



SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

135 Rhone Street, PO Box 947, Friday Harbor, WA 98250
 (360) 378-2354 | (360) 378-2116
 dcd@sanjuanco.com | www.sanjuanco.com

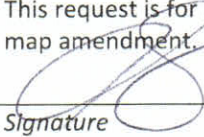
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 San Juan County
 Department of
 Community Development
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Comprehensive Plan Text/SJC Code* Amendment Request

*San Juan County Code Titles 15, 16 & 18
 (Annual Docket)

APPLICANT INFORMATION:			
Name of Applicant:	<u>Alexandra Gayek</u>	Name of Agent:	_____
Address	<u>6866 Olga Rd</u>	Address	_____
City, State, Zip	<u>Olga, WA 98279</u>	City, State, Zip	_____
Phone	<u>360-376-5484</u>	Phone	_____
Email	<u>gayek07@hotmail.com</u>	E-mail	_____

This request is for a text amendment to the Comprehensive Plan or development regulations, not a comprehensive plan map amendment. I understand that this request will be reviewed according to the County's annual docket process.

	<u>Alexandra Gayek</u>	<u>3/1/21</u>
Signature	Printed Name	Date
_____	_____	_____
Signature	Printed Name	Date

Please Describe the Proposed Amendments (attach additional pages if you need more space):

1. Comprehensive Plan amendments (if applicable). Describe proposed amendment and/or attach proposed text changes. List Comprehensive plan section, page numbers, title and policies proposed for amendment.

See attached document for all remaining sections.

2. San Juan County Code Title 15, Title 16 or Title 18 amendments (if applicable). Describe proposed amendment and/or attach proposed text changes. List code sections proposed for amendment.

Docket Application 2021

Please Describe the Proposed Amendments

- 1. Comprehensive Plan amendments (if applicable). Describe proposed amendment and/or attach proposed text changes. List Comprehensive plan section, page numbers, title and policies proposed for amendment.**

Proposed amendment to Comprehensive Plan Section B, Element 4 Water Resources Draft May 19, 2020, Section 4.5 Storm and Surface Water Management, p.7

Last sentence in first paragraph:

The County uses development design standards for stormwater that follow the Department of Ecology's latest guidance, [adapted and upgraded for conditions specific to San Juan County](#).

Reasons for proposed amendment:

The Department of Ecology's latest guidance on stormwater management is contained in the 2019 Stormwater Management Manual for Western Washington (SMMWW). This document states, in section I-1.1

More Stringent Requirements

Federal, state, and local permitting authorities with jurisdiction can require more stringent measures that are deemed necessary to meet locally established goals, state water quality standards, or other established natural resource or drainage objectives.

Water cleanup plans or Total Maximum Daily Loads (TMDLs) may also identify more stringent measures needed to restore water quality in an impaired water body.

Contrary to most counties in western Washington, development in San Juan County is not dominated by shopping malls, industrial complexes, large, speculative housing developments, large medical/hospital complexes, universities, or urban areas. It is dominated by small activity areas, agricultural lands and the sprawl of individually developed single family residences. More attention to the development of parcels perched high on hillsides for optimal views, and the cumulative impact of development of small, adjacent parcels both in hamlets and rural residential designations, and, is required.

Contrary to most counties in western Washington, the sole source of fresh water for all living beings in San Juan County is precipitation. Natural, undisturbed ecosystems hold the water from this precipitation in plants, animals, fungi, micro-organisms, soil, aquifers, streams, ponds, and wetlands in adequate supply for that life before it eventually reaches the ocean.

The only reasons for stormwater management are human demands for drinking water on islands with very little natural groundwater, and ecosystem disturbance by humans, through removal and replacement of natural vegetation, soil, and wetlands with roads, driveways, parking areas, buildings, septic systems, lawns, gardens, lined ponds, agriculture, logging operations, mining and other extraction including wells; the disturbance of natural water flow with all of the above, plus trails, fill, grading, dams, levees, stream diversion, ditches, swales, and drainage systems; erosion caused by construction practices, agricultural practices; and the use and disposal of toxic substances.

Current land use regulations and stormwater management practices in the county are inadequately protecting the natural ecosystems of the islands that would otherwise prevent much of the runoff (up to

99% in mature forest) and erosion and naturally maximize and protect aquifer recharge and wild species.

According to the 2005 – 2007 Puget Sound Conservation & Recovery Plan, to which our County Code currently refers for acceptable stormwater management practices:

The Issues

Stormwater runoff comes from rain or snow that falls on streets, parking areas, rooftops and other developed land that subsequently flows directly into Puget Sound or is routed there through drainage systems, streams, and rivers.

