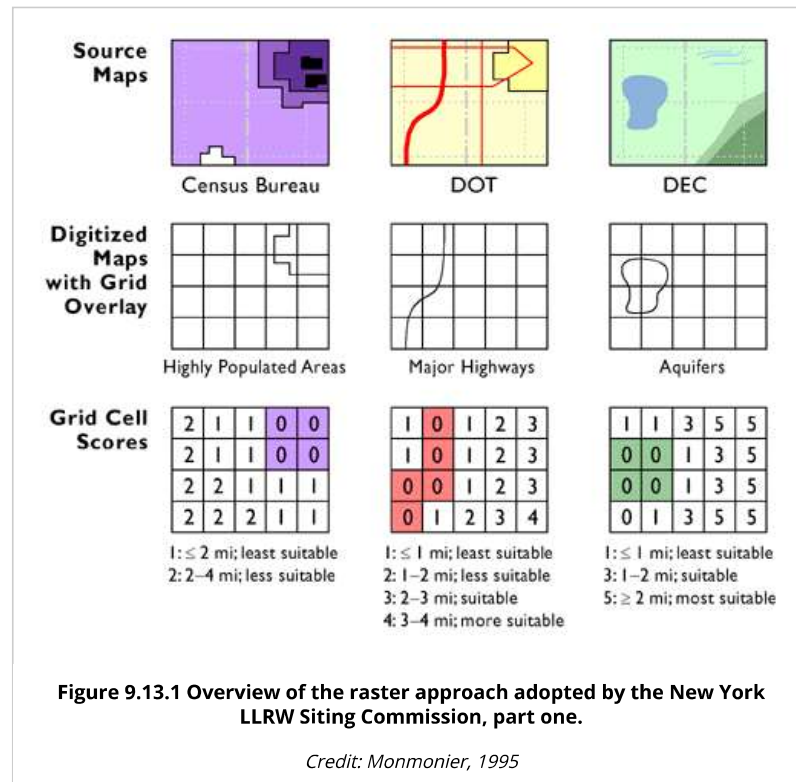


12. New York Case Study



Like Pennsylvania, the State of New York was compelled by the LLRW Policy Act to dispose of its waste within its own borders. New York also turned to GIS in the hope of finding a systematic and objective means of determining an optimal site. Instead of the vector approach used by its neighbor, however, New York opted for a raster framework.

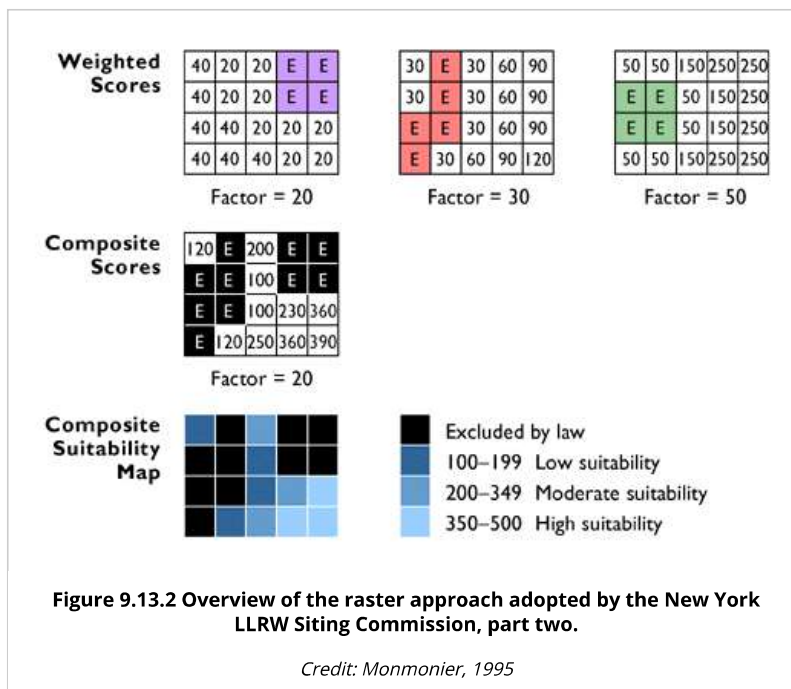


Mark Monmonier, a professor of geography at Syracuse University (and a Penn State alumnus), has written that the list of siting criteria assembled by the New York Department of Environmental Conservation (DEC) was "an astute mixture of common sense, sound environmental science, and interest-group politics" (1995, p. 226). Source data included maps and attribute data produced by the U.S. Census Bureau, the New York Department of Transportation, and the DEC itself, among others. The New York LLRW Siting Commission overlaid the digitized source maps with a grid composed of cells that corresponded to one square mile (640 acres; slightly larger than the 500 acres required for a disposal site) on the ground. As illustrated above, the Siting Commission's GIS subcontractors then assigned each of the 47,224 grid cells a "favorability" score for each criterion. The process was systematic, but hardly objective, since the scores reflected social values (to borrow the term used by McHarg).

