WHATCOM COUNTY COUNCIL

AGENDA REVISION NOTICE
FOR SEPTEMBER 27, 2016
(DISTRIBUTED AT 4:30 P.M. ON SEPTEMBER 21, 2016)

THE FOLLOWING ITEM HAS BEEN ADDED TO THE COUNCIL’S NATURAL RESOURCES COMMITTEE AGENDA:

COMMITTEE DISCUSSION

2. Discussion of a draft ordinance amending Chapters 20.51, 20.71, 20.80, 20.85, 20.97 and Title 21 of the Whatcom County Code to make low impact development (LID) a stormwater and land use strategy that strives to mimic natural hydrologic processes, the preferred approach to site development by minimizing impervious surfaces, native vegetation loss, and stormwater runoff (AB2016-257)
**TITLE OF DOCUMENT:** An ordinance amending Chapters 20.51, 20.71, 20.80, 20.85, 20.97 and Title 21 of the Whatcom County Code to make Low Impact Development (LID), a stormwater and land use strategy that strives to mimic natural hydrologic processes, the preferred approach to site development by minimizing impervious surfaces, native vegetation loss, and stormwater runoff.

**ATTACHMENTS:**
A. Staff memo dated 8/30/163  
B. Draft Ordinance Effecting the Proposed Code Amendments  
C. Map of NPDES Phase II Permit Area and Special Stormwater Districts

**SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:** (If this item is an ordinance or requires a public hearing, you must provide the language for use in the required public notice. Be specific and cite RCW or WCC as appropriate. Be clear in explaining the intent of the action.)

Whatcom County is considering amendments to Chapters 20.51, 20.71, 20.80, 20.85, 20.97 and Title 21 of the Whatcom County Code to integrate Low Impact Development (LID) principles and Best Management Practices (BMPs) into the County’s codes and standards in order to meet the state’s 2014 NPDES Phase 2 Permit requirements. A secondary goal is to simplify the County’s stormwater regulations (there are currently six different sets of regulations for eight different geographic areas of the County). The draft proposal includes revisions to the County’s land use codes (Titles 20 and 21) and development standards, adoption of the 2014 Ecology Stormwater Manual (outright in urban (NPDES) areas of the County and with raised thresholds in the rural areas), and restructuring of the watershed/stormwater management areas.

**COMMITTEE ACTION:**
9/13/2016: Presented and discussed

**COUNCIL ACTION:**

**Related County Contract #:**

**Related File Numbers:**

**Ordinance or Resolution Number:**

**Please Note:** Once adopted and signed, ordinances and resolutions are available for viewing and printing on the County’s website at: [www.co.whatcom.wa.us/council](http://www.co.whatcom.wa.us/council).
TO: The Honorable County Council  
Jack Louws, County Executive

FROM: Cliff Strong, Senior Planner

THROUGH: Sam Ryan, Director

DATE: 16 September 2016

SUBJECT: Proposed Low Impact Development/Stormwater Simplification Ordinance – Responses to Questions Posed by Council

On 13 September 2016, staff presented to the Natural Resources committee some proposed amendments to our stormwater regulations to: (1) Incorporate Low Impact Development (LID) principles into stormwater regulations, and (2) to consolidate and simplify our stormwater regulations countywide.

Council had some request for information, and posed some questions that needed some thought and research. This memo is intended to provide those answers.

Information Requested
Council asked for two items:

1. List of Stakeholders Advisory Committee (SAC) members. Participation in the SAC was solicited via the County’s website, the Bellingham Herald, and direct emails to potentially interested people and organizations. Members of the SAC included:
   - Ben Gibson, 2020 Engineering
   - Bret Beaupain, RH2 Engineering
   - Gabe Ng, Amorterra Engineering & Consulting
   - Greg Morgan, Amorterra Engineering & Consulting
   - Jason Porter, City of Bellingham
   - JP Slagle, Freeland Engineering
   - Mark Buehrer, 2020 Engineering
   - Mark Sandal, City of Lynden
   - Nathan Row, APC Engineers
   - Rhett Winter, Wilson Engineering
   - Rob Fadden, City of Sumas
   - Steve Banham, City of Lynden
   - Tim Ellis, Lummi Nation
   - Wendy Larocque, City of Ferndale

2. Full-sized hard copies of the PowerPoint presentation given on 13 September 2016. A hard copy was provided, but multiple slides to a page. Full-sized slides are attached.

Questions Asked
In addition, Council asked numerous questions, the responses to which are as follows:
3. What issues were raised at the 29 June 2016 BIAWC workshop?

   a. What level of detail should be shown on site plans, as it relates to showing locations of native vegetation or areas for stormwater management?

      **Staff Response:** In general, we’ve tried to keep it as simple as possible.

      *For site plans required for a development permit* – We’re not proposing to change the requirements other than adding that one has to show the location and type of stormwater facilities (if required) and the location of trees to be retained, which can be shown in groups or overall area as defined by the canopy.

      *For tree removal applications not associated with a development permit* (WCC 20.51.430(2)(a) and WCC 20.71.354(2)(a)) – The site plan can be a site “sketch” that a homeowner or lay person could complete without any detailed knowledge of the site that may require consultant assistance to prepare. They can group trees into stands, use aerial photos, etc.

      *For tree removal applications associated with a development permit* (WCC 20.51.440(2)(a)(i) and WCC.71.356(2)(a)(i)) – A site plan with the following components:

      (1) North arrow;
      (2) Property boundaries;
      (3) Existing structures;
      (4) Site access;
      (5) Tree canopy areas to be removed;
      (6) The outer dripline of tree canopy areas to be retained;
      (7) Critical areas including, but not limited to, slopes, wetlands, and habitat conservation areas;
      (8) Protection measures to be used for areas that will be undisturbed; and,
      (9) Areas to be replanted pursuant to subsection (4) of this section.

      Most of these items are required on the development site plan anyways; the only new items would be (5) and (9).

      *For Notice on Title* (WCC 20.51.420(3)(a)(i) – A site plan to scale, showing the location and descriptions of stormwater facilities, treatment BMPs, terrain features, protective native growth areas, and stormwater flow paths.

   b. Rural short plats (very low density) should be exempt from stormwater management, or showing native vegetation on site plans.

      **Staff Response:** Rather than exempting certain types of permits or base applicability on density, it seemed that a fairer way was to set applicability thresholds based on how much impervious or hard surface one’s proposing to install. This would also give incentive to minimize impervious/hard surfaces, and to use LID.

   c. The proposed amended thresholds should be based on a percentage of lot coverage that is covered with hard surfaces instead of square footage of hard surface.
**Staff Response:** Staff’s initial draft was just based on area of hard surface, but it is now based on both area and/or percentage, in part due to this comment.

d. The County should accept a falling head test for infiltration testing.

**Staff Response:** Our regulations allow for any method of infiltration testing that is signed off by an engineer. So yes, we would accept a falling head test if that’s what the engineer stamped.

4. Council asked two questions regarding the fire code, including:

a. Why does PDS require a 60’ buffer for fire truck access? And could rights-of-way be narrowed? Seems unnecessary and adds impervious surfaces.

**Staff Response:** Unfortunately, the Fire Marshal is on vacation until 9/26, so we can’t give you an answer yet. We will request his presence at the next presentation on 9/27.

b. How are we balancing tree retention vs. fire safety measures? Specifically, best practices for fire safety include a 30-foot no-vegetation buffer around structures. What if someone is at their canopy removal limit, but needs to remove more to provide this fire buffer?

**Staff Response:** First, realize that the tree retention regulations would only apply in the Special Watershed Districts, not the majority of the County. Secondly, most people are more likely to remove trees from around their house first (to obtain sunlight, keep leaves off their roofs, etc.) rather than away from their house. And third, the 30-foot no-vegetation buffer (a.k.a, “defensible space”\(^1\)) is not a regulation\(^2\), but a Best Practice promoted by the fire safety agencies and insurance companies, so there isn’t a code conflict. That said, it’s still a practice that PDS would rather encourage than discourage or preclude. We could include language indicating a preference for retaining trees outside of the defensible space and that the director will consider removal of trees within that space in excess of the allowance.

5. Tree retention questions posed by Council:

a. If someone is to maintain a certain percentage of tree canopy, but the County (or WSDOT) obtains some of their property for right-of-way and diminishes that canopy, what happens?

**Staff Response:** According to Joe Rutan, County Engineer, there are very few places where the County (or WSDOT) needs additional rights-of-way in the Special Stormwater Districts; at most only on a few corners. Therefore, this shouldn’t come up except in those few instances. And if it does, Mr. Rutan assures us that the County would have to pay for any diminution in property value due to their action. Additionally, it should be pointed out that if we do shrink a property by obtaining right-of-way, the percentage

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\(^1\) International Wildland-Urban Interface Code (IWUIC) §603. And the 30-foot rule is for moderate risk areas; the width is higher for higher risk areas, up to 100 feet.

\(^2\) Though such a regulation is included in the IWUIC, it has not been adopted by the State yet, but may be sometime in the future.
calculation is also changed, so the percentage of tree canopy may stay the same or even increase, depending on where trees are located.

b. Should we regulate/encourage people to remove more deciduous than conifers, especially if they’re removing a lot of trees?

**Staff Response:** Staff considered addressing this, but decided not to favor certain species over others since we’re doing this for stormwater (rather than aesthetics or other reasons) and all trees perform the same in that respect. If Council wishes, we could add a sentence that encourages protection of one type over another, but in staff’s experience, statements of encouragement are rarely heeded.

c. Are the proposed hazard tree removal regulations consistent with those of the Shoreline Management Program (SMP)?

**Staff Response:** Yes. Regarding the removal of hazardous trees, the SMP (WWC 23.16.060) refers to the Critical Areas Ordinance (WWC 16.230(f), which exempts the removal of hazardous trees as a regulated activity). PDS Policy PL2-86-002U further provides guidance to staff on how to permit the removal of hazardous trees in (and outside) the shoreline jurisdiction, and requires a Tree Risk Assessment from a qualified arborist. So basically, these rules would still apply, and being the stricter rules, would still require a Tree Risk Assessment from a qualified arborist if in the shoreline jurisdiction. The proposed rules for areas outside of critical areas or shoreline jurisdiction are much simpler/cheaper for the homeowner in that staff has the ability to ascertain whether it’s a hazard tree or not.

d. Will we track cumulative loss of tree canopy?

**Staff Response:** Staff did not propose tracking cumulative loss over time, as we didn’t really know what direction Council wanted to go. But this could easily be done using aerial photos. If this is something Council would like to do (and it seemed so during our discussion), we would suggested starting the clock on January 1, 2017, using the best available information. (There are several sources we would turn to, each having different dates.) To this end, we have added the phrase “and as measured cumulatively” to WCC 20.51.430(4), 20.51.440(3), 20.71.354(4), and 20.71.356(3), and a definition of “existing tree canopy area” (WCC 20.97.121.05) to mean “the tree canopy area in existence as of January 1, 2017, using best available information.” (See revised ordinance, attached.)

6. How would these stormwater regulations affect someone with a failing septic system? What if the required stormwater management system takes up the room that someone needs for a replacement septic/drainfield area?

**Staff Response:** Staff does not believe that this would be a prevalent occurrence, though conceives it could happen. In that case, we would have to prioritize the most important, and given that septic is a health issue space for a replacement septic system would prevail.

7. What's the typical cost to landowners under these proposed rules?

**Staff Response:** Cost is difficult to estimate given the myriad variables (soil type, vegetation, amount and type of hard surface area proposed, slope, etc.).
However, within the NPDES II areas and Special Watershed Districts we don’t believe there will be any significant additional costs, since the 2014 DOE Manual or our Development standards already applies within.

And since in the remainder of the County we have proposed applicability thresholds high enough that (we believe) the majority of typical single family residential and agricultural uses would fall beneath, we don’t think most people would see additional costs, at least nothing significant. For other, larger uses (plats, short plats, commercial uses, etc.), there may be some additional costs, though much of those already have to treat stormwater in some manner per the Development Standards. Our best guess is that those applicants proposing large areas of hard surface on small lots would be the most likely to see increased costs, though even this can be mitigated by the use of LID principles. We’ve heard that stormwater systems range from $7,000 – $15,000, though what the increased cost of using the DOE Manual verses our current Development Standards, we can’t say.

8. Would conversion from forestland to blueberries (or other crops, we presume) trigger stormwater management?

**Staff Response:** It appears that if one is converting forestland to crops, the DOE Manual would apply. Theoretically, one would have to hire an engineer to do the analysis and propose a mechanism for treating stormwater and control its flow (as well as implementing a Temporary Erosion and Sedimentation Control (TESC) plan during the logging phase). However, in speaking with various jurisdictions (including DOE) no jurisdictions enforce this. Yet we can’t find any language in their codes that exempt it. In a nutshell, it’s not addressed; they just somehow ignore it.

Thus, it appears Council has two options. One is to adopt the proposed language of 20.80.631 (Exemptions), which while exempting most agricultural activities expressly does not exempt conversion of forest to agriculture, and staff would need to figure out how to apply the manual.