Stormwater runoff causes two major problems. First, when stormwater runoff moves over developed land it picks up and transports pollutants to receiving waters. This pollutant mix may include oil, grease, heavy metals, pesticides and other toxic chemicals, sediment, bacteria, and nutrients. The Department of Ecology (Ecology) estimates that of all the impaired water bodies identified for cleanup plans under the Clean Water Act, approximately one-third are polluted by stormwater runoff. These pollutants carried by stormwater runoff degrade the quality of surface waters, restrict harvesting in shellfish growing areas, harm or kill fish and other wildlife, limit recreational opportunities, contribute to sediment contamination in urban bays, and have the potential to pollute groundwater supplies.

The second major problem of stormwater runoff is the degradation or loss of habitat caused by increases in the volume of runoff from developed lands. In native forests of the Pacific Northwest, researchers estimate that less than one percent of rain or snow becomes surface runoff. Most of the precipitation infiltrates to the ground, is taken up by plants, or evaporates. When forests and prairies are cleared and replaced by streets, parking lots and buildings, hydrology is completely changed. Surface runoff increases dramatically and becomes stormwater runoff. Without adequate controls, increased stormwater flows overwhelm stream channels, undercutting and eroding stream banks, depositing excessive sediment, and altering fish and wildlife habitat. The federal agencies with authority under the Endangered Species Act (ESA) have identified habitat loss due to stormwater runoff as one of the factors limiting our ability to recover salmon species listed under the ESA.

The current language in Section B, Element 4.1 of the Comp Plan's May, 2020 Draft suggests instead that it is the geology of the region that is entirely responsible for the large amount of runoff from our islands, without any consideration/documentation of development's contribution to the high amount of runoff.

“The percentage of precipitation that actually becomes groundwater recharge is extremely low, often less than 10 percent. The islands’ geography is characterized by the rainshadow created by the Olympic Mountains to the south and Vancouver Island to the west, by predominantly steep terrain and bedrock geology, by small watershed catchment areas, and by extensive shoreline. These conditions result in lower rainfall than other areas of Western Washington, limited groundwater storage, and extensive runoff and drainage to the Salish Sea.”

Regardless of the reason for excess runoff, San Juan County's requirements for stormwater management are very different from those of most of western Washington. Our islands requires much more careful management.

Yet, current stormwater management practices are not only falling short of managing natural runoff so that it can meet human water needs, they are also inadequately mitigating stormwater problems directly caused by development and continuing human activity in developed areas.

This is evidenced by the loss of native species on land and in fresh and marine waters, and by the amount of stormwater collected in roadside ditches from upslope properties on which land has been

disturbed, citizen complaints about increased flooding downgradient from cleared forest and new construction, wells previously functioning year-round now going dry in summer, and changes in stream flow.

These observations, made simply by walking around my own neighborhood in Olga and talking with friends on Orcas Island, are consistent with known hydrologic changes from development, as stated in the 2019 SMMWW, 1-1.3:

Hydrologic Changes

As settlement occurs and the population grows, trees are logged and land is cleared for the addition of impervious surfaces such as rooftops, roads, parking lots, and sidewalks. Maintained landscapes that have much higher runoff characteristics typically replace the natural vegetation. The natural soil structure is also lost due to grading and compaction during construction. Roads are cut through slopes and low spots are filled. Drainage patterns are irrevocably altered. All of this results in drastic changes in the natural hydrology, including:

- Increased volumetric flow rates of runoff
- Increased volume of runoff
- Decreased time for runoff to reach a natural receiving water
- Reduced ground water recharge
- Increased frequency and duration of high stream flows during and after wet weather
- Reduced stream flows during the dry season
- Wetlands inundation during and after wet weather
- Reduced wetlands water levels during the dry season
- Greater stream velocities”

Stream flow impact is illustrated in the diagram at this link:

<https://fortress.wa.gov/ecy/ezshare/wq/Permits/Flare/2019SWMMWW/Content/Resources/Images/Figures/ChangesInHydrologyAfterDevelopment.pdf>

Absence of returning coho for spawning in the Land Bank's Coho Preserve on Orcas Island is an example of the results of these hydrologic changes.

Understanding the larger context of water management and implementing regulations applicable to the larger context, including revising land use and density planning, is critical to reaching the County's Water Resources goals, as the SMMWW states in section 1-1.3:

The Role of Land Use and Lifestyles

Land use is tied to site development standards and where development occurs. This manual is not intended to direct those land use decisions or delve deeply into those topics. Most land use decisions occur prior to the project being proposed. This manual focuses on the management of the project. This manual can provide site development strategies to reduce the pollutants generated and the hydrologic disruptions caused by development.

