- 2.2.3.1.2. A narrative describing how the selected structural stormwater controls will be appropriate and effective; cross-section and profile drawings and design details for each of the structural stormwater controls in the system;
- 2.2.3.1.3. A hydrologic and hydraulic analysis of the stormwater management system demonstrating system performance for all hydraulic, treatment and disposal facilities for applicable

design storms, including supporting calculations to show that the facility is designed according to the applicable design criteria (including stage-storage or outlet rating curves, and inflow and outflow hydrographs);

2.2.3.1.4. Documentation and supporting calculations to show that the Permanent Stormwater Control Plan adequately meets the performance criteria in this ordinance; and where applicable;

2.2.3.1.5. A narrative describing how the Permanent Stormwater Control Plan corresponds with any applicable watershed protection plans or Total Maximum Daily Load (TMDL) requirements.

2.2.3.2. Stormwater Construction Plans. Construction drawings showing elevations and hydraulic grade lines for all existing and proposed stormwater elements including, but not limited to, stormwater drains, pipes, culverts, catch basins, channels, treatment BMPs, retention BMPs, disposal and overflow facilities, and areas of overland flow;

2.2.4. Post-Development Downstream Analysis. Development projects that propose to discharge stormwater or upland flow offsite are required to submit a downstream analysis report that assesses the potential off-site water quality, erosion, slope stability, and drainage impacts associated with the project and that proposes appropriate mitigation of those impacts. An initial qualitative analysis should extend downstream for the entire flow path from the project site to the receiving water, or up to one (1) mile or to a point where the impact to receiving waters are minimal or nonexistent, as determined by the local jurisdiction. If a receiving water is within one-quarter (1/4) mile, the analysis should extend within the receiving water to one-quarter (1/4) mile from the project site. The analysis should extend one-quarter (1/4) mile beyond any improvements proposed as mitigation. The analysis should extend upstream to a point where backwater effects created by the project cease. Upon review of the qualitative analysis, [JURISDICTION] may require that a quantitative analysis be performed. (*Stormwater Management Manual for Eastern Washington*)

2.2.5. Construction Stormwater Pollution Prevention Plan. Projects meeting the regulatory threshold and not qualifying for an Erosivity Waiver shall prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with [JURISDICTION] construction stormwater ordinance (*insert ordinance reference*). The SWPPP shall be implemented beginning with initial soil disturbance and continue until final stabilization. Stormwater BMPs shall be consistent with the *Stormwater Management Manual for Eastern Washington* (2004), (approved local equivalent), or another technical stormwater manual approved by the [JURISDICTION]. The plan shall also include information on the sequence/phasing of construction and temporary stabilization measures and temporary structures that will be converted into permanent stormwater controls.

2.2.6. Requirement for Maintenance Agreement & Plan: If a stormwater site plan requires structural or nonstructural measures, the owner shall execute a stormwater maintenance agreement prior to the [STORMWATER AUTHORITY] granting final approval for the plan, or any plan of development or other development for which a permit is required under this Ordinance. The agreement shall be recorded in the office of the County Auditor and shall run with the land. *(Center for Watershed Protection Model ordinance)*

2.2.6.1. **Required Elements for Maintenance Agreement & Plan:** The stormwater maintenance agreement shall be in a form approved by [JURISDICTION], and shall, at a minimum: *(Center for Watershed Protection Model ordinance)*

2.2.6.1.1. **Designate Responsible Party:** Designate for the land development the owner, governmental agency, or other legally established entity (responsible party) which shall be permanently responsible for maintenance of the structural or non-structural measures required by the plan. *(Center for Watershed Protection Model ordinance)*

2.2.6.1.2. **Pass Responsibility to Successors:** Pass the responsibility for such maintenance to successors in title. *(Center for Watershed Protection Model ordinance)*

2.2.6.1.3. **Right of Entry for Stormwater Authority:** Grant the [STORMWATER AUTHORITY] and its representatives the right of entry for the purposes of inspecting all stormwater BMPs at reasonable times and in a reasonable manner. Provided, that if such property be occupied and not a public place he shall first present proper credentials, request permission to enter; state the reason for the request, and if such property is unoccupied, he shall first make a reasonable effort to locate the owners or other persons having charge or control of the property and request permission to enter. If such entry is refused, the [STORMWATER AUTHORITY] shall have recourse to every remedy provided by law to secure entry. The right of entry authorized for this section extends to any employee, officer, or authorized representative that accompanies the [STORMWATER AUTHORITY]. *(City of Yakima Municipal Code, as modified in response to comments)*

2.2.6.1.4. **Maintenance Plan:** The project shall ensure the continued performance of the maintenance obligations required by the plan and this ordinance through a maintenance plan (which may be an attachment to the actual maintenance agreement). The plan shall include a list of inspection and maintenance tasks, a schedule for routine inspection and maintenance, actions to be taken when maintenance is required, and other

items listed in the Stormwater Management Manual for Eastern Washington, (or approved local equivalent).*(Center for Watershed Protection Model ordinance)*

2.2.6.2. Maintenance Access Easements. The applicant must ensure access from public right-of-way to stormwater management facilities and practices requiring regular maintenance at the site for the purpose of inspection and repair. Such access shall be sufficient for all necessary equipment for maintenance activities. Upon final inspection and approval, a plat or document indicating that such easements exist shall be recorded and shall remain in effect even with the transfer of title of the property. *(Metropolitan North Georgia Planning District)*

2.2.7. **Application Requirements:** Applications shall be submitted and considered in the manner established by [JURISDICTION SUBDIVISION REVIEW CODE], [SECTION] and as follows: *(existing County Ordinance 15.12.020) (All municipalities have some type of review process codified. Referring to these sections for a review process will necessitate changes to those codes to apply to this ordinance. The specific sections are: County 16B; Yakima, 16; Union Gap, 18; and Sunnyside, 19)*

