

Response by Bill Reilly, SSWU Manager

Kurt and Fellow Planning Commissioners,

I'm emailing a few of my initial thoughts on the draft Silver Beach Ordinance so that you and Kurt can be aware of the items I wish to discuss during the March 12 public hearing.

I believe that there was not sufficient time for neighborhood and other interested groups to review the staff report and get others (especially neighborhood folks directly impacted by the ordinance) involved prior to our public hearing. The Planning Department was aware that Council was planning to extend the moratorium but emailed us that we should proceed with the public hearing. I believe that there will be extensive public testimony Thursday night that we should carefully consider it. So, I will ask for a discussion of continuing the public hearing and/or having a work session.

Much of the regulation proposed is based on reducing phosphorus runoff from development. It is my understanding (my meager understanding!) that there is no proof that phosphorus runoff from development is the problem for Lake Whatcom. Is there peer review research proving that development is the problem?

Staff Response

The TMDL Study from the Department of Ecology has been out for almost a year and has gone through a public review process. That study looked at the amount of phosphorus and fecal coliform coming out of the various lake basins. Those basins with the highest fecal and phosphorus are directly correlated to the level of development. There are national studies that have quantified the difference in phosphorus levels between different land uses. For Lake Whatcom by land use it comes out as 0.15lbs/acre/yr of phosphorus for forested areas. Lawns/Landscaping and Ag areas come out at about 1.26lb/ac/yr and impervious surfaces are at 1lb/ac/yr. It should be noted that the impervious surface contribution is generally related to the surrounding urban uses.

Page 4 lines 9-11: How do the regs we are reviewing regarding large animals compare to existing County regs for large animals in the LW watershed?

Staff Response

The County is proposing to apply rules similar to those required for large county farms at this point.

Page 2-5 lines 22-25: Kurt, please give us both sides of this approach. What happens if we do, what if we don't?

Staff Response

The main issue of this section is whether or not ALL development should be subject to the new regulations or if there should be an exemption for property that is destroyed by accidental causes. Staff supports allowing reconstruction of nonconforming properties on

a like for like basis in these instances as the damage was not purposeful or done by choice of the property owner. However, as we know existing properties are one of the main contributors of phosphorus and requiring full compliance when redeveloping, due to ANY cause, may help us achieve our reduction goals earlier. The new regulations may actually allow more of the site to be developed and the property owner may choose to comply due to this benefit.

Page 2-16 line 3: Consider inserting “City’s portion of the” between “the” and “Lake.”

Staff Response

The Chapter is intended to apply to both the City and County’s portion of the watershed, though only in an advisory capacity (see Applicability) to areas outside of the City. This allows the City the ability to require compliance with the regulations in situations that utility services are extended outside of the City limits.

Page 2-22 lines 18-21: Should “vegetation management practices” and “gardening” be defined terms? There could be quite broad interpretation of these terms.

Staff Response

We have a proposed definition for Exempt gardening in the stormwater code to deal with many concerns on that subject. The square footage of the exemption is something that should be discussed.

Page 2-25 line 24: Is “prevent” a reasonable standard?

Staff Response

This could be modified to the DOE/EPA standards of Maximum Extent Practicable (MEP) and/or All Known and Reasonable Technology (AKART) if preferred. These definitions are also a little nebulous which has been debate within the State for many years.

Page 2-25 lines 40-41: This language seems very targeted and punitive. How many parcels are we talking about here? Fine that no new animal husbandry properties will be developed, but I’m very concerned about the few existing family operations that would be severely impacted by this. I ask that we discuss deletion of this language. The environmental issues from large animals can be dealt with under d. lines 42-45 on same page. It appears that this language is in the current ordinance and is not being enforced. What about the poop from the thousands of dogs, geese and deer?

Staff Response

Lines 42-45 are the new language and 40-41 are in the existing code. Regardless, there is a high likelihood that some of the remaining locations of ag uses can be significant fecal coliform and phosphorus contributors. Requiring them to comply with a forested condition would be consistent with the TMDL goals and the requirements for New and Redevelopment.

Page 2-26 lines 1-3: This seems heavy handed and unnecessary. I ask that we discuss deletion of this language. The animal “output” would be regulated by the language in d. on page 2-25 lines 44-45 “a level consistent with the natural forested condition.”