The engineered stormwater conveyance, treatment, and detention systems advocated by this and other stormwater manuals can reduce the impacts from development to water quality and hydrology. However, they cannot replicate the natural hydrologic functions of the natural watershed that existed before development, nor can they remove enough pollutants to replicate

the water quality of pre-development conditions. Ecology understands that despite the application of appropriate practices and technologies identified in this manual, some degradation of urban and suburban receiving waters will continue, and some beneficial uses will continue to be impaired or lost due to new development. This is because land development, as practiced today, is incompatible with the achievement of sustainable ecosystems. Unless development methods are adopted that cause significantly less disruption of the hydrologic cycle, the cycle of new development followed by beneficial use impairments will continue.

In recent years, researchers ([May et al., 1997](#)) and regulators [e.g., ([King County Surface Water Management, 1996](#))] have speculated on the amount of natural land cover and soils that should be preserved in a watershed to retain sufficient hydrologic conditions to prevent stream channel degradation, maintain base flows, and contribute to achieving properly functioning conditions for salmonids. There is some agreement that preserving a high percentage (possibly 65 to 75%) of the land cover and soils in an undisturbed state is necessary. To achieve these high percentages in urban, urbanizing, and suburban watersheds, a dramatic reduction is necessary in the amount of impervious surfaces and artificially landscaped areas to accommodate our preferred housing, play, and work environments, and most significantly, our transportation choices.

Surfaces created to provide “car habitat” comprise the greatest portion of impervious areas in land development. Therefore, to make appreciable progress in reducing impervious surfaces in a watershed, we must reduce the density of our road systems, alter our road construction standards, reduce surface parking, and rely more on transportation systems that do not require such extensive impervious surfaces (rail, bicycles, walking).

Reducing the extent of impervious surfaces and increasing natural land cover in watersheds are also necessary to solve the water quality problems of sediment, temperature, toxicants, and bacteria. Changing public attitudes toward chemical use and preferred housing are also necessary to achieve healthy water ecosystems.

Until we are successful in applying land development techniques that result in matching the natural hydrologic functions and cycles of watersheds, management of the increased surface runoff is necessary to reduce the impact of the changes. [Figure I-1.3: Relationship Between Basin Development and Biotic Integrity in Puget Sound Lowland Streams](#) illustrates that significant biological impacts in streams can occur at even low levels of development associated with rural areas where stormwater runoff has not been properly managed. Improving our stormwater detention, treatment, and source control management practices should help reduce the impacts of land development in urban and rural areas. We must also improve the operation and maintenance of our engineered systems so that they function as well as possible. This manual is Ecology’s latest effort to apply updated knowledge in these areas.

The question yet to be answered is whether better management – including improved treatment and detention techniques – of the increased surface runoff from developed areas can work in combination with preservation of high percentages of natural vegetation and soils on a watershed scale to yield a minimally altered hydrologic and water quality regime that protects the water-related natural resources.

In summary, implementing improved engineering techniques and drastic changes in where and how land is developed and how people live and move across the land are necessary to achieve the goals in the federal Clean Water Act - to preserve, maintain, and restore the beneficial uses of our nation’s waters.

Assuming basic past and present adherence to current County Code, and recognizing that most of the basic thresholds and BMPs in the 2019 SMMWW are designed for areas different from our county yet remain the thresholds and BMPs reflected in our County Code, it is obvious that the management

practices required by the SMMWW need to be upgraded for our county.

Proposed amendments to County Code relate to **Comprehensive Plan Section B, Element 4 Water Resources Draft May 19, 2020, Section 4.5 Storm and Surface Water Management.**

2. San Juan County Code Title 15, Title 16 or Title 18 amendments (if applicable). Describe proposed amendment and/or attach proposed text changes. List code sections proposed for amendment.

Code changes in 18.60.060 Clearing and Grading Standards, 18.60.070 Storm Drainage Standards, and 18.60.050 Density, Dimension, and Open Space Requirements are needed to address drinking water needs and stormwater problems and improve ecosystem sustainability.

18.60.060 Clearing and grading standards.

B. Drainage and Erosion Control. This subsection shall apply to any development for which a permit is required by this code or which is permitted outright by regulations in Chapter [18.30](#) SJCC.