2.2.7.1. **Substantive Changes to Plan:** No substantive changes shall be made to an approved plan without review and written approval by the [STORMWATER AUTHORITY]. The [STORMWATER AUTHORITY] may request additional data with a plan amendment as may be necessary for a complete review of the plan and to ensure that changes to the plan will comply with the requirements of this ordinance. *(Center for Watershed Protection Model ordinance)*

2.2.7.2. **Expiration of Plan Approval:** The stormwater management design plan's approval expires in one (1) year from the date of approval unless a final plat is recorded or unless work has actually begun on the site. The recordation of a final plat for a section of a subdivision (or initiation of construction in a section) does not vest the approval of the stormwater site plan for the remainder of the subdivision. If the stormwater site plan expires, the applicant shall file with the [STORMWATER AUTHORITY] for re-approval of the stormwater management design plan. *(Center for Watershed Protection Model ordinance)*

2.3. Plan Preparation and Certification

(Washington State law requires that engineering work be performed by or under direction of a professional engineer licensed to practice in Washington State. The requirement is repeated in this ordinance for completeness)

2.3.1. **Certification by Plan Preparer:** The stormwater site plan shall be prepared by a professional engineer licensed to practice in Washington State and must be signed by the professional preparing the plan, who shall

certify that the design of all stormwater BMPs meet the requirements of this ordinance. *(Center for Watershed Protection Model ordinance)*

- 2.3.2. **Certification by Owner:** The owner shall certify that all land clearing, construction, land development and drainage will be done according to the approved plan. *(Center for Watershed Protection Model ordinance)*

2.4. Coordination with Other Approvals and Permits

(Stormwater approvals are a sub-part of other planning and building processes. This section clarifies how stormwater approvals fit into existing and related permit programs)

- 2.4.1. **Approval of Other Permits:** No grading or building permit shall be issued for land development subject to this ordinance without approval of a stormwater management design plan. *(Center for Watershed Protection Model ordinance)*
- 2.4.2. **Coordination with Other Plans:** Approval of the stormwater site plan shall be coordinated by the [STORMWATER AUTHORITY] with approval of a construction stormwater pollution prevention plan (SWPPP) with regard to the location, schedule, and/or phasing for temporary and permanent stormwater management measures. If natural drainage features or other natural areas are to be preserved, then these areas must be shown and measures provided for their protection on both the construction SWPPP and the stormwater site plan. If other elements of the stormwater site plan utilize soils, vegetation, or other natural features for infiltration or treatment, then these areas must be shown on the construction SWPPP plan and measures provided for their protection during construction. *(Center for Watershed Protection Model ordinance)*
- 2.4.3. **Other Permits or Approvals May Be Needed:** Approvals issued in accordance with this ordinance do not relieve the applicant of responsibility for obtaining all other necessary permits and/or approvals from other federal, state, and/or local agencies. If requirements vary, the most restrictive shall prevail. These permits may include, but are not limited to: construction stormwater discharge permits, applicable state and federal permits for stream and wetland impacts, and applicable dam safety permits. Applicants are required to show proof of compliance with these regulations before the [JURISDICTION'S PLAN APPROVING AUTHORITY] will issue a grading, building, or zoning permit. *(Center for Watershed Protection Model ordinance)*
- 2.4.4. **Stormwater Measures within Flood Plain:** Construction of stormwater measures or facilities within a Federal Emergency Management Agency (FEMA) designated floodplain shall be avoided to the extent possible. When this is unavoidable, all stormwater BMP construction shall be in compliance with all applicable requirements of the [JURISDICTION'S CRITICAL AREAS, SHORELINES, FLOODWAY, FLOOD PLAIN and BUILDING CODES]. *(Center for Watershed Protection Model ordinance)*

2.5. Storm Drainage Easements

(County code already provides for stormwater easements (14.28.040(2)). Easements prevent building in stormwater courses or drainages)

- 2.5.1. **Easement Need:** Storm drainage easements shall be required where a development or redevelopment is traversed by a watercourse, drainageway, channel or stream. The following conditions shall apply to all easements:*(Center for Watershed Protection Model ordinance)*. *Maintenance easements may also be required*
- 2.5.2. **Easement Configuration:** A stormwater easement or drainage right-of-way shall conform substantially with the lines of a watercourse..*(Existing County ordinance 14.28.040)*
- 2.5.3. Where no conveyance system exists at the adjacent down-gradient property line or watercourse, and the discharge was previously un-concentrated flow or significantly lower concentrated flow, then measures must be taken to prevent down-gradient impacts.*(Stormwater Management Manual for Eastern Washington)*
- 2.5.4. **Easement Dimensions:** Easements shall be of a width for construction, or maintenance, or both, as will be adequate for the purpose. Parallel streets or parkways may be required in connection therewith. *(existing County ordinance 14.28.040(2))*
- 2.5.5. **Easements Approved Before Plat Approval:** Easements shall be approved by the [JURISDICTION'S PLAN APPROVING AUTHORITY] prior to approval of a final plat and shall be recorded with the [JURISDICTION] and on all property deeds.*(Center for Watershed Protection Model ordinance)*
- 2.5.6. **Deeds of Easement:** A deed of easement shall be recorded along with the final plat specifying the rights and responsibilities of each party to the easement. *(Center for Watershed Protection Model ordinance)*

2.6. Performance Bond or Guarantee

(Center for Watershed Protection Model ordinance) (Performance bond is included to provide consistency, protect municipality for permit compliance, and ensure quality of municipal facilities)

- 2.6.1. **Performance Bond or Guarantee Required:** No stormwater site plans shall be approved for public projects subject to this ordinance unless the applicant furnishes a performance bond or guarantee. This is to ensure that action can be taken by [JURISDICTION], at the applicant's expense, should the applicant fail to initiate or maintain those measures identified in the approved stormwater site plan (after being given proper notice and within the time specified by the [STORMWATER AUTHORITY]). If [JURISDICTION] takes such action upon such failure by the applicant, [JURISDICTION] shall collect from the applicant the difference should

the amount of reasonable cost of such action exceed the amount of the security held.

