Activity 1

From the sample soils map and legend sheet on the following pages, determine the percentage of the indicated watershed in each hydrologic soil group. Refer to Appendix A of your Study Guide for applicable charts and tables. For this Activity, do not assume the hydrologic soil group has changed because of the urban land complex.

SOIL LEGEND

Symbol	name	symbol	name
1	Aledo gravelly clay loam. 1 to 8 percent slopes	45	Mabank fine sandy loam, 0 to I percent .slopes
2	Aledo-Bolar complex. 5 to 20 percent slopes	46	Maloterre Aledo and Bracken soils 3 to 20 percent slopes
3	Aledo-Bolar-Urban land complex, 3 to 20 percent slopes	47	Medlin clay, 5 to 15 percent Slopes
4	Aledo-Urban land complex. 1 to 8 percent slopes	48	Mingo clay loam, I to3 percent slopes
5	Altoga Silty clay loam. 5 to 12 percent slopes	49	Mongo-Urban land complex. I '03 percent slopes
6	Aquilla loamy fine sand. 1 to 5 percent slopes	50	Navo clay loam. I '0 3 percent slope.
7	Arents, frequently flooded Are n. loam "	51	Neva-Urban land complex. 1 '03 percent Slope.
8		52	Nimrod fine sand. I '0 5 percent slope.
9	Bastsil fine sandy loam		
10	Bastsil¡ Urban land complex. 0 to 5 percent slopes	53	Ovan clay. occasionally flooded
11	fine sandy loam. 1 to 5 percent slopes	54	Ovon clay. frequently flooded
12	Birome-Aubrey-Rayex complex. 5 to 1 5 percent lopes	55	Ovan-Urban land complex, occasionally flooded
13	Birome-Aubrey-Urban land complex, 5 to 15 percent slopes	56	Pits, quarries.
14	clay loam, 1 to 3 percent slopes	57	Ponder clay loam. I to 3 percent slope.
15	Clay loam. 3 to 5 percent slopes	58	Ponde,-Urban land complex, 0 to 3 percent slope
16	Bolar-Urban land complex, 1 to 5 percent slopes	59	Pulex fine sandy loams. frequently flooded
17	Brackett clay loam, 3 to 8 percent slopes	60	Pule Urban land complex. occasionally flooded
18	Branyon clay, 0 to 1 percent slopes	61	Purves clay. 0 to3 percent slopes
19	Burleson clay. 0 to 1 percent slopes	62	Purve Urban land complex, 0 to 3 percent slopes
20	Chan silty clay. 1 to 3 percent slopes	63	Rader fine sandy loam
21	Cross tell fine sandy loam. 1 to 3 percent slopes	64	Rader Urban land complex
22	Cross tell fine sandy loam. 3 to 6 percent slopes	65	Sanger clay. 1 to3 percent Slope.
23	Crosstell Urban land complex. 1 to 6 percent slopes	66	Sanger clay 3 to5 percent slope.
24	Ferris clay. 5 to 12 percent Slopes. eroded	67	Sanger-U.ban land complex, I to5 percent slopes
25	Ferrls Heujen complex. 2 to 5 percent slopes	68	San Slba clay, 0 to 2 percent. slopes
26	Frio silty clay. occasionally flooded	69	Selden loam fine sand. I to 3 percent slopes
27	Frio silty clay. frequently flooded	70	S,lawa lone sandy loam, 3 to8 percent slope
28	Frio-Urban land complex, occasionally flooded	71	Silstid loam lone sand, I to 5 percent Slope.
29	GasII fine sandy loam. 1 to 3 percent slopes	72	SilStid-Urban land complex, I .to 5 percent. slopes
30	GasII fine sandy loam. 3 to 8 percent slopes	73	Slidell clay, 0 to 1 percent slopes
31	GasII sandy clay loam, graded. 1 to 5 percent slopes	74	Slodetl clay, 1 to 3 percent slope
32	GasII-Urban land complex. 1 to 8 percent Slopes	75	Speck Clay loam, 0 to 3 percent slopes
33	Heiden clay. 1 to 3 percent slopes	76	percent fine sandy loom. 8 to 15 percent slope.
34	Houston Black clay. 1 to 3 percent slopes	77	Sunev clay loam, 1 to3 percent slope.
35	Houston Slack-Urban land complex(. 1 to 4 percent Slopes	78	Sunev clay loam. 3 to 8 percent slopes
36	Justin loam, 1 to 3 percent slopes	79	Sunev-Urban land complex. 2 to 8 percent slopes
37	Kensal fine sandy loam, 1 to 5 percent slopes	80	Trinity clay. frequently flooded
38	Leson clay. 1 to 3 percent Slopes	81	Urban land
39	Lindale clay loam. 1 to 3 percent slopes	82	Weatherford fine sandy loam. 3 to 8 percent slopes
40	Lindale--Urban land complex. 1 to 3 percent slopes	83	Whitesboro loam. frequently flooded
41	Lon Silty clay. 1 to 3 percent slopes	84	Wilson Clay loam. 0 to 2 percent slopes
42	LOUis Urban land complex(. 1 to 5 percent slopes	85	Wilson4Urban land complex. 0 to 2 percent slopes
43	Luckenbach clay loam. 1 to 3 percent slopes	86	Windthorst fine sandy loam. 1 to 3 percent slope
44	Luckenbach Urban land complex(. 1 to 3 percent slopes	87	Windthorst fine sandy loam, 3 to 8 percent slopes
		88	Windthorst fine sandy loam. 2 10 8 percent Slopes eroded