All grading activities shall be accomplished as follows:

1. Design and maintain adequate buffers of undisturbed native vegetation to minimize off-site impacts of surface water runoff, erosion, and sedimentation.
2. Design and construct all graded surfaces that are to be revegetated to slope gradients (generally less than 1:2 or 1:3 slopes) so that the graded surfaces will hold topsoil and to minimize surface runoff, erosion, and sedimentation.
3. Selectively salvage the upper six to 12 inches of topsoil, stockpile it, and respread over all disturbed areas to be revegetated.
4. Any area cleared or graded and not covered with gravel or an impervious surface shall be seeded and revegetated immediately on completion of the project. If erosion is probable, areas with exposed soil shall be protected by temporary means during construction. All disturbances ~~shall should at least be revegetated with grasses and forbs; include shrubs, and trees as appropriate in the revegetation effort. Use of~~ plant species native to the County, including trees and shrubs, is encouraged.
5. Natural vegetation shall be retained to the maximum extent possible in construction and operation of any use. All development shall ensure that soil erosion and sedimentation of drainage ways will be controlled to prevent damage to adjoining property and downstream drainage channels and receiving waters.
6. Surface drainage of runoff from precipitation shall be retained on the parcel where it originates in a manner that allows infiltration on the parcel, unless already being collected in a naturally occurring stream, pond, lake, or wetland whose boundaries extend beyond the parcel's boundaries. Unless because of contamination, or for scientific testing, it shall not be collected/detained for use or disposal anywhere other than on the parcel. It shall not be directed to or discharged into County roads or ditches within County rights-of-way unless approved by the County engineer, for example due to unenforceability of retention by upstream, upslope or upgradient owners.
7. A drainage analysis shall be prepared that includes the context of any development in the entire basin/watershed. if required by SJCC 18.60.070. Drainage controls may be required to regulate velocities and quantity of runoff water and to control pollutants, erosion, and sedimentation if it is

probable that damage could occur downstream to property or to water quality, or excess water could accumulate on adjacent downstream, downslope, or downgradient property. Such controls may include landscaping or reestablishing native vegetation, ponds, catch basins, and other control structures.

8. For effective long-term weed control, ~~it is suggested that the landowner coordinate with the County weed control board to eradicate nuisance species.~~ organic vegetation management practices are recommended. In no event may herbicides or other harmful pollutants be used.

3. Why is the amendment being proposed?

As explained above for amendments to the Comp Plan, grass is inadequate to control stormwater runoff and aquifer recharge. Current management of stormwater runoff results a great deal of excess water into County roads or ditches within County rights of way, and on downstream/downgradient properties. Herbicides are known to be more persistent than originally advertised, and damaging to natural ecosystems well beyond the target plants; organic management practices have been demonstrated to be more effective, less costly over time, and are undeniably more protective to natural ecosystems.

The absence of drainage analysis and stormwater plans for small parcels and small projects on larger parcels is resulting in significant and unnecessary problems on downstream, downslope, or downgradient parcels and natural ecosystems, each of which may be cumulatively impacted from grading and clearing on multiple upstream, upslope, and/or upgradient parcels.

18.60.070 Storm drainage standards

All existing and new development and redevelopment must conform to the following standards and minimum requirements regarding Existing Development, New Development and Redevelopment Project Thresholds and Minimum Requirements, which are based on set by the Washington Department of Ecology Stormwater Management Manual for Western Washington, Publication No. ~~05-10-029 through 05-10-033~~ 19-10-021. Beyond these sections, all other requirements and guidance in the 2019 SMMWW must be met. In addition, the best management practices identified in the January 2005 Low Impact Development Technical Guidance Manual for Puget Sound, produced by the Puget Sound Action Team, are acceptable alternatives available as additional guidance for managing runoff, controlling soil erosion, and maximizing and protecting recharge.

Reasons for proposed amendment:

1. Existing patterns of stormwater runoff contradict the mandate to protect and preserve aquifers, as well as protecting natural hydrology and the natural ecosystems of which it is a part
2. Stormwater runoff must be prevented to the extent possible without removing existing structures and impervious surfaces.
3. The latest guidance from Dept of Ecology of which I am aware is the 2019 version of the Washington Department of Ecology Stormwater Management Manual for Western Washington, Publication No. 19-10-021. The 2019 version eliminates an important requirement for Basin/Watershed Planning that was present in the 2005 version to which

the County Code refers. It replaces *requiring* such planning with *promoting* such planning. As stated above, current requirements are inadequately addressing stormwater issues, so need to be made more stringent. It is specifically stated within SMMWW 2019 that local government may do this.

4. It is unclear how specific elements of the LIDTGM compare with the 2019 SMMWW, so to prevent confusion as to the intent, and to make the code enforceable, this wording is clearer.

Section A. Definitions. For the purposes of this section, the definitions as specified in the Glossary of the SMMWW and the following additional definitions at I-2.1 of the SMM shall apply:

Reason for proposed amendment:

Neither the 2005 nor the current SMMWW includes a similar definitions section. Section I-2.1 does not exist in the 2005 SMMWW to which this chapter supposedly refers. The current SMMWW does not mention “small parcel development,” nor specify any special, less stringent regulations for small parcels. Some of the proposed definitions are not in the current SMMWW.