2.6.2. Term of Performance Bond or Guarantee: The performance bond or guarantee furnished pursuant to the preceding section (*insert numeric reference*), or the unexpended or unobligated portion thereof, shall be returned to the applicant within sixty (60) days of issuance by the [STORMWATER AUTHORITY] of a Stormwater Certificate of Completion, OR the final acceptance of the permanent stormwater BMP by the [STORMWATER AUTHORITY].

2.6.3. Term Extended for Initial Maintenance: At the discretion of the [STORMWATER AUTHORITY], the performance bond or guarantee may be extended beyond the time period specified above to cover a reasonable period of time for testing the practices during storm events and for initial maintenance activities. For the purposes of this section, the time shall not exceed 2 years.

2.6.4. Partial Release of Bond: The [STORMWATER AUTHORITY] shall have the discretion to adopt provisions for a partial pro-rata release of the performance bond or guarantee on the completion of various stages or phases of development.

2.7. As-Built Plans

(Center for Watershed Protection Model ordinance) (As built plans ensure quality of municipal facilities and assist municipality with maintenance)

2.7.1. As-Built Plans Required: All applicants are required to submit as-built plans for any permanent stormwater management facilities located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities, meet the criteria for as-built plans in the Stormwater Management Manual for Eastern Washington, (or approved local equivalent), and be sealed by a registered professional engineer. A final inspection by the [STORMWATER AUTHORITY] is required before any performance bond or guarantee will be released.

2.8. Fees

(Model Stormwater Management Bylaw, MA)(the NPDES permit does not specify how plan review and approval will be paid for. The MA bylaw provided complete and clear language regarding fees IF adopted by the local jurisdiction)

2.8.1. Fee Authority. The [STORMWATER AUTHORITY] may obtain with each submission an application fee established by the [STORMWATER AUTHORITY] to cover expenses connected with the review of the stormwater site plan and a technical review fee sufficient to cover professional review services for the project. The [STORMWATER AUTHORITY] is authorized to retain a Registered Professional Engineer or other professional consultant to advise the [STORMWATER AUTHORITY] on any or all aspects of these plans.

2.8.1.1. Applicants must pay review fees before the review process may begin.

2.8.1.2. Application fees are payable at the time of application and are non-refundable.

2.8.1.3. Application fees shall be calculated by the [STORMWATER AUTHORITY] in accordance with the fee schedule below.

2.8.1.4. These fees are in addition to any other local or state fees that may be charged under any other law, bylaw, or local ordinance.

2.8.2. Application Fees

2.8.2.1. A non-refundable application fee of [\$XX.00] shall be due and payable to the [JURISDICTION] at the time an application is filed. The application fee will provide up to eight (8) hours of services for administration, review, inspection, and monitoring for each project.

2.8.2.2. The [STORMWATER AUTHORITY] may require any applicant to pay an additional fee of [\$XX.00] per hour for review, inspection and monitoring services for any project filing that requires an excess of eight (8) hours of administration, review, inspection, and monitoring time by [JURISDICTION] staff member(s).

OR

2.8.2.3. The [STORMWATER AUTHORITY] may adopt reasonable administrative fees and technical review fees for stormwater site plan administration, review, inspection, and monitoring of projects subject to this ordinance. These fees are described at Title XX, [JURISDICTION] code.

2.8.3. Revision Of Fee Schedules And Regulations Governing Fees

2.8.3.1. The [STORMWATER AUTHORITY] may review and propose revision to its regulations and fee schedules periodically as it sees fit.

2.8.3.1.1. Amendments shall be preceded by a public hearing.

2.8.3.1.2. The schedule of fees and charges proposed by the [STORMWATER AUTHORITY] shall be adopted by the [GOVERNING BOARD OF JURISDICTION] and established in this chapter and may be altered or amended only by the [GOVERNING BOARD OF JURISDICTION].

2.8.4. Automatic Fee Schedule Adjustment.

(existing County Ordinance 20.00.006)(Municipalities may adopt other language to provide for fee increases)

2.8.4.1. Beginning on January 1, 2010 and each successive January 1st thereafter, the [JURISDICTION] fee schedule adopted as a part of this title shall automatically be adjusted to account for any increase in the consumer price index (CPI) as established by the U.S. Department of Commerce for the Seattle Metropolitan Area. The twelve-month

period utilized to establish the fee schedule adjustment will be as established by the Department of Commerce for the Seattle CPI. Fees adjusted in this manner may be rounded to the nearest five (5) dollar increment. This section shall not preclude the [JURISDICTION] from modifying the base fee, where the [GOVERNING BOARD OF JURISDICTION] finds it necessary to do so.

