Table 1. Potential contributing areas for combined infiltration- and saturation-excess overland flows, and land use for selected subbasins in Kansas

[P, soil permeability, in inches per hour; TWI, topographic wetness index. Land-use data from Kansas Applied Remote Sensing Program (1993)]

| | | | Potential contributing area, in percentage of subbasin, for selected potential-runoff conditions | | | Land use, in percentage of subbasin | | | | |
|--------------------------------|--------|----------|--|--|--|-------------------------------------|-----------|----------|-------|--|
| Subbasin number (fig. 1) | Mean P | Mean TWI | Low potential runoff ¹ | Very low potential runoff ² | Extremely low potential runoff ³ | Cropland | Grassland | Woodland | Urban | |
| | | | | Cimarron | River Basin | | | | | |
| 1 | 3.8 | 10.3 | 70.8 | 15.2 | 2.8 | 35.6 | 63.6 | 0.3 | 0.4 | |
| 2 | 1.8 | 11.1 | 89.8 | 65.8 | 15.3 | 81.2 | 18.3 | 0 | | |
| | | | Kai | nsas-Lower Re | publican River I | Basin | | | | |
| 3 | .5 | 9.9 | 99.7 | 83.9 | 66.7 | 41.3 | 48.9 | 6.9 | | |
| 4 | .4 | 9.9 | 99.9 | 86.5 | 81.0 | 54.9 | 41.3 | 3.2 | | |
| 5 | 1.0 | 10.2 | 99.2 | 71.9 | 9.8 | 65.9 | 29.6 | 3.7 | .4 | |
| 6 | .4 | 9.9 | 100 | 90.6 | 84.5 | 30.9 | 62.6 | 6.2 | • | |
| 7 | .4 | 10.0 | 100 | 89.8 | 84.3 | 52.7 | 41.2 | 5.6 | | |
| 8 | .6 | 9.9 | 100 | 88.5 | 41.0 | 43.4 | 52.6 | 3.5 | | |
| 9 | .4 | 10.2 | 100 | 91.9 | 87.8 | 65.3 | 30.6 | 2.0 | 1. | |
| 10 | .9 | 10.1 | 98.3 | 76.6 | 15.8 | 56.8 | 37.4 | 4.9 | | |
| 11 | .5 | 9.3 | 100 | 95.4 | 89.7 | 10.5 | 84.6 | 3.9 | | |
| 12 | .9 | 10.0 | 100 | 72.4 | 9.1 | 54.0 | 40.3 | 5.1 | | |
| 13 | 1.1 | 10.2 | 97.4 | 66.6 | 6.0 | 61.2 | 33.5 | 4.4 | | |
| 14 | 1.6 | 10.4 | 92.9 | 51.2 | 2.5 | 60.1 | 35.2 | 3.7 | | |
| 15 | 0.5 | 10.2 | 99.5 | 88.9 | 66.7 | 30.0 | 62.8 | 6.0 | .: | |
| 16 | .5 | 10.1 | 99.3 | 89.6 | 75.1 | 39.3 | 48.3 | 11.1 | | |
| 17 | .5 | 9.7 | 99.4 | 89.5 | 82.5 | 24.7 | 68.4 | 6.5 | | |
| 18 | .7 | 10.1 | 97.2 | 76.0 | 49.6 | 38.1 | 40.3 | 15.0 | 4. | |
| 19 | .5 | 10.0 | 100 | 88.0 | 67.3 | 28.5 | 57.0 | 9.4 | | |
| 20 | 1.2 | 10.0 | 99.7 | 27.5 | 4.8 | 44.5 | 48.3 | 5.9 | | |
| 21 | .6 | 9.9 | 99.2 | 91.7 | 72.1 | 21.8 | 65.0 | 8.4 | 4. | |
| | | | | Lower Arkar | ısas River Basin | | | | | |
| 22 | 1.4 | 10.8 | 85.9 | 49.4 | 33.1 | 69.8 | 29.1 | .7 | | |
| 23 | 1.6 | 10.9 | 88.3 | 62.0 | 14.8 | 76.7 | 20.0 | .9 | 1. | |
| 24 | 1.9 | 11.4 | 89.5 | 54.1 | 17.7 | 76.1 | 14.9 | 1.0 | 6. | |
| 25 | .5 | 10.2 | 100 | 86.0 | 61.9 | 10.9 | 85.3 | 3.2 | | |
| 26 | 2.4 | 11.0 | 86.4 | 71.5 | 24.3 | 66.5 | 31.8 | 1.2 | • | |
| 27 | 2.5 | 10.0 | 74.8 | 39.1 | 25.3 | 23.2 | 75.5 | 1.0 | | |
| 28 | 2.9 | 9.9 | 71.8 | 28.9 | 11.7 | 23.6 | 75.8 | .6 | 0 | |
| 29 | 5.0 | 11.1 | 60.7 | 25.0 | 9.9 | 72.7 | 24.5 | 1.0 | | |
| 30 | .5 | 11.2 | 98.2 | 79.4 | 73.8 | 86.6 | 9.3 | 1.1 | 2. | |
| 31 | 3.4 | 10.6 | 66.0 | 15.4 | 6.5 | 44.9 | 54.6 | .4 | | |