Staff Response

Both the 2-25-(40-41) language and this language gets to the root of the issue in the number and type of animals that are on a parcel. Without management of the number and type fecal and phosphorus inputs may be impossible to handle via stormwater controls. It is already questionable that some of the BMP’s designed for residential use will be able to handle existing quantities of waste. From a watershed standpoint removal of these inputs would be advantageous.

As for this conditional use, it is my understanding that conditional use permits are reviewed periodically, so there is opportunity to address these issues on a per parcel basis.

Staff Response

Not all Conditional Uses are required to be reviewed after they have been approved. This only applies to situations in which one nonconforming use wants to change to a different nonconforming use. For example; an office in a residential single zone wishes to convert to a retail establishment.

Page 2-26 line 26: Is “prevent” the proper standard?

Staff Response

See above

Pages 2-28 and 29: NVPA. Is this for all development including the “built” environment? Lines 19-20 note “building permit”. Is that just for new structures or does it apply to remodels or any activity that requires a permit from the COB?

Staff Response

It applies to the creation or replacement of impervious or partially pervious surfaces of 300 sf or more.

Page 2-29 lines 22-37: Does this apply only to new construction or also to remodels?

Staff Response

This section applies to both new construction and remodels (redevelopment) when exceeding certain parameters. See BMC15.42.060 B.

Page 2-30 line 26-27: Please tell us why the language was stricken.

Staff Response

Instead of identifying every single type of accident, the “similar accidental causes” allows for a multiple of accidents and allows greater discretion for interpretation by the Director. The new

“engineered method” may actually allow for more impervious surface to be created thereby not restricting the redevelopment to a “like for like” situation.

Page 2-30 lines 40-42: Is it reasonable to use “no increase in phosphorus” as the standard?

Staff Response

Actually, this portion of the code should have indicated that the Mult and Commercial must also meet the forested standard for flow, phosphorus and fecal coliform.

Page 2-33 line 34: “No increase”? My general question about a reasonable standard (which probably has been answered five times already!!).

Staff Response

Again we could change this to MEP or AKART if that is your preference.

Page 2-51 last sentence of C. (no line numbering): Does this standard make existing animal husbandry properties in violation at adoption of the ordinance?

Staff Response

It makes all discharges that exceed the DOE thresholds for fecal and phosphorus subject to City regulation. These are already a violation of State Water Standards. It allows the City to enforce on activities that may lead to our own stormwater discharges points being found in violation. It shows that the City is being proactive in trying to control discharges into our system.

General comment: We have been spending millions of dollars (our water bill stormwater fees) to buy land in the watershed to prevent development. This takes property off the tax rolls, creates private parks (COB does not want us to access these watershed lands but they are being trashed by mountain bikers), reduces infill and related nuisances in the watershed area (and sends more infill to other neighborhoods). It seems to me that the residents of the watershed are the biggest polluters of Lake Whatcom and have the most to gain (financially and in terms of quality of life) by limiting growth in the area. I believe we should discuss recommending a \$100 per month additional stormwater fee that is assessed on the owners for developed property in the watershed. This would not apply to undeveloped land, that is ideal for stormwater management. I would hope that that extra money would be used for educational programs and stormwater improvement programs only in the watershed, but not for buying more private parkland.

Staff Response

While we agree with your comment regarding culpability, some of the issues that you raise are already being done or being looked at. Growth is a huge issue but dealing with existing development is even tougher. The strict requirements on redevelopment are a starting point. To meet this TMDL it will require many more changes to how things are done in the Watershed.

Tom

This is the Silver Beach Neighborhood Association’s Review of the Silver Beach Ordinance and the Stormwater Management Chapter. Here are the questions that were identified by the Special SBNA Committee that convened on 3-5-09 to start the review process of the policy proposals.

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Special Thanks to Kurt Nabbefeld and Bill Reilly for their Technical Assistance

Revised Silver Beach Ordinance			
Reference	Change	Question	City's Answer
2-21 Healthy Soils	New	Are defined healthy soils equivalent to native soils?	Healthy soils can be native soils that haven't been manipulated. Soils underlying an area deemed to meet the natural forested condition would be considered healthy soils.
2-22 Land Disturbing Activity	New	Many	The City will consider this request. Technical issues regarding Land disturbance activities are likely to be provided in the Stormwater ordinance SBNA Committee Recommendation - We would advise that a separate section of the ordinance deal in detail with gardening, landscaping, lawn maintenance, tree removal, etc.

