

CITY OF ALPHARETTA WATER CONSERVATION PERMIT REQUIREMENTS

Planning Goal – Value all water on the site. Site planning and design should be based on the understanding that water is a valuable natural resource that should be used conservatively, cleaned, and reused on-site.

SUMMARY OF REQUIREMENTS

The City of Alpharetta requires a minimum of 10% water use reduction for new construction projects. The reduction plan must be presented with the appropriate submittal application and will be reviewed and approved as part of the permitting process.

- I. **RESIDENTIAL CONSTRUCTION:** Property owners may choose to provide a water assessment of existing usage and/ or proposed reductions. Contractors may provide low-flow fixtures and landscaping strategies as listed.
- II. **LDP:** Choose option(s) that are appropriate to the project from the water conservation strategies listed below, resulting in a minimum 10% reduction.
- III. **COMMERCIAL BUILDING:** Provide project matrix of water use data in gallons of water consumed per capita per day as per the city matrix (electronic copy available at www.alpharetta.ga.us). Demonstrate typical usage and strategies for achieving 10% reduction.
- IV. **ONGOING:** Provide education materials to property owners, leasing agents, facility managers and occupants.

I. RESIDENTIAL BUILDING PERMIT REQUIREMENTS*

*required when improvement or renovation is valued at 50% or greater of the existing house value and/ or when a renovation includes a kitchen, bathroom and/or a water heater.

Residential Renovations Pre- 1994

1. Replace all fixtures with low-flow plumbing fixtures: 1.3 gpf or less water closets, 1.5 gpm lavatory faucets & 2.0 gpm showerheads.
2. Provide water assessment (www.northgeorgiawater.com)

Residential Renovations Post- 1994

1. Provide water assessment (www.northgeorgiawater.com)
2. Install 1.3 or less gpf water closets, 1.5 gpm lavatory faucets & 2.0 gpm showerheads.
3. Install interior gray water system. OR
4. Choose option(s) that are appropriate to the project from the site water conservation strategies listed under new construction, resulting in a minimum 10% reduction.

Residential New Construction

1. Install 1.3 or less gpf water closets, 1.5 gpm lavatory faucets & 2.0 gpm showerheads.
2. Install interior gray water system.
3. Choose option(s) that are appropriate to the project from the site water conservation strategies listed below under II under new construction, resulting in a minimum 10% reduction.

All residential customers should consider efficient locations of water heaters and installation of low volume dish washers and high efficiency clothes washers.

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II. LAND DISTURBANCE PERMIT SITE REQUIREMENTS

Strategy 1- Water Conservation Basics

The following items are required for all landscape plans.

- Select vegetation and site design components that are adapted to the site's climatic conditions.
- Achieve multiple water uses simultaneously. Design infiltration basins that are attractive and provide habitat.
- Mulch planting beds to minimize evaporation and maximize water retention. Maintain 3 inch minimum mulch layer to the dripline of trees and shrubs.
- Protect soils to optimize water retention and support healthy plants. Use soil improvement techniques to break compaction and increase infiltration rates. Protect soils and vegetation to enhance absorption, retention, and infiltration of precipitation.
- Provide proper placement of plants to help keep urban environments cooler, reducing needs for air-conditioning electricity and water use associated with electricity.
- Provide adequate space for vegetation growth.
- Group plants with similar water needs together to maximize irrigation efficiency.
- Develop short- and long-term sustainable maintenance plans.

Strategy 2- Use Water Conservation Planning Techniques

10% credit issued for combined use of all of following items:

1. Maintain large areas of existing vegetation which provide shade and evapotranspiration to cool buildings. Protect vegetation canopy and forest leaf litter. Install multilayered planting schemes that replicate natural sites with both canopy and vegetative ground cover. Large areas must be 10% greater than code requirements.
2. Limit turf areas. Where turf is desired, select drought-tolerant, low-nutrient lawn species that will reduce maintenance requirements.
3. Utilize water-efficient irrigation systems that use drip or subsurface delivery methods, tailor irrigation to weather conditions, and measure soil moisture.

Strategy 3- Eliminate Potable Water Use In The Landscape. A large portion of water drawn from municipal systems is used for purposes that do not require high- quality water, such as lawn and garden irrigation.

10% credit issued for any one of the following 3 systems:

1. Collect and filter greywater for on-site non-potable water needs such as irrigation, cleaning outdoor surfaces and water features.
2. Collect and filter water from building roofs and use cisterns or rain barrels to store harvested rainwater.
3. Collect and filter condensation water from air conditioning systems.

Strategy 4- Design grading and plan layout to capture and slow runoff.

10% credit issued for combined use of all of the following.

1. Use landscape-based water treatment methods such as dry wells, vegetated swales instead of curb and gutter systems, raised inlet rims, vegetated filter strips, and infiltration facilities.

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Install a rain garden or small vegetated catchment areas which filter rainwater and increase groundwater recharge by capturing excess water. Individual infiltration ponds on residential lots must be approved by the Engineering Department.

2. Use pervious surfaces that allow water to infiltrate soil.
3. Protect soils from compaction during site construction by restricting machinery to designated zones. Restore infiltration capacity and reduce compaction of soils by breaking up compaction, adding organic matter, and planting vegetation.
4. Raise stormwater inlets in planting areas to allow water to soak into the soil.

III. COMMERCIAL BUILDING PERMIT REQUIREMENTS

Calculate usage and reductions with the attached spreadsheet.

Resources:

www.conservewatergeorgia.net

Georgia conservancy

US Green Building Council

Arizona, California, Florida, Maryland, Massachusetts, New Hampshire, New Mexico,

North Carolina and Oregon. Local and regional programs are: Albuquerque, New Mexico; Cary,

North Carolina; Irvine Ranch Water District, California;

Phoenix, Arizona Urban Water Management Planning Act, model conservation ordinances and promotes the use of recycled water (CA Statute 2003).

Atlantis® Water Management System RainTank cistern