

CALGARY RIVER VALLEYS

www.CalgaryRiverValleys.org

We are the voice of our rivers

Land Use Impacts on Fish Creek

How does Urban Development impact rivers & creeks?

MORE WATER FASTER

Urban growth changes the way rain runs to rivers and streams

Developed landscape

Rain pours more quickly off cities and suburbs

Natural Landscape

Grass, trees, brush, and soil help soak up rain and slow runoff

Trees break the momentum of raindrops pelting the ground so there is less erosion

Pavement and rooftops shed water

Indentations in the landscape pool water

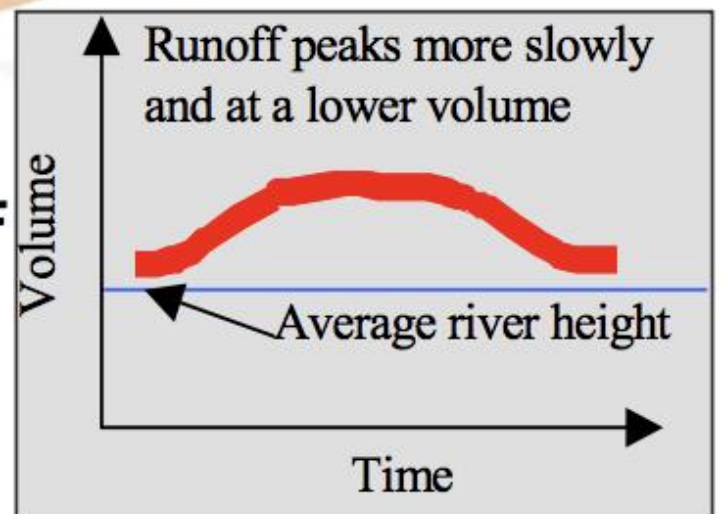
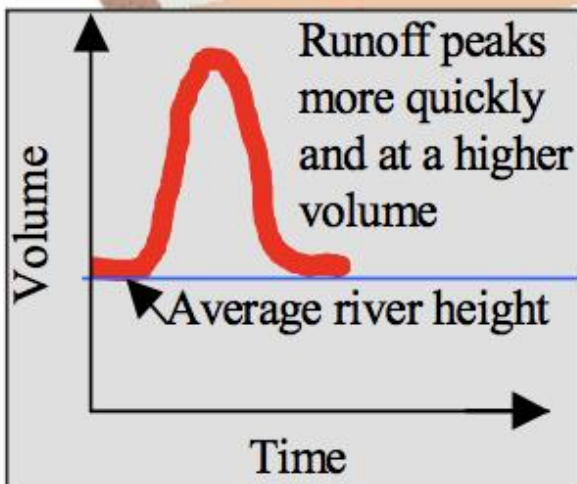
Vegetation helps build organic, absorbent soil