2-23 Partially Pervious Surfaces	New	Are there source documents for this definition? There appears to be a conflict between this definition and that of Pervious Surface.	<p>This is new language that was created specifically for Basin 1 of LW. The LW TMDL has classified traditional lawns, landscaping, pasture areas and their attendant uses as the largest contributor of phosphorus to the Lake. To meet the TMDL we must show that these areas are mitigated through infiltration or other methods to emulate the forested condition.</p> <p>Pervious surfaces that provide mitigation for flow and phosphorus production would not be in this category.</p>
2--24 Redevelopment	New	This definition is contrary to 2-22 Land Disturbing Activity	Definitions reviewed no conflict is noted.
2-25 (11) Permitted uses	New	Again, is this gardening or land clearing?	The regulation ensures a site is not cleared, resulting in loss of native vegetation, prior to the establishment of a main use (home).
2-27 Development Standards	New	Can you cut down a tree on your property?	The short answer is yes. If the tree is in a NVPA, as established by this ordinance, it would first have to be assessed by an ISA-certified arborist to determine if it's a hazard. If so, replacement may be necessary.
2-27 D.	New	What about existing septic systems?	Existing septic systems that are currently

			installed and functioning properly are not subjected to this regulation.
2-23 Partially Pervious & Redevelopment	The addition of lawn area as a partially pervious area	Question: Not all sites absorb water the same way, therefore my question is: When someone applies for a permit for redevelopment, say for a room addition that will increase their existing footprint, does the city have qualified professionals to assess whether the site has sufficient permeability to allow the redevelopment without punishing them, by way of allowable coverage, for having lawn area that does allow water to infiltrate?	The technical requirements for compliance are contained in the stormwater regulations. The proposed regulations would require a professional analysis of soils for any project that creates or replaces more than 300 sf of impervious or partially pervious surface. Lesser amounts of impervious or partially pervious surfaces require mitigation at the rate of 10:1 with less strenuous standards. See 15.42.060.B.3.c
Page 2-27; Line 31		How do we know if we are an approved subdivision?	Under the current regulations and during the subdivision process, it must be shown that drainage from lots is conveyed to a stormwater facility and treated. The new code will require that the drainage is mitigated for on-site versus off-site (typical in subdivision development). This exemption would only be applicable if, at subdivision, the property owner designed and or

			engineered each individual lot to include on-site mitigation. This is not typical and has not occurred in recent subdivisions.
Page 2-27; Line 38		Will people who have septic systems be required to remove them?	Currently, all existing and properly functioning septic systems may remain and continue to be used.
Page 2-27; Line 42		How will we know the level of our phosphorus inputs?	The retention or re-creation of forested areas are considered by Ecology to be the optimum state for the Watershed. This Best Management Practice is assumed to meet by default a forested standard for water management.
Page 2-28; Line 6		Overall Question: Have they considered a scenario where it is impossible to meet the requirements of either method and still build on your lot? And in such a case what type of variance procedures exist? Are there assurances that property owners will have the right to build?	Variances exist to deal with that issue should it occur. The engineered method of mitigation provided for in the stormwater ordinance provides ultimate flexibility in the mitigation of flow and phosphorus for sites. As such, variances should be either not needed or would be infrequent.

Page 2-28; Line 6		<p>What is the fully engineered method? We need a definition of this.</p>	<p>The requirements of this are contained in the stormwater code and that code is referenced.</p>
Page 2-28; Line 6		<p>How do the BMC apply to the NVPA Minimum Area? (see codes listed under the <i>NVPA Minimum Area</i> heading.</p>	<p>16.80080F1 mimic the requirements in 15.42.060A. 3a and b. (not sure what the question is asking)</p>
Page 2-28; Line 6		<p>So if someone has a 6000 foot lot what will the Fully Engineered Method mean for him? How much of the lot will be taken up by this method and how much will be left for him?</p>	<p>This method still requires that 30 percent of the lot be in native vegetation protection. The other 70% of the lot can be a combination of pervious and impervious surfaces as long as flow and phosphorus limitations are met. Area needed for this mitigation is determined by the site analysis and decisions by the property owner and their professionals as to the way that the standard is met. If soils are sufficient or augmented to be sufficient. It may be as simple as infiltrating all flow.</p>

Page 2-28; Line 6		If the fully engineered method does not leave you enough of a footprint to build a house what will happen? So, if a house needs to be set back on the lot, then the driveway will take up more of the impervious surface, decreasing the footprint for the house enough that there may not be enough space for the house.	See answer above. The fully engineered method allows more impervious surface than the existing code.
Page 2-28; Line 6		Is there a way to resolve the issue of the state law that does not allow for stormwater to recirculate back for household use? What if someone has multiple lots, could they give up one lot for a tank?	There is some ability to utilize stormwater now and State law is currently being examined for modification. The City is presently modifying our plumbing code to allow this to occur as well.
Page 2-28; Line 6		What do they estimate it will cost to reforest to 75% (<i>Forested Method</i>)?	Specific costs are unknown because it is site dependent. However, restoration requires professional consulting so that is a cost in addition to the plants, mulch, soil amendments, monitoring, and other typical components of a restoration project.