20.80.631 (2) Commercial agriculture practices (as defined in the 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington, as amended) involving working the land for production are generally exempt. However, the conversion from timberland to agriculture, and the construction of impervious surfaces are not exempt.

The second would be to remove the phase “the conversion from timberland to agriculture” from the above exemption, which then would exempt such conversions from stormwater review.

9. Councilmember Brenner noted that there was an instance of the word “simply” used instead of “simplify.”

**Staff Response:** That misuse was in the staff memo. It doesn’t need to be corrected in the ordinance.
ORDINANCE NO. __________

AN ORDINANCE AMENDING CHAPTERS 20.51, 20.71, 20.80, 20.85, 20.97 AND TITLE 21 OF THE WHATCOM COUNTY CODE TO MAKE LOW IMPACT DEVELOPMENT (LID), A STORMWATER AND LAND USE STRATEGY THAT STRIVES TO MIMIC NATURAL HYDROLOGIC PROCESSES, THE PREFERRED APPROACH TO SITE DEVELOPMENT BY MINIMIZING IMPERVIOUS SURFACES, NATIVE VEGETATION LOSS, AND STORMWATER RUNOFF.

WHEREAS, the Clean Water Act provides the statutory basis for the National Pollutant Discharge Elimination System (NPDES) Permit Program and the basic structure for regulating the discharge of pollutants from point sources to waters of the United States; and

WHEREAS, a requirement of the NPDES Western Washington Phase II Municipal Stormwater Permit (NPDES Permit) under which the County has coverage directs the County to implement and enforce a program to reduce pollutants in stormwater runoff to a regulated small MS4 from new development and redevelopment; and

WHEREAS, a performance measure of controlling runoff from new development and redevelopment is to implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment; and

WHEREAS, a Special Condition under the NPDES Permit requires Permittees to review, revise and make effective within their local development-related codes, rules and standards to incorporate and require low impact development (LID) principles and best management practices (BMPs) on or before December 31, 2016; and

WHEREAS, the intent of these revisions is to make LID the preferred and commonly-used approach to site development by minimizing impervious surfaces, native vegetation loss and stormwater runoff in all types of development situations; and

WHEREAS, Whatcom County has shown a commitment to protecting and restoring receiving water bodies through a variety of watershed and basin plans; and

WHEREAS, after public notice as required, the Whatcom County Planning Commission held a public hearing on July 28, 2016, reviewed the public record, and made a recommendation regarding the proposed low impact development code updates to the County Council; and

WHEREAS, the County Council has adopted the following Findings of Fact:
FINDINGS OF FACT

1. The purpose of the proposal to amend Chapters 20.51, 20.71, 20.80, 20.85, 20.97 and Title 21 of the Whatcom County Code is to make LID the preferred and commonly-used approach to site development.

2. The proposed amendments have been drafted in response to staff and consultant recommendations, public comment, and recommendations by the Planning Commission. The amendments as proposed minimize impervious surfaces, native vegetation loss, and stormwater runoff from all types of development.

3. In addition to the creation of a project website and the formal adoption process, public participation was solicited through the formation of Stakeholder Advisory Committee, comprised of designers, developers, engineers and representatives from other agencies such as neighboring cities and tribes. Six stakeholder meetings were held between September 2015 and July 2016 where the committee provided input on revisions to policies, codes and standards.

4. An open house was held with the Building Industry Association of Whatcom County on June 29, 2016. Comments raised included questions about who would be responsible for maintenance of LID facilities located within the right-of-way, and a proposal to link stormwater management requirements outside of the NPDES Phase II Permit area to the percentage of lot coverage, rather than square footage.

5. The Whatcom County designated SEPA Official (lead agency) reviewed the proposed amendments to Chapters 20.51, 20.71, 20.80, 20.85, 20.97 and Title 21 of the Whatcom County Code and made a determination that no probable significant adverse impacts to the environment would be likely to occur as a result of adopting the proposed amendments. This decision was made after a review of the completed SEPA Environmental Checklist on file with the lead agency, referenced under File No. SEP2016-00075. A 14-day comment period ending on August 19, 2016 was established for the DNS. No comments were received. At the conclusion of the comment period, a 10 day appeal period was established. No appeals to the determination were filed.

6. On August 22, 2016, a “60 Day Notice of Intent to Adopt Amendment” was submitted to the Washington State Department of Commerce via email in regards to the subject amendments. On August 23, 2016, the Washington State Department of Commerce replied to confirm that the County had fulfilled this requirement, and that the 60 Day Notice was filed for reference under Material ID 22753.

7. Notice of the Planning Commission public hearing scheduled for July 28, 2016 was sent to citizens, the media, cities and other groups on the County’s email list on July 15, 2016.

8. The Planning Commission held a scheduled public hearing on the proposed amendments on July 28, 2016.

9. The Planning Commission held a work session on the subject amendments following the public hearing on July 28, 2016. An additional work session/deliberation was held on August 11, 2016.

10. At the July 28, 2016 public hearing and the August 11, 2016 work session/deliberation, only one member of the public testified to the Planning Commission, who spoke about the proposed
amended thresholds for stormwater management outside of the NPDES Phase II Permit area and Stormwater Special Districts. The thresholds for when the minimum requirements are triggered for stormwater management for development outside of the NPDES Phase II Permit area and Stormwater Special Districts are proposed to be based on land use intensity.

11. During the work session of the July 28, 2016 meeting, Planning Commissioners directed staff to explore a number of items related to the subject amendments including:
   - Providing information of the costs of LID BMPs required by the Stormwater Management Manual and the impacts of adopting the amended thresholds County-wide on single-family residential and agricultural land uses.
   - Reorganizing the tables in WCC 20.80.630, such that the tables are separated for the thresholds in the Special Stormwater Districts and all other areas in the County outside of the NPDES Phase II Permit area and the Special Stormwater Districts.
   - Clarify the sections on tree retention in WCC 20.51 and 20.71 such that the titles stand out and are easy to follow.
   - Revise the definition for significant tree such that it is located with the other tree definitions in WCC 20.97 and the diameter at breast height for which a tree is considered significant is raised from the original proposal of 6 inches, to 12 inches for evergreen trees and 8 inches for deciduous trees.
   - A number of minor changes to wording such that the language is clarified and removes ambiguity or contradictory statements.

12. Between the first and second Planning Commission meetings, staff and their consultants conducted research on the costs of LID BMPs and the impact of adopting the amended thresholds on single-family residential and agricultural land uses. Staff and their consultants prepared responses to the issues raised by the Planning Commission in a memorandum dated August 2, 2016 and drafted a new “Attachment A” (dated August 11, 2016) to reflect Planning Commission changes resulting from the July 28, 2016 meeting.

13. At the Planning Commission meeting held August 11, 2016 meeting, after considering staff’s responses and recommendations, and public comment, Planning Commissioners deliberated on the subject amendments through a series of motions, and voted to recommend that the Whatcom County Council adopt amendments to the text of the Whatcom County Code, Titles 20 and 21, with direction for staff to make the edits as so motioned during the work session, described below and shown in “Attachment A” attached to this ordinance:
   - The site plan required for tree removal applications in WCC 20.51 and WCC 20.71 is edited to be a site “sketch” that a homeowner or lay person could complete without any detailed knowledge of the site that may require consultant assistance to prepare.
   - Penalties may be assessed for tree removal without a permit. Trees that are not replaced may be subject to a fine.
   - The land use intensity table in WCC 20.80.630 is amended such that single-family residential uses on lots greater than or equal to 25,000 square feet are considered “low intensity” land uses for the purposes of determining if the minimum requirements for
stormwater management are triggered. This was lowered from 1 acre lots, thus
encompassing more single-family residential lots in the low intensity land use category,
rather than medium intensity land use category. The minimum requirements for single-
family residential uses on lots greater than 25,000 square feet are limited to a
stormwater site plan, erosion and sediment controls during construction, and preserving
natural drainage or wetlands if they exist on the site. A note was added to the table that
these requirements do not likely require preparation by a qualified professional.

- A number of minor text changes were made for clarification purposes or to resolve
formatting issues.

14. Pursuant to Whatcom County Code 20.90.050, Whatcom County Planning and Development
Services has evaluated the proposed amendments in relationship to the goals, objectives and
policies of the Whatcom County Comprehensive Plan as authorized by the Washington State
Growth Management Act (GMA) – RCW 36.70A; and has considered possible environmental
impacts identified by the lead agency through the State Environmental Policy Act (SEPA)
threshold determination process.

15. Pursuant to the requirements in the NPDES Western Washington Phase II Municipal Stormwater
Permit, the proposed amendments as shown in “Attachment A” attached to this ordinance will
satisfy the requirement under Special Condition 55.C.4.f, “Low impact development code-
related requirements” for Permittees to review, revise and make effective, no later than
December 21, 2016, their local-development codes, rules and standards to incorporate and
require LID principles and BMPs.

16. The proposed amendments, as shown in “Attachment A” attached to this ordinance will be
included with a summary of the review and revision process conducted as a part of the Low
Impact Development Code Update Project, with the County’s annual report to the Department
of Ecology.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:

Section 1. The Official Whatcom County Code, Titles 20 and 21 are hereby amended as shown on
Attachment “A”.

Section 2. Adjudication of invalidity of any of these sections, clauses, or provisions of this ordinance
shall not affect or impact the validity of the ordinance as a whole or any part thereof other than the part
so declared to be invalid.

ADOPTED this ______ day of _________, 2016.
ATTEST

Dana Brown Davis, Council Clerk

Carl Weimer, Chairperson

APPROVED as to form:

( ) Approved  ( ) Denied

Civil Deputy Prosecutor

Jack Louws, County Executive

Date: ____________________
ORDINANCE NO. __________

ATTACHMENT “A”
Whatcom County Code, Title 20

Chapter 20.51
LAKE WHATCOM WATERSHED OVERLAY DISTRICT

Sections:
[...]
20.51.040 Conformance.
[...]
20.51.420 Permanent stormwater management systems.
20.51.430 Tree removal not associated with development activity.
20.51.440 Tree retention associated with development activity.
[...]

20.51.040 Conformance.
The provisions of this chapter overlay other permit and approval requirements of the Whatcom County Code. All use and development shall conform to all relevant requirements and standards of:
(1) Whatcom County Code, Title 20, Zoning, except as modified by this chapter;
(2) The International Building and Fire Codes;
(3) Whatcom County Critical Area Ordinance, Chapter 16.16 WCC;
(4) Flood damage prevention, WCC Title 17;
(5) Subdivision, WCC Title 21, except as modified by this chapter;
(6) 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington, as amended and modified by this chapter;
(7) Whatcom County Development Standards—Stormwater, Chapter 2, except as modified by this chapter;
(8) WCC Title 23, Shoreline Management Program;
(9) WCC Title 24, Health Code; and
(10) All other applicable official controls.
[...]

20.51.420 Permanent stormwater management systems.
[...]
(2) Best Management Practices.
   (a) Unless otherwise exempt per subsection (1) of this section, or unless a standard land use vesting determination concludes otherwise, all projects, work, or activities, including subdivisions, binding site plans, and nonexempt new short subdivision parcels, proposed to occur within the Lake Whatcom Watershed Overlay District shall incorporate presumptive BMPs and/or demonstrative BMPs, per subsection (2)(c) and/or (2)(d) of this section, respectively, to:
ORDINANCE NO. _________

(i) All project, work, or activity affected:
   (A) Net land area disturbed (per Chapter 20.97 WCC definition) and/or
   (B) Newly created and/or replaced hard surfaces.
      1. Net new impervious surface area (per Chapter 20.97 WCC definition), and/or
      2. Net replaced impervious surface area (per Chapter 20.97 WCC definition), and/or
      3. Net new permeable pavement area (per Chapter 20.97 WCC definition), and/or
      4. Net replaced permeable pavement area (per Chapter 20.97 WCC definition), and/or

(ii) Existing off-parcel phosphorus-unmitigated areas and/or on-parcel phosphorus-unmitigated areas within the entire Lake Whatcom watershed at a 2:1 ratio of phosphorus-unmitigated area to the corresponding project, work, or activity affected area(s) that subsections (2)(a)(i)(A) and (B) of this section outline.

(iii) The developable areas and infrastructure as required for long and short subdivision approval. A stormwater management plan for developable areas and required infrastructure, consistent with the 2012 Stormwater Management Manual for Western Washington, is required prior to preliminary plat approval. Installation of required BMPs for infrastructure is required prior to final plat approval.

[...]

(3) System Recording, Protection, and Maintenance. A declaration of covenant shall be recorded for each property where permanent stormwater BMPs exist. The covenant is used to protect the stormwater management facilities from cover by structures or impervious material, soil compaction, and damage by soil removal and grade alteration, and ensure required maintenance occurs according to the schedule in subsection (c) of this section. A draft of the proposed covenant must be reviewed and approved by Whatcom County prior to recording. All required covenants must be recorded prior to final permit issuance for the proposed project.

