

Mounding analysis for 24819 by JTL on 9-27-22

Criteria:

Length of field:

180 feet

Width of Field:

52 feet

Rate of application:

9,900 GPD over 9,906 s.f. area

9,900 gal = 1590 c.f.

1590 c.f. / 9,906 s.f. = **0.16 ft/day**

Aquifer hydraulic conductivity:

148 ft/day is used, which is the average hydraulic conductivity of coarse sand per DEP guidelines, and is corroborated by in-situ perc. Testing at <2 min/inch.

Fillable Porosity:

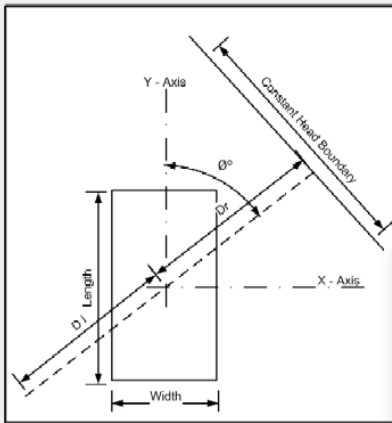
0.27 was used for coarse sand per DEP guidance

Initial Saturated Thickness:

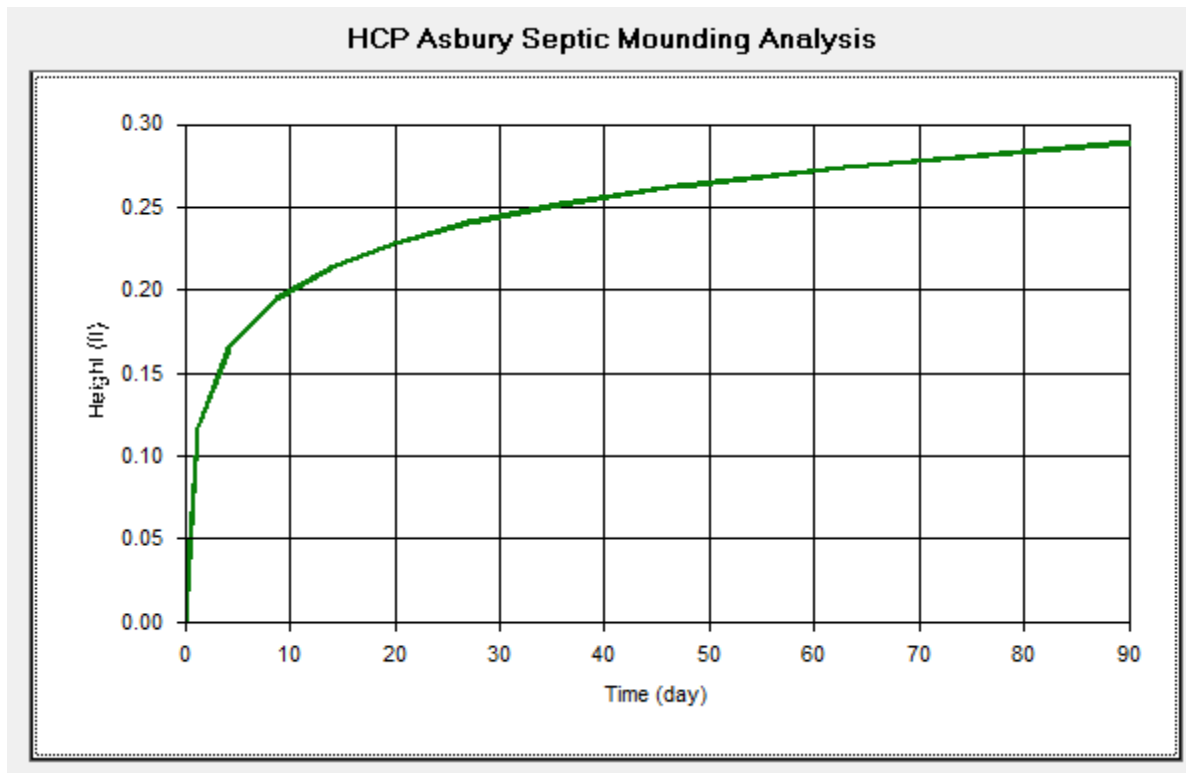
soil testing on site has discovered no refusal on site, an assumed saturated thickness of **20'** has been used.

Input

Height Vs. Distance Calculation	Height Vs. Time Calculation	Clear All Entries
User Data		Simulation Characteristics
Company Name: Hancock Associates		Plotting Location X-Coordinate: 0
Model or Project Title: HCP Asbury Septic Mounding Analysis		Plotting Location Y-Coordinate: 0
Analyst Name: Jacob T. Lemieux		Duration of Application: 90
		Total Simulation Time: 90
Units		
Units of Length: ft		
Units of Time: day		
Disposal Area/Aquifer Characteristics		
Length of Disposal Area (L): 180		
Width of Disposal Area (W): 52		
Constant Head Boundary Exists? <input type="checkbox"/>		
Opposite Side Plot Distance (DI): 25		
Distance to Constant Head Boundary (Dr): 25		
Rate of Application: 0.16		
Angle from y axis (ϕ): 90		
Aquifer Hydraulic Conductivity: 148		
Initial Saturated Thickness: 20		
Fillable Porosity (as a decimal percent): .27		



Output:



Conclusion: Peak mounding beneath the system after 90-days of function (per DEP guidelines) is slightly less than 0.3'. 0.3' has been used conservatively.