Streets act as streams

Tree roots anchor the soil

Drains deliver water directly to rivers

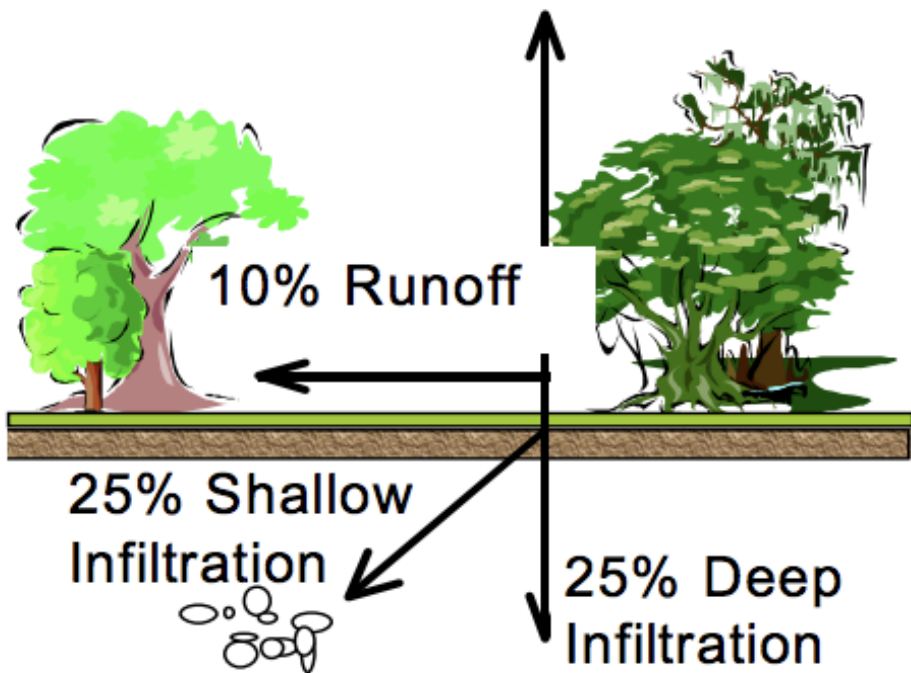
RUNOFF



In general, Urban Development = MORE water, faster, to creeks & rivers, and LESS water to ground springs & wetlands

