

RESOLUTION NO. 2010- 19

Re: Establishment of a Construction & Post-Construction Stormwater Runoff Control Program

WHEREAS, Chelan County is designated as a National Pollution Discharge Elimination System (NPDES) Phase II primary permittee by the State of Washington, and

WHEREAS, Chelan County has applied for and received an Eastern Washington Phase II Municipal Stormwater Permit from the Washington State Department of Ecology, and

WHEREAS, the Eastern Washington Phase II Municipal Stormwater Permit requires Chelan County to adopt a resolution for construction site erosion and sediment controls within the NPDES Phase II Boundary, and

WHEREAS, the Eastern Washington Phase II Municipal Stormwater Permit requires Chelan County to adopt a resolution for post construction stormwater controls within the NPDES Phase II Boundary, and

WHEREAS, on January 11, 2010, the Chelan County Planning Commission did hold a hearing and have forwarded to the Board of County Commissioners for further consideration a resolution for construction and post construction stormwater runoff controls,

NOW, THEREFORE BE IT RESOLVED by the Chelan County Board of County Commissioners, that Chelan County establishes by this resolution a Construction & Post-Construction Stormwater Runoff Control Program as follows:

Construction & Post-Construction Stormwater Runoff Control Program

13.18.010 GENERAL PROVISIONS

1) Purpose

The purpose of this resolution is to establish minimum stormwater management requirements and controls to safeguard persons, protect property and prevent damage to the environment caused by stormwater runoff from land-disturbing activities, new development, and redevelopment. The resolution advances that purpose through the following specific objectives:

- a) Prevent accelerated soil erosion and control stormwater runoff resulting from land-disturbing activities both during and after construction through the use of best management practices.
- b) Eliminate the need for costly maintenance and repairs to roads, embankments, ditches, streams, wetlands, and stormwater control facilities due to inadequate soil erosion and stormwater runoff control.
- c) Reduce stormwater runoff rates and volumes, soil erosion, sediment, and nonpoint source pollution from development and redevelopment to Municipal Separate Storm Sewer System (MS4) or Underground Injection Controls (UIC) through stormwater Best Management Practices (BMP).
- d) Provide long-term responsibility for and maintenance of stormwater BMPs.

- e) Protect the condition of state (and U.S.) waters for all reasonable public uses and ecological functions.
- f) Facilitate the integration of stormwater management and pollution control with other resolutions, programs, policies, and the comprehensive plan of Chelan County.
- g) Establish legal authority to carry out all the inspection and monitoring procedures necessary to ensure compliance with this resolution.
- h) Facilitate compliance with state and federal standards and permits by owners of construction sites, developments, and permanent stormwater BMPs within Chelan County.
- i) Enable Chelan County 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.

2) Applicability

- a) This resolution shall be applicable to all land development or redevelopment, including, but not limited to, subdivision applications, unless exempt pursuant to Section 13.18.010(2)(b) or (c). These provisions apply to any new development or redevelopment site located within the Chelan County Stormwater National Pollution Discharge Elimination System (NPDES) Phase II Boundary as established by Resolution No. 2008-06 and as shown in Appendix A as now and hereafter amended and meets one (1) or more of the following criteria:
 - i) New development that disturbs one (1) acre or more.
 - ii) Redevelopment that disturbs one (1) acre or more.
 - iii) Development activities that are smaller than the minimum applicable criteria set forth above (less than 1 acre) 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.
 - iv) New development or redevelopment that results in 5,000 square feet or more of new pollutant generating impervious surfaces (PGIS); as applicable in Section 13.18.040.
 - v) New development or redevelopment that results in 10,000 square feet or more of new impervious surfaces; as applicable in Section 13.18.040.
- b) Partial exemptions or exceptions may be granted in accordance with the *Stormwater Management Manual for Eastern Washington (SWMM EW)*. Jurisdiction-wide exceptions to the requirements in the *SWMM EW* shall be approved by the county engineer and Washington State Department of Ecology.
- c) The following practices shall be exempted from the requirements of this resolution:
 - i) 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. Submittal to Chelan County of a drainage plan, stamped by a professional engineer in

Washington State, in accordance with Chelan County Code Chapter 13.18 is required to demonstrate this exemption.

- ii) The County will exempt projects that create less than 0.1 cfs (cubic feet per second) of runoff from the flow control design storm. Submittal to the county engineer of an analysis, stamped by a professional engineer in Washington State, in accordance with Chelan County Code Chapter 13.18 is required to demonstrate this exemption.
- iii) 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 resolution are not exempt.
- iv) Commercial agriculture practices involving working the land for production. Construction of impervious surfaces are not exempt.
- v) 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.
- vi) Road Maintenance: The following road and parking area maintenance practices are exempt:
 - (1) Pothole and square cut patching;
 - (2) Crack sealing;
 - (3) Resurfacing with in-kind material without expanding the road prism;
 - (4) Overlaying existing asphalt or concrete pavement with bituminous surface treatment (BST or "chip seal"), asphalt or concrete without expanding the area of coverage;
 - (5) Shoulder grading;
 - (6) Reshaping/regrading drainage systems; and
 - (7) Vegetation maintenance.
- vii) Road Repair and Safety Improvement: The following road, parking area maintenance, and road safety improvement practices are exempt:
 - (1) Removing and replacing a concrete or asphalt roadway to base course or subgrade or lower without expanding or improving the impervious surfaces.
 - (2) Repairing the roadway base or subgrade.
 - (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.
 - (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.

- d) 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.
- e) Prior Approval: Any part of a land development that was approved by Chelan County prior to the effective date of this resolution.
- f) Exempt projects may be subject to Chelan County Code Chapter 13.14 Stormwater Illicit Discharge Detection and Elimination.

3) Authority

This resolution 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.

4) Liability

- a) 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 resolution 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.
- b) By approving a plan under this regulation, Chelan County does not accept responsibility for the design, installation, and operation and maintenance of stormwater BMPs.

5) Authority Designated

The county engineer is hereby authorized and designated as the Official responsible for the enforcement and administration of this chapter. The county engineer may designate employees within his division to act on his/her behalf. The use of the terms "Stormwater Authority," "Administrative Authority," "Code Official," "Authority Having Jurisdiction" and similar such terms as contained in this resolution and in the codes and standards adopted by reference under this resolution shall be construed as referring to the county engineer and their designees.

6) Design Manuals

- a) The county engineer will utilize information including technical specifications of the latest edition of the *SWMM*, as the basis for decisions about design, implementation, maintenance, and performance of structural and non-structural stormwater BMPs.

- b) For linear projects, such as roadways, the county engineer will utilize information including technical specifications of the latest edition of the WSDOT *Highway Runoff Manual (HRM)*.
- c) The *SWMMEW* 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 Chelan County 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 Phase II Municipal Stormwater Permit requirements.
 - i) Amendments to Design Manuals
 - (1) The *SWMMEW* and the *HRM* 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 *SWMMEW* or the *HRM* is to be used where referenced by this resolution.
 - (2) If the specifications, guidelines, or other information in the *SWMMEW* or the *HRM* are amended subsequent to the submittal of an application for approval pursuant to this resolution but prior to approval, the new information shall control and shall be utilized in reviewing the application and in implementing this resolution with regard to the application.
- d) Use of BMPs not designed, constructed, and maintained in accordance with the approved manuals shall be subject to the Washington State Department of Ecology's approval and must be monitored for performance to demonstrate that they meet the minimum water quality performance standards of the *Eastern Washington Phase II Municipal Stormwater Permit* requirements.

