

Appendix II. Lot Drainage Requirements – Citywide

Topography and Grading – Changes to the topography of any site must be approved by the Department of Public Works. All lots must be developed and graded such that stormwater drains to the adjacent street, an existing natural feature that conveys stormwater or a City drainage structure after on-site storage requirements are met. Pre-construction and post-construction topographical surveys (not boundary surveys) are required unless this requirement is waived by the Director of Public Works.

On-Site Storage – Impervious Surface Area is limited to 50% of a lot. If an increase in the impervious surface coverage (building footprint, driveways, sidewalks, pool decks, etc.) on a lot is planned, on-site storage of stormwater run-off is required, such that there is no increase in the rate or volume of stormwater runoff from every developed or redeveloped Parcel. Documentation and calculations to demonstrate compliance must be provided. Development projects with in-compliance retention or detention systems permitted by the St. Johns River Water Management District (SJRWMD) that collect and control stormwater run-off are exempt from this requirement. On-site storage must be at least one foot above the wet season water table and below the off-site overflow point.

Where on-site storage is not required, stormwater treatment must be provided for a volume equivalent to either retention or detention with filtration, of the first one-half (1/2) inch of run-off (V (CF) = Lot area (SF) x 1/2 (in) x 1 (Ft)/12 (in)).

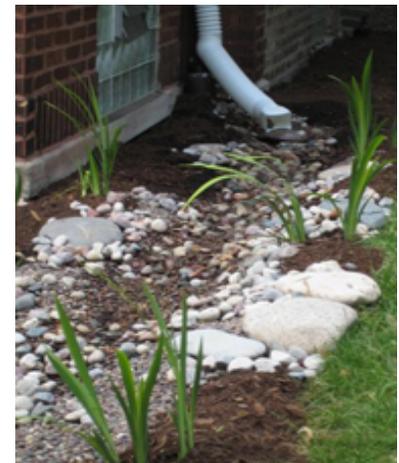
Flood Plain Storage – There must be no net loss of storage for areas located within the 100-year floodplain. Site grading must create on-site storage to mitigate for filling of the on-site volume. This storage is in addition to the storage required for the increase in Impervious Surface Area. The floodplain designation of areas may be determined by viewing the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) available at the Building Department in City Hall. This information may also be found on the City of Jacksonville's GIS website at: <http://maps.coj.net/jaxgis>

Consider adding a rain garden.

Rain gardens are part of a growing movement intended to help sustain the underground water supply and reduce the amount of runoff that can pollute lakes, rivers, creeks and beaches. Rain gardens are man-made depressions in the ground that collect water and minimize the volume of water entering conventional storm drains and nearby waterways. This process also improves water quality by permitting stormwater to be filtered and slowly absorbed by the soil. These depressions are filled with sand or soil and plants, which then provide a place for stormwater to collect during and after rainfalls for the purpose of increasing filtration and percolation to help replenish the Florida Acquirer. A rain garden should be placed so that impervious surfaces of a lot will drain into the depression area.

Residents are encouraged to construct swales planted with vegetation along the front of their property to catch runoff along with any silt, fertilizers or pesticides that are carried by this surface runoff before it enters the City's stormwater collection system. These swales use natural landscaping to soak up runoff along a street and naturally remove pollutants and high levels of nitrogen as the runoff water percolates through the soil. While rain gardens work best along streets that have no curbs or gutters, they are also effective when used on guttered streets.

Rain gardens help in other ways as well, especially when shrubs or trees are included in the landscape plant material. The roots of these plants, which can be up to 15 feet deep, create channels that let stormwater from streets, sidewalks and rooftops flow into the ground and eventually into the aquifer that supplies water to City residents for drinking and other uses. Water collected from the roofs of homes may also be piped into the rain gardens.



Runoff directed into rain gardens may be used to meet on-site storage requirements for excess runoff. Credit will be given for the open volume of the swale (above ground) and a percentage of credit will be allowed for in-ground storage in the volume between the ground surface and one foot above the wet season high water level, which is generally 30% for sand and soil mixtures. Contact the City's Department of Public Works at (904) 247-5834 for more information. The following website is also an excellent source of information about rain gardens. <http://www.raingardennetwork.com>