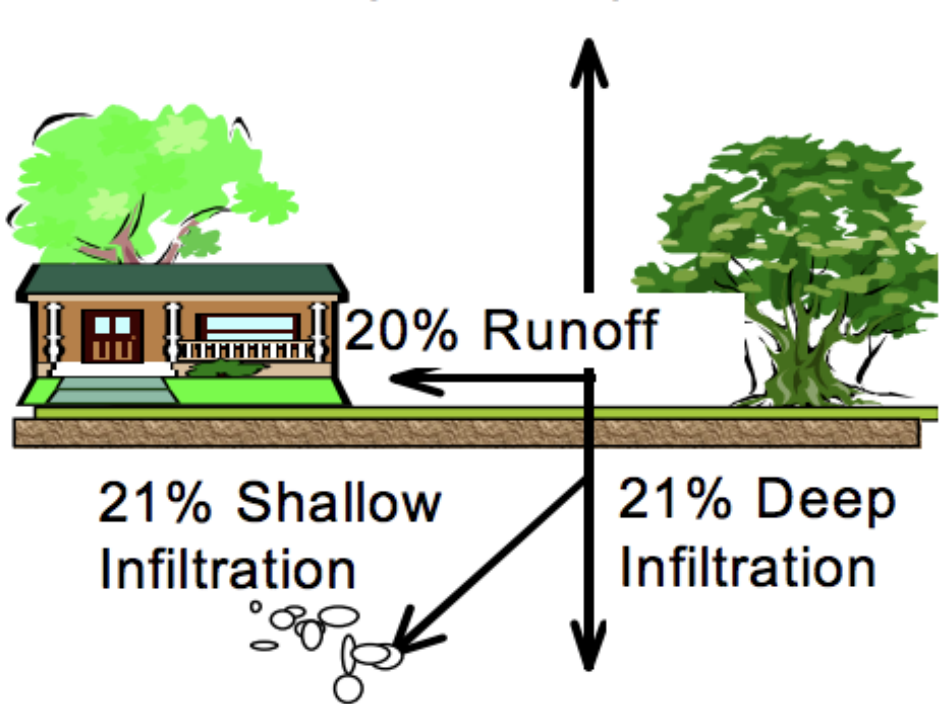
Natural Ground Cover

40% Evapo-Transpiration



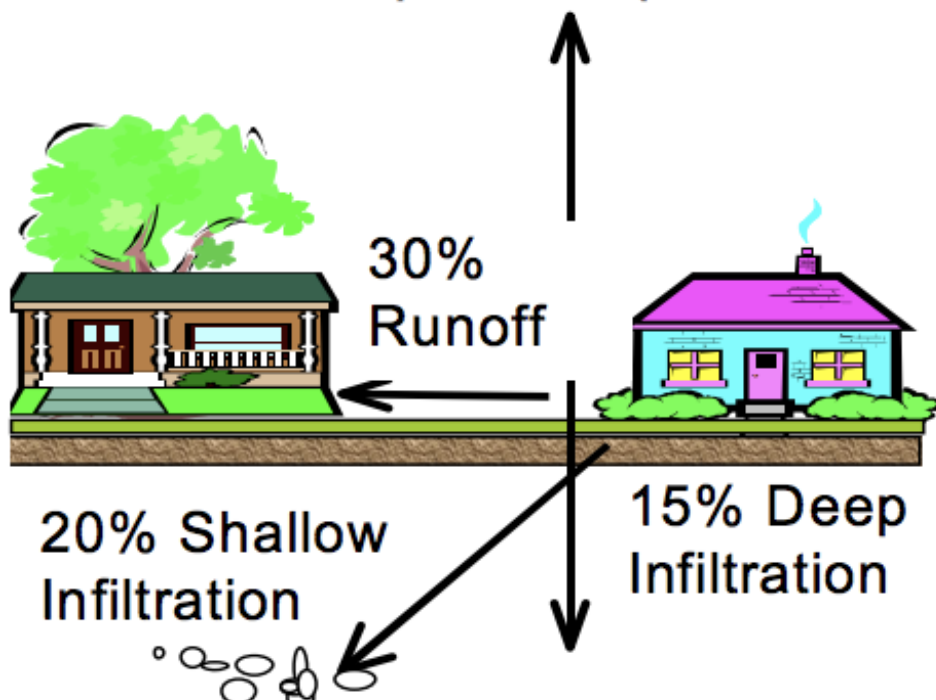
10-20% Hard Surfaces

38% Evapo-Transpiration



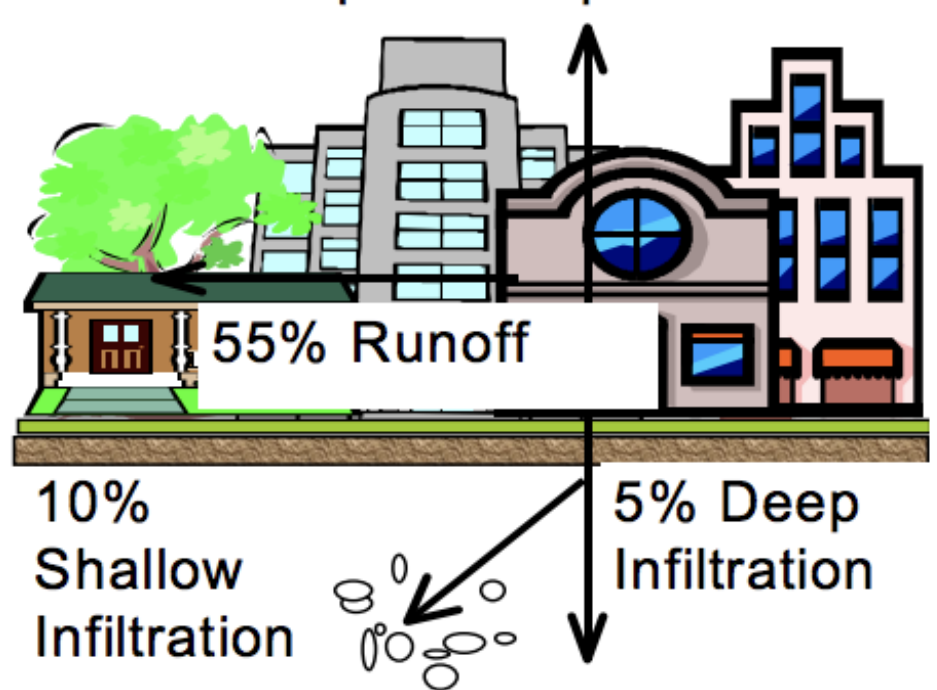
30-50% Hard Surfaces

35% Evapo-Transpiration



75-100% Hard Surfaces

30% Evapo-Transpiration



Graphics from "How Urbanization Affects the Water Cycle", by California Non-Native Estuarine and Marine Organisms (NEMO) Partnership – %'s will vary somewhat with local climate and soil.

Providence Area Structure Plan (ASP) – Upstream of Fish Creek Park

- Approved for 70% hard surfaces (roads, driveways, buildings, etc.)
- Also, approximately 50% of water from this area would naturally flow south to Pine Creek, but the developer plans for 100% to be piped to Fish Creek
- **How do you think Fish Creek will be affected?**