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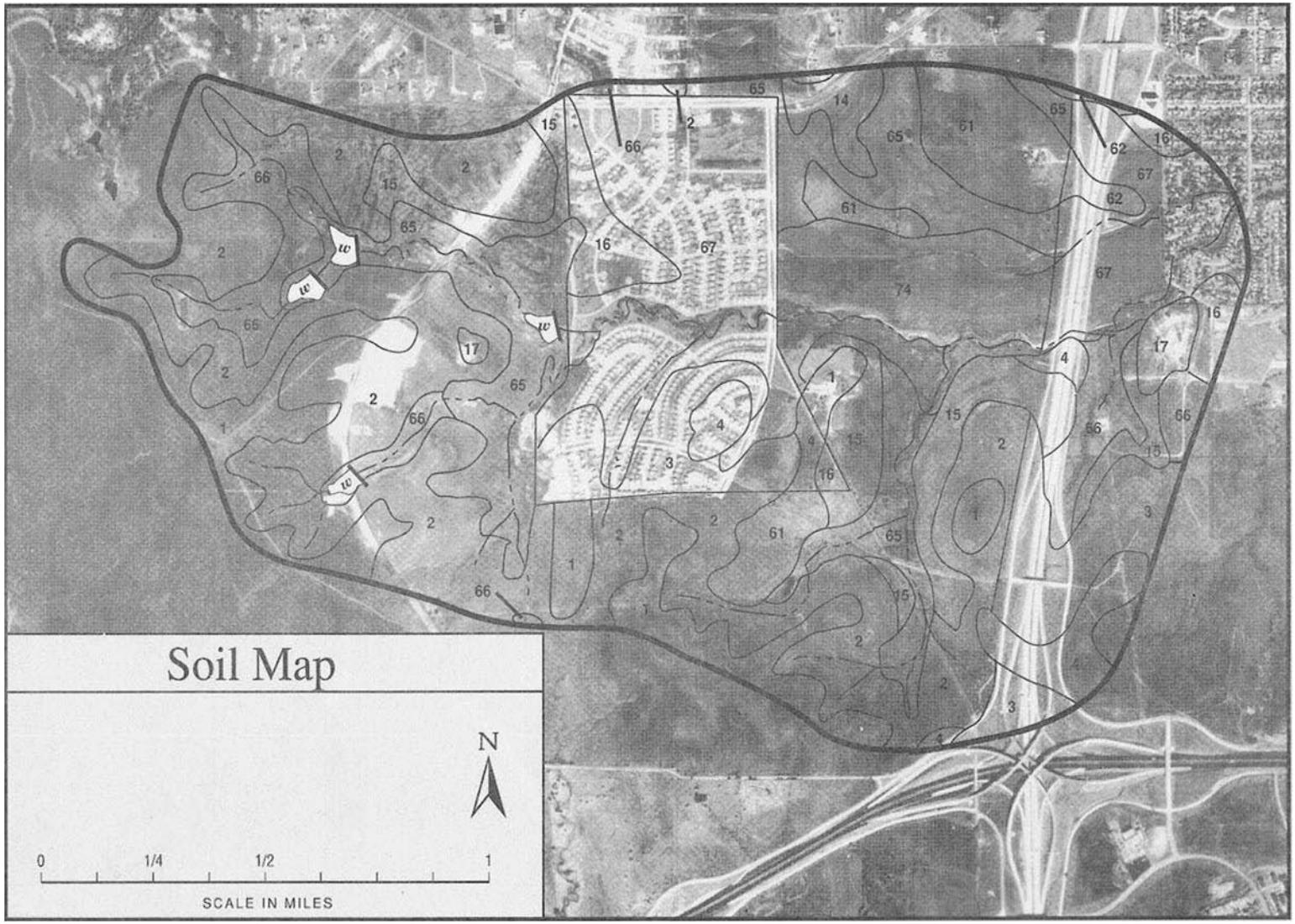
Soil Map
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SCALE IN MILES

