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Lackawanna Valley Industrial Highway: Secondary and Cumulative Impacts Analysis and Cultural Resources

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INTRODUCTION

Guidelines prepared by the Council on Environmental Quality (CEQ) for implementing NEPA, broadly define secondary effects as those that are "caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable" (40CFR 1508.8). In order to fulfill the general NEPA mandate of environmental sensitive decision making, the FHWA and The Pennsylvania Department of Transportation (PennDOT) have directed that secondary impact issues be incorporated into the highway development process. As the other papers in this session indicate, this is often easier said then done.

The Lackawanna Valley Industrial Highway (LVIH) was a new multi-lane, limited access highway to be built from Interstate 81-84 in Dunmore, just north of Scranton, to just north of Carbondale in northeastern Pennsylvania.Following an alignment along the eastern tier of the Lackawanna Valley and crossing seven municipalities, the approximately 16 mile long highway is intended to provide better mobility in the valley, improved access to the regional expressway network, and the relief of traffic congestion of U.S. Route 6 and other valley roadways. In addition, one of the key points of the LVIH project's need statement was defined as the need to provide direct access to the existing regional highway system from the Valley to better realize economic development opportunities. Thus, development induced by the construction of the LVIH was not only anticipated but also desired. The induced development was expected to impact regional environmental resources outside of the construction corridor within which the roadway was built.

A wide variety of corridors were examined during studies for the preparation of the Environmental Impact Statement (EIS) for the project Numerous cultural resources were encountered. The surveys conducted for the LVIH project encountered over a thousand easily recognizable historic buildings, including a Historic District in the Borough of Jermyn (the only community directly impacted by the project). The historic buildings were primarily associated with the edges of urbanized areas within the Lackawanna Valley. A variety of other less easily recognized resources were also identified. These resources included a variety of coal mines and coal industry related resources, which in many cases were fragmentary, and, in the eyes of the local community, ubiquitous. Two of these historic properties: the Dolph Sunnyside Industrial District and the Delaware and Hudson Gravity Railroad covered a relatively large area and probably were not "visible" to the most occupants of the Valley. The Dolph Sunnyside Industrial District is comprised of the ruins of a small anthracite mining operation and patch town, which is important for its association with the broad patterns of the Valley's history and is less evident in the landscape. The D&H Gravity Railroad, is also less evident in the landscape, consisting primarily of right-of-way and rail bed, but is of both local and National importance. Highway design was developed taking environmental resources into consideration. Many impacts to Cultural Resources were avoided or minimized during preliminary design as a result of this integration of activities.

SECONDARY AND CUMULATIVE IMPACTS

Secondary and Cumulative impact analysis is required under the National Environmental Policy Act, although how to do it is not necessarily well defined or understood. So how was one to deal with secondary and cumulative impacts to cultural resources? To identify the resources at risk could require conducting a detailed cultural resource survey of literally thousands of historic buildings within the Lackawanna Valley as well as hundreds of not so visible resources. In addition, cultural resource issues are not the only environmental features subject to the secondary impacts engendered by the construction of the Lackawanna Valley Industrial Highway. Wetlands, bio-diversity, Terrestrial Habitat, Surface Water and aquatic resources, groundwater, noise, air quality and other issues also need to be identified and addressed.

Identifying future development can be speculative at best. Perhaps just as important is the recognition that appropriate measures to offset future developmental impacts of a project will often be beyond the jurisdiction and funding authority of the highway program.

Approach for the LVIH Project

The consultant team developed a three-step approach to assessing secondary and cumulative impacts of the proposed highway project and possible mitigation options. This was done through coordination with local officials, environmental resource agencies, FHWA, and the Pennsylvania Department of Transportation.

The first step focused on identifying locations for potential development. These locations were derived in two ways: 1) the Lackawanna Heritage Valley Plan developed by a coalition of municipalities and the County to identify economic development goals and objectives surrounding tourism, recreation, and the history of the area had information on potential development areas associated with highway construction (A key element of the plan was the assumption that the highway would be constructed). 2) The County, the MPO, the Chamber of Commerce and the 12 municipalities provided information on potential development sites as the highway was being designed. The highway designers took these possible development sites into account as they determined where to locate interchanges. This was a fairly unique project in that the local authorities had spent a good deal of time planning for economic development and had some ideas mapped and defined and were very cooperative in sharing information.

