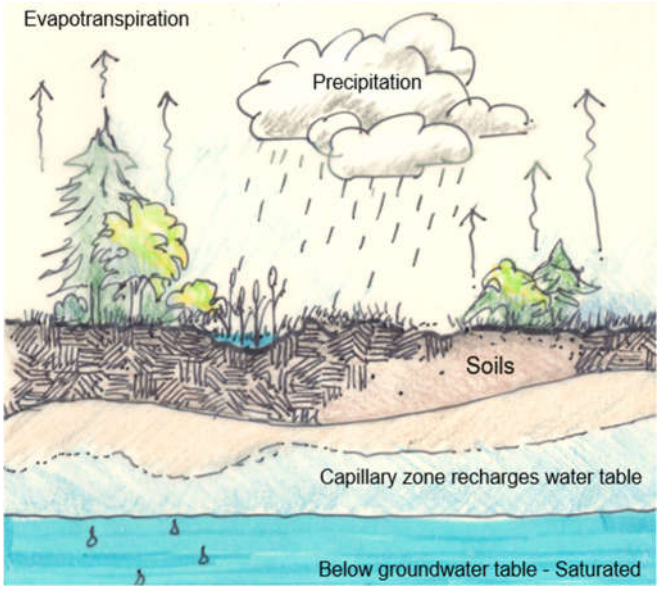
CITY OF SALMONARM

Parcel Permeability Regulations FAQs

What is parcel or land permeability?

"Permeable surface" means a porous material that enables storm-water to be absorbed and percolated into subsurface soils, such that it will not run-off, collect, or pool in the course of normal storm events. Thus grassed areas, planting beds and xeriscape (over soils) is permeable while convential roofs, concrete or asphalt driveways and solid surface decks are not.



Where and how is it regulated?

The Zoning Bylaw regulates how much of a parcel, at minimum, must be permeable by zone Check what your property is zoned and that zone's provisions for the minimum required. Bylaw general regulations "*Permeable Surface Parcel Coverage*" provide for the purposes of calculating permeable surface coverage, measured horizontally, the following are <u>not</u> permeable surfaces:

1. buildings and roofed structures (except specific green roofs)
2. asphalt, concrete, grouted pavers, and similar hard surfacing
3. non-permeable artificial turf and similar
4. tongue in groove and solid sheet vinyl, fibreglass, wood or similar decking

And for clarity, structures that retain water such as swimming pools and ornamental ponds are considered permeable.

All impacted development and building permit applications must submit accurate scaled site plans that clearly identify, describe, and label the proposed surfaces of a parcel along with a calculation of coverage and the % that is permeable vs. non-permeable.

Under Official Community Plan (OCP) Development Permit Area policy, the extent of land that is permeable versus hard surfaced will be considered. Applications for commercial development, especially on small parcels in the downtown core, may approach zero permeability while residential and suburban property with excessive hard surfacing are prohibited and may not be granted a Permit. Note that at this time, not all zones in the Bylaw have permeability requirements.

Why do municipalities have permeability requirements in bylaws?

Permeable soil regulations, common in cities across BC, are in effect for the following reasons:

- Salmon Arm's City piped stormwater system capacity is finite and as development happens (with it more building roofs, parking lots, driveways, sidewalks, etc.), there is a progressive increase in stormwater volumes looking for a way to drain.
- Stormwater that is piped directly off roads and similar hard-surfaces contains more non-point pollution (i.e. heavy metals from vehicles; nutrients from fertilizers; fecal/refuse matter) that runs unfiltered directly into our streams and lakes; whereas, if it percolates through soils into the groundwater, there is opportunity for natural filtration processes to do their work.
- Water storage in the ground and in aquifers reduces flood risk as the infiltration process slows down the impact of an extreme rain event – it holds the water like a sponge, releasing it more gradually than a piped system.
- Percolation/permeability provide an opportunity for viable trees and other planting to give us better air quality and shade.

What if my property is mostly hard-surfaced and does not have the required permeability %?

This means that your property is non-conforming to the Bylaw. While it is lawful non-conforming (i.e. "grandfathered"), you cannot increase the extent of roofs, concrete, or other hard-surfacing further. For example, you cannot build a new accessory building without addressing the % of permeability across your land. This may mean replacing a concrete deck with a slatted deck or asphalt with permeable pavers or constructing a green roof.

What do I need to submit to the City to calculate the % of permeability on my property?

You always need to submit an accurate scaled and dimensioned site plan for development applications but add to this, the indication of ALL surfaces that are porous vs hard and do not readily enable water to infiltrate soils. Along with the site plan, the calculation of what the percentage (%) is permeable and how the math resulted at this number. See the explanatory site diagram on the 2nd page.

Where can I find more information?

To find your property's zone, go to the Zoning Map:

For the City Zoning Bylaw go to: https://www.salmonarm.ca/110/Development-Services

Contact City of Salmon Arm Planning Services at 250.803.4000 for general info.

Permeability vs. Non-Permeability & Building Coverage Calculation – example

Calculations:

Parcel Building Coverage and Permeable vs. Non-Permeable

Assume parcel is 20m x 35m = 700m^2

Total bldgs parcel coverage

Bylaw max @ 45% x 700m^2= 315m^2
Proposed footprint=202*m^2 so 28.9%
*Dwelling 120 + carport 32 + ADU 50 = 202

ADU parcel coverage

Bylaw max @ 20% x 700m^2= 140m^2
Proposed footprint=50m^2 so 7.1%
(ADU may be 2 storey but use footprint)

Permeable surface coverage

Bylaw minimum @40% x 700m^2= 280m^2
Proposed permeable surfaces (PERM):

Bldgs	202m^2
Driveway	55m^2
Pool concrete deck	33m^2

Total Non-PERM surfacing = 290m2
700m^2 parcel area less 290m^2 = 410m^2
& permeable area @ 410m^2 = 58.6%

This exceeds minimum of 40% and so complies with the Zoning Bylaw.