1. “Small parcel development” is a development that creates or adds less than 5,000 square feet of impervious area, and that is either of the following:
 - a. The construction of an individual, detached, single-family residence, accessory dwelling unit, ~~or duplex,~~ accessory unit, or appurtenant unit; or
 - b. Land-disturbing activities of less than one acre, ~~that include grading of 100 or more cubic yards.~~
2. “Small grading project” is land disturbing activities that include grading of 100 or more cubic yards.

Reason for proposed amendment:

The cumulative impact on stormwater issues (runoff, controlling soil erosion, and maximizing and protecting recharge) from small changes to many nearby properties is not covered in the current standards. Nor is the total development to any single property including ALL structures and surfaces, not just dwellings, that, either all at once or over time, add up to crossing thresholds of allowed impervious surface area. Land-disturbing activities of all types in a neighborhood, as well as on a single parcel, can cause significant impact to stormwater issues.

3 “Existing Developed and Disturbed Land Parcel” is a parcel on which there has been or continues to be land disturbing activity or water disturbing activity, caused by humans or by non-native animal or plant species, or by fire, and whether or not such disturbance was initiated by current owner(s). Such disturbance includes, but is not limited to non-permitted or previously permitted non-compliant activity.

Reason for proposed amendment:

To clarify new section below giving requirements for such parcels.

4.2. “New development” means includes land-disturbing activities, structural development (construction, installation or expansion of a building or other structure), creation of impervious surfaces, Class IV General forest practices and COHP plans, and subdivision, short subdivision and binding site plans as defined in RCW 58.17.020. Land disturbing activities, including Class IV-general

forest practices that are conversions from timberland to other uses; structural development, including construction or installation of a building or other structure; creation of hard surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development.

5.3. “Redevelopment” means, includes, on an already developed site, the creation or addition of impervious surfaces, structural development, and replacement of impervious surface that is not part of routine maintenance; and also, land-disturbing activities that are associated with the above-activities. On a site that is already substantially developed (i.e., has 35% or more of existing hard surface coverage), the creation or addition of hard surfaces; the expansion of a building footprint or addition or replacement of a structure; structural development including construction, installation or expansion of a building or other structure; replacement of hard surface that is not part of a routine maintenance activity; and land disturbing activities.

6. “Hard surface” is an impervious surface, a permeable pavement, or a vegetated roof.

7.4. “Impervious surface” means a hard surface area which creates a barrier to the entry of water into the soil mantle in comparison with natural conditions prior to development, or 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 roofs, driveways, patios, packed earth, and oiled surfaces. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces. A non-vegetated surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. 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. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purposes of determining whether the thresholds for application of Minimum Requirements are exceeded. Open, uncovered retention/detention facilities shall be considered impervious surfaces for purposes of runoff modeling.

8. 5. A “land-disturbing activity” means results in a change in the existing soil cover (both vegetative and nonvegetative) or the existing topography, and includes but is not limited to demolition, construction, clearing, grading, filling, and excavation. Any activity that results in 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, including landscape maintenance and gardening, are not considered land-disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

9. “Water-disturbing activity” means any activity that impacts water quality or quantity on downslope, downstream, or downgradient properties, or impacts groundwater including aquifers.

10. A “Rain Garden” is a non-engineered shallow landscaped depression, with compost-amended native soils and adapted plants. The depression is designed to pond and temporarily store stormwater runoff from adjacent areas, and to allow stormwater to pass through the amended soil profile. See SMMWW BMP T5.14: Rain Gardens.

11. “Harmful pollutant “ is a substance that has adverse effects to an organism including immediate death, chronic poisoning, impaired reproduction, cancer or other effects.

12. “Displaced surface water” is water displaced by an impervious in-ground structure such as a building foundation.

13. “Retention facility” is a type of drainage facility designed to collect and hold surface and stormwater runoff for a considerable length of time, then release it by evaporation, plant transpiration, and/or infiltration into the ground.

14. “Original or fully regrown native vegetation” on our islands consists of mature native forest, native riparian, shoreline, wetland vegetation and, on rocky outcrops, moss, lichens, and other native plants.

Reason for proposed amendments:

These definitions include the verbatim definitions in the 2019 SWMMWW for New Development, Redevelopment, Hard surface, Impervious surface, Land-disturbing activity, Harmful Pollutant. Other definitions clarify the meaning of new language.

(New Section): C. Existing Developed and Disturbed Land Parcel Minimum Requirements

1. All existing parcels in hamlet and rural districts on which less than 75% of original or fully regrown living native vegetation remains, regardless of the vegetation existing on the property at the time current ownership commenced, shall be required to maintain one or more rain gardens, natural depressions, or other retention facilities, cumulatively sufficient to retain excess runoff generated on the parcel. The outer edges of such retention facilities shall be set back a minimum of ten feet from any downslope, downstream, or downgradient property line. All outflow from gutters, drain pipes, sump pumps, septic systems, swales, ditches, or other stormwater or surface water that is collected and/or redirected to a surface exit point must be then retained in such facility/facilities so that it is contained on the parcel until it infiltrates into the soil and/or evaporates.

