


POLICY

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Number:	DECM.11.POL.802	Approved:	 Drainage Manual Administrator
Title:	Subdivision Land Area Calculations	Date:	<u>10/6/2011</u>
Related:	None		
Code:		Code:	2009 Drainage Design and Erosion Control Manual / TCC 15.05
Cancel:	New		

DECM.11.POL.802 SUBDIVISION LAND AREA CALCULATIONS

This policy applies to new residential subdivision development projects in Thurston County including short plats, large lot plats, and all types of other residential subdivisions allowed by Thurston County Code and subject to the 2009 Drainage Design and Erosion Control Manual.

Purpose:

The purpose of this policy is to clarify how an applicant shall calculate impervious, pervious, and other development land cover for housing developments where lot-specific details are not yet determined. It also clarifies required information to be contained on final plats related to development land cover restrictions and responsibilities for implementation of on-lot Best Management Practices.

The 2009 Thurston County Drainage Design and Erosion Control Manual (DDECM) does not stipulate what land cover assumptions (impervious, landscape, forest, etc.) an applicant should use for stormwater design and permitting when developing a residential subdivision for which the lot-specific details are not yet determined. Since impervious surface area, lawn/landscape area, and disturbed land area are all required elements in establishing which minimum requirements apply to a project including whether flow control and runoff treatment is required, a policy to clarify how land area calculations are made for residential subdivisions is necessary.

Policy:

1. Impervious coverage for proposed residential subdivision projects shall be estimated for each specific project as follows:

1. Impervious coverage of streets, sidewalks, hard surfaces, trails, etc. contained within proposed rights-of-way, private street tracts, other dedicated tracts, and other common use areas shall be taken from the layouts of the proposal.
2. For individual lots within an urban residential development, the assumed impervious coverage shall not be less than 4,200 square feet per lot or the maximum impervious coverage permitted by Thurston County code, whichever is less. Subdivisions created with average lot size of less than one acre shall be considered urban for purposes of this policy.

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3. For individual lots within a rural residential development, the assumed impervious coverage shall not be less than 8,000 square feet per lot or the maximum impervious coverage permitted by Thurston County Code, whichever is less. Subdivisions with average lot size of one acre or greater shall be considered rural for purposes of this requirement.
 4. The area of pollution generating impervious surface (driveways, parking areas) is assumed to be 1,000 square feet per lot for urban area residential subdivisions and 2,500 square feet for rural area subdivisions.
2. **A lower impervious area than required above may be assumed per lot, or for selected lots within a proposed subdivision if the lower impervious surface coverage is set as the maximum allowed through a declaration of covenant recorded for the lot and this is noted on the face of the final plat.**

The declaration of covenant shall be prepared by the applicant and recorded against each lot for which an impervious surface limit less than the standard amount is used in designing stormwater facilities for the project. The declaration of covenant shall be submitted to Thurston County for acceptance as to form prior to being recorded.

3. **Pervious surface coverage for proposed residential subdivision projects shall be estimated for each specific project as follows:**

1. Pervious surface coverage within proposed rights-of-way, private street tracts, other dedicated tracts, and other common use areas shall be assumed to be the entire area of the right-of-way, private street tract, dedicated tract or common area, except the assumed impervious portion and any portion in which native conditions are preserved by covenant, tract, or easement. New pervious surface shall be assumed to be 100% grass.
 2. The area of the subdivision project assumed to be forest shall only be those areas of onsite forest/shrub cover, irrespective of age planted at densities sufficient to ensure 80% canopy cover within 5 years and that are permanently protected by covenant, tract, or easement.
 3. For individual lots within residential subdivisions, the extent of new pervious surface shall be assumed to be the entire lot area, except the assumed impervious portion and any portion in which native conditions are preserved by covenant, tract, or easement.
 4. New pervious surface on individual lots shall be assumed to be 100% grass if located within the Urban Growth Area (UGA) and 50% grass/50% pasture if located outside the UGA.
4. **All impervious and pervious surface from individual lots shall be assumed to contribute runoff to the subdivision's stormwater management system unless flow control and/or runoff treatment BMPs are stipulated to be installed on individual lots. To receive credit for stipulated on-lot BMPs the following requirements must be met:**
1. Demonstrate through a lot-specific assessment that the BMPs stipulated for each lot are feasible and applicable according to the applicable requirements of the DDECM for that BMP. This lot specific assessment shall be included in the Drainage Plan and engineering plans submitted for the subdivision. The assessment shall include any soils

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reports, calculations, or other information necessary to select and properly apply the BMP(s).

2. The proposed BMPs may be conceptual showing only the information necessary to stipulate the type or types of BMP being proposed. For example, if the BMP is full dispersion, the approximate location of future impervious surface and the limits of the "native vegetation dispersion areas" would be shown.
3. The final plat map shall include necessary design information for the proposed BMPs on individual lots to include the dimensions of proposed devices, features, flow paths, volumes and/or areas expressed as unit amounts per square foot of impervious surface served or as a percentage of the lot size or impervious surface created. For example, the sizing of drywells or infiltration trenches shall be specified per square foot of contributing impervious area for downspout infiltration.
4. The following note, or an acceptable equivalent must be placed on the recorded documents for the subdivision:

"Single family residences and other improvements constructed on the lots created by this subdivision must implement the best management practices (BMPs) stipulated on the plat for that lot. Compliance with this stipulation must be addressed in the drainage plan submitted for review when application is made for a single family residential building permit for the lot. Alternative BMPs that provide equivalent performance may be proposed at the time of permit application for proposed lot improvements."

5. Final plat submittals for final recording of subdivisions, short plats, or large lot plats must include information documenting land area assumptions and/or conditions used in complying with stormwater management requirements for the project including the following:

1. State the assumed amount of added impervious and pervious surface per lot as determined through engineering review and in accordance with this policy. The assumed impervious surface may be expressed in terms of a percentage of lot coverage or square feet.
2. State the maximum amount of added impervious surface allowed for lots where the standard impervious surface assumptions are not used as described above.
3. Include pertinent restrictions and stipulations as they relate to individual lot BMPs proposed for the subdivision.
4. Include pertinent restrictions as they apply to any stormwater related tracts, easements or setbacks.

6. A subdivision project, including construction of homes on each lot is considered a single project with respect to applicable stormwater Minimum Requirements such as flow control and runoff treatment. Once the threshold is exceeded for a Minimum Requirement, then all future development of the plat must also demonstrate compliance with that minimum requirement.

A subdivision development including construction of homes on the lots created by the subdivision is considered a "common plan of development" for stormwater regulatory purposes. This means that stormwater minimum requirements apply to not only the subdivision

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infrastructure improvements but to development on each lot. For example if the threshold for Minimum Requirement #7, "Flow Control" is exceeded for the plat then development on each lot must comply with the flow control requirement. This may be accomplished by designing the plat stormwater system to include runoff from each lot or each lot may be required to implement flow control BMPs to meet the hydrologic flow control standard of Volume III of the DDECM.

7. **Table B.4 of Appendix B of Volume III of the DDECM lists percent impervious coverage for various residential subdivision densities. This table shall not be used for subdivision design and stormwater compliance but may be used in analysis of existing residential areas or for projected development of off-site properties when performing a quantitative downstream or upstream analysis as required by Minimum Requirement #12, "Offsite Analysis and Mitigation." The tabulated figures are useful in offsite analysis that includes large developed areas where making a detailed survey of impervious coverage is impractical, or for large undeveloped areas where future build-out must be estimated.**