(a) Notice on Title. For all permanent stormwater facilities, the type of stormwater system and location shall be recorded with the county auditor real estate records in a format similar to the recording documents in Whatcom County Development Standards, Chapter 2, Section 221. The recording document provides notice to future owners of the presence of stormwater system on the lot, and shall contain:
   (i) A site plan to scale, showing the location and descriptions of stormwater facilities, treatment BMPs, terrain features, protective native growth areas, and stormwater flowpaths.
   (ii) Notice of the property owner’s responsibility to retain, uphold, and protect the devices, features, pathways, protective native growth areas, and operate and maintain BMPs at the owner’s expense.

[...]

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(c) Inspections and Maintenance.
   (i) Inspections shall occur on at least an annual basis for all stormwater treatment and flow control BMPs and facilities that were permitted in accordance with requirements adopted pursuant to the 2013-2018 Ecology municipal stormwater permits, or later.
   (ii) Inspections of all permanent stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments shall occur every six months until 90% of the lots are constructed.
   (iii) For every deficiency identified by inspection, said deficiency shall be addressed:
         (A) Within 1 year for typical maintenance of facilities, except catch basins.
         (B) Within 6 months for catch basins.
         (C) Within 2 years for maintenance that requires capital construction of less than $25,000.

20.51.430 Tree removal not associated with development activity.
(1) Permit Required for Removal of Trees. No person, directly or indirectly, shall remove any significant tree(s) on any property within the Lake Whatcom watershed, or any tree(s) in the public right-of-way, without first obtaining a tree removal permit as provided in this section, unless the activity is exempted below:
   (a) Removal of any hazard trees or as necessary to remedy an immediate threat to person or property, pursuant to the requirements in subsection (5) of this section;
   (b) Pruning and maintenance of trees of up to 25% of the foliage.
(2) Tree Removal Permit Application. The Department of Planning and Development Services shall establish and maintain a tree removal permit application, which shall at a minimum require the following to be submitted by the applicant:
   (a) A sketch for this purpose may be prepared by the homeowner or other lay person and shall depict:
      i) The approximate location of significant trees, indicating those to be removed;
      ii) The species and canopy area (as determined pursuant to WCC 20.51.440(4));
      iii) The location of structures, driveways, access ways, and known easements.
   (b) Canopy calculations (existing and proposed)
   (c) For required replacement trees, a planting plan showing location, species, and 20-year canopy area of the new trees in accordance to standards set forth in WCC 20.51.440(4) for calculating 20-year canopy coverage.
(3) Tree Removal Permit Application Procedure and Appeals. Applicants requesting to remove any significant trees must submit a completed permit application on a form provided by the County. The County shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny the application, or request additional information. Any decision to deny the application shall be in writing along with the reasons for the denial and the appeal process.
   (a) The decision of the Director is appealable pursuant to WCC 20.84.240.
   (b) Time Limit. The removal shall be completed within one (1) year from the date of permit approval.
(4) Tree Removal Allowances. With a tree removal permit, any property owner may remove up to 35% or 5,000 sq. ft., whichever is greater, and as measured cumulatively, of the existing canopy area of on-site significant trees on their property; provided, that:
(a) There is no active application for development activity for the site; and
(b) The tree(s) were not required to be retained or planted as a condition of previous development activity.

(5) Removal of Hazard Trees. Any property owner seeking to remove any number of significant trees that are a hazard shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
(a) Tree Risk Assessment. If the hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a hazard tree is required. Removal of hazard trees does not count toward the tree removal limit if the hazard is supported by such a report and approved by the County.
(b) Trees in Critical Areas or Critical Areas Buffers. For hazard trees in critical areas or their buffers, tree removal shall be in accordance with the requirements of WCC Chapter 16.16.

(6) Penalties and Enforcement. Removal of significant trees without obtaining a tree removal permit may be subject to replacement at a ratio of three trees for each tree removed without a valid permit. Failure to replace removed significant trees may be subject to a fine as determined under WCC 20.94.

20.51.440 Tree retention associated with development activity.
(1) Tree Canopy Retention.
(a) Tree canopy retention shall be required for all development applications and building permits within the Lake Whatcom watershed, unless the activity is exempted below:
   i) Removal of any hazard trees, and as necessary to remedy an immediate threat to person or property, pursuant to the requirements of this subsection;
   (1) Tree Risk Assessment. If the hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a hazard tree is required. Removal of hazard trees does not count toward the tree removal limit if the hazard is supported by such a report and approved by the County.
   (2) Trees in Critical Areas or Critical Areas Buffers. For hazard trees in critical areas or critical area buffers tree removal shall be in accordance with the requirements of WCC Chapter 16.16.
   ii) Construction or maintenance of public or private roads and public or private utilities including utility easements not related to development. Protection of trees shall be a major factor in the location, design, construction, and maintenance of streets and utilities. These improvements are subject to the purpose and intent of this section.
   iii) Pruning and maintenance of trees of up to 25% of the foliage.

(2) Tree Retention Plan Required.
(a) An applicant for a development permit must submit a tree retention plan that complies with this section. A qualified professional may be required to prepare certain components of a tree
retention plan at the applicant’s expense. The tree retention plan shall contain the following information:

i) A site plan with the following components:
   (1) North arrow;
   (2) Property boundaries;
   (3) Existing structures;
   (4) Site access;
   (5) Tree canopy areas to be removed;
   (6) The outer dripline of tree canopy areas to be retained;
   (7) Critical areas including, but not limited to, slopes, wetlands, and habitat conservation areas;
   (8) Protection measures to be used for areas that will be undisturbed; and
   (9) Areas to be replanted pursuant to subsection (4) of this section;

ii) For required replacement trees, a planting plan showing location, species, and 20-year canopy area of the new trees and calculations of 20-year canopy coverage in accordance with the standards set forth in WCC 20.51.440(4).

iii) Provisions for maintenance and monitoring.

(3) Minimum Tree Canopy Retention. Development subject to the requirements of this section may remove up to 35% or 5,000 sq. ft., whichever is greater, and as measured cumulatively, of the existing tree canopy areas, as defined by the dripline of the tree(s), for the purposes of a building site, driveways, parking areas, and areas to be landscaped. Existing tree canopy areas shall be prioritized for retention as provided in subsection (5) of this section. In the event that tree canopy areas in excess of the applicable threshold must be removed to facilitate reasonable use of the site, or to eliminate hazard trees, new plantings shall be required to attain the removed tree canopy coverage, calculated according to projected growth at 20 years maturity consistent with Table 20.51.440(4).

a) Tree canopy areas shall include all trees, excluding invasive species or noxious weeds, within the gross site area.

b) Existing or planted tree canopy may include street trees and may be located within buffer landscaping, site landscaping, critical areas and their buffers, open space reserve areas, reserve areas, reserve tracts or easements where permanent restrictions are recorded on the face of the plat ensuring their retention in perpetuity.

(4) Measuring Tree Canopy. Site tree canopy shall be measured according to WCC Table 20.51.440(4). Calculation of existing and new tree canopy shall be submitted in writing by a qualified landscape designer or a licensed land surveyor.
### Table 20.51.440(4). Measuring Tree Canopy

<table>
<thead>
<tr>
<th>Existing Canopy</th>
<th>New Canopy</th>
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| • Measure average canopy radius \(r\) for each tree to be retained  
  • Calculate existing canopy area using the formula: \(CA=\pi r^2\)  
  • Total the sum of tree canopy areas and divide by gross site area to obtain canopy coverage percentage | • Obtain aerial imagery of site  
  • Measure site boundaries  
  • Measure canopies of individual trees or stand area using leading edges as the forest boundary  
  • Divide total canopy measurement by the gross site area to obtain canopy coverage percentage | For each proposed species:
  • Calculate radius \(r\) of canopy at 20 years maturity  
  • Calculate canopy coverage using the formula: \(CA=\pi r^2\)  
  • Multiply by the proposed quantity to be planted to obtain total species canopy area  
  • Total the sum of species canopy area for all proposed species and divide by gross site area to obtain 20-year canopy coverage percentage |

(5) **Tree Canopy Credits.** To assist in the preservation and retention of significant trees and existing tree canopy outside of critical area protection areas and required buffers and buffer landscaping, the applicant may use the following credits:

   (a) Individual significant trees retained on site shall be counted at 125 percent of their actual canopy area.
   
   (b) For clusters or stands of five or more trees, each tree shall be counted at 150 percent of its actual canopy area.
   
   (c) For clusters or stands of five or more significant trees, each tree shall be counted at 200 percent of its actual canopy area.
   
   (d) The minimum required lot size in subdivisions or short subdivisions may be reduced by 20 percent when at least 20 percent of the site, not including any open space reserve areas, reserve areas, reserve tracts, or critical areas or their buffers, is put into a separate tract or tracts that have at least 20 significant trees per acre and where at least 60 percent of the significant trees within the tract or tracts are retained. This does not change the tree canopy requirements.

(6) **Tree Replacement Requirements.** In addition to the requirements of WCC 20.80.320 through WCC 20.80.345, trees planted to meet tree canopy requirements in subsection (3) shall meet the following criteria:

   (a) Sites must be planted or replanted with a minimum of 50 percent evergreen species, except:
      
      i. The evergreen portion of the required planting mix may be reduced by 25 percent when the deciduous mix contains exclusively indigenous species to the Puget Sound region, not including Alder; and
      
      ii. Sites obtaining tree canopy requirements solely through street trees are exempt from the requirement to include evergreen species in the planting mix;

   (b) Sites requiring replanting of tree canopy must plant no more than 30 percent of trees from the same species and no more than 60 percent of trees from the same taxonomic family.
(c) Replacement trees shall be planted in locations appropriate to the species' growth habit and horticultural requirements;
(d) When preparing the landscaping plan, applicants are encouraged to meet the requirements of subsection (3) by conserving existing tree canopy, including significant trees and other vegetation located on the site, and by placing new plantings in protected areas, such as street trees, buffer landscaping, open spaces, and critical areas and their buffers at healthy spacing densities before placing trees within individual lots or yards; and
(e) Replacement trees shall be located in such a manner to minimize damage to trees or structures on the project site and on properties adjoining the project site.

(7) Tree Protection Measures. The following tree protection measures shall be taken during clearing or construction:
(a) Tree protective fencing shall be installed along the outer edge of the drip line surrounding the trees retained in order to protect the trees during any land disturbance activities, and fencing shall not be moved to facilitate grading or other construction activity within the protected area;
(b) Tree protective fencing shall be a minimum height of three feet, visible, and of durable construction; orange polyethylene laminar fencing is acceptable; and
(c) Signs must be posted on the fence reading "Tree Protection Area."

(8) Tree Canopy Retention Modifications. An applicant may reduce the tree canopy requirements of subsection (3) by no more than five percent through a tree canopy retention modification when all of the following criteria and those in WCC 20.51.440 are met:
(a) The applicant demonstrates in writing that they have made a good faith effort to comply with the tree canopy requirements within the physical constraints of the site by:
   i) Retaining as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees; or
   ii) Replanting as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees;
(b) The applicant proposes to plant additional understory vegetation or ground cover area, excluding lawn cover, invasive species or noxious weeds, to fulfill the remaining canopy requirement in WCC Table 20.51.440(3) not met by retention or replanting of tree canopy; and
(c) When critical areas and their buffers exist on site and those buffers are not highly functioning, the applicant proposes to enhance the buffers by removing invasive species and noxious weeds and/or planting vegetation indigenous to the Pacific Northwest, spaced for maximum survivability.

(9) Street Trees. The county engineer may modify required frontage improvements to retain significant trees as street trees.

(10) Retained Significant Trees as a Condition of Development Approval. Retained significant trees, trees planted as replacements for significant trees, and trees planted to meet requirements in subsection (3) of this section may not be removed except when determined in writing by a certified arborist to constitute a hazard. Any replacement or significant trees removed without proper documentation from a certified arborist shall be subject to a fine as determined under WCC 20.94.

(11) Penalties and Enforcement. Any significant trees identified in a landscape plan to be retained, and subsequently damaged or removed during site development shall be replaced at a rate of three
trees for each one damaged or removed. Failure to replace damaged or removed significant trees shall be subject to a fine as determined under WCC 20.94.

Chapter 20.71
LAKE SAMISH AND LAKE PADDEN WATER RESOURCE PROTECTION OVERLAY DISTRICT*

Sections:
20.71.010 Purpose.
[...]
20.71.351 Cluster design standards. (Adopted by reference in WCCP Chapter 2.)
[...]
20.71.354 Tree removal not associated with development activity.
20.71.356 Tree retention associated with development activity.
[...]

20.71.010 Purpose.
The Lake Samish and Lake Padden Water Resource Protection Overlay District is an overlay zone that is intended to impose additional controls to preserve and protect unique and important water resources within Whatcom County. This district is designed to protect the long-term viability of the Lake Samish and Lake Padden watersheds while creating a regulatory framework to address the needs of these watersheds that are not otherwise provided for in the underlying zone districts.
[...]

20.71.351 Cluster design standards. (Adopted by reference in WCCP Chapter 2.)
The creation of new building lots within Lake Samish and Lake Padden Water Resource Protection Overlay Districts shall be subject to the following design standards:
[...]

