Multi-Criteria Analysis

- MCA is used in adaptive watershed management by giving users a framework for prioritizing or ranking alternatives.
- It is a bottom up approach as compared to top down by including the ability to weight criteria inputs in the model by decision makers.
- The general framework of ranking or prioritizing studies for adaptive watershed management include the following:
    - Define the problem or goal
    - Decide on evaluation criteria
    - Normalize and create utility scales
    - Define weights for criteria
    - Calculate a ranking model result
    - Evaluate result and perform sensitivity analysis
- Weighting methods vary by their accuracy, ease of use, understanding of decision makers, and theoretical foundation.
- Compromise programming is similar to goal programming in that it uses the concept of minimum distance.
- The preferred alternative has the minimum Lp distance value for each p and weight set that may be used. Thus, the alternative with the lowest value for the Lp metric will be the best compromise solution because it is the nearest solution with respect to the ideal point.

Student Notes:

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