3. Post-Construction Performance Criteria for Stormwater Management

3.1. General Post-Construction Stormwater Management Criteria

(requirement of Municipal NPDES Permit, Appendix I)

- 3.1.1. **Source Control:** All projects shall apply source control BMPs selected, designed, and maintained in accordance with the Stormwater Management Manual for Eastern Washington, [or approved local equivalent].
 - 3.1.1.1. Use of BMPs not selected, designed, and maintained in accordance with manuals identified in 4.1.1 shall be subject to [STORMWATER AUTHORITY] approval and must be monitored for performance to demonstrate that they meet the minimum water quality performance standards of the Eastern Washington NPDES Phase II Municipal Stormwater Permit requirements.
- 3.1.2. **Preservation of Natural Drainage:** Natural drainage patterns should be maintained for flood conveyances, conveyance of upland flow, and other purposes. Discharges from the project site should occur at the natural location to the maximum extent practicable. The preferred options for discharge of excess stormwater are, in order of preference to maintain natural drainage systems: *(Stormwater Management Manual for Eastern Washington, core Element #4)*
 - 3.1.2.1. Maintain dispersed sheet flow to match natural conditions;
 - 3.1.2.2. Infiltrate on-site;
 - 3.1.2.3. Infiltrate off-site;
 - 3.1.2.4. Discharge to existing ditch networks, canals, or other dispersal methods that allow for potential groundwater recharge;
 - 3.1.2.5. Discharge to wetlands, if allowed;
 - 3.1.2.6. Discharge to existing private or municipally-owned stormwater systems, if allowed;
 - 3.1.2.7. Evaporate on-site or off-site;
 - 3.1.2.8. Create a new outfall for discharge to surface waters;

- 3.1.2.9. Preservation of natural drainage includes stormwater infiltration if that is the natural discharge method for the site. (*Stormwater Management Manual for Eastern Washington, core Element #4*)
- 3.1.2.10. The manner by which runoff is discharged from the project site must not cause a significant adverse impact to downstream receiving waters and down-gradient properties. (*Stormwater Management Manual for Eastern Washington, core Element #4*)
- 3.1.2.11. All outfalls must address energy dissipation as necessary. (*Stormwater Management Manual for Eastern Washington, core Element #4*)
- 3.1.2.12. The overflow of runoff in excess of the design storm quantities must be situated or directed to where it would have overflowed under the conditions existing prior to proposed development. The capacity of the drainage course downstream of the development may be required to be evaluated. (*existing County code, 14.48.100(8)*)
- 3.1.3. **Discharges to Adjacent Property:** Discharges from land development subject to this ordinance, including from stormwater practices and upland flow, shall not be discharged onto adjacent property without appropriate authority and adequate conveyance in a natural stream or storm sewer system. The [STORMWATER AUTHORITY] may require drainage easements where stormwater discharges must cross an adjacent or off-site property before reaching an adequate conveyance. (*Center for Watershed Protection Model ordinance*)
- 3.1.4. **Flow Control:** New development projects that meet the regulatory threshold **and** result in 10,000 square feet or more of new impervious surfaces shall construct stormwater flow control facilities for any discharge of stormwater directly, or through a conveyance system, into surface water. Redevelopment projects are not required to construct stormwater flow control facilities unless required under a basin plan or other federal, state or local requirement. The stormwater flow control facility shall be designed to protect stream morphology and associated instream habitat from adverse impacts due to increased peak flows and flow durations following development. Flow control facilities shall be selected, designed, constructed, operated and maintained consistent with guidance found in the *Stormwater Management Manual for Eastern Washington* [or approved local equivalent]. (*Municipal NPDES Permit, Appendix 1, core Element #6*)
- 3.1.4.1. In order to prevent localized erosion, energy dissipation at the point of discharge is required for all projects unless site-specific conditions warrant an exception. (*Municipal NPDES Permit, Appendix 1, core Element #6*)

3.1.4.2.**Exemptions.** Direct discharges to the following surface waters are exempt from flow control requirements to protect stream morphology: *(Municipal NPDES Permit, Appendix 1, core Element #6)*

3.1.4.2.1. Any river or stream that is:

- Fifth order or greater as determined from a 1:24,000 scale map; or
- Fourth order or greater as determined from a 1:100,000 or larger scale map. *(Municipal NPDES Permit, Appendix 1, core Element #6)*

The maps should be standard USGS maps or GIS data sets derived from USGS base maps. *(Municipal NPDES Permit, Appendix 1, core Element #6)*

3.1.4.2.2. Any lake or reservoir with a contributing watershed area greater than 100 square miles. *(Municipal NPDES Permit, Appendix 1, core Element #6)*

3.1.4.2.3. Reservoirs with outlet controls that are operated for varying discharges to the downstream reaches as for hydropower, flood control, irrigation, or drinking water supplies. Uncontrolled, flow-through impoundments are not exempt. *(Municipal NPDES Permit, Appendix 1, core Element #6)*

3.1.4.2.4. Streams that flow only during runoff-producing events. The runoff carried by the stream following the 2-year, Type IA rainfall event must not discharge via surface flow to a nonexempt surface water. To be exempt, the stream may carry runoff during an average annual snowmelt event but must not have a period of baseflow during a year of normal precipitation. *(Municipal NPDES Permit, Appendix 1, core Element #6)*

3.1.4.3.**Flow Control:** The Stormwater Site Plan shall provide for the on-site detention and/or retention of the total water intercepted and collected by the development and the areas (improved or unimproved) lying and draining presently to and through the proposed development, for the design storm, unless other natural or manmade systems are available for use. *(existing County code, 14.48.100(4))*. Off-site stormwater (upland flow) conveyed through a land development shall be placed within an easement and conveyed in a manner that does not increase upstream or downstream flooding. *(Center for Watershed Protection Model ordinance)*

3.1.4.4. Flow Control design calculations for peak flow and peak volume detention requirements shall be based on full retention of the post-development condition for the stated design storm, and the contributing basin size, where contributing basin size refers to the total area above the inlet or hydraulic element.