20.71.354 Tree removal not associated with development activity.
(1) Permit Required for Removal of Trees. No person, directly or indirectly, shall remove any significant tree(s) on any property within the Lake Padden and Lake Samish watersheds, or any tree(s) in the public right-of-way, without first obtaining a tree removal permit as provided in this section, unless the activity is exempted below:
(a) Removal of any hazard trees or as necessary to remedy an immediate threat to person or property, pursuant to the requirements in subsection (5) of this section;
(b) Pruning and maintenance of trees of up to 25% of the foliage.
(2) Tree Removal Permit Application. The Department of Planning and Development Services shall establish and maintain a tree removal permit application, which shall at a minimum require the following to be submitted by the applicant:
(a) A sketch for this purpose may be prepared by the homeowner or other lay person and shall depict:
   i) The approximate location of significant trees, indicating those to be removed;
   ii) The species and canopy area (as determined pursuant to WCC 20.51.440(4));
iii) The location of structures, driveways, access ways, and known easements.
(b) Canopy calculations (existing and proposed)
(c) For required replacement trees, a planting plan showing location, species, and 20-year canopy area of the new trees in accordance to standards set forth in WCC 20.71.356(4) for calculating 20-year canopy coverage.

(3) Tree Removal Permit Application Procedure and Appeals. Applicants requesting to remove any significant trees must submit a completed permit application on a form provided by the County. The County shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny the application, or request additional information. Any decision to deny the application shall be in writing along with the reasons for the denial and the appeal process.
(a) The decision of the Director is appealable pursuant to WCC 20.84.240.
(b) Time Limit. The removal shall be completed within one (1) year from the date of permit approval.

(4) Tree Removal Allowances. With a tree removal permit, any property owner may remove up to 35% or 5,000 sq. ft., whichever is greater, and as measured cumulatively, of the existing canopy area of on-site significant trees on their property; provided, that:
(a) There is no active application for development activity for the site; and
(b) The tree(s) were not required to be retained or planted as a condition of previous development activity.

(5) Removal of Hazard Trees. Any property owner seeking to remove any number of significant trees that are a hazard shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
(a) Tree Risk Assessment. If the hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a hazard tree is required. Removal of hazard trees does not count toward the tree removal limit if the hazard is supported by such a report and approved by the County.
(b) Trees in Critical Areas or Critical Areas Buffers. For hazard trees in critical areas or their buffers, tree removal shall be in accordance with the requirements of WCC Chapter 16.16.

(6) Penalties and Enforcement. Removal of significant trees without obtaining a tree removal permit may be subject to replacement at a ratio of three trees for each tree removed without a valid permit. Failure to replace removed significant trees may be subject to a fine as determined under WCC 20.94.

20.71.356 Tree retention associated with development activity.
(1) Tree Canopy Retention.
(a) Tree canopy retention shall be required for all development applications and building permits within the Lake Padden and Lake Samish watersheds, unless the activity is exempted below:
   i) Removal of any hazard trees, and as necessary to remedy an immediate threat to person or property, pursuant to the requirements of this subsection;
   (1) Tree Risk Assessment. If the hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a
hazard tree is required. Removal of hazard trees does not count toward the tree removal limit if the hazard is supported by such a report and approved by the County.

(2) Trees in Critical Areas or Critical Areas Buffers. For hazard trees in critical areas or critical area buffers tree removal shall be in accordance with the requirements of WCC Chapter 16.16.

ii) Construction or maintenance of public or private roads and public or private utilities including utility easements not related to development. Protection of trees shall be a major factor in the location, design, construction, and maintenance of streets and utilities. These improvements are subject to the purpose and intent of this section.

(b) Pruning and maintenance of trees of up to 25% of the foliage.

(2) Tree Retention Plan Required.

(a) An applicant for a development permit must submit a tree retention plan that complies with this section. A qualified professional may be required to prepare certain components of a tree retention plan at the applicant’s expense. The tree retention plan shall contain the following information:

i) A site plan with the following components:

1. North arrow;
2. Property boundaries;
3. Existing structures;
4. Site access;
5. Tree canopy areas to be removed;
6. The outer dripline of tree canopy areas to be retained;
7. Critical areas including, but not limited to, slopes, wetlands, and habitat conservation areas;
8. Protection measures to be used for areas that will be undisturbed; and
9. Areas to be replanted pursuant to subsection (4) of this section;

ii) For required replacement trees, a planting plan showing location, species, and 20-year canopy area of the new trees and calculations of 20-year canopy coverage in accordance with the standards set forth in WCC 20.71.356(4).

iii) Provisions for maintenance and monitoring.

(3) Minimum Tree Canopy Retention. Development subject to the requirements of this section may remove up to 35% or 5,000 sq. ft., whichever is greater, and as measured cumulatively, of the existing tree canopy areas, as defined by the dripline of the tree(s), for the purposes of a building site, driveways, parking areas, and areas to be landscaped. Existing tree canopy areas shall be prioritized for retention as provided in subsection (5) of this section. In the event that tree canopy areas in excess of the applicable threshold must be removed to facilitate reasonable use of the site, or to eliminate hazard trees, new plantings shall be required to attain the removed tree canopy coverage, calculated according to projected growth at 20 years maturity consistent with Table 20.71.356(4).

(a) Tree canopy areas shall include all trees, excluding invasive species or noxious weeds, within the gross site area.
(b) Existing or planted tree canopy may include street trees and may be located within buffer landscaping, site landscaping, critical areas and their buffers, open space reserve areas, reserve areas, reserve tracts or easements where permanent restrictions are recorded on the face of the plat ensuring their retention in perpetuity.

(4) Measuring Tree Canopy. Site tree canopy shall be measured according to WCC Table 20.71.356(4). Calculation of existing and new tree canopy shall be submitted in writing by a qualified landscape designer or a licensed land surveyor.

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<tr>
<td>20-Year Canopy Calculation</td>
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(5) Tree Canopy Credits. To assist in the preservation and retention of significant trees and existing tree canopy outside of critical area protection areas and required buffers and buffer landscaping, the applicant may use the following credits:

(a) Individual significant trees retained on site shall be counted at 125 percent of their actual canopy area.

(b) For clusters or stands of five or more trees, each tree shall be counted at 150 percent of its actual canopy area.

(c) For clusters or stands of five or more significant trees, each tree shall be counted at 200 percent of its actual canopy area.

(d) The minimum required lot size in subdivisions or short subdivisions may be reduced by 20 percent when at least 20 percent of the site, not including any open space reserve areas, reserve areas, reserve tracts, or critical areas or their buffers, is put into a separate tract or tracts that have at least 20 significant trees per acre and where at least 60 percent of the significant trees within the tract or tracts are retained. This does not change the tree canopy requirements.

(6) Tree Replacement Requirements. In addition to the requirements of WCC 20.80.320 through WCC 20.80.345, trees planted to meet tree canopy requirements in subsection (3) shall meet the following criteria:

(a) Sites must be planted or replanted with a minimum of 50 percent evergreen species, except:
i) The evergreen portion of the required planting mix may be reduced by 25 percent when the deciduous mix contains exclusively indigenous species to the Puget Sound region, not including Alder; and

ii) Sites obtaining tree canopy requirements solely through street trees are exempt from the requirement to include evergreen species in the planting mix;

(b) Sites requiring replanting of tree canopy must plant no more than 30 percent of trees from the same species and no more than 60 percent of trees from the same taxonomic family.

(c) Replacement trees shall be planted in locations appropriate to the species’ growth habit and horticultural requirements;

(d) When preparing the landscaping plan, applicants are encouraged to meet the requirements of subsection (3) by conserving existing tree canopy, including significant trees and other vegetation located on the site, and by placing new plantings in protected areas, such as street trees, buffer landscaping, open spaces, and critical areas and their buffers at healthy spacing densities before placing trees within individual lots or yards; and

(e) Replacement trees shall be located in such a manner to minimize damage to trees or structures on the project site and on properties adjoining the project site.

(7) Tree Protection Measures. The following tree protection measures shall be taken during clearing or construction:

(a) Tree protective fencing shall be installed along the outer edge of the drip line surrounding the trees retained in order to protect the trees during any land disturbance activities, and fencing shall not be moved to facilitate grading or other construction activity within the protected area;

(b) Tree protective fencing shall be a minimum height of three feet, visible, and of durable construction; orange polyethylene laminar fencing is acceptable; and

(c) Signs must be posted on the fence reading "Tree Protection Area."

(8) Tree Canopy Retention Modifications. An applicant may reduce the tree canopy requirements of subsection (3) by no more than five percent through a tree canopy retention modification when all of the following criteria and those in WCC 20.71.356 are met:

(a) The applicant demonstrates in writing that they have made a good faith effort to comply with the tree canopy requirements within the physical constraints of the site by:

   i) Retaining as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees; or

   ii) Replanting as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees;

(b) The applicant proposes to plant additional understory vegetation or ground cover area, excluding lawn cover, invasive species or noxious weeds, to fulfill the remaining canopy requirement in WCC Table 20.71.356(3) not met by retention or replanting of tree canopy; and

(c) When critical areas and their buffers exist on site and those buffers are not highly functioning, the applicant proposes to enhance the buffers by removing invasive species and noxious weeds and/or planting vegetation indigenous to the Pacific Northwest, spaced for maximum survivability.
(9) Street Trees. The county engineer may modify required frontage improvements to retain significant trees as street trees.

(10) Retained Significant Trees as a Condition of Development Approval. Retained significant trees, trees planted as replacements for significant trees, and trees planted to meet requirements in subsection (3) of this section may not be removed except when determined in writing by a certified arborist to constitute a hazard. Any replacement or significant trees removed without proper documentation from a certified arborist shall be subject to a fine as determined under WCC 20.94.

(11) Penalties and Enforcement. Any significant trees identified in a landscape plan to be retained, and subsequently damaged or removed during site development shall be replaced at a rate of three trees for each one damaged or removed. Failure to replace damaged or removed significant trees shall be subject to a fine as determined under WCC 20.94.

[...]

Chapter 20.80 SUPPLEMENTARY REQUIREMENTS

Sections:
[...]
20.80.300 Landscaping. (Adopted by reference in WCCP Chapter 2.)
[...]
20.80.325 Landscaping location and spacing.
20.80.330 Plant sizes at time of planting.
20.80.335 Plant choices.
[...]
20.80.345 Buffering plantings.
20.80.350 Parking areas.
[...]
20.80.500 Off-street parking and loading requirements.
[...]
20.80.512 Wheel stop, overhang.
[...]
20.80.630 Stormwater and drainage.
20.80.631 Exemptions.
20.80.632 Small development requirements.
20.80.633 Large development requirements.
20.80.634 Stormwater conformance.
20.80.635 Stormwater special districts.
20.80.636 Stormwater special district requirements.
20.80.730 Land clearing.
[...]
20.80.735 Water resource special management areas.
[...]

20.80.300 Landscaping. (Adopted by reference in WCCP Chapter 2.)
[...]
20.80.325 Landscaping location and spacing.
All required open space or any areas of the property not committed to a use requiring pervious surface must be landscaped. This may consist of any combination of trees, lawn, ground cover and shrubs and up to 20 percent of a non-vegetative decorative pervious material such as washed rock, bricks or paving stones. However, at least one tree will be required for every 2,000 square feet of open space including walkways in addition to screening or planting along the property lines. Natural Existing vegetation may be used to meet the standards of this chapter, habitat other than noxious weeds may also be appropriate. Deciduous trees will also be required parallel to all public rights-of-way. Small trees will be spaced approximately 25 feet on center; medium trees, 35 feet on center; and large trees, 45 feet on center. Alternatively, informal clusters of coniferous or broad-leaved evergreen trees and/or deciduous trees may be used in an amount equivalent to a row of trees spaced 25 feet on center. Small, medium and large trees, shrubs and ground cover approved for use in county rights-of-way are listed in the Whatcom County Development Standards, Chapter 5, Road Standards, Appendix I. Additional landscaping and screening is required as noted in other sections of this chapter.

20.80.330 Plant sizes at time of planting.
(1) Evergreen trees shall be a minimum height of five feet with an average height of six feet above the finished planting bed.
(2) Deciduous trees shall be at least one and one half two inches in caliper measured four and one half feet above ground level.
(3) Shrubs shall be at least 21 inches in height above finished grade.
(4) Ground cover shall provide an immediate coverage of at least 50 percent, and result in total coverage of the required landscape areas within three years as follows:
   (a) Four-inch pots at 18 inches on average; or
   (b) One-gallon or greater sized containers at 24 inches on average.
(5) In cases where they might interfere with vehicle or pedestrian traffic, deciduous trees should have a clear trunk area of at least seven feet above the ground.

