



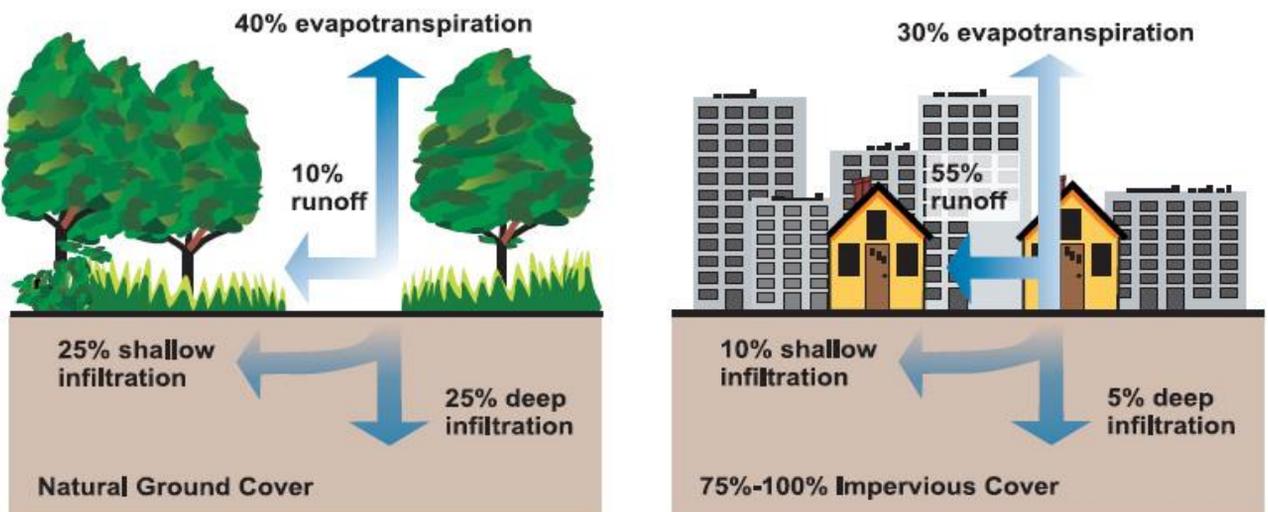
Maximum Lot Coverage

Maximum Lot Coverage

- Regulating maximum lot coverage to reduce impervious cover can reduce climate impacts of stormwater flooding, erosion and excessive heat.

Maximum Lot Coverage is a regulatory tool to limit the maximum area of a lot allowed to be covered by impervious surfaces, where water cannot effectively infiltrate the underlying soil. Impervious surfaces include buildings, driveways, parking areas, and other surfaces like patios, pools, sheds, roof overhangs and decks that block water from passing through to the soil below.

The increase of impervious surfaces throughout natural landscapes creates negative environmental impacts. Water cannot naturally soak into impervious surfaces; therefore, it accumulates, collects pollutants, and then flows into waterways causing harm to ecosystems and increasing flood risks. Urban and coastal watershed development has led to the replacement of natural landscapes by water resistant surfaces. As impervious surface area increases, stormwater runoff, flooding, erosion, urban heat, and water quality impacts also rise. Limiting the maximum area of impervious surface allowable on a developable lot can be a tool for climate resilience to reduce these impacts in vulnerable areas.



Credit: U.S. Environmental Protection Agency

Maximum Lot Coverage as a Tool for Municipal Climate Resilience

In areas experiencing development pressure, regulating the allowable maximum lot coverage per parcel combines climate resilience with effective stormwater management and may increase open space that can be used to control flooding, space for public recreation, or tree canopy growth and preservation. Maximum lot coverage can be tiered by zone to encourage developmental density in areas less vulnerable to climate change, and on transit corridors to help meet affordable housing and climate resiliency goals. Maximum lot coverage could be used in a watershed approach using overlay zones to regulate coverage limits within impacted watersheds and lessen flood risk. Maximum lot coverage ordinances can be tools to promote the use of permeable pavement, inclusion of greenspace, or stormwater mitigation features.

Stormwater Authorities/Utilities

Under state legislation passed in 2021, any CT municipality may now establish a Stormwater Authority to collect user fees for managing municipal stormwater runoff based on the amount of impervious surface area. While the fees for individual homeowners are usually modest, they can be reduced by adoption of mitigation to reduce impervious surface area or process stormwater onsite through use of pervious pavement, bioswales or other techniques. In tandem with maximum lot coverage regulation, establishing a stormwater authority provides funding to address stormwater flooding and incentivizes low impact development, permeable pavement, and modern onsite stormwater management.

