Impervious Surface Limits

Low-Impact Development Code Update

Thurston County

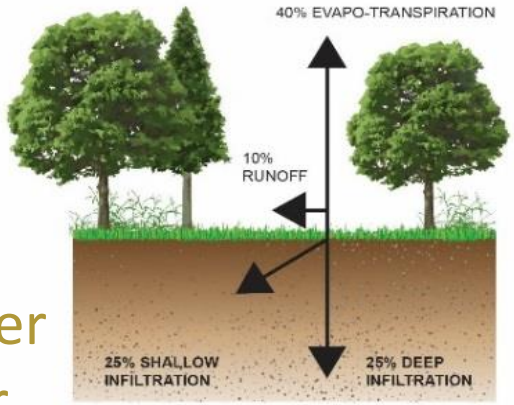
Community Stakeholder Group

November 24, 2015

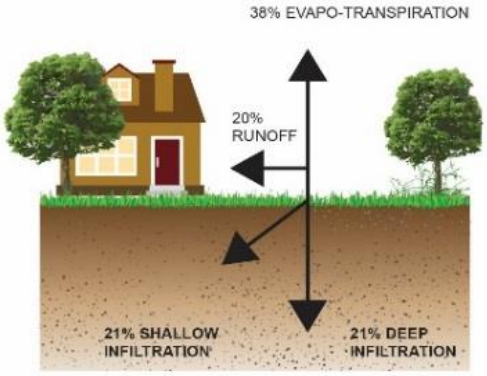
THURSTON COUNTY
WASHINGTON
SINCE 1852

Background

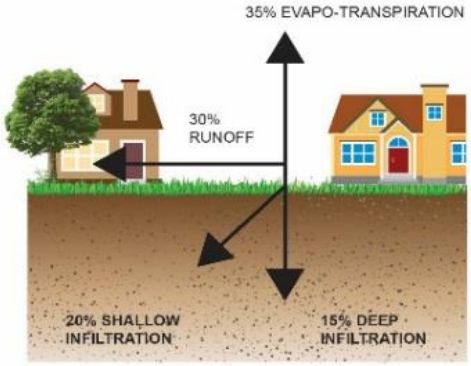
- Impervious surfaces prevent water from infiltrating into the ground and create larger volumes of stormwater runoff



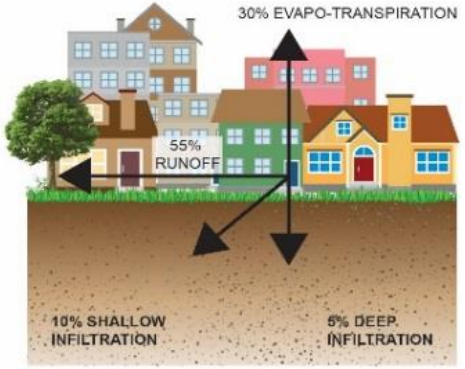
NATURAL GROUND COVER



10-20% IMPERVIOUS SURFACE



35-50% IMPERVIOUS SURFACE



75-100% IMPERVIOUS SURFACE

Focus on Impervious Surfaces

- Does the code include maximum impervious surface limits for different land use types?
- Can the maximum impervious surface limits be reduced in residential areas?
- Can a portion of the impervious surface be designated as non-pollution generating impervious surface?

Focus on Impervious Surfaces

- Thurston County currently has inconsistent impervious surface limits within the Zoning Code (TCC 20)
- Several residential zones allow up to 60% coverage by impervious surfaces – this is far more than is used for most development
- New guidance from Ecology focuses on all hard surfaces, as well as impervious surfaces

Focus on Impervious Surfaces

Small Lots

Average impervious area coverage on lots between 0.9 to 1.8 acres =15%

Range: 7 – 28%

This 1-acre property contains a large home, detached garage, and driveway. The impervious area is 19% or 8,200 square feet.

This 1.5-acre property contains a large home, detached garage, and driveway. The impervious area is 14.5% or 9,500 square feet.

Images are from 2012

Focus on Impervious Surfaces

Small/Medium Lots

Average impervious area coverage on lots between 1.8 to 4.6 acres =8%

Range: 3 – 14%

The 1.9-acre property below contains a large home with attached garage and large parking area. The impervious area is 10% or 8,200 square feet.

The 2.2-acre property above contains a large home, detached garage, and driveway. The impervious area is 10% or 9,900 square feet.

Focus on Impervious Surfaces

Medium Lots

Average impervious area coverage on lots between 4.6 to 9.5 acres =5%

Range: 2 – 12%

This 5-acre property contains a primary residence, garage, and driveway. The impervious area is 8.5% or 19,000 square feet.

This 5.5-acre property contains a primary residence, attached garage, and driveway. The impervious area is 4.5 percent or 10,000 square feet.

Images are from 2012

Focus on Impervious Surfaces

Large Lots

Average impervious area coverage on lots between 9.5 to 40 acres =5%

Range: 2 – 12%

The 15-acre property below contains a primary residence, driveway, and access road. The impervious area is 3.9% or 25,000 square feet.

The 25-acre farm above contains a primary residence and numerous access roads. The impervious area is 5.8% or 66,000 square feet.

Recommendations

- Use consistent definitions of “impervious surface” and “hard surface” across different areas of the code

- Develop consistent hard and impervious surface percentage limits for all zones
  - Square foot limit for smaller lots
  - Preexisting surfaces and structures can be replaced
  - Additional 5% allowed for farm and forestry buildings
  - Pervious surfaces calculated at 75% of total area
  - Hard surface limit can be increased with a special use permit

Recommendations

- Credits (residential & resource zones only)
  - Hard surface limits increased by 50%:
    - Soils on site allow for full dispersion of stormwater runoff
    - Landscape plan shows retention of existing native trees and vegetation on at least 20% of the site.
    - The development is a Planned Residential Development (PRD) or Planned Rural Residential Development (PRRD)
  - Hard surface limits increased by 100%:
    - Landscape plan shows retention of existing native trees and vegetation on at least 65% of the site.

Recommendations

Vegetation/ Restoration Credits

- Additional 1,000 square feet of hard surfaces above the limit if:
  - 6,500 square feet retention of native trees and vegetation that are outside of any designated critical areas or buffers.
  - 3,250 square feet retention of native trees and vegetation connecting designated critical areas or buffer
  - 3,250 square feet replanting of native trees and vegetation within a riparian or wetland buffer area.

Discussion

- What do you think of the recommended changes to impervious surface limits and credit options?
- Are there additional incentives or credits that would be more effective or desirable?
- Are limits for commercial and industrial zones too constraining?