Map Symbol	Soil Name	Hydrologic Soil Group	Acres/ Intersections	%
1	Aledo gr. clay loam, 1 - 8% slopes	C		
2	Aledo-Bolar complex, 5 - 20% slopes	C		
3	Aledo-Bolar-Urban land complex,3 - 20% slopes	C		
4	Aledo-Urban land complex,1 - 8% slopes	C		
14	Bolar clay loam, 1 - 3% slopes	C		
15	Bolar clay loam, 3 - 5% slopes	C		
16	Bolar-Urban land complex,1 - 5% slopes	C		
17	Bracket clay loam, 3 - 8% slopes	C		
61	Purves clay, 0 - 3% slopes	D		
62	Purves-Urban land complex,0 - 3% slopes	D		
65	Sanger clay, 1 - 3% slopes	D		
66	Sanger clay, 3 - 5% slopes	D		
67	Sanger-Urban land complex,1 - 5% slopes	D		
74	Slidell clay, 1 - 3% slopes	D		

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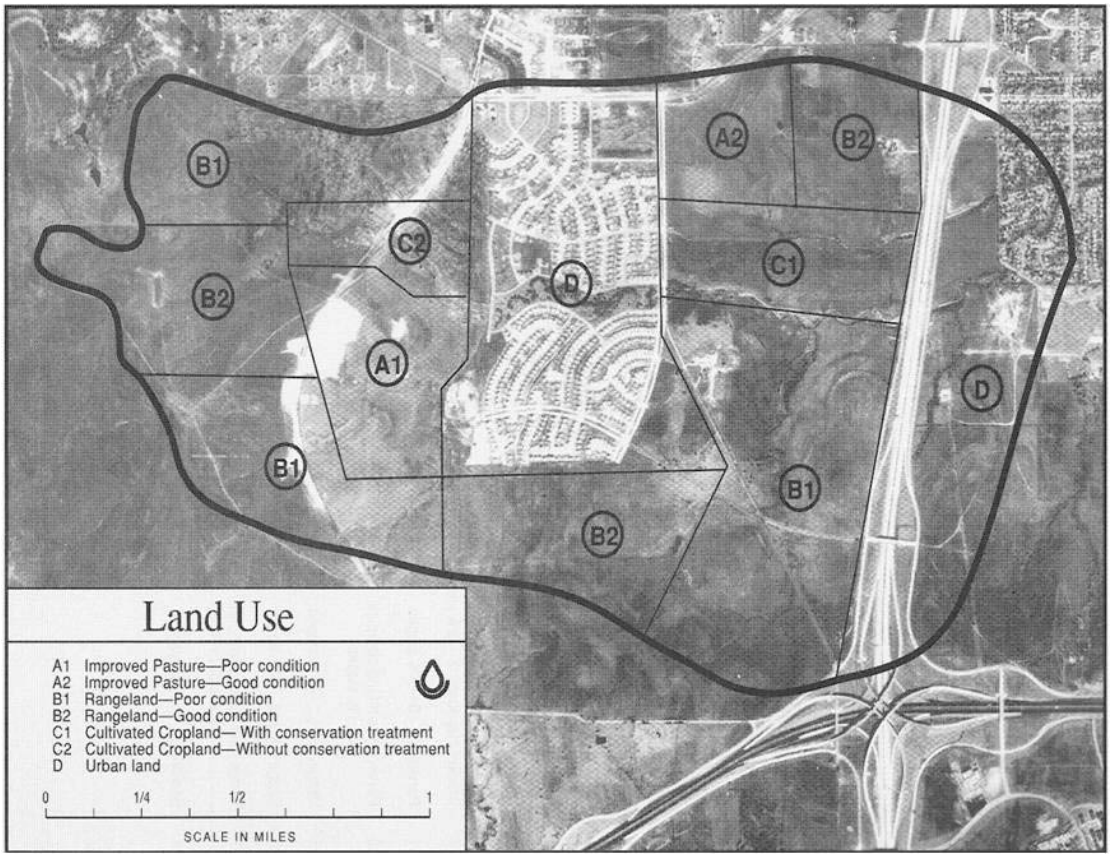
Activity 2