See CIRCA fact sheet on [*Stormwater Authorities*](#) for more information.

Determining Maximum Lot Coverage

Maximum lot coverage can be calculated by the square footage of impervious surface divided by the total lot area. This percentage can be limited by municipal regulation on allowable impervious cover per lot. Municipalities can decrease this percentage to lessen impervious cover and its role in flooding and urban heat. This can be important in watersheds that see increased precipitation and in densely developed areas with heat island effects as climate change impacts increase.

Maximum Lot Coverages can be calculated by considering a range of different structures or surfaces depending on how impervious cover is defined. A restrictive approach tends to include only permanent structures, a moderate approach includes driveways and patios, and the most inclusive approach considers pools. Depending on current and anticipated impacts, a municipality can determine which structures and surfaces are considered impervious and what approach will enhance stormwater management and the resiliency to other climate impacts.

Maximum Lot Coverage & Affordable Housing

While maximum lot coverage ordinances can be tools to promote the use of permeable pavement, inclusion of greenspace, or stormwater mitigation features, these ordinances have also been used to limit multifamily or affordable housing development, or to retain “low density character.” When considering ways to encourage use of resilient design, towns should be aware of other impacts of zoning ordinances and avoid limits, like maximum lot coverage, in areas that disproportionately and negatively impact vulnerable communities or create barriers to equitable use without significant benefits that cannot be accomplished in other ways. Land use law seeks to balance interests, including increased affordable housing options and managed environmental concerns by reducing impervious pavement, flooding, and sprawl.

Mitigation Strategies for Impervious Surfaces

Municipal zoning codes should include mitigation strategies for lessening the impact of impervious surfaces. Site and landscape design standards are a way to incorporate climate resilient features that can reduce flooding, slow stormwater, and allow for shading to reduce surface temperatures. Stormwater management regulations also apply and could be met with the following mitigation strategies to reduce impervious surfaces and the associated climate impacts.

Low Impact Design features

Low Impact development uses a nature centric lens, where structures are designed to take advantage of site-specific characteristics to reduce energy use and avoid negative impacts to water and soil. Incorporating mitigation features into design like green roofs and bioswales assists with onsite stormwater infiltration and processing. Low impact design features can reduce impermeable surface area and lower maximum lot coverage calculations.



Permeable Pavement

Permeable pavement with a porous surface, or spaces between blocks for infiltration, is an alternative for better stormwater management. These surfaces allow for water to run through it as opposed to settling on top and can include an underlying stone reservoir. This reservoir allows for the water to slowly infiltrate into the soil and acts as a filter to reduce pollutants. Although not as strong or cost effective as traditional pavements, eco-friendly pavement can be used for driveways, sidewalks, and lower traffic areas, to assist with water drainage.



Vegetative Buffers

Regulating the inclusion of vegetative buffers in highly impervious areas can reduce flooding as well as intercept heavy rainfall, allowing stormwater runoff to infiltrate onsite. Increasing tree canopy cover can also offer urban heat relief and reduce cooling costs. For densely populated urban areas, the *New York Model Local Laws* suggest that property owners should plant one tree for every 200 sq ft of impervious surface to lessen negative effects.



Maximum Lot Coverage Calculations in Example

The following examples highlight how coverage can be calculated differently depending on what is included under the term “*impervious cover*.”

Bradenton Beach, Florida

Some communities vary the amount of impervious cover allowed by use type. Bradenton Beach, Florida allows 40% impervious cover on residential lots and 70% impervious cover on commercial lots. This moderate approach does not count open swimming pools as impervious cover. Visit [Lot-Coverage-Calculation-Worksheet-2021-PDF](#) to see an example calculation worksheet.

Ridgefield, Connecticut

Ridgefield, Connecticut explicitly ties lot coverage to stormwater and drainage requirements in new construction and redevelopment in 2020 [adopted regulation](#). Maximum impervious coverage thresholds by lot area trigger stormwater management actions including use of low impact development and site design best management practices. However, previously adopted maximum lot coverage regulations apply only to buildings and do not include other impervious surfaces like driveways, pools, decks, or patios. This could lead to confusion about maximum lot coverage allowed.

Universal City, Texas

Universal City, Texas has a Lot Design Standards Table, pairing residential and commercial districts with applicable maximum lot coverage and impervious coverage. Maximum impervious cover varies between 30%-55% depending on the zoning district and uses the most approach including swimming pools and impervious decks in impervious cover calculations. See [Maximum Lot Coverage Worksheet](#) for comparison.

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