



5.29 Irretrievable and Irreversible Resource Losses

Constructing I-69 from Evansville to Indianapolis will involve a commitment of many resources. Some of these resources include land, construction materials, and manpower. Land used in the construction of the proposed highway is considered an irretrievable resource that includes everything below the surface as well.

Irretrievable resources in the Study Area include coal, oil, and limestone deposits. Other resources affected are farmland, karst and cave areas. Karst and cave regions are a source of limestone, recreation and habitat. A karst is a hilly landscape of caves and sinkholes that develops on some dissolving limestone formations. (Camp, 1999) Unlike wetlands replacement, the loss of karst and caves is non-replaceable. Karst areas are sources of recharge for underground aquifers and play an important role in groundwater supplies for human consumption.

It is not only the overlaying roadways that will make these resources irretrievable, but also a host of indirect impacts subsequent to construction of the highway. Indirect development issues are the construction of business and residential areas along the roadside. Development in the vicinity of the road will cause greater runoff problems that could affect karst and cave areas. Runoff would come from parking lots, roads, and other non-point discharges and cause water quality issues with the possible degradation of an irretrievable resource. Most groundwater in karst areas moves through openings in the rock and its flow is often faster, more concentrated and less predictable than groundwater movement in non-karst areas. It is difficult to determine the locations and directions of flow of all the groundwater conduits in an area, and in the event of a spill, the effects could be rapid and unpredictable. Pollutants can travel many miles underground in an unknown direction, in a single day, in a relatively undiluted state, making containment, cleanup, and public protection virtually impossible. (Keith and Powell, 1997) Secondary impacts from development will take more land that has mineral resources and prime farmland as well.

Limestone is another resource of concern. Indiana produces about 60% of the limestone in the United States. A number of the alternatives cross the Michell Karst Plain, which is known for its limestone deposits. This karst plain extends across parts of Putnam, Owen, Morgan, Monroe, Greene, Lawrence, Martin, Orange, Washington, Crawford, Harrison, and Perry Counties. As long as the land above the deposits is used for a highway and surrounding development takes place, these deposits will no longer be available for use. There is a possibility of below ground extraction that could access these deposits, while keeping a sufficient overburden above the limestone to ensure the stability of the road. One limestone company presently has the capability to do that type of mining.

The use of these resources is warranted in this project because the construction of this highway will produce an overall improved transportation system. All efforts will be made to minimize the covering of limestone deposits for the proposed alternatives. Such mitigation would include the avoidance of intersections in sensitive karst areas, and efforts to encourage planned development with the proper infrastructure for future development.



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