13.18.020 DEFINITIONS

For the purpose of this resolution the definitions provided in the *Stormwater Management Manual for Eastern Washington* shall apply. In addition, the following shall mean:

- 1) "Applicant" means a person, party, firm, corporation, or other legal entity that proposes a development, construction or use on a site.
- 2) "Best Management Practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- 3) "Certified Erosion and Sediment Control Lead or CESCL" means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology.

- 4) "Clearing" or "Site Clearing" means the removal of timber, brush, grass, ground cover or other vegetative matter from a site.
- 5) "Common plan of development or sale" means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules, but still under a single plan. Examples include: phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g. a development where lots are sold to separate builders); a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; and projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility. If the project is part of a common plan of development or sale, the disturbed area of the entire plan shall be used in determining permit requirements.
- 6) "Construction" means the assembly, placement, or installation of structures, roadways, transmission lines, and other improvements within a project site.
- 7) "County" means Chelan County, Washington, a municipal corporation of the state of Washington, acting by and through its Board of county commissioners, unless such authority shall be delegated to other persons.
- 8) "County Engineer" means the county engineer for Chelan County who is charged with certain duties and responsibilities by this chapter, or any other person the county engineer may appoint.
- 9) "Development" means new development, redevelopment, or both. See definitions for each.
- 10) "Ecology" means the Washington State Department of Ecology.
- 11) "Erosion and Sediment Control" Any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave the site.
- 12) "Erosion and Sediment Control BMPs" means current and widely accepted BMPs that are intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.
- 13) "Existing" means all facilities completed on or before February 16, 2011 and projects with complete applications submitted on or before the aforementioned date.
- 14) "Finish Grade" means the final grade of the site which reasonably conforms to an approved plan.
- 15) "Grading" means any excavation, filling, or combination thereof.
- 16) "Impervious Surface" means a hard surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to

development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater. For purposes of determining whether thresholds for application of Core Elements are exceeded, open, uncovered retention or detention facilities shall not be considered as impervious surfaces. Open, uncovered retention or detention facilities shall be considered impervious surfaces for purposes of runoff modeling.

- 17) "Land Development" or "Development" means the division of land into lots or parcels in accordance with the Chelan County Code, and any clearing, grading, excavation, dredging, drilling, filling, dumping, stockpiling of fill material, 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, 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.
- 18) "Land Disturbing Activity" means any activity that result 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.
- 19) "Municipal Separate Storm Sewer System (MS4)" means the system of conveyances (including sidewalks, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned and operated by Chelan County and designed or used for collecting or conveying stormwater, and that is not used for collecting or conveying sewage.
- 20) "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.
- 21) "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.

- 22) "New Development" means land disturbing activities, including Class IV general forest practices that are conversions from timber land to other uses; structural 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.
- 23) "Non-Pollutant Generating Impervious Surface" (NPGIS) are considered to be insignificant sources of pollutants in stormwater runoff. Roofs that are subject only to atmospheric deposition or normal heating, ventilation, and air conditioning vents are considered NPGIS, unless the roofing material is uncoated metal. The following may also be considered NPGIS: paved bicycle pathways and pedestrian sidewalks that are separated from and not subject to drainage from roads for motor vehicles, fenced fire lanes, infrequently used maintenance access roads, and "in-slope" areas of roads. Sidewalks that are regularly treated with sand, salt or other de-icing/anti-icing agents are not considered NPGIS.
- 24) "Non-Stormwater Discharge" means any discharge to the storm drain system that is not composed entirely of stormwater.
- 25) "NPDES Phase II Boundary" means the Chelan County NPDES Phase II boundary as shown in Appendix A as now and hereafter amended.
- 26) "Owner(s)" or "Property owner(s)" means the legal owner or owners of the property. 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.
- 27) "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.
- 28) "Person" means any individual, association, organization, partnership, firm, corporation or other entity public or private and acting as either the owner or as the owner's agent.
- 29) "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the state. This term does not include return flows from irrigated agriculture.
- 30) "Pollutant Generating Impervious Surface" (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 indoor pollutants from manufacturing, commercial or other operations or processes are also considered PGIS. A surface, whether paved or not, will 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.

- 31) "Pre-Development" or "Pre-Developed" means the existing conditions as follows: The impervious surfaces, drainage systems, land cover, native vegetation and soils that exist at the site with approved permits and engineering plans when required. If sites have impervious areas and drainage systems that were built without approved permits, then the existing condition is defined as those that existed prior to the 2004 *SWMMEW*. These conditions can be verified by record aerial photography, or other methods.
- 32) "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 including any clearing, grading, excavating, or stockpiling of fill material. (Any new impervious surfaces created by a redevelopment project are subject to the requirements for new development.) See Chapter 2.1.2 of the *SWMMEW* for a complete detail of requirements for redevelopment projects.
- 33) "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.
- 34) "Rough Grade" means a stage where grade conforms approximately to an approved plan.
- 35) "Sediment Control" means measures that prevent eroded sediment from leaving the site.
- 36) "Source Control BMPs" means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.
- 37) "Stabilization" means the use of practices that prevent exposed soil from eroding.
- 38) "Start of Construction" means the first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings such as garages.
- 39) "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 resolution.

- 40) "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.
- 41) "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.
- 42) "*Stormwater Management Manual for Eastern Washington*" (*SWMMEW*) means the Stormwater Management Manual for Eastern Washington published by the Washington State Department of Ecology and dated September 2004 as now and hereafter amended by the Washington State Department of Ecology.
- 43) "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.

13.18.030 PROCEDURES AND REQUIREMENTS

- 1) The county shall review and approve documents required under Chapter 13.18 and submitted as part of an application for a proposed land development or redevelopment project. Required documents must be approved by the county prior to the start of construction.
- 2) **Stormwater BMP Maintenance.** All stormwater BMPs shall be maintained in accordance with the approved 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 *SWMMEW*.
- 3) **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.
- 4) **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 county engineer may require the applicant to demonstrate that the system has adequate capacity for any increases in peak flow rates and volumes
- 5) **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).

- 6) **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.
- 7) Non-stormwater discharges shall not be connected to any new or existing storm drainage system, whether they connect to surface or subsurface systems; this includes drainage originating from inside buildings.
- 8) **Review of the Plan.** It is recommended any applicant or property owner proposing an action that requires a storm drainage plan request a preliminary review of the proposal at 30 percent completion by the county engineer.
- 9) **Storm Drainage Easements & Tracts**
 - a) **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:
 - i) **Easement Configuration.** A stormwater easement or drainage right-of-way shall conform substantially with the lines of a watercourse.
 - ii) 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.
 - iii) **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.
 - iv) **Easements Dedicated as a Part of a Plat.** Easements dedicated as a part of a plat shall be approved by the county engineer prior to approval of the final plat.
 - v) **Easements Deeded.** When stormwater facilities require access across private property for the purpose of project inspection and inspection maintenance by the county engineer, a deed of easement for ingress and egress shall be required prior to issuance of the Stormwater Certificate of Completion as described in Section 13.18.030(10)(c).
 - b) **Location of Stormwater Facilities on Tracts.** Stormwater retention and detention facilities within residential subdivisions that serve multiple lots and/or a combination of lots and roadways shall be on a tract owned and maintained by an entity of common ownership unless approved by the county engineer.

