Trends in the Environmental Geosciences: Observations from North America

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The last decade of budget cuts in Canada and the United States reduced environmental-geoscience research in academia and government agencies. However, recent improvements in the general economy have ameliorated this problem. The U.S. Geological Survey, for example, has had much of its budget (and personnel) restored, although priorities now emphasize applied research. Groundwater remediation continues relatively unabated. And many consulting environmental geoscientists are in demand as expert witnesses in litigation.

Much environmental-geoscience research is driven by regulation, particularly for wetland delineation, contaminant mitigation, and seismic and floodplain zoning. Many jurisdictions also require full disclosure of potential active faults, slope stability problems, contaminants and other geologic hazards before a property can be sold.

The near future will likely see little dramatic change in techniques and level of environmental-geoscience research. Remediation methods will undoubtedly improve; but changes in public policy are more likely to influence the direction of geoscience research. For example, earthquake damage may best be mitigated by engineering design, rather than by substantial increase in fault mapping and characterization. And floodplain and coastal zone construction may be restricted or reduced by eliminating government-subsidized insurance that tends to encourage rebuilding and hence repeated damage in such hazard areas.