20.80.335 Plant choices.
(1) New landscaping materials shall include species native to the coastal region of the Pacific Northwest or noninvasive non-native species that have adapted to the climatic and soil conditions of the coastal region of the Pacific Northwest in the following amounts:
   (a) Seventy-five percent of groundcover and shrubs; and
   (b) Fifty percent of trees.
(2) All species must be native to the area or recognized as being easily adaptable to the climate. Trees with weeping or contorted branching structures may be used as accent planting but should generally not be included as part of a screen planting or in plantings parallel to property lines.
(3) The county may require the applicant to modify the plant choice to:
   (a) Eliminate undesirable species which may conflict with power lines or sewers because of their growth or evasive root systems; or
   (b) Provide a desired diversity of species; or
   (c) Make the plantings more in scale and compatible with the uses in the immediate vicinity of the subject property; or
(d) Provide plant materials that will fulfill the buffering or landscaping purpose of that planting on a year-round basis; or
(e) Provide visual relief on long facades.
(4) A list of desirable and undesirable trees with tree sizes is maintained on file with the land use division of planning and development services and may be used for reference.

20.80.345 Buffering plantings.
Buffers are required when the proposed use is in a commercial or industrial zone and is directly adjacent to and shares a common boundary with property in a rural or residential zone. They are normally 25 feet wide unless otherwise approved by the administrator upon receipt of a detailed planting plan prepared by a landscape architect or qualified landscape designer. Buffering plantings are intended to provide an all-season visual screen between commercial or industrial uses on one side, and rural or residential uses on the other side. Landscape buffers may be required on road frontages as a condition of development for commercial or industrial development that includes outside storage of materials, outside parking of equipment or vehicles other than vehicles for sale on the site, and similar uses that can be a visual distraction or unsightly to persons on the public right-of-way. Plant materials that have minimal irrigation needs and are native or have a demonstrated suitability for Whatcom County are required.

Vegetation-based LID BMPs (such as bioretention facilities and rain gardens) may be used within buffers where the primary screening and buffering functions are not compromised. Twenty-five-foot planted buffers shall, at a minimum, consist of two offset rows of predominantly coniferous trees at an average spacing of 15 feet triangulated on center or an equivalent effect. Some deciduous trees shall be included and shrubs may be interspersed to provide interlocking root structures to reduce windthrow. Fifty-foot planted buffers will require four rows of trees in the same triangulated pattern as required in 25-foot buffers. Existing natural buffers are encouraged but may need additional width or be augmented with additional landscaping or fencing to provide the required sight barrier.

The buffer requirements for the Neighborhood Commercial Zone when abutting the Urban Residential Medium Density Zone (except as otherwise provided in WCC 20.60.552) can be met with a six-foot-high sight-obscuring fence or a dense hedge of sight-obscuring plantings.

20.80.350 Parking areas.
A minimum five-foot wide landscape strip shall be provided around the perimeter of all parking areas. Natural or planted buffers may be considered to meet this requirement. Tree spacing will be as required parallel to rights-of-way. Whenever a nonresidential parking lot containing more than 10 parking spaces is located in or adjacent to a residential zone, it shall also be screened on any side facing residential uses or zones where there is no intervening street. This screen shall consist of a fence, wall or acceptable planting screen at least four feet in height. The visual impact of parking areas shall be minimized by separating the area into modules that contain no more than 12 vehicles in a row. Each module shall be separated from other areas by a five-foot wide planting strip containing trees, shrubbery, or other ground cover in such substantial density as to break up long sight lines and overviews of parked cars. Adjacent uses on separate parcels may combine their parking lots to enhance circulation without the necessity for intervening landscaping except for maintaining the module pattern. Vegetation-based LID BMPs (such as bioretention facilities and rain gardens) may be used within landscape strips and modules.
provided they meet any other applicable landscaping requirements such as screening or buffering. These shall be designed in accordance with the Stormwater Management Manual for Western Washington (Ecology Manual), as amended.

[...]

20.80.500 Off-street parking and loading requirements.

[...]

20.80.512 Wheel stop, overhang.

(1) Appropriate wheel and bumper guards shall be provided to protect landscaped areas, to define parking spaces, and to clearly separate the parking area from any abutting street rights-of-way and property lines. Vehicles may overhang landscaped areas up to two (2) feet when wheel stops or curbing is provided.

(2) Where sufficient area is available to allow safe and efficient overhang of a vehicle, the planning department may permit the standard parking stall length to be reduced by two (2) feet with corresponding increase in adjacent landscaping width.

[...]

20.80.630 Stormwater and drainage. (Adopted by reference in WCCP Chapter 2.)

(1) Unless exempted in WCC 20.80.631, All development activity on lands within Whatcom County shall be subject to stormwater management requirements as follows:

(a) NPDES Phase II Permit area. Development activity inside the NPDES Phase II Permit area shall comply with:

i) be subject to the stormwater management provisions of the The 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington (Stormwater Manual), as amended Whatcom County Development Standards or the provision addressed herein, as applicable, unless specifically exempted;

ii) Appendix 1, Minimum Technical Requirements, of the Western Washington Phase II Municipal Stormwater Permit; and


(b) Unless other county stormwater management provisions are more restrictive, all development activity within NPDES Phase II area boundaries (excluding areas within the Birch Bay NPDES Phase II area boundary), as delineated at the time that the county determines that the development application is complete, shall comply with the most current editions of:

i) The Washington State Department of Ecology Stormwater Management Manual for Western Washington; and

(c) Appendix 1, Minimum Technical Requirements for New Development and Redevelopment, of the Western Washington Phase II Municipal Stormwater Permit; and

Appendix 7, “Determining Construction Site Sediment Damage Transport Potential,” of the Western Washington Phase II Municipal Stormwater Permit

(d) Lake Whatcom Watershed Overlay District. Except for areas within or that overlap with the NPDES Phase II Permit area (see subsection (1), development activity inside the Lake Whatcom
Watershed Overlay District shall comply with WCC 20.51 Lake Whatcom Watershed Overlay District.

(e) Stormwater Special Districts. Except for areas within or that overlap with the NPDES Phase II Permit area (see subsection (1)), development activity inside Stormwater Special Districts (as defined by WCC 20.80.635) shall comply with the Stormwater Manual, using the following modified Minimum Requirements in the table below, and using the Stormwater Manual’s definitions of terms for “stormwater site plan,” “impervious surface,” “hard surface,” “land disturbing activity,” “project,” “site,” and “replaced hard surface”:

### Within Special Stormwater Districts – Modified Thresholds for Stormwater Management Table

<table>
<thead>
<tr>
<th>Minimum Requirement (MR)</th>
<th>When Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR1 Stormwater Site Plan</td>
<td>&gt; 500 sq ft of new impervious surface, or Renovation projects where the estimated cost exceeds 50% of the assessed value</td>
</tr>
<tr>
<td>MR2 Construction SWPPP</td>
<td>Always required</td>
</tr>
<tr>
<td>MR3 Source Control</td>
<td>Not required</td>
</tr>
<tr>
<td>MR4 Preserve Natural Drainage</td>
<td>&gt; 500 sq ft of new impervious surface, or Renovation projects where the estimated cost exceeds 50% of the assessed value</td>
</tr>
<tr>
<td>MR5 Onsite Stormwater Management</td>
<td>• Property ≥ 2 acres meeting MR1, provide dispersion • Property &lt; 2 acres meeting MR1 where soils are suitable for infiltration, provide infiltration • Property &lt; 2 acres meeting MR1 where soils are not suitable for infiltration and project does not increase the 24-hour, 100-year peak flow rate by ≥ 0.1cfs; provide dispersion</td>
</tr>
<tr>
<td>MR6 Treatment</td>
<td>Always required</td>
</tr>
<tr>
<td>MR7 Flow Control</td>
<td>Property &lt; 2 acres meeting MR1 where project increases the 24-hour, 100-year peak flow rate by ≥ 0.1cfs; provide detention</td>
</tr>
<tr>
<td>MR8 Wetlands Protection</td>
<td>&gt; 500 sq ft of new impervious surface, or Renovation projects where the estimated cost exceeds 50% of the assessed value</td>
</tr>
<tr>
<td>MR9 O&amp;M</td>
<td>Required only if stormwater facility installed</td>
</tr>
</tbody>
</table>

1 Minimum requirements MR5 – MR9 likely require preparation by a professional engineer.

(f) Outside (a) the NPDES Phase II Permit area, (b) the Lake Whatcom Watershed Overlay District, and (c) the Stormwater Special Districts.

Development activity outside the NPDES Phase II Permit area, Lake Whatcom Watershed Overlay District, and Stormwater Special Districts (as defined by WCC 20.80.635) shall comply with the Stormwater Manual, using the following modified Minimum Requirements in the table below, the definitions for land use intensity in subsection (e) of this section, and using the
### Ordinance No. ________

**Outside the NPDES Phase II Permit area, the Lake Whatcom Watershed Overlay District, and the Stormwater Special Districts – Modified Thresholds for Stormwater Management Table**

<table>
<thead>
<tr>
<th>Minimum Requirement (MR)</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR1 Stormwater Site Plan</td>
<td>≥ 7,000 sq ft of new plus replaced hard surface, or ≥ 14,000 sq ft land disturbing activity</td>
<td>≥ 4,000 sq ft of new plus replaced hard surface, or ≥ 14,000 sq ft land disturbing activity</td>
<td>Per manual</td>
</tr>
<tr>
<td>MR2 Construction SWPPP</td>
<td>Not required</td>
<td>Always required</td>
<td></td>
</tr>
<tr>
<td>MR3 Source Control</td>
<td>Not required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MR4 Preserve Natural Drainage</td>
<td>≥ 7,000 sq ft of new plus replaced hard surface, or ≥ 14,000 sq ft land disturbing activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MR5 Onsite Stormwater Management</td>
<td>Not required</td>
<td>≥ 4,000 sq ft of new plus replaced hard surface, or ≥ 14,000 sq ft land disturbing activity</td>
<td>Per manual</td>
</tr>
<tr>
<td>MR6 Treatment</td>
<td>Not required</td>
<td></td>
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<td>Required only if stormwater facility installed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Minimum requirements MR5 – MR9 likely require preparation by a professional engineer.
2 See Subsection (e) to determine land use intensity.

(g) The land use intensities in the above tables have the following meanings:

**Land Use Intensity for Stormwater Management Table**

*Note: Any project that results in new plus replaced hard surface greater than or equal to 10 percent of the gross parcel size or 20,000 sq ft, whichever is greater, or converts 1.5 acres of vegetation to lawn or five acres of vegetation to pasture is subject to the thresholds for “High intensity” land uses.*

<table>
<thead>
<tr>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Single-family residential and accessory uses on lots of record of 25,000 sq ft or larger;</td>
</tr>
<tr>
<td>• Construction of agricultural buildings, including those used in the processing and wholesale of agricultural products, on agricultural land as defined by RCW 84.34.020(2);</td>
</tr>
<tr>
<td>• Seasonal roadside stands; or</td>
</tr>
<tr>
<td>• Roads (other than those exempt as pavement maintenance).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Single-family residential and accessory uses on lots of record smaller than 25,000 sq ft;</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>- All other uses, including all commercial, industrial, institutional, and urban or multifamily residential uses;</td>
</tr>
<tr>
<td>- Subdivisions of land into more than four lots;</td>
</tr>
<tr>
<td>- All uses on parcels bisected by the NPDES Phase II Permit Area boundary; or</td>
</tr>
<tr>
<td>- Any project that results in new plus replaced hard surface greater than or equal to 10 percent of the gross parcel size or 20,000 sq ft, whichever is greater, or converts 1.5 acres of vegetation to lawn or five acres of vegetation to pasture.</td>
</tr>
</tbody>
</table>

(2) No project permit shall be issued prior to meeting the stormwater requirements of this chapter section and/or Chapter 2 of the Whatcom County Development Standards, the 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington, as amended. Advisory Note: Certain stormwater discharges to natural receiving waters are subject to state water quality standards and the requirements of the National Pollutant Discharge Elimination System (NPDES). Hydraulic Project Approval (HPA) may also be required if stormwater is discharged to a water body or stream that provides, or could provide, habitat for fish.

Development activity within the Birch Bay NPDES Phase II area boundary shall be subject to this chapter or the 2005 Department of Ecology Stormwater Management Manual for Western Washington and Appendices 1 and 7 of the NPDES Phase II 2012-2013 permit, whichever is more restrictive.

20.80.631 Exemptions.

(1) Agricultural activities as defined in this title, and forest practices regulated under WAC Title 222, except for Class IV General forest practices and nonconversion forest practices with approved conversion option harvest plans.

(2) Commercial agriculture practices (as defined in the 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington, as amended) involving working the land for production are generally exempt. However, the conversion from timberland to agriculture, and the construction of impervious surfaces are not exempt.

(2)(3) Development undertaken by the Washington State Department of Transportation in state highway right-of-way when regulated by Chapter 173-270 WAC, the Puget Sound Highway Runoff Program.

20.80.632 Small-development requirements.
The following activities are considered small developments:

(1) Individual detached single-family residences, duplexes and accessory development creating less than 10,000 square feet of cumulative impervious surfaces.