10) Project Inspections

- a) **Notice of Start of Construction.** The applicant must notify the county engineer one (1) working day before the commencement of construction on projects. In addition, the applicant must notify the county engineer in advance of construction of critical

components of the stormwater practices on the approved stormwater management design plan.

- b) **Project Inspections by County Engineer or its Representatives.** The county engineer 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 county engineer is required before any performance bond or guarantee, or portion thereof, shall be released.
- c) **Stormwater Certificate of Completion.** 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 county engineer, the county engineer shall issue a Stormwater Certificate of Completion for the project. In issuing such a certificate, the county engineer shall determine that all work has been satisfactorily completed in conformance with this chapter.

11) Ongoing Maintenance for Stormwater BMPs

- a) **Maintenance Responsibility.** The responsible party named in the recorded stormwater maintenance agreement as set forth in Chapter 13.18 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.
- b) **Maintenance Inspection by County Engineer or its Representatives.** The county engineer or its representatives shall conduct periodic inspections for all stormwater management control for which a Stormwater Certificate of Completion has been issued in accordance with Section 13.18.030(9)(c). 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.
- c) **Records of Maintenance Activities.** 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 county engineer during inspection of the practice and at other reasonable times upon request.
- d) **Failure to Provide Adequate Maintenance**
 - i) In the event that the stormwater BMP has not been maintained and/or becomes a danger to public safety or public health, the county engineer 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 county engineer and the responsible party, within which such measures shall be completed. If such measures are not completed, then

the county engineer shall pursue enforcement procedures pursuant to Chelan County Code Chapter 13.14.

- ii) If a responsible person fails or refuses to meet the requirements of an inspection report, maintenance agreement, or maintenance plan the county engineer, 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 county engineer 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 Chelan County.

- 12) **As-built plans and Record drawings.** All applicants are required to submit as-built plans for any permanent stormwater management facilities located on-site that will be dedicated to the county after final construction is completed as required by the county engineer. The plan must show the final design specifications for all stormwater management facilities, meet the criteria for as-built plans in the *SWMMEW* and be sealed by a registered professional engineer. A final inspection by the county engineer is required before any performance bond or guarantee will be released.

13.18.040 PERFORMANCE CRITERIA FOR STORMWATER MANAGEMENT

The following specific requirements apply to all land development and redevelopment unless exemptions or exceptions are approved in accordance with Chapter 13.18. These requirements shall be included by operation of law as conditions of each permit and implemented in accordance with the *SWMMEW*.

1) Core Element #1: Stormwater Site Plan

- a) **Stormwater Site Plan Required.** A stormwater site plan containing all appropriate information as specified in Chapter 13.18 shall be submitted to the county engineer in conjunction with the final subdivision plat, final site plan, construction plan, or any other land development plan subject to this resolution, as described in Chapter 13.18.
- b) **Stormwater Site Plan Content.** The stormwater site plan must ensure that the requirements and criteria in this resolution are being complied with and that opportunities are being taken to minimize adverse 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 county engineer. Minimum plan contents include:
 - i) Common address, parcel number(s), and legal description of site.
 - ii) Existing Conditions Evaluation. The existing conditions evaluation for topography, right-of-way, property lines; existing easements, 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.

- iii) Projects shall use a maximum contour interval of 2-feet.
- iv) Contour intervals of less than 2-feet may be required in flat locations to demonstrate current and proposed drainage performance and siting of facilities.
- v) At the discretion of the county engineer, 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.
- vi) Site limitations shall be identified, including:
 - (1) Areas with high potential for erosion and sediment deposition (based on soil properties, slope, etc.);
 - (2) Locations of sensitive and critical areas (e.g., vegetative buffers, wetlands, steep slopes, floodplains, geologic hazard areas, streams, etc.);
 - (3) Observation of potential runoff contribution from off-site basins;
 - (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
 - (5) Adjacent properties and(or) projects where geotechnical investigations have identified shallow bedrock, high groundwater, seasonally perched groundwater, or clay lenses in the substrata.
- vii) Geotechnical Site Characterization Report. A geotechnical site characterization and report may be required to demonstrate suitability of a site for stormwater disposal. A geotechnical site characterization is required for:
 - (1) Projects proposing infiltration (drywells, detention facilities receiving credit for pond bottom infiltration, etc.) or non-standard drainage systems;
 - (2) Projects located within or draining to a problem drainage area, flood-prone basin, or study area as determined by the county engineer;
 - (3) Projects with administrative conditions requiring a geotechnical site characterization.
 - (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 county engineer.
 - (5) When subsurface disposal is proposed:

- (a) Test borings and/or test pits are required and shall be located within the footprint of proposed stormwater disposal facilities;
 - (b) 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);
 - (c) Unless otherwise recommended by the geotechnical engineer, subsurface explorations shall extend to a depth of 2- to 5-feet below the stormwater facility.
- viii) **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:
- (1) **Drainage Report.**
 - (a) 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;
 - (b) 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;
 - (c) 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);
 - (d) Documentation and supporting calculations to show that the Permanent Stormwater Control Plan adequately meets the performance criteria in this resolution; and where applicable;
 - (e) A narrative describing how the Permanent Stormwater Control Plan corresponds with any applicable watershed protection plans or Total Maximum Daily Load (TMDL) requirements.
 - (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, as well as right-of-way, property lines; existing easements;

- ix) **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 ($\frac{1}{4}$) mile, the analysis should extend within the receiving water to one-quarter ($\frac{1}{4}$) mile from the project site. The analysis should extend one-quarter ($\frac{1}{4}$) 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, the county engineer may require that a quantitative analysis be performed.
- x) **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 Section 13.18.040(2). The SWPPP shall be implemented beginning with initial soil disturbance and continue until final stabilization. Stormwater BMPs shall be consistent with the *SWMMEW*. 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.
- xi) **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 county engineer granting final approval for the plan, or any plan of development or other development for which a permit is required under this resolution. The agreement shall be recorded in the office of the County Auditor, a note placed on the recorded plat with the Auditor's File Number, and shall run with the land.
 - (1) **Required Elements for Maintenance Agreement & Plan.** The stormwater maintenance agreement shall be in a form approved by the county engineer, and shall, at a minimum:
 - (a) **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.
 - (b) **Pass Responsibility to Successors.** Pass the responsibility for such maintenance to successors in title.
 - (c) **Right of Entry for Stormwater Authority.** Grant the county engineer 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 county engineer 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 who accompanies or is designated by the county engineer.

(d) **Maintenance Plan.** The project shall ensure the continued performance of the maintenance obligations required by the plan and this resolution 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 *SWMMEW*.

(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.

xii) **Application Requirements.** Applications shall be submitted and considered in the manner established by Chelan County Code.

(1) **Substantive Changes to Plan.** No substantive changes shall be made to an approved plan without review and written approval by the county engineer. The county engineer 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 resolution.

(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 county engineer for re-approval of the stormwater management design plan.

b) **Site plan preparation and certification**

i) **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 resolution.

ii) **Certification by Owner.** The owner shall certify that all land clearing, construction, land development and drainage will be done according to the approved plan.

c) **Coordination with other approvals and permits**

- i) **Approval of Other Permits.** No other permits shall be issued for land development subject to this resolution without approval of a stormwater management design plan.
- ii) **Coordination with Other Plans.** Approval of the stormwater site plan shall be coordinated by the county engineer 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.
- iii) **Other Permits or Approvals May Be Needed.** Approvals issued in accordance with this resolution 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 county engineer will approve the stormwater management design plan.
- iv) **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 Chelan County's critical areas, shorelines, floodway, flood plain and building codes.