From the sample aerial photograph determine the percentage of the indicated watershed in each cover description. Refer to Appendix A of your Study Guide for applicable charts and tables.



Land Use	Acres	%
Improved Pasture - poor condition	112	
Improved Pasture - good condition	73	
Rangeland - poor condition	541	
Rangeland - good condition	334	
Cultivated cropland - with cons. treatment	96	
Cultivated cropland - *w/o* cons.treatment	53	
Urban land	605	
	=1,814	=100.0%

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Activity 3

Determine the runoff curve numbers for the hydrologic soil cover complexes listed below. Refer to Appendix A (2-2b) of your Study Guide for applicable charts and tables.

Hydrologic Soil Group	Cover Description	CN
B	Row crops - straight row & crop residue, in good condition	
B	Small grain - contoured, in poor condition	
B	Meadow - in good condition	
C	Woods - in fair condition	

Determine the runoff curve numbers for the hydrologic soil cover complexes listed below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Activity 4

Determine the runoff curve number for the hydrologic soil cover complexes listed below. Refer to Appendix A (2-2a) in your Study Guide for applicable charts and tables

Hydrologic Soil Group	Cover Description	CN
A	Residential - 1 ac	
B	Commercial	
C	New graded area	
B	Residential-1ac. 18% impervious	

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Activity 5

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres	% Area	Hydrologic Soils Group	CN	Product
Dover	Row Crops-SR & CR in good condition	500	50	B		
Crofton	Small grain-contoured, in poor condition	300		B		
Greenville	Meadow-in good condition	150		B		
Odessa	Woods-in fair condition	50		D		
		=====	=====			====
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Activity 6

Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide and the hydrologic soil groups given in Activity 5 for applicable charts and tables

Soil Name	Cover Description	Acres
Dover	Row Crops-straight row and crop residue, in good condition	300
Newberg	Meadow-in good condition	200
Crofton	1 ac Residential	200
Odessa	Industrial	100
Dover	1/2 ac. Residential 27% impervious	100
Greenville	New graded	100

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Determine the weighted average runoff curve number for the watershed described below. Refer to Appendix A of your Study Guide for applicable charts and tables.

Soil Name	Cover Description	Acres	% Area	Hydrologic Soils Group	CN	Product
Dover	Row Crops-SR & CR in good condition	300		B		
New Castle	Meadow-in good condition	200		B		
Crofton	1 ac Residential	200		B		
Odessa	Industrial	100		D		
Dover	1/2 ac. Residential 27% impervious (0.27) (98) + (1-0.27) (61)	100		B		
Greenville	New graded	100		B		
		=====	====			===
		1000	1.00			

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