

Table 1: land use model parameter values applied in this study

Code	LUSE_TYPE	RUNOFF_VEG	VEG_AREA	BARE_AREA	IMP_AREA	OPENW_AREA	ROOT_DEPTH	LAI	MIN_STOM	VEG_HEIGHT	nManing	LandFactor
2	Built-up area	grass	0.5	0	0.5	0	0.3	1	100	0.12	0.04	0.5
21	Cultivated land	crop	0.8	0.2	0	0	0.4	3	180	0.6	0.037	0.541
23	Grass land	crop	0.8	0.2	0	0	0.3	2	180	1	0.05	0.4
33	Forest land	forest	1	0	0	0	5.5	4	375	8	0.1	0.2
36	Bush and shrub land	grass	0.9	0.1	0	0	1.2	3	110	2	0.05	0.4
44	Wetland	open water	0	0	0	1	0.05	0	110	0	0.02	1
52	Water body	open water	0	0	0	1	0.05	0	110	0	0.02	1
28	Sub-afro-alpine vegetation	grass	0.8	0.2	0	0	0.3	1	100	0.3	0.055	0.364

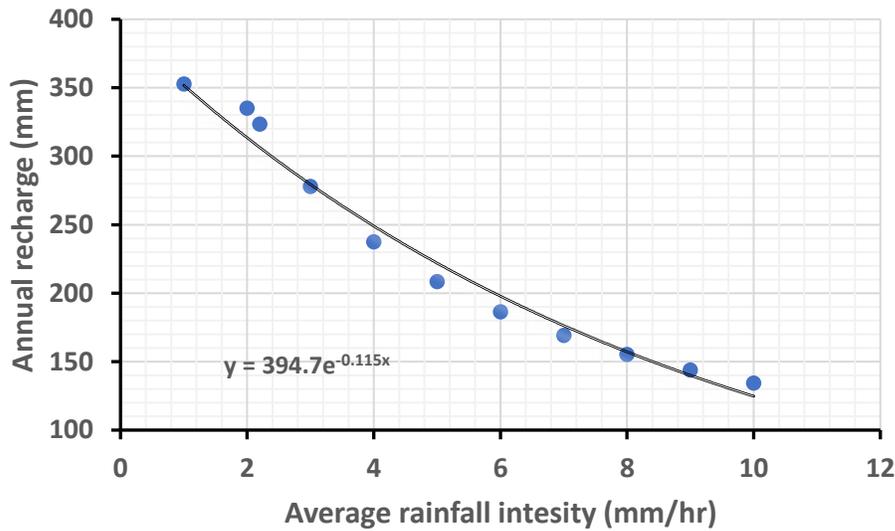


Figure 1. Mean annual groundwater recharge (mm) versus average rainfall intensity (mm/hr.) for the different possible intensity values. The model was running for these RF intensity values by keeping the other model parameters constant.

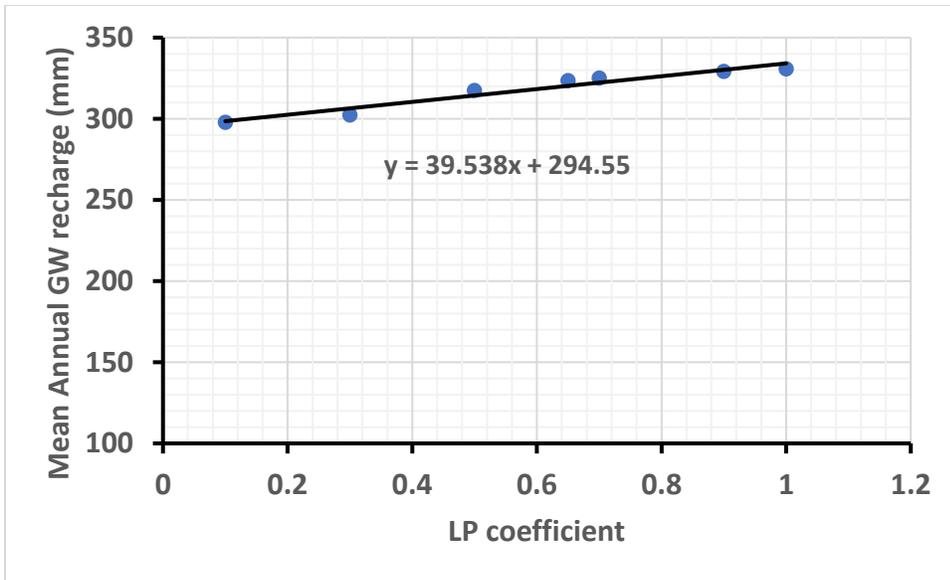


Figure 2. Mean annual groundwater recharge (mm) versus LP coefficient for the different possible LP coefficient values.