- 3.1.4.4.1. [YAKIMA COUNTY & SUNNYSIDE]: For all basins, the 10-year, 24-hour design storm shall be used. *(based on existing County code, 14.48.100(3))*
- 3.1.4.4.2. [YAKIMA]: For contributing basins of ½ acre or less, the larger of the 25-year, 3-hour storm or the 25-year, 24-hour storm design storm shall be used. *(based on existing County code, 14.48.100(3) and current City of Yakima requirements)*
- 3.1.4.4.3. [YAKIMA]: For contributing basin greater than ½ acre, the 25-year, 24-hour design storm shall be used. *(based on existing County code, 14.48.100(3) and current City of Yakima requirements)*
- 3.1.4.4.4. [UNION GAP]: For all basins, the 25-year, 24-hour design storm shall be used. *(based on existing Union Gap code, 16.40.050)*
- 3.1.4.4.5. The [JURISDICTION] [STORMWATER AUTHORITY] may determine that the development is located in a drainage problem area, flood-prone basin, or area where the preceding requirements do not meet flood protection goals, whereby the design storm may be raised accordingly. In [AREA DESCRIPTION], the 25-year, 24-hour design storm shall be used. *(Stormwater Management Manual for Eastern Washington, p2-37)*

3.1.5. Runoff Treatment *(Municipal NPDES Permit, Appendix 1, core Element #5)*

- 3.1.5.1. **Basic Treatment:** Basic runoff treatment to remove solids from is required for all new development projects creating 5,000 square feet or more of pollutant-generating impervious surface (PGIS) areas. Treatment is required for discharges to all surface waters of the state, including perennial and seasonal streams, lakes and wetlands where the PGIS threshold is met. Runoff treatment is also required for discharges of stormwater to ground where the vadose zone does not provide adequate treatment capacity (see Chapter 5.6 the *Stormwater Management Manual for Eastern Washington* (2004), or another technical stormwater manual approved by Ecology).
- 3.1.5.2. Basic runoff treatment is required for redevelopment projects creating 5,000 square feet or more of PGIS where:
 - 3.1.5.2.1. The project takes place at an industrial site as defined by EPA (40 CFR 122.26(b)(14)) with outdoor handling, processing, storage, or transfer of solid raw materials or finished products, or
 - 3.1.5.2.2. The project takes place at a commercial site with outdoor storage or transfer of solid raw materials or treated wood products, or

- 3.1.5.2.3. A need for additional stormwater control measures has been identified through a TMDL or other water cleanup plan or other planning process, or
- 3.1.5.2.4. The project takes place at a high-use site, or
- 3.1.5.2.5. The project takes place in an area subject to vehicular traffic under any of the following conditions:
 - 3.1.5.2.5.1. The project improves a soft shoulder to a curb and gutter roadway with projected average daily traffic (ADT) of 7,500 or more vehicles.
 - 3.1.5.2.5.2. The project replaces and/or improves the surface of a parking area where the projected number of trip ends exceeds 40 per 1,000 square feet of building area or 100 total trip ends per day.
 - 3.1.5.2.5.3. The project replaces and/or improves the surface of an urban road where the projected ADT is 7,500 or more vehicles per day.
 - 3.1.5.2.5.4. The project replaces and/or improves the surface of a freeway or rural road where the projected ADT is 15,000 or more vehicles per day.
 - 3.1.5.2.5.5. The project affects the area within 500 feet of a controlled intersection on a limited access control highway with projected ADT of 7,500 or more vehicles per day. Only this area must be treated.
- 3.1.5.3. **Exceptions: Non-pollutant generating impervious surface (NPGIS)** areas are exempt from basic treatment requirements unless the runoff from these areas is not separated from the runoff generated from PGIS areas. All runoff treatment facilities must be sized for the entire flow that is directed to them.
 - 3.1.5.3.1. Projects that meet the requirements for dispersal and infiltration (see Chapter 6 of the *Stormwater Management Manual for Eastern Washington* (2004), particularly BMP T5.30) and do not meet the thresholds for requiring oil treatment are exempt from basic treatment requirements. Discharges to surface water from projects with a total PGIS area <5,000 square feet are exempt from basic treatment requirements unless those areas are subject to the storage or handling of hazardous substances, materials or wastes as defined in 49 CFR 171.8, RCW 70.105.010, and/or RCW 70.136.020. (*Municipal NPDES Permit, Appendix 1*)
- 3.1.6. **Metals Treatment:** Metals treatment is required in addition to basic treatment for new development projects with moderate-use sites, high-use

sites, and sites that meet any of the following definitions: (*Municipal NPDES Permit, Appendix 1, core Element #5*)

- 3.1.6.1. Industrial sites as defined by EPA (40 CFR 122.26(b)(14)) with benchmark monitoring requirements for metals; or industrial sites subject to handling, storage, production, or disposal of metallic products or other materials, particularly those containing arsenic, cadmium, chromium, copper, lead, mercury, nickel or zinc.
- 3.1.6.2. On-street parking areas of municipal streets in commercial and industrial areas.
- 3.1.6.3. Highway rest areas.
- 3.1.6.4. Runoff from metal roofs not coated with an inert, non-leachable material.
- 3.1.7. Metals treatment is required in addition to basic treatment for redevelopment projects with high-use sites or high ADT roadways and parking areas and for projects where:
 - 3.1.7.1. An additional need for stormwater control measures to remove metals has been identified through a TMDL or other water cleanup plan, or
 - 3.1.7.2. The project takes place at an industrial site that is subject to benchmark monitoring for metals.
 - 3.1.7.3. Exceptions: Unless a specific water quality problem has been identified, the following discharges are exempt from metals treatment requirements:
 - 3.1.7.3.1. Discharges to non-fish-bearing streams.
 - 3.1.7.3.2. Direct discharges to the main channels of the following rivers and direct discharges to the following lakes: Naches River, and Yakima River. (*Jurisdictions that do not discharge to these water bodies may omit this section*)
 - 3.1.7.3.3. Subsurface discharges, unless identified as hydraulically connected to surface waters of the State.
 - 3.1.7.3.4. Restricted residential and employee-only parking areas, unless subject to through traffic. (*Municipal NPDES Permit, Appendix 1*)
- 3.1.8. **Oil Treatment.** Oil treatment is required for all high-use sites and high ADT roadways and parking areas at new development and redevelopment projects. Some sites will require a spill control type of oil control facility for source control separately from or in addition to this treatment requirement. Oil treatment/control is required in addition to any other runoff treatment required.
 - 3.1.8.1. Separator technologies for oil treatment are required only for the following high-use sites:

