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RESOURCE EXTRACTION AND LANDFILL ACTIVITIES OF TAZEWELL COUNTY, ILLINOIS

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This map displays the historic and modern mineral resource extraction and waste disposal activities in Tazewell County. There have been two main types of resources mined in the county: coal and industrial minerals.

All coal mining in Tazewell County has been done underground. This mining occurred only in the western part of the county, where the coal-bearing bedrock units are near the surface, and the overlying bedrock and surficial deposits are relatively thin. Although coal mining operations have ceased in Tazewell County, many shafts and underground workings remain. These workings are a concern for landuse planning for two reasons. First, mined-out areas may be structurally unstable and prone to subsidence. Second, open workings and shafts may act as subsurface conduits between aquifers, which could transmit water or contaminants.

Coal mining activity data were supplied by the Illinois State Geological Survey Coal Section (North 2000). Compiled in 1998, this is the most accurate and recent information available for the county. Given the long history and the variable nature of mining in the county, some coal extraction, shaft sinking and other mining-related activities may have gone unreported.

Industrial Minerals is a general term referring to the mining of bulk non-metallic earth materials for industrial and construction purposes. In Tazewell County the industrial minerals that have been mined include gravel, sand, and clay. These resources have been extracted from open-pit or surface mines. The resources occur predominantly in Quaternary deposits, although some shale bedrock has been mined for the brick industry. Because of the relatively low value per ton of these resources and their high cost of transport, the distance between the location of extraction and location of use is a critical consideration in identifying a resource for development. In areas where landuse patterns are evolving, it may be important to identify and protect potential industrial mineral resources before they are lost to urbanization or other land use changes.

Industrial Mineral data were collected from several paper and digital maps. Historic data came from Hunter (1966). This information was augmented by mine sites indicated on the USGS 1:24,000 Digital Raster Graphics (DRG) files, and sites listed in Masters et al. (1999). These data were further refined by comparing locations to USGS Digital Orthophoto Quarter-quadrangle (DOQ) maps. These 1-meter resolution photographs taken in 1998 and 1999, were used to refine location information, identify unreported or private extraction activities, and to differentiate active from non-active pits.

This map also shows the locations of several landfills in Tazewell County. As with any land use plan, several factors may influence the suitability of a location for operation of a landfill. The cost of operation, and the long-term prevention of leachate migration, may be influenced by the natural geologic and hydrologic conditions of a candidate site. The four landfills shown on this map were identified by the Tazewell County Health Board. Maps and diagrams of the landfills were compared to USGS DOQ maps, and digitized on-screen. The green-shaded areas shown on the map represent the maximum area of visible land disturbance at the time the DOQs were produced.

All other data used in compiling this map were also used for from map "Surface Topography of Tazewell County, Illinois" (Johnstone and McGarry 2003).

REFERENCES

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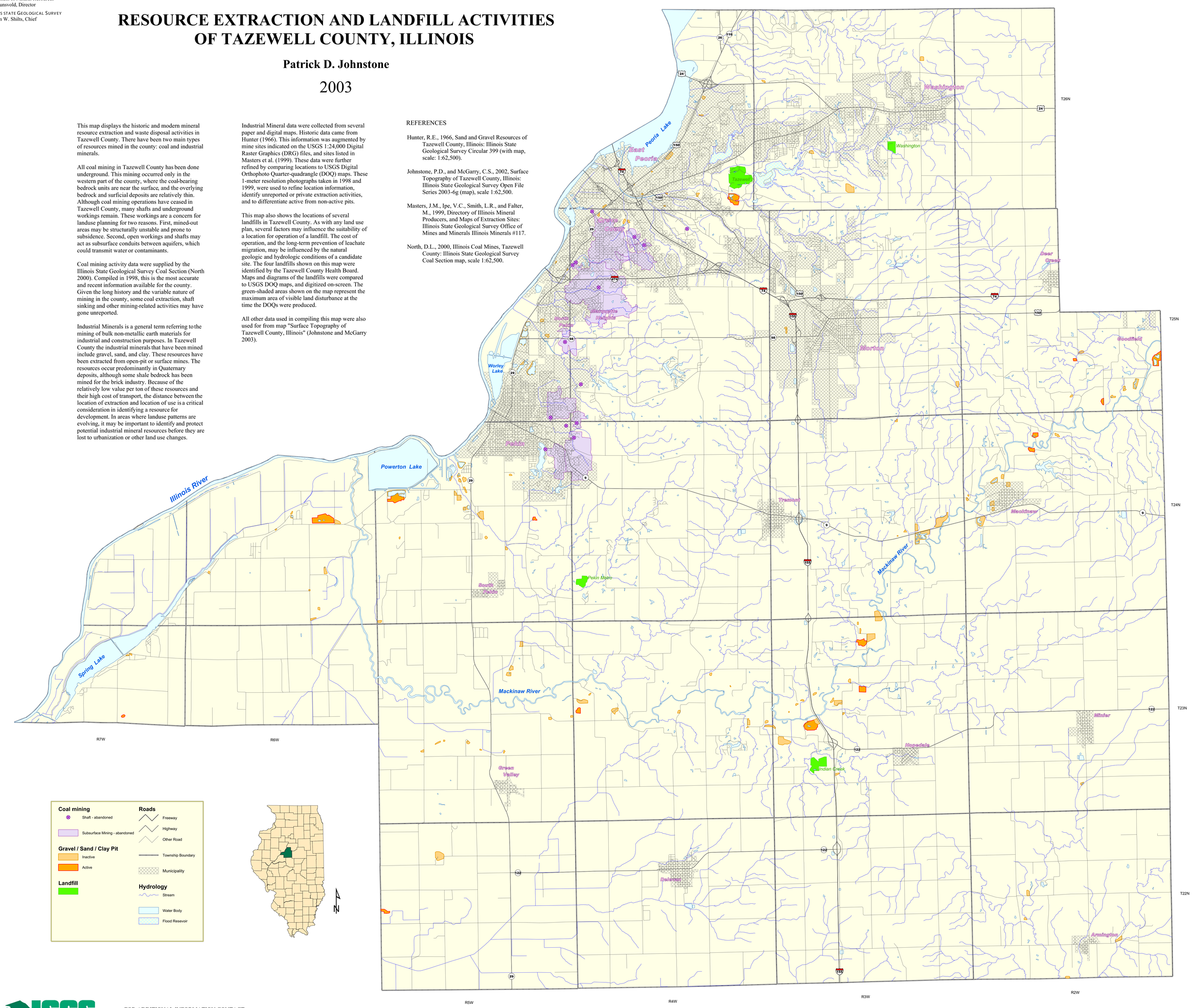

Coal mining
- Shaft - abandoned
- Subsurface Mining - abandoned

Gravel / Sand / Clay Pit
- Inactive
- Active

Landfill

Roads
- Freeway
- Highway
- Other Road
- Township Boundary
- Municipality

Hydrology
- Stream
- Water Body
- Flood Resevoir

1:62,500

(1 inch equals approximately 1 mile)

1 0 1 2 3 4 Miles

1 0 1 2 3 4 5 Kilometers

Lambert Conformal Ciconic Projection

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