4. Siting LLRW Storage Facilities

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The U.S. Congress passed the Low-Level Radioactive Waste Policy Act in 1980. As amended in 1985, the Act made states responsible for disposing of the LLRW they produce. States were encouraged to form regional "compacts" to share the costs of locating, constructing, and maintaining LLRW disposal facilities. The intent of the legislation was to avoid the very situation that has since come to pass, that the entire country would become dependent on a very few disposal facilities.

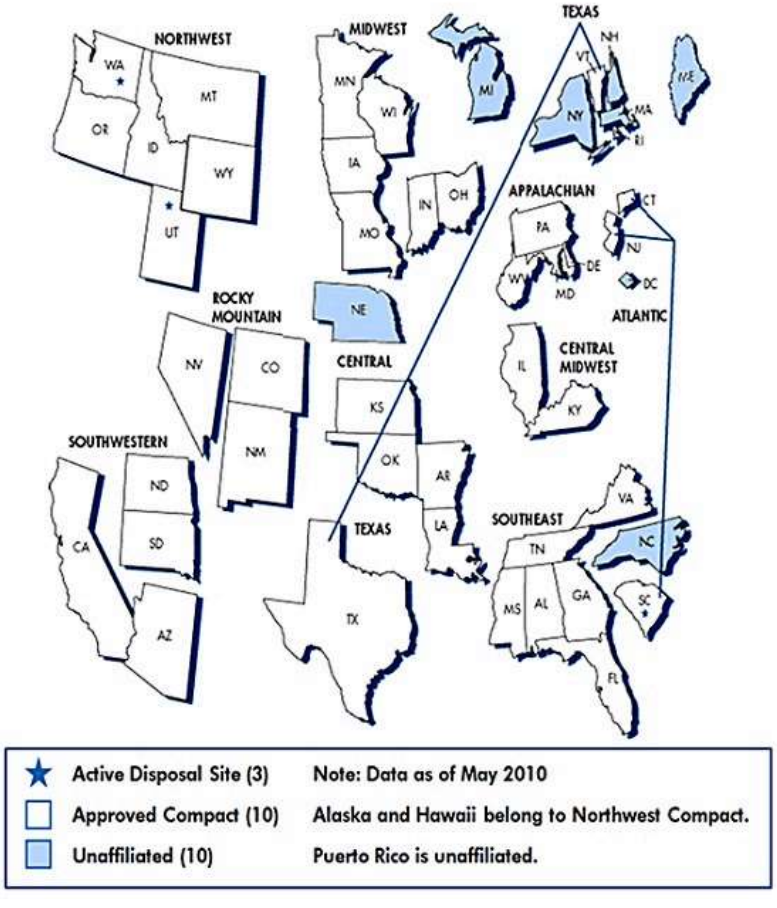

Figure 9.5.1 Regional compacts formed by states in response to the LLRW Policy Act.

Credit: U.S. Nuclear Regulatory Commission, 2011b

State government agencies and the consultants they hire to help select suitable sites assume that few if any municipalities would volunteer to host a LLRW disposal facility. They prepare for worst-case scenarios in which states would be forced to exercise their right of eminent domain to purchase suitable properties without the consent of landowners or their neighbors. GIS seems to offer an impartial, scientific, and therefore defensible approach to the problem. As Mark Monmonier has written, "[w]e have to put the damned thing somewhere, the planners argue, and a formal system of map analysis offers an

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'objective,' logical method for evaluating plausible locations" (Monmonier, 1995, p. 220). As we discussed in our very first chapter, site selection problems pose a geographic question that geographic information systems are well suited to address, namely, which locations have attributes that satisfy all suitability criteria?

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