- 3.1.8.1.1. High-density intersections with expected ADT of 25,000 or more vehicles on main roadway and 15,000 or more vehicles on any intersecting roadway,
 - 3.1.8.1.2. Non-employee parking areas of commercial or industrial sites with trip end counts greater than 100 vehicles per 1,000 SF gross building area,
 - 3.1.8.1.3. Areas of commercial and industrial sites subject to use, storage, or maintenance of a fleet of 25 or more vehicles that are over ten (10) tons gross weight, · Fueling stations and facilities, and
 - 3.1.8.1.4. Sites subject to petroleum transfer in excess of 1,500 gallons per year, not including routinely delivered heating oil.
- 3.1.8.2. For the following sites, a catch basin preceded by passive oil control vault, such as a chamber with a turned-down elbow, may be applied in lieu of an approved separator technology as long as they are inspected/maintained/cleaned at least once per year or more frequently as needs are identified:
- 3.1.8.2.1. A customer or visitor parking lot with an expected trip end count equal to or greater than 300 vehicles (best professional judgment should be used in comparing this criterion with the preceding criterion); and
 - 3.1.8.2.2. Commercial on-street parking areas on streets with an expected total ADT count equal to or greater than 7,500;
- 3.1.8.3. At all other high-use sites and high ADT traffic areas subject to the oil treatment requirement, sorptive technologies, not separators, are required. Basic treatment methods with sorptive properties, such as swales or filters, may be selected to fulfill this requirement; or catch basin inserts may be used at these sites. A catch basin preceded by passive oil control vault, such as a chamber with a turned-down elbow, may be applied at sites with ADT greater than 30,000 as long as they are inspected/maintained/cleaned at least once per year or more frequently as needs are identified.
- 3.1.8.4. High-use roadway intersections shall treat lanes where vehicles accumulate during the signal cycle, including left and right turn lanes and through lanes, from the beginning of the left turn pocket. If no left turn pocket exists, the treatable area shall begin at a distance equal to three (3) car lengths from the stop line. If runoff from the intersection drains to more than two (2) collection areas that do not combine within the intersection, treatment may be limited to any two (2) of the collection areas where the cars stop.
- 3.1.8.5. High-use sites and high ADT roadways and parking areas must treat runoff from the high-use portion of the site using oil control treatment

options in Chapter 5 of the *Stormwater Management Manual for Eastern Washington* prior to discharge or infiltration. For high-use sites located within a larger project area, only the impervious area associated with the high-use site is subject to oil control treatment, but the flow from that area must be separated; otherwise the treatment controls must be sized for the entire area. (*Municipal NPDES Permit, Appendix 1*)

3.1.9. **Treatment Facility Sizing:** Each treatment BMP shall be sized based on a water quality design volume, or a water quality design flow rate. (*Municipal NPDES Permit, Appendix 1*)

3.1.9.1. **Treatment Design Volume.** Volume-based facilities shall be designed to capture and treat 0.5 inch predicted runoff produced for the proposed development condition from all impervious surface areas that contribute flow to the treatment facility. (*Municipal NPDES Permit, Appendix 1*)

3.1.9.2. **Treatment Design Flow Rate:** Flow based treatment BMPs shall be designed to treat the water quality flow, computed as follows:

3.1.9.2.1. Flow based treatment BMPs located upstream of detention facilities shall be designed to treat the runoff flow rate predicted for the proposed development condition from the short-duration storm with a 6-month return frequency., computed in accordance with the Stormwater Management Manual for Eastern Washington, [or approved local equivalent]. (*Municipal NPDES Permit, Appendix 1*)

3.1.9.2.2. Flow based treatment BMPs located downstream of detention facilities shall be designed to treat the runoff flow rate for the proposed development condition calculated by the Rational Method using the 2-year mean recurrence interval. This method may only be used to design facilities based on instantaneous peak flow rates. (*Municipal NPDES Permit, Appendix 1*)

3.1.10. **Treatment Bypass Requirements:** A bypass must be provided for all treatment BMPs unless the facility is able to convey the 25-year 3-hour storm without damaging the BMP or dislodging pollutants from within it. Extreme runoff events may produce high flow velocities through BMPs that can damage and or dislodge pollutants from within the facility. (*Municipal NPDES Permit, Appendix 1*)

3.1.11. **Use of Existing Wetlands:** Stormwater treatment facilities are not allowed within a wetland or its natural vegetated buffer, or to provide treatment, except for:

3.1.11.1. Necessary conveyance systems approved by the local government;
or

- 3.1.11.2. As allowed in a wetland mitigation plan. (*Municipal Stormwater permit, Appendix 1*)
- 3.1.11.3. When permitted, Critical Areas and Shorelines codes will also apply.
- 3.1.12. **Hydrologic Modification of a Wetland:** Hydrologic modification of a wetland shall not be allowed if the wetland is classified as Category 1 or Category 2 according to the *Eastern Washington Wetland Rating System* unless the applicant demonstrates that preferred methods of excess stormwater disposal (*e.g.*, infiltration) are not possible at the site and that other options (*e.g.*, evaporation) would result in more damage to the wetland by limiting inflow. Mitigation shall be required for the impact of hydrologic modification to a wetland. Appropriate measures include expansion, enhancement and/or preservation of a buffer around the wetland. (*Municipal Stormwater permit, Appendix 1*)
- 3.1.13. **Stormwater BMP Maintenance:** All stormwater BMPs shall be maintained in accordance with the approved and deeded stormwater maintenance agreement and stormwater maintenance plan. The design of stormwater facilities shall incorporate maintenance accommodation and long-term maintenance reduction features in accordance with guidance contained in the latest version of the Stormwater Management Manual for Eastern Washington, [or approved local equivalent]. (*Center for Watershed Protection Model ordinance*)
- 3.1.14. **Individual Lots Not Separate Land Development:** Residential, commercial or industrial developments shall apply these stormwater management criteria to land development as a whole. Individual residential lots in new subdivisions shall not be considered separate land development projects, but rather the entire subdivision shall be considered a single land development project. (*Center for Watershed Protection Model ordinance*)
- 3.1.15. **Location of Stormwater Facilities on Lots:** Stormwater facilities within residential subdivisions that serve multiple lots and/or a combination of lots and roadways shall be on a lot owned and maintained by an entity of common ownership. Stormwater practices located on individual lots shall be maintained by the lot owner, or, at the discretion of the [STORMWATER AUTHORITY], be placed within an easement and maintained by an entity of common ownership. (*Center for Watershed Protection Model ordinance*)
- 3.1.16. **Hydrologic Computation Assumptions:** Hydrologic parameters shall reflect the ultimate land development and shall be used in all engineering calculations. All pre-development calculations shall consider open space, woods and fields to be in good condition, regardless of actual conditions at the time of application. (*Center for Watershed Protection Model ordinance*)

3.1.17. **Authorization to Discharge to MS4:** If runoff from a land development will flow to a municipal separate storm sewer system (MS4) or other publicly-owned storm sewer system, then the applicant shall obtain authorization from the system's owner to discharge into the system. The [STORMWATER AUTHORITY] may require the applicant to demonstrate that the system has adequate capacity for any increases in peak flow rates and volumes. *(Center for Watershed Protection Model ordinance)*

3.1.18. **Compliance with Federal & State Regulations:** All stormwater facilities and conveyance systems shall be designed in compliance with all applicable state and federal laws and regulations, including the Federal Clean Water Act and all applicable erosion and sediment control and flood plain regulations. To the extent practical, stormwater facilities shall not be located in areas determined to be jurisdictional waters through Section 404 of the Federal Clean Water Act and/or applicable state regulations (RCW 79.105). *(Center for Watershed Protection Model ordinance)*

3.1.19. **Protect Public Health, Safety & General Welfare:** The design of stormwater BMPs shall consider public health, safety, and general welfare. These considerations include, but are not limited to: preventing flooding of structures and travelways; preventing standing water in facilities, manholes, inlets, and other structures in a manner that promotes breeding of mosquitoes; preventing attractive nuisance conditions and dangerous conditions due to velocity or depth of water and/or access to orifices and drops; and preventing aesthetic nuisances due to excessive slopes, cuts and fills, and other conditions. *(Center for Watershed Protection Model ordinance)*

3.2. Enhanced Criteria for Impaired Waters

(Center for Watershed Protection Model ordinance) *(NPDES permit requires adherence to impaired water (TMDL) requirements when implemented. This language clarifies that the municipality may require more stringent standards in the future if TMDLs are designated in the NPDES permit)*

3.2.1. Land development that discharges via the [JURISDICTION] MS4 to impaired waters and wetlands with a stormwater waste load allocation, as designated in the most recent Eastern Washington Phase II Municipal Stormwater Permit, or individual municipal stormwater permit issued to [JURISDICTION], by the Washington State Department of Ecology, shall meet enhanced criteria. These may include, but are not limited to:

3.2.1.1. **Nutrient-Sensitive Waters:** Enhanced control of nutrients and sediment for discharges to streams, lakes, and other water bodies with excess nutrients.

3.2.1.2. **Cold-Water Fisheries:** Control of temperature increases for discharges to designated cold-water fisheries.

3.2.1.3. **Groundwater:** Enhanced recharge and pre-treatment requirements to protect groundwater supply.

3.2.1.4. **Wetlands:** The control of impacts to wetland hydrology, including limiting fluctuations to the natural or pre-development wetland hydrology.

3.2.1.5. **Other Impairments:** Enhanced bacteriological, sediment, or pollutant controls for discharges to impaired waters.

3.2.2. In these cases, the [STORMWATER AUTHORITY] may require additional storage, treatment, filtering, infiltration, or other techniques. The use of non-structural practices shall be used to the maximum extent practical to meet enhanced criteria.

4. Project Inspection for Permanent Stormwater BMPs

(Center for Watershed Protection Model ordinance)

4.1. Notice of Project Commencement

(this language included to ensure that the stormwater authority is made aware of projects under construction to facilitate record-keeping, construction inspection, and permit compliance)

4.1.1. The applicant must notify the [STORMWATER AUTHORITY] one (1) working day before the commencement of construction on public projects. In addition, the applicant must notify the [STORMWATER AUTHORITY] in advance of construction of critical components of the stormwater practices on the approved stormwater management design plan.

4.2. Project Inspections by [STORMWATER AUTHORITY] or its Representatives

4.2.1. The [STORMWATER AUTHORITY] or its representatives shall conduct periodic inspections of the stormwater practices shown on the approved stormwater management design plan, and especially during critical installation and stabilization steps. All inspections shall be documented in writing. The inspection shall document any variations or discrepancies from the approved plan, and the resolution of such issues. A final inspection by the [STORMWATER AUTHORITY] is required before any performance bond or guarantee, or portion thereof, shall be released.