The Nature of Geographic Information

Chapters

- ▶ Chapter 1: Data and Information
- ▶ Chapter 2: Scales and Transformations
- ▶ Chapter 3: Census Data and Thematic Maps
- ▶ Chapter 4: TIGER, Topology and Geocoding
- ▶ Chapter 5: Land Surveying and GPS
- ▶ Chapter 6: National Spatial Data Infrastructure I
- ▶ Chapter 7: National Spatial Data Infrastructure II
- ▶ Chapter 8: Remotely Sensed Image Data
- ▼ Chapter 9: Integrating Geographic Data
 - 1. Overview
 - 2. Context
 - 3. Low Level Radioactive Waste
 - 4. Siting LLRW Storage Facilities
 - 5. Map Overlay Concept
 - 6. Pennsylvania Case Study
 - 7. Vector Approach
 - 8. Stage One: Statewide Screening



- 9. Stage Two: Regional Screening
- 10. Stage Three: Local Disqualification
- 11. Buffering
- **12. New York Case Study**
- 13. Outcomes
- 14. Conclusion
- 15. Bibliography

Navigation

- [login](#)
- [Search](#)

To acknowledge the fact that some criteria were more important than others, the Siting Commission weighted the scores in each data layer by multiplying them all by a constant factor. Like the original integer scores, the weighting factors were a negotiated product of consensus, not of objective measurement. Finally, the commission produced a single set of composite scores by summing the scores of each raster cell through all the data layers. A composite favorability map could then be produced from the composite scores. All that remained was for the public to embrace the result.

[◀ 11. Buffering](#)

[up](#)

[13. Outcomes ▶](#)

Author: David DiBiase, Senior Lecturer, John A. Dutton e-Education Institute, and Director of Education, Industry Solutions, Esri. Instructors and contributors: Jim Sloan, Senior Lecturer, John A. Dutton e-Education Institute; Ryan Baxter, Senior Research Assistant, John A. Dutton e-Education Institute, Beth King, Senior Lecturer, John A. Dutton e-Education Institute and Assistant Program Manager for Online Geospatial Education, and Adrienne Goldsberry, Senior Lecturer, John A. Dutton e-Education Institute; College of Earth and Mineral Sciences, The Pennsylvania State University.

Penn State Professional Masters Degree in GIS: Winner of the 2009 Sloan Consortium award for Most Outstanding Online Program

This courseware module is offered as part of the Repository of Open and Affordable Materials at Penn State.

Except where otherwise noted, content on this site is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

The College of Earth and Mineral Sciences is committed to making its websites accessible to all users, and welcomes comments or suggestions on access improvements. Please send comments or suggestions on accessibility to the site editor. The site editor may also be contacted with questions or comments about this Open Educational Resource.



The John A. Dutton Institute for Teaching and Learning Excellence is the learning design unit

Navigation

- Home
- News
- About
- Contact Us
- People
- Resources
- Services
- Login

EMS

- College of Earth and Mineral Sciences
- Department of Energy and Mineral Engineering
- Department of Geography
- Department of Geosciences
- Department of Materials Science and Engineering
- Department of Meteorology and Atmospheric Science

Programs

- Online Geospatial Education Programs
- iMPS in Renewable Energy and Sustainability Policy Program Office
- BA in Energy and Sustainability Policy Program Office

Related Links

- Penn State Digital Learning Cooperative
- Penn State World Campus
- Web Learning @ Penn State

of the College of Earth and Mineral Sciences at
The Pennsylvania State University.

- Earth and
Environmental
Systems Institute
- Earth and Mineral
Sciences Energy
Institute



2217 Earth and Engineering Sciences Building, University
Park, Pennsylvania, 16802
Contact Us

Privacy & Legal Statements | Copyright
Information
The Pennsylvania State University ©
2023