2) **Core Element #2: Construction Stormwater Pollution Prevention**

Construction Stormwater Pollution Prevention Plan Required: A stormwater pollution prevention plan containing all appropriate information as specified in this resolution shall be submitted to Chelan County in conjunction with the final subdivision plat, final site plan, construction plan, or any other land development plan subject to this resolution, as described in Chapter 13.18.

- a) **Activities Exempt.** The following activities are exempt from this resolution:
 - i) Public and private development or redevelopment that disturbs less than one acre through clearing, grading, excavating, or stockpiling of fill material, including the cumulative acreage of the entire project whether in a single or in a multiphase project.
 - ii) Construction activities which discharge all stormwater and non-stormwater to ground water, and have no point source discharge to surface water or a storm sewer system

that drains to surface waters of the state. UIC wells must be protected from sediment in runoff generated during construction.

- iii) Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
 - iv) Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
 - v) 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 resolution are not exempt.
 - vi) Commercial agriculture practices involving working the land for production. Construction of impervious surfaces are not exempt.
 - vii) Oil and gas field activities such as construction of drilling sites, waste management pits, and access roads, as well as construction of transportation and treatment infrastructure such as pipelines natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations.
 - (1) Discharge of sediment or other stormwater pollution from an oil or gas field activity is subject to Chelan County Code Chapter 13.14, Illicit Discharge Detection and Elimination.
 - viii) Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.
- b) Projects meeting the regulatory threshold of land-disturbing activities of one (1) acre or greater shall prepare, submit, and implement a Stormwater Pollution Prevention Plan (SWPPP) for construction activity. The SWPPP shall be implemented beginning with initial soil disturbance and continue until final stabilization.
 - c) Each SWPPP shall bear the name(s) and address(es) of the owner or developer of the site, and of any consulting firm retained by the applicant together with the name of the applicant's principal contact at such firm and shall be accompanied by a filing fee.
 - d) Each SWPPP shall include a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the SWPPP and that a Certified Erosion and Sediment Control Lead (CESCL) shall be on site or on call on all days when construction or grading activity takes place.
 - e) SWPPP Compliance: SWPPP compliance may be obtained in one of four ways, as follows:
 - i) Preparation, submittal and implementation of a Construction SWPPP in accordance with Section 13.18.040(2)(f).
 - (1) All such projects shall provide a copy of the Construction SWPPP, including an anticipated schedule, to the county engineer at least one working day before any land- disturbing activity.

- ii) Preparation and implementation of a SWPPP developed in accordance with the requirements of Ecology's *General NPDES Permit for Stormwater Discharges Associated with Construction Activities*.
 - (1) All such projects shall provide a copy of the Construction SWPPP prepared in accordance with Ecology requirements, including an anticipated schedule, to the county engineer at least one working day before any land disturbing activity.
- iii) Public and private development or redevelopment that qualify for and obtain an "Erosivity Waiver" in accordance with requirements of the Washington State Department of Ecology *General NPDES Permit for Stormwater Discharges Associated with Construction Activities*.
- iv) Public and private development or redevelopment that qualify for and obtain an "Erosivity Waiver" in accordance with the following:
 - (1) The Erosivity Waiver contains the following conditions:
 - (a) The total acres to be disturbed within the entire construction project or common plan of development does not exceed 5 acres; and,
 - (b) Calculation of Erosivity "R" Factor:
 - (i) The project's rainfall erosivity factor ("R" Factor) must be less than 5 during the period of construction activity, as calculated using the Texas A&M University online rainfall erosivity calculator at: <http://ei.tamu.edu/>. The period of construction activity begins at initial earth disturbance and ends with final stabilization; and, in addition:
 - (c) Operators must submit a complete Erosivity Waiver Certification Statement at least one week prior to commencing land disturbing activities. Certification must include:
 - (i) A statement that the operator will comply with applicable local stormwater requirements; and
 - (ii) A statement that the operator will implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.
 - (d) This waiver is not available for facilities declared a significant contributor of pollutants by Ecology.
 - (e) The project has no other discharges including, but not limited to excavation dewatering, wash waters and hydrostatic test waters; and,
 - (2) Appropriate erosion and sediment control BMPs be implemented to prevent violations of water quality standards.
 - (3) Discharge of sediment or other pollutants from a construction site qualifying under an Erosivity Waiver is subject to Chelan County Code Chapter 13.14, Illicit Discharge Detection and Elimination.
- v) For projects subject to Chapter 13.18, a Construction SWPPP or Erosivity Waiver prepared in accordance with this resolution is required as part of the Stormwater Site Plan.

f) Construction SWPPP Elements

i) The Construction SWPPP shall include the 12 elements of a Construction SWPPP. Guidance for design and implementation of the 12 elements in a Construction SWPPP are found in the *SWMMEW*.

(1) Preserve Vegetation/Mark Clearing Limits

- (a) Prior to beginning land disturbing activities, including clearing and grading, clearly mark all clearing limits, *sensitive areas* and their *buffers*, and trees that are to be preserved within the construction area.
- (b) The duff layer, native top soil, and natural vegetation shall be retained in an undisturbed state to the maximum degree practicable.

(2) Establish Construction Access

- (a) Construction vehicle access and exit shall be limited to one route, if possible.
- (b) Access points shall be stabilized with a pad of quarry spalls, crushed rock, or other *equivalent BMP*, to minimize the tracking of sediment onto public roads.
- (c) Wheel wash or tire baths shall be located on site, if the stabilized construction entrance is not effective in preventing sediment from being tracked onto public roads.
- (d) If sediment is tracked off site, public roads shall be cleaned thoroughly at the end of each day, or more frequently during wet weather. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area.
- (e) Street washing is allowed only after sediment is removed in accordance with Section 13.18.040(2)(f)(i)(2)(d). Street wash wastewater shall be controlled by pumping back on site or otherwise be prevented from discharging into systems tributary to waters of the state.

(3) Control Flow Rates

- (a) Properties and waterways downstream from development sites shall be protected from erosion due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
- (b) Where necessary to comply Section 13.18.040(2)(f)(i)(3)(a), stormwater retention or *detention* facilities shall be constructed as one of the first steps in grading. Detention facilities shall be functional prior to construction of site improvements (e.g., impervious surfaces).
- (c) If permanent infiltration ponds are used for flow control during construction, these facilities shall be protected from siltation during the construction phase.

(4) Install Sediment Controls

- (a) Stormwater runoff from disturbed areas shall pass through a sediment pond or other appropriate sediment removal BMP, prior to leaving a construction site

or prior to discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but shall meet the flow control performance standard of Section 13.18.040(2)(f)(i)(3).

- (b) Sediment control BMPs (sediment ponds, traps, filters, etc.) shall be constructed as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.
- (c) BMPs intended to trap sediment on site shall be located in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.

(5) Stabilize Soils

- (a) Exposed and unworked soils shall be stabilized by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.
- (b) No soils shall remain exposed and unworked for more than the time periods set forth below to prevent erosion:
 - (i) For areas with mean annual precipitation 12 inches or greater:
 1. During the dry season (July 1 - September 30): 10 days
 2. During the wet season (October 1 - June 30): 5 days
 - (ii) For areas with mean annual precipitation less than 12 inches:
 1. During the dry Season (July 1 - September 30): 30 days
 2. During the wet season (October 1 - June 30): 15 days
 - (iii) Soils shall be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast.
 - (iv) Soil stockpiles shall be stabilized from erosion, protected with sediment trapping measures, and where possible, be located away from *storm drain* inlets, waterways, and drainage channels.