<p>Page 2-28; Line 6</p>		<p>What do they estimate it will cost to move to the <i>fully engineered method</i>?</p>	<p>The costs are highly variable dependant on whether the site has had native soils disturbed prior to development or redevelopment. Infiltration of stormwater is the preferred method of stormwater management and in most cases would be the most cost effective solution if soils are capable. An engineered soils analysis similar to perk testing would be a minimum requirement.</p>
<p>Page 2-28; Line 16</p>		<p>How will the soil condition impact the viability of reforestation, e.g. clay soil?</p>	<p>If the soil is not suitable for whatever reason for establishing the natural forest condition, then the professional consultant would advise on the appropriate strategy. Restoration experience we've had with wetland mitigation shows there are a number of strategies that can be successful for establishing healthy soils.</p>

Page 2-28; Line 26		What will it cost for an arborist-soil testing?	Costs are site specific. Again, there are a number of strategies that professionals use to determine soil suitability as well to building up the soil to establish a healthy structure. Restoration takes time for monitoring and maintenance.
Page 2-28; Line 38		What is the cost of the site visit?	Like the engineering requirements, meeting the new code will require the use of professional consultants, especially in the initial stages.
Page 2-28; Line 42		What is the definition of <i>subgrade soil</i> ?	Perhaps a better definition is soils below the A horizon. This horizon is the fertile top layer of soil and can range in depth considerably. Subgrade is a loosely-used term to say below the topsoil.
Page 2-29; Line 29		What is the difference between a 300 sq. ft. stormwater site plan and a building permit for 500 sq. feet? (from BMC 15.42)	<p>The 300 sf threshold is specific to Basin 1 of the LW watershed and is also included in the storm code at 15.42.060.A.3 and B.3.</p> <p>The reference to 500 sf in 15.42 is not the trigger for a building permit but would be</p>

			<p>used to determine the need for a stormwater permit for land disturbance activities that do not create or replace impervious surfaces or partially pervious surfaces. It should be noted that a building permit and a stormwater permit are required for any permit that creates 120 sf of impervious area. The 120 sf limit is a product of the International Residential Code. Previously the threshold for a building permit was 200 sf and the change to stormwater code is to reflect that change.</p>
<p>Page 2-30; Line 25</p>		<p>Why has <i>windfall of trees, snow/ice/storm damage</i> been struck?</p>	<p>This has been struck to be more general. Instead of identifying every single type of accident, the "similar accidental causes" allows for a multiple of accidents and allows greater discretion for interpretation by the Director. The new "engineered method" may actually allow for more impervious surface to be created thereby not restricting the redevelopment to a</p>

			"like for like" situation.
Page 2-32; Line 31		<ul style="list-style-type: none"> ① Are there any new lots that can be created in SB? • If you consolidate lots, does that mean you have created a new lot 	<p>1) Under the current zoning, our gross analysis notes that 132 dwelling units could be developed in the City's portion of the watershed. 105 are existing single lots. The remaining 27 units could be created by subdividing 10 lots.</p> <p>2) The consolidation of existing lots does not mean you have created a new lot, only a new lot configuration. In some areas of the neighborhood, you may be required to consolidate existing lots of record in order to meet the minimum building site area. For example if you own 2 lots of record, each 5000sf and the minimum zoning is 10,000sf you will be required to consolidate the existing lots into 1 building site.</p>

