



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

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Division of Public Health

To: North Carolina Environmental Health Specialists

From: Jon Fowlkes, On-Site Water Protection Branch Head

Subject: Updated Design Flow Reductions for Family Dollar Stores

Date: September 7, 2021

Based on additional data sets provided for Family Dollar Stores, the following adjusted design daily flows may be used:

- Up to 8,000 square feet of retail sales floor – 200 gpd
- Retail sales floor from 8,001 square feet to 10,000 square feet – 260 gpd
- Retail sales floor from 10,001 square feet to 12,000 square feet – 320 gpd

The adjusted design daily flows can only be used with the following conditions:

1. Tanks must be sized on the un-reduced design flow (120 gpd/1,000 square feet of retail space area).
2. Use of low-flow fixtures such as spring-loaded or automatically activated faucets with flow rates of one gallon per minute or less, low-flow urinals which use 0.5 gallons per flush or less, and low-flow toilets which use 1.28 gallons per flush or less. Cut sheets of the fixtures must be provided.
3. A floor plan of the building must be provided, identifying the retail sales floor square footage.
4. If a pump system is used, a Branch-approved flow equalization control panel must be used. The flow equalization control panel limits the amount of effluent discharged to the dispersal field to be no more than the maximum adjusted design daily flow. When the lag float is triggered, only one timed dose is delivered. Non-flow equalization control panels are programmed to discharge all effluent in the pump tank to the dispersal field when the lag float is triggered.
5. The tenants are prohibited from disposing into the wastewater system any chemical cleaners or any other compound which may be harmful to the bacteria in the wastewater system, including but not limited to quaternary ammonia compounds.
6. The tenants are prohibited from disposing of any food waste (solid or liquid) into the system.
7. The improvement permit, authorization to construct, and operation permit issued must specify a Family Dollar store. In the case of multiple stores, the Family Dollar store must be specifically identified. Any change to a facility designated as a Family Dollar store would require a re-evaluation of the design flow and the system design, and revised permits would have to be issued.
8. We recommend the installation of a water meter for the Family Dollar store.

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