(c) Protect Slopes

- (i) Design and construct cut and fill slopes in a manner that will minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (e.g., track walking).
- (ii) Off-site stormwater (run-on) or groundwater shall be diverted away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.

- (iii) At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion. Temporary pipe slope drains and channels shall handle the expected peak flow velocity from a 6-month, short duration storm for the developed condition, referred to as the short duration storm.
 - (iv) Check dams shall be placed at regular intervals within constructed channels that are cut down a slope.
 - (v) Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations.
- (d) Protect Drain Inlets
- (i) All storm drain inlets made operable during construction shall be protected so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
 - (ii) Inlet protection devices shall be cleaned or removed and replaced when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).
- (e) Stabilize Channels and Outlets
- (i) All temporary on-site conveyance channels shall be designed, constructed, and stabilized to prevent erosion from the following expected peak flows:
 - 1. Channels shall handle the expected peak flow velocity from a 6-month, short duration storm for the developed condition, referred to as the short duration storm.
 - (ii) *Stabilization*, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches shall be provided at the outlets of all conveyance systems.
- (f) Control Pollutants
- (i) All pollutants, including waste materials and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater.
 - (ii) Cover, containment, and protection from vandalism shall be provided for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. On-site fueling tanks shall include secondary containment.
 - (iii) Maintenance, fueling, and repair of heavy equipment and vehicles shall be conducted using spill prevention and control measures. Contaminated surfaces shall be cleaned immediately following any spill incident.
 - (iv) Wheel wash or tire bath wastewater shall be discharged to a separate on-site treatment system or to the *sanitary sewer* with local sewer district approval.

- (v) Application of fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' label requirements for application rates and procedures shall be followed.
 - (vi) BMPs shall be used to prevent or treat contamination of stormwater runoff by pH modifying sources. These sources include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. Responsible Parties shall adjust the pH of stormwater if necessary to prevent violations of water quality standards.
 - (vii) Responsible Parties shall obtain written approval from Ecology prior to using chemical treatment, other than CO₂ or dry ice to adjust pH.
- (g) Control De-Watering
- (i) Foundation, vault, and trench de-watering water, which have similar characteristics to stormwater runoff at the site, shall be discharged into a controlled conveyance system prior to discharge to a sediment trap or sediment pond.
 - (ii) Clean, non-turbid de-watering water, such as well-point ground water, can be discharged to systems tributary to, or directly into surface waters of the state, as specified in Ecology's *Construction Stormwater General Permit* (November, 2005) at S9.D.8, provided the de-watering flow does not cause erosion or flooding of receiving waters. Clean de-watering water should not be routed through stormwater sediment ponds.
 - (iii) Other de-watering disposal options may include:
 1. infiltration
 2. transport offsite in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters,
 3. Ecology-approved on-site chemical treatment or other suitable treatment technologies,
 4. sanitary sewer discharge with local sewer district approval, if there is no other option, or
 5. use of a sedimentation bag with *outfall* to a ditch or swale for small volumes of localized de-watering.
 - (iv) Highly turbid or contaminated dewatering water shall be handled separately from stormwater.
- (h) Maintain BMPs

- (i) All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function in accordance with BMP specifications.
 - (ii) All temporary erosion and sediment control BMPs shall be removed within 30-days after final site stabilization is achieved or after the temporary BMPs are no longer needed.
- (i) Manage the Project
 - (i) Development projects shall be phased to the maximum degree practicable and shall take into account seasonal work limitations.
- (j) Inspection and Monitoring
 - (i) All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. The SWPPP shall identify an inspection and maintenance schedule for the BMPs contained in the SWPPP. Specific BMP inspection and maintenance guidance is contained in the latest version of the *SWMMEW*.
- g) Maintenance of the Construction SWPPP**
 - i) The Construction SWPPP shall be retained on-site or within reasonable access to the site. The Construction SWPPP shall be modified whenever there is a significant change in the design, construction, operation, or maintenance of any BMP.
- h) Construction SWPPP – Map Contents and Requirements**
 - i) The SWPPP shall also include a vicinity map or general location map (e.g. USGS Quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.
 - ii) The SWPPP shall also include a legible site map (or maps) showing the entire construction site. The following features shall be identified, unless not applicable due to site conditions:
 - (1) The direction of north, property lines, and existing structures and roads;
 - (2) Cut and fill slopes indicating the top and bottom of slope catch lines;
 - (3) Approximate slopes, contours, and direction of stormwater flow before and after major grading activities;
 - (4) Areas of soil disturbance and areas that will not be disturbed;
 - (5) Locations of structural and nonstructural controls (BMPs) identified in the SWPPP;
 - (6) Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas;
 - (7) Locations of all surface water bodies, including wetlands;

- (8) Locations where stormwater or non-stormwater discharges off-site and/or to a surface water body, including wetlands;
- (9) Location of water quality sampling station(s), if sampling is required by state or local permitting authority; and
- (10) Areas where final stabilization has been accomplished and no further construction-phase requirements apply.

i) Enhanced Criteria for Impaired Waters

- i) Construction activity that discharges via the Chelan County 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 Chelan County, by the Washington State Department of Ecology, shall meet enhanced criteria.
 - (1) In these cases, the county engineer 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.
 - (2) Where an applicable Total Maximum Daily Load (TMDL) specifically precludes or prohibits discharges from construction activity, the applicant is not eligible for discharge to the MS4 under this resolution.

j) Procedures and Requirements

- i) ***Application Requirements.*** Applications shall be submitted and considered in the manner established by Chelan County Code.
- ii) ***Substantive Changes to Plan.*** No substantive changes shall be made to an approved plan without review and written approval by the county engineer. The county engineer 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 resolution.
- iii) ***Expiration of Plan Approval.*** The Construction SWPPPs 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 construction SWPPP for the remainder of the subdivision. If the Construction SWPPP expires, the applicant shall file with the county engineer for re-approval of the Construction SWPPP.

k) Inspection

- i) ***Stormwater Authority Inspections and Notification.*** The county engineer or designated agent shall make at least one inspection during construction and shall notify the responsible party wherein the work fails to comply with the SWPPP. The SWPPP and inspection record shall be maintained at the site during the progress of the work.

- (1) The responsible party shall notify the county engineer one working day before beginning land disturbing activity and whenever the construction schedule in the SWPPP changes.
- l) **Responsible Party Inspection.** The responsible party or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule identified in the approved SWPPP. The purpose of such inspections will be to determine the overall effectiveness of the SWPPP and the need for additional control measures. All inspections shall be documented in written form and submitted to the county engineer at the time interval specified in the approved SWPPP.
- 3) **Core Element #3: Source Control of Pollution**
- a) All projects shall apply source control BMPs selected, designed, and maintained in accordance with the *SWMMEW*.
- b) Use of BMPs not selected, designed, and maintained in accordance with manuals identified in Section 13.18.010(6) shall be subject to county engineer approval and must be monitored for performance to demonstrate that they meet the minimum water quality performance standards of the *Eastern Washington Phase II Municipal Stormwater Permit* requirements
- 4) **Core Element #4: Preservation of Natural Drainage Systems**
- a) 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:
- i) Maintain dispersed sheet flow to match natural conditions;
- ii) Infiltrate on-site;
- iii) Infiltrate off-site;
- iv) Discharge to existing ditch networks, canals, or other dispersal methods that allow for potential groundwater recharge;
- v) Discharge to wetlands, if allowed;
- vi) Discharge to existing private or municipally-owned stormwater systems, if allowed;
- vii) Evaporate on-site or off-site;
- viii) Create a new outfall for discharge to surface waters;
- ix) Preservation of natural drainage includes stormwater infiltration if that is the natural discharge method for the site.
- x) 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.
- xi) All outfalls must address energy dissipation as necessary.

xii) 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.