(2) All other development resulting in the creation or addition of less than 5,000 square feet of impervious surface area.
Small development activities shall be required to employ best management practices (BMPs), to control erosion and sediment during construction, to permanently stabilize soil exposed during construction, to protect adjacent properties and water bodies from stormwater effects caused by development, and shall be subject to any other requirements specified under Chapter 2 of the Whatcom County Development Standards, or as specified for special districts identified in WCC 20.80.635.

20.80.633 Large development requirements.
A preliminary stormwater proposal must be submitted to the county engineer unless otherwise exempted under WCC 20.80.631. The county engineer may require such modifications and improvements as deemed necessary to protect county drainage facilities, neighboring properties and water quality from stormwater effects caused by the development. No building permit shall be issued until a preliminary stormwater proposal, and, if required, an engineered stormwater design report is approved by the county engineer. Preliminary stormwater proposals and engineered stormwater design reports shall be prepared in accordance with the requirements of the Whatcom County Development Standards, Chapter 2.

20.80.634 Stormwater conformance.
All development shall conform to the following requirements:

1. General.
   (a) Stormwater discharges must be controlled and treated as required by law.
   (b) Best management practices (BMPs) shall be used to comply with the regulations in this chapter. If appropriate BMPs are not referenced in the Whatcom County Development Standards 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington, as amended (Stormwater Manual), experimental BMPs may be considered. However, experimental BMPs must be approved by the county technical administrator prior to implementation.
   (c) Development shall minimize impervious surface areas while maintaining project function and viability. Protection of ground water and aquifer recharge are important objectives which shall be incorporated in required surface water management facilities consistent with established BMPs.
   (d) Stormwater systems shall not be constructed in such a manner that they materially degrade natural systems such as streams and their banks, wetlands, ponds or lakes.
   (e) Natural drainage patterns shall be maintained and discharges from the site shall occur at the natural location, unless it can be shown that relocation will have no significant adverse impact to either built or natural systems as a result of the relocation.
   (f) The design of stormwater systems shall be an integral part of the overall development design and, in addition to the primary storage and conveyance function, should incorporate multiple use provisions to enhance the project, such as the following:
      i) Recreation;
      ii) Public safety;
      iii) Economical maintenance;
      iv) Aesthetic integration into the landscape and project design;
      v) Wildlife habitat;
vi) Education;

vii) Open space.

(2) Erosion and Sediment Control.

(a) All proposed projects that will clear, grade, or otherwise disturb the site shall provide erosion and sediment control (ESC) that prevents the transport of sediment from the site to drainage facilities, water resources and adjacent properties.

(b) Projects exceeding the small development thresholds in WCC 20.80.632 shall submit a preliminary temporary erosion and sediment control (TESC) plan and, if required, a large development temporary erosion and sediment control plan, for approval by the county engineer.

(c) Erosion and sediment controls shall be selected and applied in accordance with Whatcom County Development Standards, Chapter 2—Stormwater Management the Stormwater Manual.

(3) Runoff Control.

(a) Proposed large development projects, except as noted below, shall provide runoff controls to limit the developed conditions' peak rates of runoff to the predevelopment peak rates for the following storm events:

i) The one-year, 24-hour, storm event when stormwater is discharged to a stream or to a drainage basin within 1,000 feet of a stream or when the project is located in a stormwater special district;

ii) The two-year, 24-hour, storm event;

iii) The 10-year, 24-hour, storm event;

iv) The 25-year, 24-hour, storm event;

v) The 100-year, 24-hour, storm event.

(b) Exceptions. Direct discharge to a regional facility, marine water body, rivers or lakes when demonstrated there is no significant adverse impact to the conveyance system and the receiving waters.

(4) Conveyance. All engineered conveyance system elements for proposed projects shall be analyzed, designed and constructed to prevent overtopping, flooding, erosion and structural failure as specified by the conveyance requirements for new and existing systems and conveyance implementation requirements described in the Whatcom County Development Standards, Chapter 2—Stormwater Management.

(5) Water Quality. Proposed large development projects shall provide appropriate water quality treatment facilities to treat runoff from pollution-generating impervious surfaces.

(6) Maintenance. All stormwater facilities shall be maintained in accordance with the stormwater system maintenance requirements of the Whatcom County Development Standards, Chapter 2—Stormwater Management. Maintenance plans, responsibilities, and the method of financing said maintenance shall be established by the applicant or property owner prior to final approval of any development activity directly associated with the development proposal.

20.80.635 Stormwater special districts.

(1) Whatcom County shall establish the following geographical areas as stormwater special districts:

(a) Drayton Harbor watershed.
(b) Lake Samish watershed.
(c) Birch Bay watershed.
(d) Lake Padden watershed.

(2) Requirements for these areas are contained in WCC 20.80.636–630(1)(c). and in the Whatcom County Development Standards, Chapter 2.

20.80.636 Stormwater special district requirements.

In areas designated as stormwater special districts (per WCC 20.80.635), permanent on-site stormwater quality and quantity facilities shall be required on all lots less than five acres in size for projects that meet either of the following criteria:

(1) New construction or remodels that increase impervious surfaces by more than 500 square feet; or
(2) Renovation projects where the estimated cost of the work exceeds 50 percent of the assessed value of the existing structure. Interior remodels, nonpolluting roof replacements, house maintenance and energy upgrades shall be exempt from this requirement.

If stormwater quality and quantity facilities are required based on either of these criteria, the provisions of the Whatcom County Development Standards, Chapter 2, Section 221, shall apply to the entire property, unless it can be demonstrated that off-site facilities would provide better treatment, or unless common detention and water quality facilities meeting the standards of the 1996 Whatcom County Development Standards or the 1992 Department of Ecology Stormwater Management Manual for the Puget Sound Basin (or more current versions) have been approved as part of a comprehensive stormwater management plan for that subdivision, binding site plan, short subdivision, or major development approval.

20.80.730 Land clearing.

[...]

20.80.735 Water resource special management areas.
The purpose of a water resource special management area is to establish a more stringent standard for clearing activity in highly valued water resource areas, environmentally sensitive areas, or areas where natural conditions are so unstable that clearing activity in the areas can result in hazardous conditions. Implementation of best management practices, including phased clearing, tree retention and seasonal clearing limitations, is intended to limit the amount of exposed soils on site that are susceptible to erosion at any one time, thereby improving site stability during development and reducing potential for transport of dissolved pollutants and sediments off site. Preservation of existing trees on site also reduces the quantity and maintains the quality of stormwater leaving a site during and after development activities by encouraging interception, infiltration and evapotranspiration of rainfall and surface runoff.

Whatcom County shall establish the following geographic areas as water resource special management areas:

- Drayton Harbor watershed;
- Lake Padden watershed;
- Lake Samish watershed; and
• Birch Bay watershed.

(1) Water Resource Special Management Area Review Thresholds. County review and approval shall be required for clearing activities which exceed the following thresholds. If the clearing activity does not meet the threshold criteria, County review is not required. However, the owner is still subject to, and must comply with, the minimum requirements established in this chapter and in the Whatcom County Development Standards.

(a) Lake Samish and Lake Padden Watersheds. County review and approval shall be required for all clearing activities associated with a fill and grade permit, building permit or other development proposal. Clearing activities which are not associated with a development permit shall require county review if they are:

(i) Five thousand square feet or greater during the dry season, June 1st through September 30th; or

(ii) Five hundred square feet or greater during the wet season, October 1st through May 31st.

(2) Within water resource special management areas, clearing activity must conform to the following conditions:

(a) Temporary erosion and sediment control shall be installed and inspected prior to any clearing activity. The technical administrator shall conduct periodic inspections to ensure the integrity of temporary erosion and sediment controls. Temporary erosion and sediment control measures include, but are not limited to, installation of silt fencing, installation of check dams, covering of excavation piles, and mulching of exposed soils, as specified in the Whatcom County Development Standards.

(b) Phased Clearing. Construction activities and clearing activities shall be phased to limit the amount of exposed soil that occurs at any one time, if determined to be appropriate by the technical administrator, based on site characteristics or constraints including, but not limited to, slopes, proximity to shorelines and wetlands. A phased clearing plan may be required. A phased clearing plan, if required, shall be submitted for review and approval by the technical administrator prior to any clearing activity and shall contain a detailed construction schedule or timeline.

(c) Soil Stabilization. All disturbed areas shall be provided with soil stabilization within two days of the time of disturbance. The technical administrator may approve an exemption to this requirement when a tree canopy area retention plan includes a soil stabilization plan. This plan component must specifically detail erosion and sediment control and stormwater runoff measures that provide runoff control equal to or greater than the protection provided by the standard two-day soil stabilization requirements of this section.

(d) Tree Canopy Area Retention. In the Lake Samish and Lake Padden watersheds, in addition to compliance with all other requirements of this title and other titles of the Whatcom County Code, clearing activities on any lot or parcel, with the exception of nonconversion forest practices occurring on lands platted after January 1, 1960, shall comply with the following provisions:

(i) Existing tree canopy areas, as defined by the dripline of the tree(s), may be removed for purposes of a building site, driveways, parking areas, and areas to be landscaped, but such
areas shall not exceed a cumulative total of 5,000 square feet or 35 percent of the existing tree canopy area, whichever is greater.

(ii) The following criteria shall be used to determine which tree canopy areas are to be prioritized for retention:
(A) Stands of mature native trees;
(B) Trees on sensitive slopes, on lands classified as having landslide hazards, or high erosion hazards, as defined under the Critical Areas Ordinance;
(C) Trees within critical areas or their associated setback and/or buffer areas as defined under WCC Title 16 or 23; or
(D) Trees with significant habitat value as identified by a qualified wildlife biologist or by the technical administrator, per WCC Title 16.

(iii) Existing trees and vegetation may be used to meet all or part of the landscaping requirements of this title.

(iv) The county shall require that tree canopy areas to be retained are identified on a site plan and clearly flagged, or delineated, on the site. A tree canopy area retention plan must accompany a project or clearing permit application and be approved by the technical administrator before clearing activity takes place. The plan shall contain the following components:
(A) A scaled drawing identifying the following:
   1. North arrow;
   2. Property boundaries;
   3. Existing structures;
   4. Site access;
   5. Tree canopy areas to be removed;
   6. The outer dripline of tree canopy areas to be retained;
   7. Critical areas including, but not limited to, slopes, wetlands, and habitat conservation areas;
   8. Protection measures to be utilized for areas that will be undisturbed; and
   9. Areas to be replanted pursuant to subsection (2)(d)(vii) of this section;
(B) A planting schedule that indicates the time frame for replanting of trees as applicable; and
(C) Provisions for maintenance and monitoring.

(v) Prior to any clearing activity or development activity, any tree canopy area designated for retention shall be delineated by temporary fencing, tape, or other indicators around the outer dripline of the trees. Temporary fencing, tape, or other indicators shall be clearly visible and shall be maintained for the duration of the proposed clearing or development activity. Any tree canopy areas designated for retention shall be field verified by the technical administrator before clearing activities begin. Trees within canopy areas designated for retention shall not be damaged by clearing, excavation, ground surface level changes, soil compaction, or any other activities that may cause damage to roots or trunks. Machinery, impervious surfaces, fill and storage of construction materials shall be kept outside of the dripline of the tree canopy areas designated for retention.
(vi) Tree canopy areas may be removed when limited to those canopy areas affected under the following circumstances:
   (A) Fire prevention methods when supported by the county fire marshal;
   (B) Hazard trees, as defined in Chapter 20.97 WCC, are identified (an evaluation and determination by a licensed arborist or forester may be required);
   (C) Encroachments where the trunk, branches or roots would be, or are, in contact with main or accessory structures; or
   (D) Where installation and/or maintenance of roads or utilities would unavoidably require removal or cutting through the root system.

(vii) In the event that tree canopy areas in excess of the applicable threshold must be removed to facilitate reasonable use of the site, or to eliminate hazard trees, not less than two replacement trees shall be planted for every tree removed. Replacement trees shall:
   (A) Be of the same, or similar, native species as those trees removed from site;
   (B) Be planted to reestablish tree clusters where they previously existed, or to enhance protected tree clusters;
   (C) Be planted in locations appropriate to the species’ growth habitat and horticultural requirements; and
   (D) Be located away from areas where damage is likely.

(viii) If any trees within canopy areas designated for retention are damaged or destroyed through the fault of the applicant, agent or successor, the applicant, their agent or successor shall restore the site pursuant to a restoration plan approved by the county.

(ix) The county may require a bond or other security in an amount not to exceed 125 percent of the merchantable timber to guarantee retention of existing trees within designated canopy areas during construction. In the event of a dispute between the landowner and the county over the established value, an assessment will be made by a professional forester or arborist whose selection will be made by mutual agreement between the county and the landowner. The fee for the services of the professional forester or arborist shall be paid by the landowner or responsible party. In the event any trees designated to be retained are removed, the county shall require that sufficient trees be re-planted to replace those previously in existence. In the event that replanting does not occur, the county may enforce upon any bond posted. Each tree removed or destroyed shall constitute a separate violation.