4.3. Inspection by Certified Inspector

4.3.1. At its discretion, the [STORMWATER AUTHORITY] may authorize the use of private inspectors to conduct and document inspections during project construction. Such private inspectors shall submit all inspection documentation in writing to the [STORMWATER AUTHORITY]. All costs and fees associated with the use of private inspectors shall be the responsibility of the applicant.

- 4.3.2. If the use of private inspectors is authorized, the [STORMWATER AUTHORITY] shall maintain a training and certification program, authorize inspectors trained by an Ecology approved training program, or authorize another entity to maintain such a program. All private inspectors shall be certified prior to conducting any inspections or submitting any inspection documentation to the [STORMWATER AUTHORITY].
- 4.3.3. If private inspectors are utilized, then inspections by the [STORMWATER AUTHORITY] or its representatives may be reduced in frequency. However, the [STORMWATER AUTHORITY] shall remain the responsible entity for ultimate inspection, approval, and acceptance of all stormwater BMPs, and for issuance of the Certificate of Completion in accordance with the following section.

4.4. Stormwater Certificate of Completion

(This language included to provide an end point for the regulated community)

- 4.4.1. Subsequent to final installation and stabilization of all stormwater BMPs shown on the stormwater management design plan, submission of all necessary as-built plans, and final inspection and approval by the [STORMWATER AUTHORITY], the [STORMWATER AUTHORITY] shall issue a Stormwater Certificate of Completion for the project. In issuing such a certificate, the [STORMWATER AUTHORITY] shall determine that all work has been satisfactorily completed in conformance with this Ordinance.

5. Ongoing Maintenance for Stormwater BMPs

(Center for Watershed Protection Model ordinance)

5.1. Maintenance Responsibility

- 5.1.1. The responsible party named in the recorded stormwater maintenance agreement (*reference stormwater maintenance section*) shall maintain in good condition and promptly repair and restore all structural and non-structural stormwater BMPs and all necessary access routes and appurtenances (grade surfaces, walls, drains, dams and structures, vegetation, erosion and sedimentation controls, and other protective devices). Such repairs or restoration and maintenance shall be in accordance with the approved stormwater management design plan, the stormwater maintenance agreement, and the stormwater maintenance plan.

5.2. Maintenance Inspection by [STORMWATER AUTHORITY] or its Representatives

- 5.2.1. The [STORMWATER AUTHORITY] or its representatives shall conduct periodic inspections for all stormwater practices for which a Stormwater Certificate of Completion has been issued in accordance with (*reference certificate of completion section*). All inspections shall be documented in writing. The inspection shall document any maintenance

and repair needs and any discrepancies from the stormwater maintenance agreement and stormwater maintenance plans.

5.3. Maintenance Inspection by Certified Inspector

- 5.3.1. At its discretion, the [STORMWATER AUTHORITY] may authorize the use of private inspectors to conduct and document ongoing maintenance inspections. Such private inspectors shall submit all inspection documentation in writing to the [STORMWATER AUTHORITY]. All costs and fees associated with the use of private inspectors shall be the responsibility of the responsible party.
- 5.3.2. If the use of private inspectors is authorized, the [STORMWATER AUTHORITY] shall maintain a training and certification program, authorize inspectors trained by an Ecology approved training program, or authorize another entity to maintain such a program. All private inspectors shall be certified prior to conducting any inspections or submitting any inspection documentation to the [STORMWATER AUTHORITY].
- 5.3.3. If private inspectors are utilized, then inspections by the [STORMWATER AUTHORITY] or its representatives, as provided in Section 6.2, may be reduced in frequency. However, the [STORMWATER AUTHORITY] shall remain the responsible entity for ultimate inspection of stormwater practices and any enforcement actions necessary under (*reference enforcement section*) of this Ordinance.

5.4. Records of Maintenance Activities

- 5.4.1. The responsible party shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five (5) years. These records shall be made available to the [STORMWATER AUTHORITY] during inspection of the practice and at other reasonable times upon request.

5.5. Failure to Provide Adequate Maintenance

- 5.5.1. In the event that the stormwater BMP has not been maintained and/or becomes a danger to public safety or public health, the [STORMWATER AUTHORITY] shall notify the responsible party by registered or certified mail. The notice shall specify the measures needed to comply with the maintenance agreement and the maintenance plan and shall specify that the responsible party has thirty (30) days or other time frame mutually agreed to between the [STORMWATER AUTHORITY] and the responsible party, within which such measures shall be completed. If such measures are not completed, then the [STORMWATER AUTHORITY] shall pursue enforcement procedures pursuant to (*insert enforcement, violation, and penalty section from illicit discharge ordinance*).
- 5.5.2. If a responsible person fails or refuses to meet the requirements of an inspection report, maintenance agreement, or maintenance plan the [STORMWATER AUTHORITY], after thirty (30) days written notice

(except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the practice in proper working condition. The [STORMWATER AUTHORITY] may assess the responsible party of the practice for the cost of repair work which shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes by [JURISDICTION].

6. Violations, Enforcement and Penalties

(insert Violations, Enforcement and Penalties language from Illicit Discharge Ordinance here)

7. Effective Date

(The NPDES permit does not require an effective date in the ordinance, however, an adoption date and effective date are specified in the permit. One is included here for clarity and provide consistency in adoption by multiple jurisdictions)

- 7.1.1. The ordinance codified in this chapter shall go into effect within [JURISDICTION] on February 16, 2011. *(existing County code, 12.09.210)*