The second step of the analysis was to look at the potential impacts to various resources at the locations identified. Analysis for each site varied depending on the resource under consideration. For some resources, limited field views were conducted in conjunction with collecting available data from mapping, soils data, and other sources.

Cultural resource evaluations were completed based on existing information and professional judgment where no testing had been done. For example, previous work done in the area and the extensive survey work for historic structures and districts for the LVIH had resulted in the identification of numerous properties and the defining of several historic districts. While many of these properties could be avoided through highway design and placement of interchanges others might be at risk due to future development. For locations where no apparent information existed assumptions were made based on existing data as to the probability of finding significant cultural resources.

The third step was to consider mitigation of potential impacts. This was a complicated step as no definite impacts could be defined, yet the likely-hood of development was very high given the planning efforts of the municipalities, county and MPO and the joint commitment to economic development. FHWA proposed that money be provided to the municipalities to enhance their land use planning efforts by including environmental resources in the process. This would provide a basis for local agencies, which can influence future growth, to promote

the benefits of controls that incorporate environmental protection into planned development. The mechanism chosen to accomplish this goal of mitigating secondary impacts was the funding of a regional planning document which when adopted would serve to guide development and reduce impacts to environmental features, including cultural resources.

There are several factors, which made a planning approach to mitigating secondary impacts easier. First is the regional topography. The Lackawanna Valley Industrial Highway was constructed in a narrow valley. An existing State Road (Route 6) traverses the western edge of the Valley. It is along this road that most of the historical residential and commercial development has occurred. LVIH was constructed along the eastern side of the Valley where most historical developments related to the extraction and processing of coal. The physical constraints of the Valley also translated into political constraints as well. Twelve municipalities, responsibilities for land use planning and zoning are present: nine boroughs, a City, and two townships. The Borough lands, and to a certain degree the City of Carbondale, included areas of dense urban construction and large areas of open land. The two townships, located at the northern end of the study contained scattered suburban housing and open space. The municipalities had some common features in that most had both urbanized areas on open space concerns. The "topographic" constraints helped to limit the potential areas were secondary impacts could occur and at the same time provided some common planning concerns between the various municipalities.

A second factor making the "planning" approach more likely to be successful for mitigating secondary impacts to cultural resources was the presence of previous cultural resources work in the area. A preliminary inventory of historic resources had been made by the City of Carbondale, a Plan for the Lackawanna Heritage Valley (April 1991) had been prepared by Lackawanna County detailing approaches to cultural resource preservation in the Valley, and the data collected during the cultural resource survey for LVIH, included a wide area of coverage. The combination of recent a cultural resource management plans and recent survey data assured the high level of awareness of cultural resource issues among the planners in both the county and the municipalities.

The Lackawanna Valley Corridor Plan was prepared as part of the National Environmental Policy Act compliance process for the Lackawanna Valley Industrial Highway (LVIH). Although the idea was generated from FHWA there were serious concerns on the part of FHWA and PennDOT that funding this effort would be encroaching on the local jurisdictional responsibilities for land use planning and zoning. It might be construed as the federal and state agencies interfering in the local process. The environmental resource agencies at the state and federal level on the other hand saw this as an opportunity to have environmental resource considerations folded into the local planning and zoning process. In the end the fact that the majority of the municipalities embraced the idea of the plan sealed the deal.

As the plan states:

> The federal and state agencies were looking for some assurance that the development occurring, as a result of the highway's construction would take place in an environmentally sensitive manner. In response, the Lackawanna County Regional Planning Commission (LCRPC) proposed to the agencies that a study be undertaken to analyze the secondary impacts to the construction of the LVIH and that a framework for future land use in the valley be devised, along with transportation improvements and land development regulations, to protect environmental resources and community character. The Lackawanna Valley Corridor Plan was that study.

The mechanism for assigning the FHWA money through the state to the local level was through the LCRPC (MPO). The MPO developed agreements with

each municipality to participate in the effort. Each is a legal agreement between the MPO and each municipality.

The Corridor Plan looks closely at the projected consequences of the new LVIH on twelve valley municipalities in terms of traffic economic, environmental, land development and other community impacts. The study produced an overall framework for the future development of the valley. A Land Use plan is included with a series of detailed recommendations for transportation, conservation, housing, environmental protection, utilities, mine spoils reclamation, and community facilities, and a set of land development regulations that me be implemented by valley municipalities to ensure that new development protects community vales as well as environmental resources.