| Table 1. Potential contributing areas for combined infiltration- and saturation-excess overland flows, and land use for selected |
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| subbasins in Kansas—Continued |

| | | Mean TWI | Potential contributing area, in percentage of subbasin, for selected potential-runoff conditions | | | Land use, in percentage of subbasin | | | |
|--------------------------------|--------|----------|--|--|--|-------------------------------------|-----------|----------|-------|
| Subbasin number (fig. 1) | Mean P | | Low potential runoff ¹ | Very low potential runoff ² | Extremely low potential runoff ³ | Cropland | Grassland | Woodland | Urban |
| | | | Lowe | er Arkansas Ri | ver Basin—Cont | inued | | | |
| 32 | 2.9 | 10.9 | 77.3 | 22.3 | 13.7 | 57.9 | 37.8 | 3.0 | 0.6 |
| 33 | .5 | 11.1 | 100 | 94.7 | 31.6 | 90.0 | 6.3 | .7 | 2.7 |
| | | | | | gnes River Basin | | | | |
| 34 | .5 | 10.3 | 100 | 75.9 | 63.4 | 38.6 | 48.3 | 7.1 | .8 |
| 35 | .4 | 10.1 | 100 | 91.2 | 74.7 | 34.3 | 58.6 | 4.2 | 1.0 |
| 36 | .4 | 10.0 | 100 | 88.5 | 71.7 | 44.3 | 47.2 | 4.2 | .3 |
| 37 | .6 | 10.1 | 98.4 | 76.0 | 55.8 | 37.9 | 48.1 | 13.3 | .2 |
| 38 | .4 | 10.2 | 99.6 | 91.1 | 79.3 | 19.4 | 73.8 | 2.7 | .1 |
| 39 | .6 | 10.2 | 99.1 | 76.5 | 54.6 | 38.8 | 47.2 | 12.2 | .8 |
| 40 | .5 | 10.2 | 98.9 | 83.6 | 71.8 | 37.1 | 53.7 | 7.8 | .6 |
| 41 | .4 | 10.1 | 100 | 88.1 | 70.3 | 38.1 | 56.5 | 4.0 | .9 |
| | | | | | River Basin | | | | |
| 42 | .8 | 10.1 | 100 | 57.4 | 45.8 | 27.5 | 57.0 | 11.3 | 2.5 |
| 43 | .8 | 9.9 | 100 | 65.4 | 49.7 | 13.8 | 29.4 | 6.0 | 50.3 |
| 44 | .4 | 9.9 | 100 | 87.6 | 82.2 | 66.8 | 26.6 | 5.9 | .4 |
| 45 | .6 | 10.2 | 100 | 82.0 | 71.5 | 64.8 | 31.6 | 2.2 | .8 |
| 46 | .9 | 10.1 | 100 | 54.0 | 38.2 | 70.8 | 25.5 | 2.9 | .6 |
| | | | | Neosho l | River Basin | | | | |
| 47 | .6 | 10.8 | 99.9 | 74.3 | 66.7 | 68.1 | 20.2 | 8.9 | .8 |
| 48 | .4 | 10.0 | 100 | 93.7 | 74.4 | 18.9 | 78.1 | 2.7 | .1 |
| 49 | .4 | 10.5 | 99.9 | 85.7 | 77.6 | 50.7 | 46.8 | 1.8 | .4 |
| 50 | .5 | 10.6 | 99.6 | 81.6 | 73.3 | 41.4 | 51.6 | 3.4 | 2.2 |
| 51 | .5 | 10.5 | 99.8 | 82.5 | 73.1 | 37.6 | 56.8 | 2.9 | 1.0 |
| 52 | .3 | 10.2 | 100 | 97.2 | 84.8 | 29.8 | 64.1 | 3.5 | .2 |
| 53 | .5 | 10.6 | 100 | 72.1 | 66.2 | 77.6 | 19.9 | 1.7 | .7 |
| | | | | | aline River Basin | | | | |
| 54 | 1.2 | 10.3 | 99.7 | 49.1 | 6.1 | 62.3 | 36.0 | .6 | .8 |
| 55 | .9 | 10.1 | 99.8 | 67.7 | 17.5 | 43.8 | 52.3 | 3.4 | .2 |
| 56 | 1.1 | 9.7 | 100 | 33.9 | 2.7 | 31.6 | 66.7 | 1.1 | 0 |
| 57 | 1.3 | 10.3 | 99.4 | 14.7 | 2.3 | 67.9 | 31.7 | .1 | .1 |
| 58 | 1.3 | 10.5 | 99.1 | 32.9 | 2.2 | 74.4 | 25.5 | 0 | 0 |
| 59 | .3 | 10.2 | 100 | 91.9 | 84.0 | 47.6 | 48.6 | 2.7 | .5 |
| 60 | 1.1 | 10.0 | 99.1 | 40.8 | 12.9 | 27.8 | 68.0 | 1.9 | 1.6 |
| 61 | 1.4 | 10.0 | 97.6 | 27.2 | 6.8 | 47.5 | 50.9 | .7 | .1 |
| 62 | 1.4 | 10.2 | 96.9 | 56.7 | 5.1 | 51.5 | 46.5 | 1.0 | .3 |
| 63 | 1.7 | 10.1 | 94.8 | 19.9 | 6.1 | 50.6 | 48.2 | .1 | 0 |