(e) Seasonal Clearing Activity Limitations. In the Lake Samish and Lake Padden watersheds, clearing activity, as defined in WCC 20.97.054, that will result in exposed soils exceeding 500 square feet shall not be permitted from October 1st through May 31st; provided, that:

(i) In addition to the clearing activities exempted under WCC 20.80.733, the zoning administrator may approve an exemption to this requirement for the following activities:
   (A) Routine maintenance and repair of erosion and sediment control measures;
   (B) Activities located at or waterward of the ordinary high water mark subject to state, federal, and/or local (per Chapter 16.16 WCC and/or WCC Title 23) conditions of approval requiring commencement of clearing activity during the wet season, as defined
in subsection (1)(a)(ii) of this section, for purposes of minimizing surface water disturbance and site inundation by high water or wave action;

(C) Activities necessary to address an emergency that presents an unanticipated and imminent threat to public health, safety or the environment that requires immediate action within a time too short to allow full compliance with this section. Upon abatement of the emergency situation, the clearing activity shall be reviewed for consistency with this chapter and may be subject to additional permit requirements; provided, that the applicant shall make a reasonable attempt to contact the zoning administrator prior to the activity. When prior notice is not feasible, notification of the action shall be submitted to the zoning administrator as soon as the emergency is addressed and no later than two business days following such action. Emergency construction does not include development of new permanent protective structures where none previously existed.

(ii) To ensure compliance with subsection (2)(e) of this section, Whatcom County planning and development services shall not issue development permits requiring more than 500 square feet of land disturbance located within the Lake Samish or Lake Padden watersheds within two weeks prior to the watershed seasonal closure on October 1st.

(iii) Soil disturbance associated with an exempt clearing activity shall be minimized to the maximum extent practicable. The zoning administrator shall have the authority to condition an exempt activity to ensure that temporary erosion and sediment control measures will be implemented.

(iv) An exemption from the seasonal land clearing requirements of this section does not grant authorization for any work to be done in a manner that does not comply with other provisions of this chapter or other applicable development regulations.

(f) One Hundred Fifty Percent Violation Fines. When a violation occurs in an area designated as a water resource special management area, the total fine assessment shall be increased to 150 percent of the standard penalty as provided for in Chapter 20.94 WCC, Enforcement and Penalties.

[...]

Chapter 20.85 PLANNED UNIT DEVELOPMENT (PUD)

[...]

20.85.107 Common open space.
No open area may be accepted as common open space within a planned unit development, unless it meets the following requirements:

(1) The common open space is for amenity or recreational purposes, and the size and uses authorized are appropriate to the scale and the character of the planned unit development, considering its size, density, expected population or employees, topography, and the number and type of dwellings provided.

(2) Common open space will be suitably landscaped for its intended use, except that common open space containing natural features worthy of preservation may be left unimproved. Any buildings,
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structures and improvements to be permitted in the common open space are those appropriate to the uses which are authorized for the common open space.

(3) LID BMPs may be used within common open space, provided that the use of LID BMPs is not in conflict with the primary purpose of the common open space.

(3)(4) Common open space shall be maintained through one of the following methods:
   (a) An association of owners shall be formed and continued for the purpose of maintaining the common open space. The association shall be created as an association of owners under the laws of the state and shall adopt and propose articles of incorporation or association and bylaws, and adopt and approve a declaration of covenants and restrictions on the common open space that is acceptable to the land use division of planning and development services upon consultation with the prosecuting attorney, in providing for the continuing care of the space. No common open space may be put to a use not specified in the final development plan unless the final development plan is first amended to permit the use. No change of use may be considered as a waiver of any covenants limiting the use of common open space areas, and all rights to enhance these covenants against any use permitted are expressly reserved; or
   (b) A public agency which agrees to maintain the common open space and any buildings, structures, or other improvements which have been placed on it.

[...]

20.85.203 Site plan and supporting maps and graphics.
An initial site plan, at a minimum scale of one inch equals 100 feet or such other scale as may be convenient based on the area covered by the proposal with approval of the administrator, and any supporting graphics, narrative descriptions and maps, to show major details of the proposed PUD. If the initial plan is based on a survey or existing survey data of the subject site, the survey data shall be prepared by a registered land surveyor, registered civil engineer or other professional licensed to conduct surveys. The initial site plan and supporting graphics and maps in combination shall provide a level of detail appropriate to the scale and timing of the project and sufficient to demonstrate how the project complies with the provisions of this chapter.

(1) Proposed name of the development, north point, scale, date and address, and telephone number of the preparer of the site plan/supporting maps.

(2) Existing site conditions including water courses, wetland area, floodplains, unique natural features, native vegetation, forest cover and elevation contours of sufficient intervals to indicate the topography of the entire tract for a sufficient distance beyond the boundaries of the proposed development to depict any features within 300 feet which may affect site development. Unless otherwise approved by the administrator, contour information shall be as follows:
   (a) Up to 10 percent slopes, two-foot contours.
   (b) Over 10 percent to less than 20 percent slopes, five-foot contours.
   (c) Twenty percent or greater slopes, 10-foot contours.

(3) Location of all existing lot lines, lease areas and easements, and the location of all proposed lot lines, lease areas, and easements, if known.
(4) The locations and identification of all existing buildings, structures and other improvements. The location or approximate location of proposed buildings including maximum height and type of use.
(5) For residential structures, provide the types and number of residential units in each structure or the range of residential structures proposed together with the range of the type and number of units per structure.
(6) For nonresidential buildings, the gross floor area of each building.
(7) The location and square footage or approximate location and square footage or acreage of all areas of all areas to be conveyed, dedicated or reserved as common open spaces, public parks, recreational areas, school sites, and similar public and semi-public uses with notations of proposed ownership included where appropriate.
(8) Landscaping and open space improvements plan or concept.
(9) The existing and proposed circulation system of arterial, collector and/or local streets, including right-of-way street widths, off-street parking areas, service areas, loading areas and major points of access to public rights-of-way (including major point of ingress and egress to the development). Notations of proposed ownership, public or private, shall be included where appropriate.
(10) Location and width of existing and proposed sidewalks and trails.
(11) The proposed treatment of the perimeter of the PUD, including materials and techniques used such as screens, fences and walls.
(12) The location of adjacent utilities including sanitary sewers, water lines and storm drainage facilities intended to serve the development, and a layout of the existing and proposed utilities within the development, if utility plans have been completed. Otherwise indicate the general location of utilities, i.e., roadways, easements, etc.
(13) Existing zoning and Comprehensive Plan boundaries for the site and adjacent property.
(14) Information of contiguous properties within 300 feet of the proposed PUD including:
   (a) Existing and, if known, proposed land use and streets; and
   (b) Existing structures excluding accessory buildings, ownership tracts and unique natural features of the landscape, if readily accessible.
(15) A vicinity map showing the location of the site and its relationship to surrounding areas, including existing streets, major physiographic and cultural features such as railroads, lakes, streams, shorelines, schools, parks or other prominent features.
(16) If the applicant wishes to incorporate renewable energy features into the PUD, information shall be submitted which will describe the long-term usability of the energy source including:
   (a) Solar:
      (i) Solar site survey including solar sun chart;
      (ii) Shadow diagrams including schematic elevations of pertinent vegetation and structures, and existing major topographical features;
      (iii) General description of the solar system identifying type (passive or active), location and size (surface area);
   (b) Wind:
      (i) Wind data including direction, frequency and intensity;
      (ii) Wind disruption information including potential on and off-site building construction, and major topographical features;
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(iii) Wind machine location and visual description;
(c) Micro or small scale hydro:
   (i) Estimated annual energy output using flow duration curves;
   (ii) Stream data including low and average flows;
   (iii) Hydro site location and design;
   (iv) Status of Federal Energy Regulatory Commission (FERC) approval;
(d) Geothermal: source of energy.

Chapter 20.97 DEFINITIONS

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[...]
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[...]
20.97.436.4 Tree, significant.
[...]
20.97.029 Best management practice (BMP).
“Best management practice (BMP)” means the schedule of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Washington State Department of Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

[...]

20.97.121.05 Existing Tree Canopy Area.
“Existing Tree Canopy Area” means the tree canopy area in existence as of January 1, 2017, using best available information.

[...]

20.97.171.1 Hard surface.
“Hard surface” means an impervious surface, a permeable pavement, or a vegetated roof.

20.97.171.12 Hazard tree.
“Hazard tree” means any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors, and which because of its location is at risk of damaging permanent physical improvements to property or causing personal injury.

[...]

20.97.187 Impervious surface.
“Impervious surface” means a hard surface non-vegetated surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development, and/or a non-vegetated 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. Natural surface waters and open, uncovered detention/retention facilities shall not be considered as impervious surfaces for purposes of determining whether the thresholds for application of minimum requirements are exceeded. Open, uncovered detention/retention facilities shall be considered impervious surfaces for purposes of runoff modeling calculated when determining total impervious surfaces. Alternative surface methods as set forth in WCC 20.71.603 shall not be considered impervious surfaces.

[...]

20.97.194.1 Land disturbing activity.
“Land disturbing activity” means activity that results in a movement of earth or a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include but are not limited to clearing, grading, filling, and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices are not considered land-disturbing activity.
Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

[...]

20.97.220.1 Low impact development (LID).
A stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

20.97.220.2 LID best management practices (BMPs).
Distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention, rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, minimal excavation foundations, vegetated roofs, and water re-use.

[...]

20.97.269.1 Net new impervious surface area.
"Net new impervious surface area" means the quantity of new minus the quantity of any existing impervious surface area.

20.97.269.2 Net new permeable pavement areas.
"Net new permeable pavement areas" means the quantity of new permeable pavement area minus the quantity of any existing permeable pavement area.

20.97.269.3 Net replaced impervious surface area.
"Net replaced impervious surface area" means the quantity of replaced impervious surface area minus the quantity of any existing impervious surface area.

20.97.269.4 Net replaced permeable pavement areas.
"Net replaced permeable pavement areas" means the quantity of replaced permeable pavement area minus the quantity of any existing permeable pavement area.

[...]

20.97.341 Replaced hard surface.
"Replaced hard surface" means, for structures, the removal and replacement of hard surfaces down to the foundation; for other hard surfaces, the removal down to bare soil or base course and replacement.

20.97.341-342 Replaced impervious surface.
"Replaced impervious surface" means, for structures, the removal and replacement of impervious surfaces down to the foundation. For other impervious surfaces, the removal down to bare soil or base course and replacement. (From 2012 DOE Stormwater Manual)

20.97.242 Replaced impervious surface area.
"Replaced impervious surface area" means, for structures, the removal and replacement of impervious surfaces down to the foundation. For other impervious surfaces, the removal down to bare soil or base course and replacement.

20.97.243 Replaced permeable pavement area.
"Replaced permeable pavement area" means the removal and replacement of permeable pavement areas down to bare soil or base course and replacement.

[...]

20.97.419 Significant tree.
See WCC 20.97.436.4 Tree, significant.

[...]

20.97.430.1 Stormwater.
"Stormwater" means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility. means the portion of precipitation that does not evaporate or naturally percolate into the ground, but flows via one or more of the following means:
Surface or overland flow;
Interflow;
Pipes and other features of a stormwater drainage system;
Into one or more of the following:
Defined surface waterbodies (e.g., rivers, streams, creeks, sloughs, ponds, lakes);
Constructed infiltration facilities.

20.97.430.2 Stormwater runoff.
"Stormwater runoff" means the portion of precipitation that does not evaporate or naturally percolate into the ground, but flows via one or more of the following means:
- Surface or overland flow;
- Interflow;
- Shallow ground water;
- Pipes and other features of a stormwater drainage system;
Into one or more of the following:
- Defined surface waterbodies (e.g., rivers, streams, creeks, sloughs, ponds, lakes);
- Springs;
- Seeps;
• Wetlands.

[...]

20.97.436.4 Tree, significant.
Any evergreen tree, twelve inches or greater in diameter at breast height (DBH) or deciduous tree, eight inches or greater DBH. Diameter at breast height shall be measured four and one half feet above existing grade. The Director of Planning and Development Services may authorize the exclusion of any tree, which for reasons of health or age is not desirable to retain, from this definition.

[...]

Chapter 21.04 SHORT SUBDIVISIONS

[...]

21.04.150 Requirements for a fully completed application for short subdivisions.
Upon completion of the pre-application review, and in response to the pre-application review letter, the applicant is authorized to prepare the short subdivision application materials. The following requirements for a fully completed application, and any other information on a form prescribed by the subdivision administrator, must be provided in order to initiate a review for a determination of completeness.

(1) Written and Other Data and Fees.
   (a) Name, address and phone number of owner(s), applicant, and contact person.
   (b) Intended uses.
   (c) List of variances and waivers requested.
   (d) General written proposal of water supply and sewage disposal method, including letter from public water or sanitary sewer providers stating their willingness and ability to serve the proposed land division.
   (e) Preliminary stormwater proposal.
   (f) Preliminary traffic proposal and transportation concurrency analysis, as required by Chapter 20.78 WCC.
   (g) Assessor's parcel number (of the parent parcel).
   (h) Fees as specified in the Unified Fee Schedule.
   (i) Critical areas assessment report pursuant to WCC 16.16.255 when the written findings of the pre-application review identify the need for this report.
   (j) Preliminary title report issued no more than 60 calendar days prior to application.
   (k) Net and gross lot size to determine minimum lot size and density requirements as required by the Zoning Ordinance.
   (l) Signature of property owners or applicant attesting by written oath to the accuracy of all information submitted for the application.