The LCRPC and other sponsoring agencies were committed to substantial and ongoing citizen participation through the planning process. There were several different committees involved and three presentations were made of the course of the study oriented to the public-at-large. In addition, newsletters were prepared during the study and mailed to valley residents to keep them informed of progress on the Corridor Plan.

Cultural Resources features were recognized in the urbanized areas of the valley and as forming the heart of many of its communities. Discrete historical and archaeological areas outside of the historic urbanized areas were also marked Interestingly as the plan developed, cultural and historic issues were combined with Landscape Resource Conservation, Open Space, and scenic resources. Not necessarily a combination which reservation professionals would approve, but providing a level of protection from future development.

The Corridor Plan relied on the existing Plan for the Lackawanna Heritage Valley for urbanized areas. The plan proposes the sensitive integration of new small to moderate scaled commercial and residential additions to the historic communities in the valley. The thought is that this will strengthen local economic opportunities and support the social organizations already present at these locations.

For resources outside of the urbanized areas the Corridor Plan, after identifying the location of recorded resources, suggests that the local municipalities enact local historic overlay district regulations. Overlay zoning would allow each municipality to protect its cultural resources, without the establishment of a formally recognized historic district or the establishment of a historic architectural review board (HARB).

The Corridor plan singles out the D&H Gravity Railroad as a cultural, historic, and landscape/scenic resource. As this resource runs from one end of the valley to the other it has been the focus of several local groups' attempts to develop rails to trails facilities. The Corridor Plan, while not endorsing such a use notes that this resource can readily be developed into park, recreation use, and historic resource development efforts when development efforts take place in the vicinity of the D&H Gravity Railroad.

What we are trying to indicate is that planning documents may be the most effective way of dealing with nebulous secondary impacts. If you know road A is being built for specific Development B to be built, it is pretty easy to identify secondary impact and to assess impacts to environmental resources. However, if Road A is being built to spur development, how much development occurs, when will this development occur and where this development will occur is pretty much anyone's guess.

How successful was the Lackawanna Valley Corridor Plan? Well to be honest, nothing earth shattering has happened in terms of development since the road was built. However, the plan has caused some shifting of proposed development

areas and the plan continues to highlight cultural resources issues, such as the Dolph Sunnyside Industrial District.

Recently, decisions have been made to shift a proposed development from an area designated in the plan for natural habitat protection, open space, and recreation, to a location designated as both development and open space. The Dolph Sunnyside Historic District is located in this latter mixed designation (open space) area and will be affected. Additional studies are planned of the known and potential cultural resources in this area before proceeding with development. A success for the plan!

Of course, there have been, and will probably continue to be problems. For example, the Dolph Sunnyside Industrial District, which is comprised of coal, mines, coal industry remains and a residential community called Dolph's Patch, has been impacted by a municipal maintenance group. The Lackawanna Valley Industrial Highway was redesigned at considerable cost to avoid impacts to the Dolph Sunnyside Industrial District. Shortly after the LVIH was built a decision was reached by one of the municipalities to extinguish a mine fire which had been burning for a number of years in an area adjacent to the LVIH. (Until the evaluation of the Dolph Sunnyside Industrial District as a historic property eligible for the National Register, this area had lain within the proposed right-of-way for LVIH). Unfortunately, maintenance bulldozed a utility road into the site through the early twentieth century portion of the coal industry remains. The group proceeded to mechanically remove soils from within a portion of the Historic District to use in "smothering" the mine fire. Finally they noted a wide range of mine features which they felt might be future safety problems. Since they already had their equipment in the area, they proceeded to move sufficient earth to close up the mines and bury the mine industry features on about a third of the land within the National Register boundary for the resource. Clearly, maintenance was not concerned with planning issues (something I think could probably be said for maintenance departments in nearly every industry). Despite such problems, the planning document seems to have been an effective means of dealing with the issue of secondary impacts.

Thanks to the planning initiative, resources, such as The Gravity Railroad and Dolph’s Patch are being re-evaluated and re-defined through the planning process so that the story of such children as these from Dolph's Patch will be preserved for the children of tomorrow in the Lackawanna Valley.