| Table 1. Potential contributing areas for combined infiltration- and saturation-excess overland flows, and land use for selected | |
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| subbasins in Kansas—Continued | |

| | | | Potential contributing area, in percentage of subbasin, for selected potential-runoff conditions | | | Land use, in percentage of subbasin | | | | |
|--------------------------------|--------|----------|--|--|--|-------------------------------------|-----------|----------|-------|--|
| Subbasin number (fig. 1) | Mean P | Mean TWI | Low potential runoff ¹ | Very low potential runoff ² | Extremely low potential runoff ³ | Cropland | Grassland | Woodland | Urban | |
| | | | Smok | y Hill-Saline R | iver Basin—Cor | tinued | | | | |
| 64 | .9 | 10.0 | 100 | 65.6 | 9.8 | 54.1 | 44.3 | 1.1 | 0 | |
| | | | | Solomon | River Basin | | | | | |
| 65 | 1.2 | 10.0 | 99.9 | 33.3 | 1.5 | 51.5 | 45.2 | 2.5 | .5 | |
| 66 | 1.5 | 10.2 | 96.0 | 4.6 | 1.0 | 70.0 | 28.8 | 1.0 | 0 | |
| 67 | 1.1 | 10.1 | 99.6 | 57.9 | 8.7 | 58.0 | 38.3 | 3.4 | .1 | |
| 68 | 1.2 | 10.0 | 99.0 | 33.5 | 2.6 | 59.7 | 38.0 | 1.8 | .3 | |
| 69 | 1.1 | 10.0 | 99.9 | 59.2 | 5.7 | 54.9 | 42.4 | 2.3 | .1 | |
| 70 | 1.0 | 10.0 | 100 | 60.4 | 10.5 | 44.7 | 50.7 | 4.0 | .2 | |
| 71 | 1.0 | 9.9 | 100 | 55.1 | 9.7 | 43.8 | 54.5 | 1.3 | 0 | |
| 72 | 1.0 | 10.3 | 99.5 | 67.3 | 11.2 | 60.4 | 34.7 | 2.7 | .4 | |
| 73 | 1.3 | 10.0 | 97.5 | 54.6 | 6.1 | 50.0 | 48.7 | .9 | .2 | |
| 74 | 1.6 | 10.2 | 97.2 | 6.9 | 1.6 | 61.1 | 37.8 | .6 | .2 | |
| | | | | Upper Arkan | sas River Basin | | | | | |
| 75 | .9 | 10.5 | 99.9 | 66.4 | 18.5 | 68.7 | 30.7 | .1 | .2 | |
