Swales

Issue: Some swales in subdivisions are not draining within 24 hours of a one-hour 100-year event. Sometimes subdivision developers design, construct and test stormwater-treatment swales the city accepts. Then, building contractors construct a residence on a lot, often driving through or stacking materials in swales. Subsequently, homeowners and occupants neglect, landscape and/or over-irrigate swales.

Rule: Before a final occupancy is granted, the design engineer or builder shall certify the stormwater systems was constructed in substantial conformance with the approved plans, and best management practices are in place and functional (Middleton City Code 7-7-4(B)(1)(c)).

It shall be unlawful to drive through, stack or pile material in, fill-in, modify or otherwise damage swales that were engineered for stormwater treatment purposes. (Middleton City Code 8-1-21).

Application: The City of Middleton Idaho (City) is regulated under the National Pollutant Discharge Elimination System (NPDES) administered by the Environmental Protection Agency (EPA) as authorized by the United States Clean Water Act.

The City owns and operates a regulated small municipal separate storm sewer system (MS4) within the Nampa Urbanized Area according to: City of Middleton NPDES Stormwater Permit No. IDS-028100 (Permit) issued by EPA, the Idaho Standards for Public Works Construction (ISPWC), and the Middleton Supplement to the ISPWC.

Swales are engineered to collect and hold stormwater runoff from public roads until pollutants are removed naturally as stormwater percolates through the soil. Swales are either in the City’s road right-of-way or are in an easement granted to the City by the developer.

Swales in subdivisions were sized, shaped, designed, tested, and certified by the developer’s engineer, who certifies the swales were constructed according to the federal, state and city regulations as the stormwater management system for roads in the subdivision.
A swale is tested and certified by sandbagging the swale at the property boundary, filling the swale with water, allowing the water to percolate into the soils for 24 hours. A swale that drains within 24 hours is determined to be functioning properly.

A swale inspection must be requested by calling 208-585-5805 so that the building inspector can witness the swale being filled with water. The building inspector will re-check after 24 hours for proper drainage. If the swale fails, it will need to be rehabilitated and pass prior to certificate of occupancy being issued.

**Determination:**

Developers construct and test swales on all subdivision lots to certify the swales are functioning properly before the city approves the subdivision's final plat.

Builders re-test and re-certify the swale on the lot is functioning properly before the city approves a certificate of occupancy for the residence on the lot.

Landowners and occupants maintain swales adjacent to their properties according to the Middleton Supplement to the ISPWC.

Darin Taylor, Mayor  
(Building Official position is vacant)  

Date: June 13, 2019