

ARCHIVE: Archived due to the 2009 rule revision. Refer to VA30007.09.036 for the updated document.

TITLE: Use of Appropriate Ground Water Recharge Rate in SESOIL Modeling When Manmade Cover Is Present

DATE

EFFECTIVE: January 2007

HISTORY: Update of VA30007.97.003 - Revision was necessary to clarify the guidance within the document. However, the technical content of the archived TGC document remains accurate.

KEYWORDS: Recharge rate, modeling, SESOIL, fate and transport model, leaching

RULE/

AUTHORITY: OAC 3745-300-07(F) and 3745-300-09(D)(3)(b)(iv)(b)

QUESTION: Can SESOIL be calibrated to lower than naturally expected recharge rates if pavement or buildings are present?

ANSWER: Unless, an appropriate engineering control (e.g., a cap) is invoked, SESOIL modeling should be calibrated to a recharge rate specific to the climate and the soil type at the property. SESOIL recharge rates should **not** be based on reduced recharge due to the presence of any type of cover which is not otherwise identified as an engineering control and covered under an Operations and Maintenance (O&M) plan and agreement. Therefore, if the volunteer should invoke an engineering control and prepare an O&M plan before utilizing a reduced recharge rate for SESOIL modeling. If an engineering control, such as a cap, is invoked, the recharge rate should take into account the specific engineering control employed and appropriate documentation of how the recharge rate was determined should be included with the NFA letter. Refer to TGC document VA30007.05.003 for guidance on acceptable recharge rates for SESOIL modeling for various soil types.

SUMMARY: Unless an engineering control, such as a cap of some form, was invoked, the SESOIL modeling must be performed using a recharge rate specific to the climate and soil type of the area. If the volunteer invokes an appropriate engineering control that is covered under an O&M plan, then a reduced recharge rate may be used provided that appropriate supporting documentation regarding the determination of the recharge rate used is included in the NFA letter.

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CONTACT:

For any questions concerning this issue, please contact the VAP central office at (614) 644-2924.