of this hypothetical landscape is simplified and relatively symmetrical it allows the transition from one element (position) to the next to be represented. To accentuate the landscape effects it was assumed that: (i) soil properties were uniform; (ii) land use was uniform; (iii) rainfall excess rate was uniform throughout the landscape; and (iv) the soils were noncohesive. A constant critical unit stream power, $P_m$ of 0.002 m/s was adopted for both sheet and rill flow (Moore and Burch, 1986a).

Figure 1 shows that there is a predicted gradation of erosion class from zero erosion on the ridge crests through to moderate or severe erosion on the slopes (depending on position, slope, and degree of topographic divergence or convergence). At the foot of the slopes the predicted erosion class changes rapidly from moderate or severe erosion to deposition.

The complexity of the landscape/erosion relationship can be appreciated from the range of predicted erosion rates within single topographic elements (e.g., linear slopes) across the two slope gradients presented. The transition zones between slope elements are even more complex (see head slope deposition zone immediately above severe erosion). Slight variations in the local slope shape or gradient will create even more complexity (see Fig. 1 for the effects of a small, and local, increase in slope). The analysis can cope with these variations provided the contour information is sufficiently detailed.

Irrespective of local anomalies, the method provides for a more systematic description of the erosion/deposition regimes occurring across the full range of topographic elements and transition zones in the Piedmont landscape. This can aid in the interpretation of soil surveys (Daniels et al., 1985) and crop yield responses.

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