<p>Page 2-33; Line 2</p>		<p>If we have a lot full of invasive or noxious weeds and want to plant something indigenous would we need to have a stormwater /site/restoration plan? And what would be entailed in that plan?</p>	<p>Yes a plan would be required. The intent of the requirements is to require retrofit of existing lots to the flow and phosphorus limitations whenever a substantial project is occurring on the property. Perhaps those properties that are simply trying to improve the environment should be supported by the City in those efforts.</p>
<p>Page 2-33; Line 5</p>		<p>If you are doing land disturbance for the purpose of planting native plants or more environmentally friendly uses what is the process?</p>	<p>BMC 15.42.060.B.3.d provides for a no cost permit for those properties that are merely being brought more into compliance with the LW standards. Review of these proposals to assure that practices do not unintentionally exacerbate problems by the use of improper Best Management practices. If the work is being done to meet the natural forested condition, then it would be part of a restoration plan and would have to meet all those requirements. If the land disturbance exceeds 300 sq. ft. during the seasonal</p>

			window and it's not part of a restoration plan, then the requirements in 15.42.060A.3 a. or b.
Page 2-34; Line 1		Under what authority does the city have to come onto property without permission of the property owner?	Bellingham Municipal Code section 1.04.060 details the "Right of Entry" for inspection purposes. Due to comments received modifications to this section will be proposed in order to ensure the code is compliant with local, state and federal entry laws. Properties that are under permit for development or redevelopment require inspection of work. BMC 15.42 provides for the ongoing inspection of stormwater facilities that are constructed as a part of a stormwater permit. Other than those instances, the City must follow legal procedures for gaining access to property. It is the City's policy to request permission to enter onto private property except when an active permit is in progress.

Draft Stormwater Management Chapter

Reference	Change	Question	City's Answer
<p>2-41 (N) Effective Impervious Surface- Those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system. Impervious surfaces on single family residences are considered ineffective if the runoff is dispersed through at least 100' of native vegetation in accordance with BMP T5.30.....</p>	<p>None</p>	<p>'Effective' and "Ineffective' are used here in a counterintuitive manner. Ineffective impervious is considered a preferable approach over effective impervious storm water systems?</p>	<p>While the comment has validity this is a State Department of Ecology definition that the City cannot change.</p>
<p>2-43 Discharges from lawn watering and other irrigation runoff. Excess runoff from these activities are discouraged and are subject to nuisance abatement</p>	<p>Entire paragraph is new</p>	<p>Define 'nuisance abatement'</p>	<p>Please note: The requirements contained in the Illicit discharge section are not specific to Lake Whatcom Basin 1. They are a requirement of our NPDES Municipal Phase II Permit</p> <p>City legal process. Lowest level of legal code enforcement. Usually involves a letter from the City to the property owner informing the person of the violation and setting a time period for the nuisance to be curtailed. Definition of nuisance and</p>

			administration of same is available in BMC 10.28. Nuisances that are not dealt with can become more serious offenses.
2-43 Street and sidewalk wash water, water used to control dust, and routine external building wash down are allowed if the water does not contain detergents and particulates will not cause and exceedance of State water quality standards....	Entire paragraph is new	Is washing down a driveway a conditionally allowed discharge?	While it may be a conditionally allowed discharge the compliance with State water quality standards can be tough. For the City in general, State turbidity limitations are most likely to apply. Turbidity increases of 5 ntu's (the measurement standard for the clarity of water) will constitute a violation of State Water Quality standards at the point where the water enters a State water body. If any visual difference is seen between the tap water being used and the water being discharged to a City system the 5 ntu standard has been exceeded. The City can require this standard at the point of entry to a City system to avoid cumulative impacts that would result in our

			violation of the standard at our discharge point. The Best Management Practice for driveway washing is to direct the flow to a fully vegetated area capable of containing the runoff.
2-44 (JJ) Partially Pervious Surface-.....Common surfaces in this category are lawns, landscape areas, gardens, areas that have been cleared of native vegetation....	Entire paragraph is new	Since the surfaces listed make up a very high percentage of the open space predominant on the private properties in the watershed, how can an average home owner limit these to the requirements in the Draft Stormwater Chapter? Lawn areas are a given, but gardens and areas that have been cleared of native vegetation? This seems unreasonable and unattainable.	Lawns, gardens and landscape areas that would be considered partially pervious surfaces or pollution generating pervious surfaces can attain compliance by: 1. Encompassing these areas with infiltration facilities capable of safely infiltrating all associated runoff from those areas. 2. Using any other combination of soil remediation, filtration, water storage, etc as provided for in 15.42.060.A.3 or B.3.
2-48 (RR from Redevelopment on the previous page)For Basin One of the Lake Whatcom Watershed redevelopment also means the creation of or expansion of Partially Pervious Surfaces	Entire paragraph is new	At what percentage does the creation or expansion of Partially Pervious Surfaces kick off the definition of Redevelopment?	Your comment is appreciated. It has brought to light an inconsistency in the proposed regulations. A modification in the language will be proposed that will