| 76 | 1.1 | 10.6 | 98.8 | 67.3 | 8.8 | 71.1 | 28.3 | .1 | 0 | |
| 77 | 1.1 | 10.5 | 99.4 | 60.4 | 3.5 | 69.6 | 29.5 | .2 | .6 | |
| | | | | Upper Republ | ican River Basir | 1 | | | | |
| 78 | 1.3 | 10.3 | 99.0 | 5.5 | 1.4 | 65.0 | 34.6 | .2 | .1 | |
| 79 | 1.3 | 10.2 | 99.8 | 5.4 | 2.1 | 67.0 | 31.8 | .6 | .4 | |
| 80 | 1.3 | 10.3 | 99.9 | 4.9 | 1.3 | 67.7 | 31.7 | .3 | .2 | |
| | | | | Verdigris | River Basin | | | | | |
| 81 | .7 | 10.3 | 90.4 | 66.5 | 60.8 | 33.0 | 57.1 | 6.6 | .6 | |
| 82 | .8 | 10.2 | 90.1 | 64.6 | 57.3 | 31.5 | 61.9 | 4.7 | 1.3 | |
| 83 | .7 | 10.3 | 94.7 | 76.1 | 67.1 | 15.1 | 78.0 | 5.4 | .3 | |
| 84 | .4 | 9.9 | 100 | 95.6 | 84.0 | 4.4 | 90.3 | 3.3 | .3 | |
| 85 | 1.0 | 10.3 | 81.5 | 54.5 | 49.0 | 24.6 | 65.9 | 6.6 | 2.6 | |
| 86 | .5 | 10.6 | 99.1 | 80.0 | 73.8 | 33.4 | 62.6 | 2.5 | .3 | |
| 87 | .4 | 10.2 | 99.7 | 93.9 | 82.1 | 6.6 | 88.9 | 2.9 | .1 | |
| | | | | | River Basin | | | | | |
| 88 | .5 | 10.3 | 100 | 88.0 | 64.8 | 15.1 | 82.3 | 1.9 | .1 | |
| 89 | .5 | 10.7 | 100 | 86.5 | 62.8 | 23.1 | 71.9 | 2.7 | .7 | |
| 90 | .4 | 10.7 | 100 | 91.9 | 82.0 | 11.9 | 80.9 | 1.1 | .1 | |
| 91 | .3 | 10.9 | 100 | 92.3 | 87.0 | 64.6 | 32.3 | 1.9 | .5 | |

¹Low potential runoff = soil permeability less than or equal to 1.71 inches per hour and topographic wetness index greater than or equal to 12.4 ²Very low potential runoff = soil permeability less than or equal to 1.14 inches per hour and topographic wetness index greater than or equal to 14.4 ³Extremely low potential runoff = soil permeability less than or equal to 0.57 inch per hour and topographic wetness index greater than or equal to 16.3.