2. Residents on all parcels in all districts shall be required to protect surface and ground water from contamination by:

a. storing all harmful pollutants in leakproof containers in dry locations.

b. complying with prohibition of on site use or disposal of commercial herbicides, insecticides, fertilizers, soil

adjuvants, and other substances inconsistent with organic lawn, garden, and agricultural practices including raising chickens and feeding wildlife.

c. preventing harmful pollutants and other biohazardous materials from entering groundwater or open water via septic systems, spills or leakage on land or in water, burying or dumping.

d. washing off any sunscreen, insect repellent, lotion, deodorant, and any other personal care products applied to skin or hair prior to swimming in any lake, pond, stream, ocean, or other open water in the county.

d. complying with all available and relevant Source Control BMPs in Volume IV of 2019 SMMWW that are not superceded by Items 1. a., b., c. above, or other County Code.

Reason for this new section

Current regulations are written as if to assume that all significant impacts to stormwater, surface water, and groundwater occur at the time of permitted development. Yet, in the county, most parcels undergo many small changes over time, including many unpermitted activities that may individually and/or cumulatively cause significant impact. These include changes due to compaction, storms, corrosion, degeneration, leaching, increased number of residents, new and increased size of vehicles, uncareful use of dangerous pollutants, ignorance on the part of residents as to the impacts of their actions, small construction projects, and normal wear and tear.

Further, treating existing properties as automatically untouchable, or “grandfathered in” by previous regulations in place at the time of initial development or redevelopment, that failed to account for cumulative future development is illogical.

The two most critical changes are the implementation of requirements to increase infiltration of stormwater and surface water, and to reduce pollution of natural ecosystems and drinking water.

The 2019 SMMWW states in section I-1.5:

The method by which this manual controls the adverse impacts of development and redevelopment is through the application of Best Management Practices (BMPs).

BMPs are defined as schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to waters of Washington State.

The primary *purpose* of using BMPs is to protect beneficial uses of water resources by:

- reducing pollutant loads and concentrations,
- reducing discharges (volumetric flow rates) that cause stream channel erosion, and
- reducing deviations from natural hydrology.

However, the impacts of development are not limited to new construction, or even permitted construction. County residents routinely add small, unpermitted structures, cut down trees, remove, alter, and plant new vegetation, mow, start raising chickens, add or remove propane tanks, add and use outdoor plumbing, dig ditches, drive vehicles across permeable surfaces, repair and wash vehicles, use all sorts of hazardous chemicals, and many other activities that cumulatively impact water resources. Storms uproot trees, creating land changes that can alter hydrology. Therefore, BMPs should be applied

to all parcels on which land-disturbing or water-disturbing activities are occurring or have occurred in the past and have left the parcel unrestored to its original native condition.

The following are a few references illustrating only one aspect of development and land use: groundwater contamination by individual septic systems, which is not addressed in the current stormwater drainage standards.

<https://www.usgs.gov/news/man-made-pollutants-finding-their-way-groundwater-through-septic-systems>

https://pubs.usgs.gov/wri/wri914011/pdf/wrir_91-4011_a.pdf

https://www.usgs.gov/special-topic/water-science-school/science/pharmaceuticals-water?qt-science_center_objects=0#qt-science_center_objects

D. New Development Project Thresholds (Adapted from 2019 SMMWW I-3.3, and referring to Minimum Requirements in section I-3.4)

All new development shall be required to comply with Minimum Requirement #2.

The following new development shall comply with Minimum Requirements #1 through #5 for the new and replaced hard surfaces and the land disturbed:

- Results in 1000 square feet, or greater, of new plus replaced hard surface area, or
- Has land disturbing activity of 2,000 square feet or greater.

