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Supplementary Information: Stochastic Assessment of Land-Use Change Effect on Groundwater Quality: a Simple and Efficient Approach

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Table 1 Proportion and hydraulic conductivity of the four categories (g: gravel; s: sand; ms: muddy sand; m: mud)

	g	s	ms	m
proportion [%]	0.10	0.35	0.25	0.3
hydraulic conductivity [m/d]	200.0	50.0	0.5	0.01

Table 2 Mean length (diagonal values) of each categories (g: gravel; s: sand; ms: muddy sand; m: mud) and embedded transition probability (non-diagonal values) in the longitudinal (x), the horizontal transverse (y), and the vertical transverse (z) directions. Matrices reads as transition probability from the row facies to the column facies. The background category is designated by the letter b.

(x)	g	s	ms	m
g	$\bar{L}_{g,x} = 800.0m$	0.7	0.15	b
s	0.7	$\bar{L}_{s,x} = 1500.0m$	0.28	b
ms	0.15	0.28	$\bar{L}_{ms,x} = 1000.0m$	b
m	b	b	b	b

(y)	g	s	ms	m
g	$\bar{L}_{g,y} = 500.0m$	0.7	0.15	b
s	0.7	$\bar{L}_{s,y} = 850.0m$	0.28	b
ms	0.15	0.28	$\bar{L}_{ms,y} = 900.0m$	b
m	b	b	b	b

(z)	g	s	ms	m
g	$\bar{L}_{g,z} = 2.0m$	0.7	0.15	b
s	0.7	$\bar{L}_{s,z} = 3.5m$	0.28	b
ms	0.15	0.28	$\bar{L}_{ms,z} = 2.0m$	b
m	b	b	b	b