(2) Map Data.
   (a) Name of owner(s).
   (b) Name of proposed land division.
   (c) General layout of proposed land division.
   (d) Common language description of the general location of the land division.
(e) Approximate locations of existing roads, utilities, and infrastructure.
(f) Vicinity map.
(g) Short plat map with a common engineering scale with north arrow and sheet numbers (on each sheet containing a map).
(h) Section, township, range and municipal and county lines in the vicinity.
(i) Boundaries of the site with general dimensions shown that are prepared by a licensed surveyor.
(j) General direction and gradient of slope.
(k) Legal description of the land.
(l) Proposed location and means of proposed water service and sewage disposal.
(m) Proposed location and means of proposed access (including proposed improvements to on-site and off-site roadways, and site distance).
(n) Other proposed on-site and off-site utilities and facilities.
(o) Location of existing roads, rights-of-way, buildings, parking, and drainage on-site.
(p) Where appropriate, location of natural features, including bodies of water, natural drainage areas, native vegetation, critical areas, and buffers.
(q) Location of existing sanitation and water facilities and easements (where appropriate).
(r) Existing and proposed street names.
(s) Names or numbers of any adjacent divisions.
(t) Sequential numbers or letters to all lots within the short subdivision.
(u) Topographic map of sufficient contour interval, acceptable to the county engineer or director of planning and development services or their designee, to show the topography of the land to be divided.
(v) Location of critical areas, shorelines and base flood elevation, where applicable.
(3) Seven sets of the above required information shall be submitted. The subdivision administrator may require the applicant to submit the information in an electronic format, and may reduce the number of required sets if provided in an alternative format.

[...]

Chapter 21.05 PRELIMINARY LONG SUBDIVISIONS*

[...]

21.05.120 Requirements for a fully completed application for preliminary long subdivisions.
Upon completion of the pre-application review, and in response to the pre-application review letter, the applicant is authorized to prepare the subdivision application materials. The following requirements for a fully completed application, and any other information on a form prescribed by the subdivision administrator, must be provided in order to initiate a review for a determination of completeness.
(1) Written and Other Data and Fees.
   (a) Completed application form.
   (b) Name, address and phone number of owner(s), applicant, and contact person.
   (c) Names, addresses and telephone numbers of the involved engineers, surveyors, and consultants.
   (d) Intended uses.
   (e) List of variances and waivers requested.
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(f) Names and addresses of all persons, firms, and corporations holding legal interests in the land, such as easements, of which the applicant has knowledge.

(g) Assessor’s parcel number (of the parent parcel).

(h) List of names and addresses of owners of property within 300 feet of site’s boundaries (based on the latest assessor’s equalized tax roll) when within an urban growth area, or within 1,000 feet of site’s boundaries when outside an urban growth area, together with corresponding parcel numbers and assessor’s parcel map.

(i) Proposed covenants, conditions, and restrictions (CC&Rs).

(j) SEPA checklist.

(k) Preliminary stormwater proposal.

(l) Preliminary traffic analysis.

(m) Proposed utilities.

(n) Critical area and soils reports, as specified in the applicable development standards. All reports shall be certified by qualified professionals experienced in the applicable field of science.

(o) Net and gross lot size to determine minimum lot size and density requirements as required by the Zoning Ordinance.

(p) Fees as specified in the Unified Fee Schedule.

(2) Map Data.

(a) Acceptable map size is 24 inches by 24 inches to 24 inches by 36 inches.

(b) Date of revisions, if any.

(c) Name of owner.

(d) Name, address, and telephone number of the surveyor or consultant preparing the map proposal.

(e) Name of proposed land division.

(f) Names or numbers of any adjacent divisions.

(g) General layout of proposed land division.

(h) Approximate locations of existing utilities, infrastructure, roads, drainage and rights-of-way within 300 feet of the boundary of the proposed land division.

(i) Vicinity map at a scale not less than one inch equals 2,000 feet.

(j) Common engineering scale (one inch equals 100 feet or larger), sheet numbers, and north arrow.

(k) Section, township, range, municipal and county lines in the vicinity.

(l) Location of monuments and fences located by any boundary survey and the date of the survey.

(m) General boundaries of the site with general dimensions shown, perimeter boundary marked with a bold line.

(n) Legal description of the land being subdivided.

(o) Proposed access (including proposed improvements to on-site and off-site roadways).

(p) Other proposed on-site or off-site utilities and facilities.

(q) The location and widths of all proposed roads, rights-of-way, and easements.

(r) When appropriate, location of natural features, including bodies of water, natural drainage areas, native vegetation, regulated watershed boundaries, critical areas, and buffers.

(s) Location of buildings, and parking on-site or contiguous to the site.
ORDINANCE NO. __________

(t) General location of existing and proposed facilities, sanitation and water facilities, easements (where appropriate), landscaping, common areas, and phasing boundaries.

(u) General plans of proposed water distribution systems, sewage disposal systems, and drainage systems. The plans shall include system location and sizes, sources of water supply, location and size of storage reservoirs, location of drainage outlet, and other major features and shall be certified by a professional engineer.

(v) Layout of proposed alleys, walkways, bicycle paths, and parcels to be dedicated or reserved for school, park, playground, well site or other use.

(w) Sequential numbers to all lots within subdivision and identify proposed phases.

(x) Location of critical areas, shorelines and base flood elevation, where applicable.

(3) Additional information.

(a) Title report.

(b) Written narrative of how the proposed preliminary plat will meet development and/or level of service standards for:

(i) Water supply.

(ii) Sewage disposal.

(iii) Fire protection service.

(iv) Public school system.

(c) Project area.

(d) Area in lots, square feet, and percentage of total.

(e) Zoning designation and zone density.

(f) Number of lots.

(g) Average lot size, area, and maximum lot size.

(h) Area of streets, area in rights-of-way, and percentage of total.

(i) Area of parks, open space, and percentage of total.

(j) Area of impervious surface proposed.

(k) Soil types and classifications.

(l) Utility service types and name of provider.

(m) School and fire district.

(n) Boundary survey, prepared and certified by a professional land surveyor.

(o) Additional reports as required at the pre-application meeting, prepared by qualified professionals, including but not limited to:

(i) Traffic impact analysis and concurrency study.

(ii) Stormwater design report.

(iii) Soils and/or geological report.

(iv) Wetlands delineation and/or critical areas assessment report.

(v) Soil testing results for pesticides for subdivisions on land historically used for raising row crops.

(p) Topographic map of sufficient contour interval, acceptable to the county engineer or subdivision administrator, to show the topography of the land to be subdivided.
(4) Eleven sets of the above required information shall be submitted. The subdivision administrator may require the applicant to submit the information in an electronic format, and may reduce the number of required sets if provided in an alternative format.

[...]

Chapter 21.07 PRELIMINARY BINDING SITE PLANS

[...]

21.07.120 Requirements for a fully completed application for preliminary binding site plans. Requirements for a fully completed application must be provided in order to vest an application.

(1) Written and Other Data and Fees.
- Seven copies of written data.
- Completed application form.
- Name, address and phone number of owner(s), applicant, and contact person.
- The names, addresses and telephone numbers of the involved engineers, surveyors, and consultants.
- Intended uses.
- List of variances and waivers requested.
- Names and addresses of all persons, firms, and corporations holding legal interests in the land, such as easements, of which the applicant has knowledge.
- Assessor’s parcel number (of the parent parcel).
- List of names and addresses of owners of property within 300’ of site’s boundaries (based on the latest assessor’s equalized tax roll), together with corresponding parcel numbers and assessor’s parcel map.
- Proposed covenants, conditions, and restrictions (CC&Rs).
- SEPA checklist.
- Preliminary stormwater proposal, preliminary traffic analysis, utility, critical area study, and soils reports, as specified in the applicable development standards. All reports shall be certified by qualified professionals experienced in the applicable field of science.
- Brief statement covering the number of lots, proposed uses of lots, method of water supply and sewage disposal, approximate road length, total acreage; percentage of total acreage used for roads, lots, open space and other uses, and average lot size and number of lots per gross acre.
- Fees as specified in the Unified Fee Schedule.

(2) Map Data.
- Acceptable map size is 18” x 24” to 24” x 36”.
- Seven map copies of map proposal.
- Date of revisions, if any.
- Name of owner.
- Name, address, and telephone number of the surveyor or consultant preparing the map proposal.
- Name of proposed binding site plan.
- Names or numbers of any adjacent divisions.
ORDINANCE NO. __________

- General layout of proposed land division.
- Approximate locations of existing utilities, infrastructure, roads, drainage and rights-of-way within 300' of the boundary of the proposed land division.
- Vicinity map at a scale not less than 1" = 2000'.
- Common engineering scale (1" = 100' or larger), sheet numbers, and north arrow.
- Section, township, range, municipal and county lines in the vicinity.
- Location of monuments and fences located by any boundary survey and the date of the survey.
- General boundaries of the site with general dimensions shown, perimeter boundary marked with a bold line.
- Legal description of the land being subdivided.
- Proposed access (including proposed improvements to on-site and off-site roadways).
- Other proposed on-site or off-site utilities and facilities.
- The location and widths of all proposed roads, rights-of-way, and easements.
- When appropriate, location of natural features, including bodies of water, natural drainage areas, native vegetation, critical areas, and buffers.
- Location of buildings, and parking on-site or contiguous to the site.
- General location of existing and proposed facilities including; sanitation, water service, easements, landscaping, common areas, phasing boundaries, and (for mobile home and RV parks) typical details of individual lease spaces.
- Existing and proposed street names.
- General plans of proposed water distribution systems, sewage disposal systems, and drainage systems. The plans shall include system location and sizes, sources of water supply, location and size of storage reservoirs, location of drainage outlet, and other major features and shall be certified by a professional engineer.
- Layout of proposed alleys, walkways, bicycle paths, and parcels to be dedicated or reserved for school, park, playground, well site or other use.
- Sequential numbers to all lots within binding site plan and identify proposed phases.

[...]

Chapter 21.08 GENERAL AND SPECIFIC BINDING SITE PLANS

[...]

21.08.050 Requirements for a fully completed application for general binding site plans and specific binding site plans.

(1) Written and Other Data and Fees.
- Name, address, and phone number of owner, applicant, and contact person.
- A separate map scaled at 1" = 400' for assignment of addresses. Addresses assigned by the county shall be shown on the original drawing prior to filing with the county auditor.
- Lot closures for the parcel being subdivided, each lot, and any dedicated right-of-way.
- Title report issued no more than 60 days old.
- Copies of covenants, conditions and restrictions.
- As-built drawings for road and drainage improvements.
• Any fees as specified in the Unified Fee Schedule.

(2) Map Data.
• General or specific binding site plan size is 18” x 24”.
• Seven map copies from original drawings.
• Name of owner(s).
• Name of the binding site plan.
• Section, township, range, and municipal and county lines within the vicinity.
• Common engineering map bar scale (1” = 100’ or larger), north arrow, legend, and sheet numbers.
• Perimeter of the binding site plan shall be depicted with heavier lines.
• File number of the preliminary binding site plan.
• Existing and proposed street names.
• Legal description of the land being divided.
• All lot and tract areas.
• Vicinity map.
• Names and numbers of any adjacent subdivisions, short subdivisions, and binding site plans.
• Complete bearings, lineal dimensions, radii, arcs, and central angle, of all lines and curves of any lot or boundary lines within the binding site plan.
• Location of all permanent control monuments found and established at the controlling corners of the parcel being divided and within the land division.
• Location of all monuments or other evidence used as ties to establish the land division boundaries and the basis of bearing.
• Type and location of monuments and the date set.
• Sequential numbers assigned to all lots (specific binding site plans only).
• Location and width of all easements shown as dashed lines, and a description of the purpose of the easement (including beneficiary).
• Location and description of all fence and building encroachments and other matters which, in the judgment of a professional land surveyor, give rise to alternate boundary locations resulting from occupational evidence or prescriptive rights.
• Location, width, geometry, centerline, and names of all roads within and adjoining the binding site plan.
• Identify and locate all stormwater facilities, areas set aside for stormwater management, utilities, permanent wells, and associated protective zones.
• Roads not dedicated to the public must be clearly marked.
• A reference to any covenants, conditions and restrictions.
• The statement required under RCW 58.17.040 (7)(e).
• Dedication and declaration signature block.
• Acknowledgement blocks.
• Surveyor’s certificate, signature block and seal.
• County engineer’s certificate.
• Director of planning and development services certificate.
• County health and human services department certificate.
ORDINANCE NO. __________

- County treasurer's certificate.
- County auditor's certificate.
- Land surveyor notes
<table>
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**Stromwater Requirements in Whatcom County**