Summary Nitrogen runoff in the Chesapeake Bay SEJ

Nitrogen in the Chesapeake Bay forms a significant risk to this very productive ecosystem with large economic consequences for commercial interests. Runoff from heavy rain storms and area sources from agriculture are major concerns. Best management practices include building retention pools and dams. The effectiveness of these measures is poorly understood, and management does not have the luxury of waiting for better data. As a result structured expert judgment affords the best option for informing pressing managerial decisions. A structured expert judgment study was recently performed to supplement data gaps. Expert performance was gauged by answers to calibration variables based on observed (but unpublished) measurements of effectiveness of various engineered structures under large historical storm events. The experts exhibited overall performance in terms of statistical accuracy and informativeness, and performance based combinations proved to be of value is assessing the effectiveness of various management practices under current and future climate scenarios.

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