- b) **Discharges to Adjacent Property.** New discharges from land development subject to this chapter, including from stormwater practices and upland flow, shall not be discharged onto adjacent property without written approval from the affected property owner and/or adequate conveyance in a natural stream channel or storm sewer system. The county engineer may require drainage easements where stormwater discharges must cross an adjacent or off-site property before reaching an adequate conveyance.
- c) Projects are encouraged to utilize any additional BMPs that become available and are adopted and made a part of the manual including Low Impact Development (LID) BMPs.

5) **Core Element #5: Runoff Treatment**

- a) **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 *SWMMEW*, or another technical stormwater manual approved by Ecology).
- b) Basic runoff treatment is required for redevelopment projects creating 5,000 square feet or more of PGIS where:
 - i) 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
 - ii) The project takes place at a commercial site with outdoor storage or transfer of solid raw materials or treated wood products, or
 - iii) A need for additional stormwater control measures has been identified through a TMDL or other water cleanup plan or other planning process, or
 - iv) The project takes place at a high-use site, or
 - v) The project takes place in an area subject to vehicular traffic under any of the following conditions:
 - (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.
 - (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) The project replaces and/or improves the surface of an urban road where the projected ADT is 7,500 or more vehicles per day.

- (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.
 - (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.
- c) **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.
- i) Projects that meet the requirements for dispersal and infiltration (see Chapter 6 of the *SWMMEW*, 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.
- d) **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:
- i) 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.
 - ii) On-street parking areas of municipal streets in commercial and industrial areas.
 - iii) Highway rest areas.
 - iv) Runoff from metal roofs not coated with an inert, non-leachable material.
- e) 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:
- i) An additional need for stormwater control measures to remove metals has been identified through a TMDL or other water cleanup plan, or
 - ii) The project takes place at an industrial site that is subject to benchmark monitoring for metals.
 - iii) Exceptions: Unless a specific water quality problem has been identified, the following discharges are exempt from metals treatment requirements:
 - (1) Discharges to non-fish-bearing streams.
 - (2) Direct discharges to the main channels of the following rivers and direct discharges to the following lakes: Columbia River, Wenatchee River and Lake Chelan.
 - (3) Subsurface discharges, unless identified as hydraulically connected to surface waters of the State.

- (4) Restricted residential and employee-only parking areas, unless subject to through traffic.
 - (5) Certain exemptions may exist for Category 4 wetlands (see Section 2.2.5 in the *SWMMEW*).
- f) **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.
- i) Separator technologies for oil treatment are required only for the following high-use sites:
 - (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,
 - (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) 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,
 - (4) Fueling stations and facilities, and
 - (5) Sites subject to petroleum transfer in excess of 1,500 gallons per year, not including routinely delivered heating oil.
 - ii) 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:
 - (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
 - (2) Commercial on-street parking areas on streets with an expected total ADT count equal to or greater than 7,500;
 - iii) 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.
 - iv) 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.

- v) 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 *SWMMEW* 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.
- g) **Treatment Facility Sizing.** Each treatment BMP shall be sized based on a water quality design volume, or a water quality design flow rate.
 - i) **Treatment Design Volume.** Volume-based facilities shall be designed to capture and treat the following:
 - (1) For projects within **Region 1**, the regional design storm (as defined by the *SWMMEW* Chapter 4) with a 6-month return frequency shall be used to treat the predicted runoff produced for the proposed development condition from all impervious surface areas that contribute flow to the treatment facility.
 - (2) For projects within **Region 2**, the SCS Type 1A 24-hour design storm with a 6-month return frequency shall be used to treat the predicted runoff produced for the proposed development condition from all impervious surface areas that contribute flow to the treatment facility.
 - (3) **Region 1** and **Region 2** are modified from the *SWMMEW* and defined by the map found in Appendix B of this resolution.
 - ii) **Treatment Design Flow Rate.** Flow-based treatment BMPs shall be designed to treat the water quality flow, computed as follows:
 - (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 computed in accordance with the *SWMMEW* and the following:
 - (a) For projects within **Region 1**, the short-duration design storm (as defined by the *SWMMEW* Chapter 4) with a 6-month return frequency shall be used.
 - (b) For projects within **Region 2**, the SCS Type II 24-hour design storm (as defined by the *SWMMEW* Chapter 4) with a 6-month return frequency shall be used.
 - (c) For large facilities receiving inflow from multiple sources, the flow rate generated by the regional or Type IA storm should also be checked.
 - (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.

- h) **Treatment Bypass Requirements.** A bypass must be provided for all treatment BMPs unless the facility is able to convey the 25-year short duration storm (as defined by the *SWMM* Chapter 4) 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.
 - i) **Use of Existing Wetlands.** Stormwater treatment facilities are not allowed within a wetland or its natural vegetated buffer, or to provide treatment, except for:
 - i) Necessary conveyance systems approved by the local government; or
 - ii) As allowed in a wetland mitigation plan.
 - iii) When permitted, Critical Areas and Shorelines codes will also apply.
 - j) **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.
 - k) **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.
- 6) **Core Element #6: 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 *SWMM*.
- a) 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.
 - b) **Exemptions.** Direct discharges to the following surface waters are exempt from flow control requirements to protect stream morphology:
 - i) Any river or stream that is (The maps should be standard USGS maps or GIS data sets derived from USGS base maps.):
 - (1) Fifth order or greater as determined from a 1:24,000 scale map; or
 - (2) Fourth order or greater as determined from a 1:100,000 or larger scale map.

- ii) Any lake or reservoir with a contributing watershed area greater than 100 square miles.
 - iii) 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.
 - iv) 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.
 - v) Additional exemptions are allowed based on basin planning and studies such as In-Stream Flow studies and shall follow recommendations in the *SWMM EW*.
- c) **Rain on snow events.** This analysis shall be used for regional projects only. This analysis shall not be used on individual developments.
- d) **Flow Control**
- i) Using a single-event model, flow control design requirements for projects must limit the peak release rate of the post-developed 2-year runoff volume to 50% of the pre-developed 2-year peak and maintain the pre-developed 25-year peak runoff rate. All storage facilities should include a provision for control of overflows from the 100-year event, and the 100-year event must be checked so as to not cause system failure, downstream flooding and property damage. The pre-development rate and volume of runoff may only be increased as allowed for in the *SWMM EW* and if it is demonstrated that it will not impact or damage the natural or man-made environment and is approved by the county engineer. 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.
 - ii) The county will require designs to match flow rates besides the 25-year return rate under the following conditions:
 - (1) To meet natural stream flows as designated in the most recent Eastern Washington Phase II Municipal Stormwater Permit, or individual municipal stormwater permit issued to Chelan County, by the Washington State Department of Ecology, to meet enhanced criteria.
 - (2) Where the proposed system connects to another jurisdiction's system, flow control shall comply with the provisions of this chapter or meet the downstream jurisdictional requirements for flow control, whichever is more stringent.
- e) Flow Control design calculations for peak flow and peak volume detention requirements shall be based on matching the post-development flows and volumes to the pre-development condition for the stated design storm.
- i) For projects within **Region 1**, the 25-year regional design storm (as defined by the *SWMM EW* in Chapter 4) shall be used.