Such development shall also:

a. For parcels on which stormwater is not collected via direct connection to drains in a municipal drainage system ie, in urban activity centers or resorts, situate all structures and impervious surfaces to allow for stormwater runoff from these surfaces and displaced surface water, , to be collected and retained on the parcel in rain gardens, natural depressions, or other retention facilities, the outer edges of which shall be set back a minimum of ten feet from any downslope or downgradient property line.

b. Create such retention facilities and drainage systems as are necessary to retain on the parcel until evaporation, plant transpiration and/or infiltration into the ground, all stormwater from h surface runoff , from surface water displaced by structures, and stormwater runoff from loss of natural retention due to removal of trees and other vegetation, including vegetation removed prior to current development or current ownership of the parcel.

c. Comply with the equivalent minimum requirements in the current SMMWW intended in "1 through 4 for small parcels in Section I-2.3 of the SMM, and shall employ the small parcel best management practices (BMPs) of Section II-5.10. Additional guidance is provided in Sections I-3.3, I-4, and II-5.9 of the SMM;" (I can't rewrite/replace this with current sections of the updated SMMWW, because I can't find the language in the 2005 SMM to which this section supposedly refers.)

d. Prepare a small parcel erosion, sediment control, and retention facility plot plan or illustration (or, show on other diagrams being prepared for the project, if appropriate) showing:

1) Vicinity map;

2) Location of the structure and its access;

3) All applicable setback requirements;

4) Location of all applicable erosion and sediment control BMPs and retention facilities;
and

5) Existing site features and sensitive areas.

The following new development shall comply with Minimum Requirements #1 through #9 for the new and replaced hard surfaces and the converted vegetation areas:

- Results in 2,000 square feet, or greater, of new plus replaced hard surface area, or
- Converts the lesser of 10% of parcel area or 1/4 acre, or more, of native vegetation to lawn or landscaped areas, or
- Converts 1 acre, or more, of native vegetation to pasture.

E. Redevelopment Project Thresholds (Adapted from 2019 SMMWW I-3.3, and referring to Minimum Requirements in section I-3.4)

All redevelopment shall be required to comply with Minimum Requirement #2.

The following redevelopment shall comply with Minimum Requirements #1 through #5 for the new and replaced hard surfaces and the land disturbed:

- Results in 1000 square feet or more, of new plus replaced hard surface area, or
- Has land disturbing activity of 2,000 square feet or greater.

The following redevelopment shall comply with Minimum Requirements #1 through #9 for the new hard surfaces and converted vegetation areas:

- Adds 2,000 square feet or more of new hard surfaces or,
- Converts the lesser of 10% of parcel area or ¼ acre, or more, of native vegetation to lawn or landscaped areas, or
- Converts 1 acre, or more, of native vegetation to pasture.

Additional Requirements for Redevelopment

Road-related projects shall comply with all the Minimum Requirements for the new and replaced hard surfaces (including pavement, shoulders, curbs, and sidewalks) and the converted vegetation areas if the new hard surfaces total 2,000 square feet or more and total 50% or more of the existing hard surfaces within the Site.

Other types of redevelopment projects shall comply with all the Minimum Requirements for the new and replaced hard surfaces and the converted vegetation areas if:

- the total of new plus replaced hard surfaces is 2,000 square feet or more, and
- For commercial or industrial projects: the valuation of the proposed improvements, including interior improvements, exceeds 50% of the assessed value of the existing Project Site improvements.
- For all other projects: the valuation of the proposed improvements, including interior improvements, exceeds 50% of the assessed value of the existing Site improvements.

Note on New Development and Redevelopment Sections: These sections are adapted from the 2019 SMMWW. I ran out of energy before completing a comparison of the references in the existing Code, because they do not exist in the 2005 SMM document to which this section of the code says it refers. Therefore, I suggested completely replacing these sections with those in the relevant 2019 SMMWW. I do not mean to propose that any previous standards be relaxed.

Code section 18.60.050 Density, dimension, and open space requirements

C. Measurement Methods. The following methods will be used to determine compliance with this code:

4. "Maximum lot coverage" is measured by the percentage of total surface area of a lot or lots within a single development occupied by all structures, excluding roof overhangs, and covered porches, awnings, carports, and decks over impervious surfaces not used for sales, storage or service, and including "temporary" structures such as shipping containers, yurts, tents, firewood piles, junk piles, garbage or other storage containers, and any maintenance equipment and/or vehicles situated for more than 30 cumulative days in any 12 month period on otherwise permeable surfaces in a particular activity center

6. "Impervious surface" is measured by calculating the horizontal land area of all surface areas that create a barrier to or retard the entry of water into the soil in comparison with natural conditions prior to any development, including but not limited to buildings, parking areas, driveways, roads, sidewalks, patios, packed earth, and oiled surfaces. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces. See also SJCC [18.60.070](#), Storm drainage standards.

8. "Undisturbed Land" is land with original native vegetation, soil, surface and subsurface geologic features, and hydrology, and without any non-native vegetation, human-made structures or impervious surfaces.

9. "Restored Land" is previously disturbed land that has had non-native vegetation, human-made structures and impervious surfaces removed, surface and subsurface geologic features and hydrology restored, and been replanted with native vegetation similar to original which is now established to the point of thriving without any human maintenance or intervention.

D. Open Space. Open space must be maintained in its natural condition, in agricultural or forestry use, or landscaped according to SJCC [18.60.160](#).