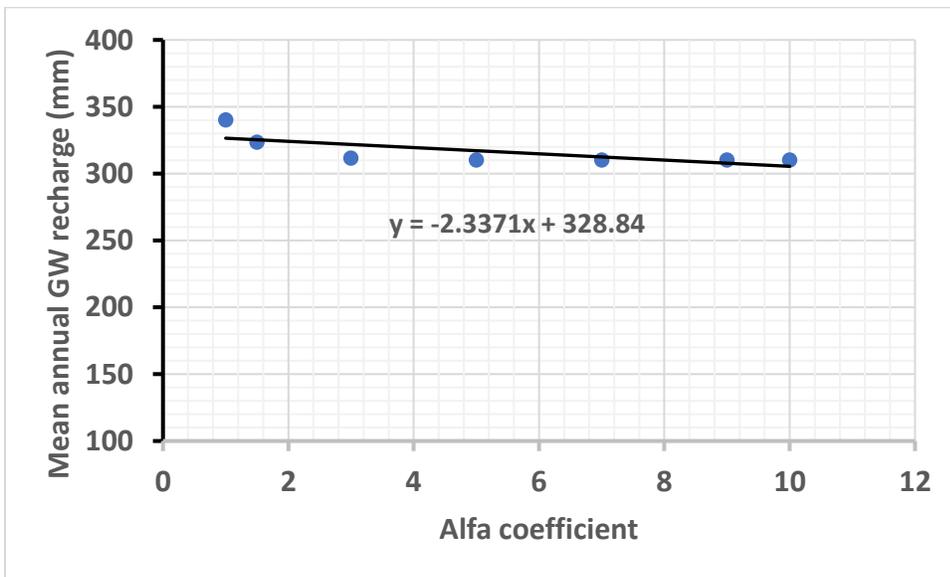


Figure 3. Mean annual groundwater recharge (mm) versus Alfa coefficient for the different possible Alfa coefficient values.

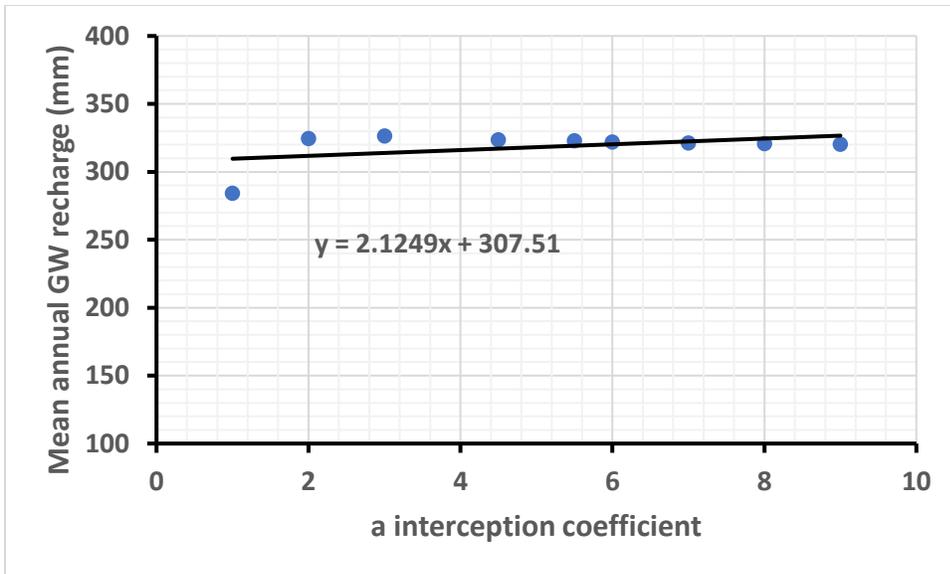


Figure 4. Mean annual groundwater recharge (mm) versus a interception coefficient for the different possible a interception coefficient values.

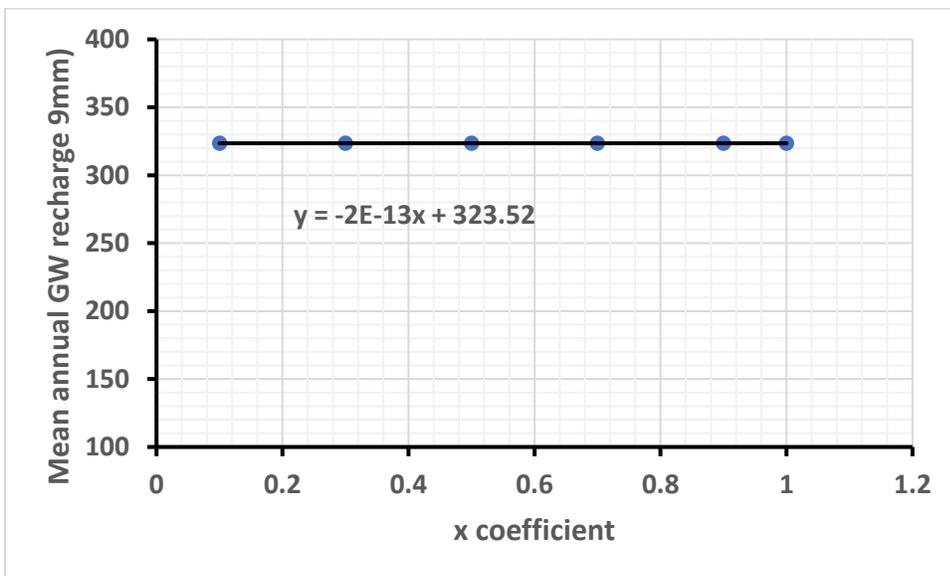


Figure 5. Mean annual groundwater recharge (mm) versus x coefficient for the different possible x coefficient values.