- ii) For projects within **Region 2**, the SCS Type 1A 24-hour design storm with a 25-year return frequency shall be used
- iii) **Region 1** and **Region 2** are modified from the *SWMMEW* and are defined by the map found in Appendix B of this resolution.
- iv) Alternate methods of analysis may be utilized for small projects when specifically approved by the county engineer. Examples of these methods are the TR-55 method.
- v) The county engineer 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.

7) Core Element #7: Operation & Maintenance of Stormwater Facilities

- a) The property owner(s) shall be responsible for the continual performance, operation and maintenance of all stormwater facilities in accordance with the standards and requirements of the county and remain responsible for any liability as a result of these duties.
- b) These requirements will follow the guidelines of Core Element #7 of the *SWMMEW* and applicable sections of Chelan County Code Chapter 13.18.
- c) New stormwater facilities shall have a written operation and maintenance (O&M) plan. Furthermore, existing facilities may be encouraged to develop a written O&M plan.
- d) The O&M plan shall at a minimum address all stormwater facilities and structural BMPs at the site and address the following:
 - i) Type of inspection required for each facility or BMP
 - ii) Frequency of inspection
 - iii) Provide specific procedures necessary to conduct each type of inspection
 - iv) Frequency of routine maintenance practices
 - v) Criteria triggering non routine maintenance
 - vi) Procedures to perform all maintenance activities
 - vii) Establish long-term funding mechanism to support the O&M plan.
- e) The O&M plan shall be retained onsite or within reasonable access to the site, and shall be transferred with the property to the new owner(s).
- f) The property owner shall maintain a log of maintenance activities.
- g) All stormwater facilities, BMPs, O&M plans, and records shall be subject to inspection by the county engineer in accordance with Chapter 13.18.
- h) The county may assume ownership of privately-owned residential facilities in extraordinary circumstances and only if the following conditions have been met:
 - i) All necessary easements or dedications entitling the county to properly maintain the facility have been conveyed to the county;

- ii) The county engineer has determined that the facility is in the dedicated public road right-of-way or that maintenance of the facility will contribute to protecting or improving the health, safety and welfare of the community based upon review of the existence of or potential for:
 - (1) Flooding
 - (2) Downstream erosion
 - (3) Property damage due to improper function of the facility
 - (4) Safety hazard associated with the facility
 - (5) Degradation of water quality
 - (6) Degradation to the general welfare of the community
- iii) The county has inspected the facility and any construction deficiencies have been repaired at the property owner(s) expense.
- iv) The county engineer has declared in writing acceptance of maintenance responsibility by the county.
- i) The county engineer may terminate the county's assumption of maintenance responsibilities or decline the acceptance of a facility in writing to the property owner(s) after determining that maintenance by the county will not significantly contribute to protecting or improving the health, safety and welfare of the community based upon review of the existence of or potential for:
 - i) Flooding
 - ii) Downstream erosion
 - iii) Property damage due to improper function of the facility
 - iv) Safety hazard associated with the facility
 - v) Degradation of water quality
 - vi) Degradation to the general welfare of the community.

8) Core Element #8: Local Requirements

- a) Projects that meet the requirements of Chapter 13.18 will meet any optional requirements that are adopted as a part of the *SWMM* by Chelan County. Projects are encouraged to utilize any additional BMPs that become available and are adopted and made a part of the manual including Low Impact Development (LID) BMPs.
- b) **Downstream Jurisdictions.** The county may require the stormwater management plans to adhere to the stormwater regulations of other jurisdictions that receive downstream stormwater runoff from un-incorporated Chelan County, where the proposed system directly connects to another jurisdiction's system; whichever jurisdiction's requirements are more stringent.

9) Enhanced Criteria for Impaired Waters

Land development that discharges via the Chelan County's 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 Chelan County, by the Washington State Department of Ecology, shall meet enhanced criteria as defined in the permit.

13.18.050 PERFORMANCE BOND OR GUARANTEE

1) Performance Bond or Guarantee Required

- a) No stormwater site plans shall be approved for projects subject to this resolution unless the applicant furnishes a satisfactory performance bond or guarantee. This is to ensure that action can be taken by Chelan County, 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 county engineer). If Chelan County takes such action upon such failure by the applicant, Chelan County shall collect from the applicant the difference should the amount of reasonable cost of such action exceed the amount of the security held.
- b) Applicants constructing storm drainage facilities shall post with the county surety and cash bonds or certified check in the amount of one hundred twenty five percent (125%) of the estimated construction cost. Whenever the applicant is required to post other bonds on the project or on construction related to the facility, the bonds may, with the permission of the county engineer, be combined into a single bond to the extent allowed by law; provided, that the amount thus bonded shall not at any time be less than the amount that would be required under separate bonds. The single bond shall clearly specify on its face those separate bonds which it is intended to replace.
- c) Prior to commencing construction the owner or person constructing the facility shall post a construction bond, or, in lieu of a bond the applicant may establish a cash escrow account with his/her bank or with the County Treasurer in the amount specified above. The amount of the bond or cash account shall be sufficient to reimburse the county if it should become necessary for the county to enter the property for the purpose of correcting and/or eliminating hazardous conditions relating to soil stability, erosion and/or drainage control. The instructions to the escrow agent shall specifically provide that after prior written notice unto the owner and the owners failure to correct and/or eliminate existing or potential hazardous conditions in a timely manner, the escrow agent shall be authorized without any further notice to the owner or his consent to disburse the necessary funds to the county for the purpose of correcting and/or eliminating such conditions as specified in the county complaint. Following issuance of the Stormwater Certification of Completion, as described in Section 13.18.030(9)(c), the construction bond shall be released.

2) Term of Performance Bond or Guarantee

The performance bond or guarantee furnished pursuant to the preceding section 13.18.050(1), or the unexpended or unobligated portion thereof, shall be returned to the applicant within thirty (30) days of issuance by the county engineer of a Stormwater Certificate of Completion, OR the final acceptance of the permanent stormwater BMP by the county engineer.

3) Partial Release of Bond

The county engineer 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.

13.18.060 VIOLATIONS, ENFORCEMENT, AND PENALTIES

1) Violations

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this resolution. Any person who has violated or continues to violate the provisions of this resolution, may be subject to the enforcement actions outlined in this section or may be restrained by injunction or otherwise abated in a manner provided by law. In the event the violation constitutes an immediate danger to public health or public safety, the county is authorized to enter upon the subject private property, without giving prior notice, to take any and all measures necessary to abate the violation and/or restore the property. The county is authorized to seek costs of the abatement in accordance with all applicable laws and resolutions authorizing such actions.

2) Enforcement

Enforcement action for a first violation shall be taken in accordance with Chelan County Code Chapter 16.06.

3) Compensatory Action

In lieu of enforcement proceedings, penalties, and remedies authorized by this resolution, the county may impose alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, cleanup, or other alternative actions deemed appropriate by the county.