			indicate that "For Basin One of the Lake Whatcom Watershed the creation or expansion of Partially Pervious Surfaces greater than 120 sf shall be considered Redevelopment." This will also necessitate a change to 15.42.06.B.3
2-51 (C) Illicit Discharge.....activities and actions that result in the discharge of water exceeding an average of 0.15 pounds of phosphorous per acre per year from a site of that result in the discharge of water exceeding State water quality standards	Entire paragraph is new	Seems very difficult to measure and prove? How does one prove an individual has discharged more than 0.15 pounds of phosphorous per acre per year from a site?	While absolute measurement is difficult, the TMDL has also published the phosphorus loading rates for the developed areas of the watershed. Those rates are roughly 8 times the loading rates of the forested condition. Continuance of land practices that produce those rates can certainly be questioned.
2-53 (3 a.) An engineered stormwater site plan shall be provided, for review and approval.....Additionally all stormwater site plans shall maintain or create a minimum of 30 percent "Natural Forested Condition" upon the	Entire paragraph is new	The definition of Natural Forested Condition is stated as 'mimicking well established forest and supporting soils found in the lowlands of Whatcom Co. prior to European settlement.	It's true that trees lose limbs or themselves can blow down and cause damage. However, the natural forested condition is the standard that is believed to be the best one to limit

site per BMC 16.80

Native coniferous trees, extensive canopy cover'.... Our coniferous natives all get to a minimum mature height of 50-60' They are ALL subject to limb breakage and blow down in the gale force winds we get in the Silver Beach neighborhood every fall, winter, and spring. This is a big concern for many property owners. Can't the City come up with an approved plant list for reforestation that allows for low maintenance semi dwarf conifers and broad leafed evergreens that acclimate well to our climate and soils and are not considered weeds? That would mature at a height that would not create property damage and injury potential in our normal storm events? The non natives would be mixed in with the natives. I think you will have much better success with restoration and reforestation if you allow for landscape practices that are

phosphorus. In addition, it is the native vegetation community of this region because it has adapted to the soil, moisture, and weather regimes. The bigger health and safety concern is that of the lake. Without significant measures to reduce phosphorus, there is a risk to water quality. The professional advice from an ISA-certified arborist can also be helpful in determining hazard trees and abatement measures.

		supportive of the current development patterns in the watershed, not solely pre European development.	
		<p>These draft ordinances have the potential to impact a small percentage of City residents significantly. What is the County planning in terms or updating ordinance targeted at development in the Lake Whatcom watershed draining into Basin1?</p>	<p>The City has always led in the development of regulations and programs to protect the Lake Whatcom Watershed. Both the City and County are legally mandated to prevent the further degradation of the Lake by implementing controls for New Development and Redevelopment. The City does not want the Lake to be further degraded nor do we want to be vulnerable to lawsuits for a failure to act control this issue to two standard used by the State and Federal governments. AKART (All Known and Reasonable Technology) and MEP (Maximum Extent Practicable) These standards are the test for the sufficiency of our regulations and stormwater controls.</p>
2-51 #2	Requires Department of Ecology's	Where are the standards for Basin one	At the end of statement "...Lake

	<p>acceptance and compliance with special standards for Basin One of Lake Whatcom Watershed (LLW).</p>	<p>of LWW delineated?</p>	<p>Whatcom Watershed” the phrase “, per this Chapter” will be added. The reason for the language change in this section is to limit LID practices to those that are acceptable to the Department of Ecology. It also would prevent the use of LID practices in the Watershed that do not work to prevent Phosphorus or Fecal Coliform contamination.</p>
<p>2-51 C</p>	<p>Specifies that illicit discharges are at minimum a nuisance ...and that any activity exceeding an average of 0.15 pounds of phosphorus per acre per year or exceeding state water quality standards for fecal coliform are considered an illicit discharge</p>	<p>How does a resident determine how much 0.15 #/acre/year is? Same with fecal coliform levels?</p>	<p>For phosphorus a resident cannot easily determine the exact phosphorus output. A resident can, however, know if they have water leaving their property, know if they are washing their car properly, know if they have picked up dog litter off of their property, know if they have a large unmitigated lawn area, etc.</p> <p>For Fecal Coliform the issue is a little easier. If there is water leaving a site it can be easily tested to determine the number of fecal colonies present in that</p>