Table 6.1. Density, Dimension, and Open Space Standards for Activity Center Land Use Districts
Current:

Maximum Building Dimensions

Lot coverage ...Hamlet Residential – ~~50%~~

Affordable housing lots of 0.25 acre: 12%

Lots more than 0.25 acre, up to 1 acre: 10%

Maximum Lot coverage on parcels greater than 1 acre: 5,000 sq ft.

Maximum Impervious surface area, including maximum lot coverage:

Parcels 1 acre or less: 20%

Parcels greater than 1 acre: 7,500 sq.ft.

Minimum Required Undisturbed or Restored Land -

Parcels 1 acre or less – 10%

Parcels over 1 acre - 20%

Minimum Required Open Space or Landscaped Area - 30% including Undisturbed or Restored Land and Retainment facilities -

Affordable housing lots of 0.25 acre – 68%

Lots of more than 0.25 acre, up to 1 acre – 70%

Lots of more than 1 acre – 70% plus the remainder of total sq ft minus 7,500 sq ft.

5. —Setbacks do not apply to mail boxes, wells, pump houses, bus shelters, ~~septic systems and drainfields~~, landscaping (including berms), utility apparatus such as poles, wires, pedestals, manholes, and vaults, and other items as approved by the administrator.

Reason for proposed change:

Addition of retention facility, and containment of water originating on the parcel to be retained on the parcel require septic systems and drainfields to be set back, possibly further than the minimum of 10 ft

Table 6.2 Density, Dimension, and Open Space Standards for Rural, Resource, and Special Land Use Districts

Set-Aside Requirements

Minimum Required Undisturbed or Restored Land – all Rural and Resource – same as table 6.1

Minimum required open space or landscaped area, including undisturbed or restored land plus land for retention facilities – RGU and RR 90%; RFF 85%. *

*Add note 17: Parcels abutting lined county roads and containing buildings require a minimum 10 ft wide strip of landscaped, undisturbed, or restored land sufficient to serve as a visual barrier between the road and the closest building(s) to the road.

~~11. Required only for parcels over one acre in size.~~

Reason for proposed change:

There needs to be regulation for all parcels, not just those over one acre in size. Currently, parcels under one acre have zero open space regulation, which makes no sense.

Reason for all these changes to Tables 6.1 and 6.2:

For purposes of achieving the goals of reducing stormwater runoff and protecting and recharging aquifers, for any new development or redevelopment, maximum lot coverage must consider the total impact on impeding water infiltration into the soil, and be dramatically reduced in the predominant areas of construction: hamlet and rural land use districts.

3. Why is the amendment being proposed?

Unless more specifically explained immediately after specific sections above, all amendments are being proposed for the reasons described at length in the explanation for the one proposed amendment to the Comprehensive Plan. In short, current stormwater management practices are inadequately addressing environmental protection, stormwater runoff problems, erosion and sedimentation, aquifer protection and recharge, human demand for drinking water, and overall environmental protection. Even if managed to the letter of currently proposed regulations, as stated in the 2019 SMMWW Section I-1.3, *“land development, as practiced today, is incompatible with the achievement of sustainable ecosystems.”* Anything less than the most stringent and careful management possible is unacceptable, and must be accompanied by drastic changes to our County development standards and regulations. At the very least, as stated in the 2019 SMMWW Section I-1.3, *“a dramatic reduction is necessary in the amount of impervious surfaces and artificially landscaped areas to accommodate our preferred housing, play, and work environments, and most significantly, our transportation choices.”*

4. How is the proposed amendment consistent with the Growth Management Act (RCW 36.70A), Comprehensive Plan and development regulations?

As described in the explanations inserted throughout this document, the proposed amendments make the County Code more consistent with the Comprehensive Plan. They make the Code's development regulations up to date and comprehensible, since current regulations refer to outdated and non-existent state documents. They also fill some gaps in the development tables to make them comprehensible and thorough, and more consistent with the Comprehensive Plan.

5. Does this proposal impact an Urban Growth Area (UGA)? Lopez Village, Eastsound and the Town of Friday Harbor are the only UGAs in the County.

Yes. The Chapter 18.60.070, new section C applies to all parcels in all districts, and sections D. New Development and E. Redevelopment sections that already impact UGAs have proposed changes that would impact the same range of parcels as current code impacts.

6. Does this proposal increase population or employment capacity?

Yes. The proposals would increase job opportunities in planning, engineering, construction, landscaping, agricultural production of native species for revegetation, environmental education and environmental specialists. All of these jobs could be filled by current islanders already working in similar fields, so it would not increase housing requirements or population.

Our islands would be more beautiful, quiet, peaceful, and healthy for all.