4) Suspension of MS4 Access

a) Emergency Cease and Desist Orders. When the county finds that any person has violated, or continues to violate, any provision of this resolution, or any order issued hereunder, or that the person's past violations are likely to recur, and that the person's violation(s) has (have) caused or contributed to an actual or threatened discharge to the MS4 or waters of the United States which reasonably appears to present an imminent or substantial endangerment to the health or welfare of persons or to the environment, the county shall issue an order to the violator directing the person to immediately to cease and desist all such violations and directing the violator to:

- i) Immediately comply with all resolution requirements; and
- ii) Take such appropriate preventive action as may be needed to properly address a continuing or threatened violation, including immediately halting operations and/or terminating the discharge. Any person notified of an emergency order directed to it under this Subsection shall immediately comply and stop or eliminate its endangering discharge. In the event of a discharger's failure to immediately comply voluntarily with the emergency order, the county may take such steps as deemed necessary to prevent or minimize harm to the MS4 or waters of the United States, and/or endangerment to persons or to the environment. Issuance of an emergency

cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the violator.

5) Suspension due to Illicit Discharges in Emergency Situations

The county may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the county may take such steps as deemed necessary to prevent or minimize damage to the MS4 or waters of the United States, or to minimize danger to persons.

6) Criminal Prosecution

Any person who has violated or continues to violate this resolution two or more times shall be liable to criminal prosecution to the fullest extent of the law, and shall be guilty of a misdemeanor punishable by a fine of not more than \$1000 per violation per day and/or imprisonment for a period of time not to exceed ninety (90) days per violation per day. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.

7) Cost of Abatement of the Violation

The owner of the property or person responsible for the violation will be notified of the cost of abatement, including administrative costs. Payment in full shall be due within thirty (30) days and on the 31st day interest may be applied at a rate of eight percent per annum. After ninety (90) days, if payment in full has not been received, a lien may be filed on the property and foreclosed. The county engineer may approve a payment plan of equal payments evenly spaced over no more than twelve (12) months.

8) Remedies Not Exclusive

The remedies listed in this resolution are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the county to seek cumulative remedies. The county may recover all attorneys' fees, court costs and other expenses associated with enforcement of this resolution, including but not limited to sampling and monitoring expenses.

13.18.070 COMPATIBILITY WITH OTHER REGULATIONS

This resolution is not intended to modify or repeal any other resolution, resolution, rule, regulation, or other provision of law. The requirements of this resolution are in addition to the requirements of any other resolution, resolution, rule, regulation, or other provision of law, and should be considered minimum requirements, and where any provision of this resolution imposes restrictions different from those imposed by any other resolution, resolution, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

13.18.080 ULTIMATE RESPONSIBILITY

The standards set forth herein and promulgated pursuant to this resolution are minimum standards; therefore this resolution does not intend or imply that compliance by any person will ensure that there will be no contamination, pollution, or unauthorized discharge of pollutants.

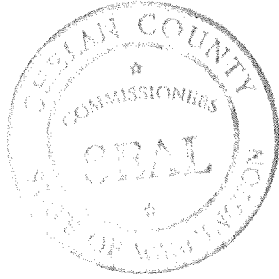
13.18.090 SEVERABILITY

The provisions of this resolution are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this resolution or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this resolution.

13.18.100 EFFECTIVE DATE

This resolution shall take effect on February 16, 2011 as provided by law.

Dated at Wenatchee, Washington this 16 day of Feb, 2010.



BOARD OF COUNTY COMMISSIONERS

Keith W. Goehner

KEITH W. GOEHNER, Chairman

Doug England

DOUG ENGLAND

Ron Walter

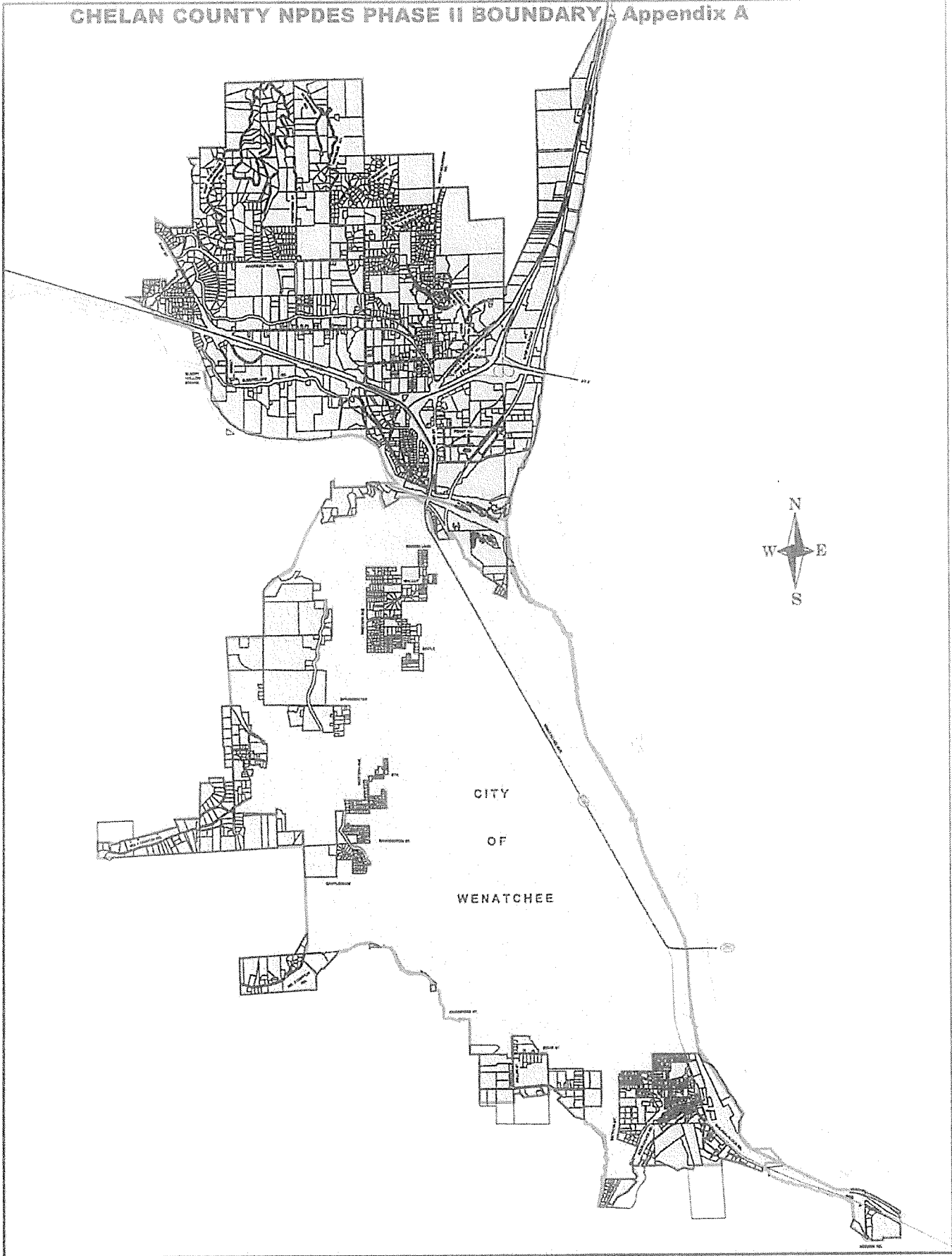
RON WALTER

ATTES: SALLY TAYLOR

Sally Taylor

Clerk of the Board

CHELAN COUNTY NPDES PHASE II BOUNDARY Appendix A



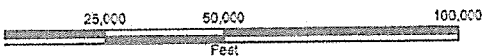


CHELAN COUNTY PUBLIC WORKS



Climatic Region Delineation within Chelan County

Appendix B



This map is a graphic representation derived from Chelan County's Geographic Information System. It is designed and intended for reference only. Chelan County does not warrant, guarantee, or except liability for the accuracy, timeliness, or completeness of any information provided therein.