			water. Again though if no water is leaving the site the site is deemed in compliance.
2-52 A	Requires that all new development shall use the Best Management Practices and/or source controls.	Where specifically are these BMPs and source controls listed and described?	The Western Washington Stormwater Manual has been the foundation of the City's stormwater program since 1995. Source controls and best management practices are provided within this manual.
2-52-A 2 nd Para.	All new development must obtain a stormwater permit from COB prior to commencement of activity	How? Where? Cost?	Stormwater permits have been used for compliance with standards since 1995. Information regarding permits are contained within 15.42.090 and are not proposed to be modified.
2-52 A-1-c	Land area that is to be disturbed is decreased by 2000 sf (from 7,000 sf to 5,000sf)	Why is this?	To insure that this section agrees with the City's overall clearing (land disturbance) code and to be consistent throughout the chapter.
2-52-A-1-e	Increase in the amount of impervious surface area allowed before requirements kick in is decreased from 200sf to 120sf	Why is this?	So that this section meets the International Building Code that Bellingham now uses. It is the same throughout the city.

<p>2-52-A-1-g 2-53-g</p>	<p>Added statement that Public Works Dir. may determine that a development can contain a significant risk for degradation and require standards to be met.</p>	<p>Why?</p>	<p>This already exists in other sections and was added here to maintain consistency.</p>
<p>2-53-3</p>	<p>New Section specifically addressing stormwater management requirements to be met by New Development in Basin One of Lake Whatcom Watershed that creates or replaces more than 300 sf of pervious or partially pervious surfaces</p>	<p>Why was this added?</p>	<p>To prevent contamination of the Lake by new development and to provide a portion of the compliance with the LW TMDL.</p>
<p>2-53-3-a</p>	<p>An engineered stormwater site plan for any work greater than 300 sf must be provided to City.</p>	<p>1) Would that require hiring an engineer if one were to put in a 300+sf garden? 2) How much would hiring an engineer cost? 3) How does one determine the “pre-developed forest condition” levels? 4) Does this require each homeowner to hire an engineer or will other professionals be able to complete this work?</p>	<p>1) The city needs to develop a section that specifically addresses gardening. At the end of this document see proposed language related to gardening. 2) Not all development will require a civil engineer to provide stormwater mitigation. If infiltration is designed by a competent geologist, hydrogeologist or perhaps an accredited and bonded in septic</p>

			<p>designer, that may be all that is necessary. If full infiltration is not possible an engineer would be required to design alternative systems with the exception of reforestation. Meeting the full forested NVPA requirements will do away with the need for an engineer. The cost of engineering services is highly dependent on the site. The City will work with local engineers to aid their provision of simplistic designs.</p> <p>3) For Phosphorus the value of 0.15/lbs/acre is the published value from Ecology. For flow stormwater modeling would determine the predeveloped runoff. For Lake Whatcom, however, most areas of the City would produce very little runoff in the pre condition and in those areas infiltration should be possible and the best management for the site.</p> <p>4) See #1 above</p>
<p>2-54-1st Para. & i-vii</p>	<p>Any Best Management Practice (BMP) or</p>	<p>1) Do you really mean that an overflow</p>	<p>1) Yes, as long as the flow is through piping</p>

	<p>combination of BMPS will be considered.</p> <p>(list of BMPs included here)</p>	<p>connection can drain directly into the lake?</p> <p>2) Is it legal in the State of Washington to reuse stormwater in a building?</p> <p>3) How does an individual determine the storm amounts?</p>	<p>systems only and that those pipe systems are capable of conveying the flow. If all storms are infiltrated up to and including the 2 year storm, approximately 98% of the average annual rainfall will be infiltrated.</p> <p>2) There is some ability to utilize stormwater now and State law is currently being examined for modification. The City is presently modifying our plumbing code to allow this to occur as well. .</p> <p>3) If this is referring to 2 yr, 10 yr and 100 yr storms, there are published values for these. FYI, for the COB the simple amounts are 1.8, 2.7 and 3.8 inches of rainfall, respectively, in a 24 hour period.</p>
2-54-b	<p>Or the site will be considered If 75% of a site is covered in forested /native vegetation and the impervious surface is 2000sf or <20% of the site (whichever is</p>	<p>Does the “whichever is lesser” dramatically decrease the amount of land that can be developed on a site?</p> <p>The SBO used to read whichever was greater.</p>	<p>Yes the code currently specifies whichever is greater. Under the fully engineered method the lesser standard does not apply. This method actually allows greater utilization of</p>

	<p>lesser), the partially pervious surfaces are 1,000sf or <10% of the site (whichever is lesser) and the total of impervious & partially pervious is 2500sf or <25% of the site.</p>		<p>property as long as the flow and pollution issues are addressed.</p>
<p>2-55 1st para.</p>	<p>If the impervious surfaces developed under this method are mitigated to the standard provide for but an On Site Water Management Plan as provided for in the 15.42 in the Manual. The total site development shall be considered to comply fully with stormwater standards.</p>		<p>Thank you for the comment. This paragraph should have read the same as the Redevelopment requirements. It will be modified to do so.</p>
<p>2-55 B thru 2-57 B.3.b</p>	<p>Repeats changes noted above for New Lake Whatcom Development, but with regard to Redevelopment.</p>	<p>The last two paragraphs of B.2.b disagree with the last paragraph of A.3.b's last paragraph (top of page 2-55). Is that a mistake?</p>	<p>See above. Yes, it was a mistake. Thank you.</p>
<p>2-57-8 -c</p>	<p>If redevelopment creates or replaces 300sf of impervious or partially pervious surfaces, mitigation for stormwater & phosphorus transport must still be provided at 10 sq ft for every 1 sq ft of creation or</p>	<p>What can be used for this? French Drains? Mulch? How is the rate determined?</p>	<p>The City has detected an issue in how we will administer this portion of the code. The problem that is seen is in how low we want to administer projects. Construction of doghouses is not the intent of the ordinance</p>

	replacement.		<p>nor is the planting of a new rose bush. The discussion may lead to a lower limit of 120 sf of impervious or partially impervious surface being the limiting threshold for required permits and mitigation. The gardening issue will still need to be addressed separately from this point. As to the question, there is a set of requirements for residential stormwater management that would be used for additions or replacement of impervious or partially pervious surfaces. These are the same BMP's that have been a part of LW development since 2006.</p>
2-57-d	Construction of phosphorus limiting or flow limiting facilities may be permitted.	What are these facilities?	Infiltration facilities, filtration facilities, berms to redirect water or anything else that is designed to limit flow or phosphorus will be allowed to be constructed if that it is not a part of a development or redevelopment plan for new or replaced impervious surfaces or

			partially pervious surface. However, If people wish to develop a credit for future impervious or partially pervious surfaces the facilities will need to meet standards.
2-58 – E	Additional Requirements section doesn't seem to address projects that drain into Basin One of Lake Whatcom.	Where are projects that do drain in Basin One of Lake Whatcom addressed?	This section allows different standards for redevelopment in other parts of the City. Inclusion of this standard to the LW Watershed would be counterproductive to the TMDL. Thus it was excluded from this section.
2-60-c Last sentence	Projects within Basin One of the Lake Whatcom Watershed (LWW) shall meet these standards for water quality in addition to those contained in other portions of the code.	Why isn't this highlighted and does it apply to all of the requirements of 15.42.060 -E.? If so it seems in conflict with the earlier disclaimers.	The highlighting for this section was mistakenly lost during editing. It will be brought to the attention of the Planning Commission and Council. This statement is actually a part of the 15.42.060.F.6. This pertains to citywide requirements for stormwater treatment of additional contaminants beyond phosphorus and fecal coliform.
2-61-7-a	Requires written approval of City's		Current DOE standards provide an allowance

	Public Works Department for exemption of flow standards. The exemption will be based on finding that there will be no appreciable risk of water quality degradation.		to not detain water flowing to Lake Whatcom if it can be shown that no adverse effect is caused. This language is to identify the Public Works Department as the entity with jurisdiction to determine no adverse effect.
2-61-v	Projects within Basin One of LWW will be require the construction of engineered flow control facilities and/or land use management BMPs.		This statement is needed to clarify the special requirements for Basin 1 in this portion of the code. Without this language the requirements for flow control would be in question.
2-62-d	Alternate Flow Control Methodology may now be used as an alternate only if it approved by the Public Works Director.		This is a citywide issue. The City has allowed two engineering methods to calculate stormwater runoff. The removal of the more simple method at an ambiguous point in time has been replaced by a finding by the Director.
2-62-d-ii-c	Deletes fair forest and requires good forest when describing curve numbers.	Why? What does this mean specifically?	This is a citywide issue and it is intended to bring greater parity between the two stormwater methods.