

Average disposal volumes for each alignment are as follows:

- Alternative Alignment A5-North: 414,000 cubic meters/kilometer (873,000 cubic yards/mile)
- Alternative Alignment A5-South: 350,000 cubic meters/kilometer (740,000 cubic yards/mile)
- Maintenance facility alignment: 46,000 cubic meters/kilometer (98,000 cubic yards/mile)
- Alternative Alignment B4-East: 27,000 cubic meters/kilometer (57,000 cubic yards/mile)
- Alternative Alignment B4-West: 30,000 cubic meters/kilometer (66,000 cubic yards/mile)
- Alternative Alignment C2-Mod: 380,000 cubic meters/kilometer (800,000 cubic yards/mile)
- Alternative Alignment C5: 347,000 cubic meters/kilometer (735,000 cubic yards/mile)
- Alternative Alignment C6: 340,000 cubic meters/kilometer (715,000 cubic yards/mile)

Throughout the project area, there are several areas that provide the potential to dispose of the excavation waste material. Former surface mined areas, slag dumps, razed industrial sites, and permitted landfills are numerous and located throughout the study area. These sites would provide an accessible opportunity for the appropriate and beneficial re-use of excavation waste material. Other opportunities may exist for the beneficial re-use of this material where site developments are planned but the existing terrain is unsuitable.

4.22 Irreversible and Irrecoverable Commitment of Resources

Irreversible commitments are those that cannot be reversed or are lost forever. Irrecoverable commitments, on the other hand, are those that are lost for a period of time, usually for twenty years or longer, but are exchanged for the benefit of the community.

No-Build Alternative

There would be no irreversible or irrecoverable commitment of resources associated with the No-Build Alternative. Resources could, however, be committed to other projects as a result of taking no action to build a maglev system. Rather than investing resources to build an alternative transportation system, as described in this DEIS, federal, state, and local officials could seek other ways to meet the transportation needs of the area. Depending on their magnitude, these other projects aimed at meeting the transportation needs of the area independently of the proposed maglev system could result in an irreversible or irrecoverable commitment of resources beyond that required for construction of maglev.

Build Alternatives

For any of the alternative alignments, construction of the proposed project would require a commitment of natural, human, and fiscal resources for planning, designing, constructing, and operating the system. The use of land for construction of a maglev system would be the most visible irrecoverable commitment of resources while the system functioned into the future. Land used for the right-of-way for the system would generally not be available for other uses during the lifetime of the system, although some of the land under the maglev guideway would be available for vegetative cover and limited wildlife habitat.

Construction of the project could involve the irretrievable use of wetlands, floodplains, sources of minerals, cultural resource areas, and other natural resource areas. While the commitment of these types of resources would be irretrievable, they are not unusual in the development of large-scale transportation projects that benefit many people. These types of losses would be minimized or mitigated in an appropriate manner to lessen the overall impact to the socioeconomic, natural, and cultural environment.

Considerable amounts of construction materials, including steel, concrete, and aggregate, would be expended to build the system. Upon initiating the project, these materials, as well as the labor and fossil fuels used in their fabrication and preparation, would be lost for future use. Although the use of these materials would not be retrievable, these materials are not in short supply. Consequently, there would not be an adverse effect on future projects because they were expended now instead of later.

The construction of the proposed project, regardless of which alternative is chosen, would also require a one time expenditure of federal, state, and private funds. The use of these funds would be irreversible, but construction of the maglev system could result in both the short-term and long-term stimulation of the economy that would minimize the current use of public and private monies for the project.

On the other hand, some of the funds expended for the proposed maglev system could be used for other projects if they are not used for this project. While these other projects could also result in the short-term and long-term stimulation of the economy, funding for traditional transportation projects may not attract the likely private financial investment for a new transportation technology such as maglev.

4.23 Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Construction of the proposed project would result in economic and environmental benefits consistent with regional strategic goals and local development programs. Initially, the project would create many jobs as the maglev system is assembled and its infrastructure built. A large number of new jobs would be available immediately in engineering design, fabrication, related manufacturing, construction, and operations. Short-term gains to local economies would occur due to the creation of these jobs and the purchase of services and supplies associated with both the initial construction effort and the continuing operation of the maglev system.

As a national deployment project proving the viability of maglev technology as an important alternative transportation system, the project would also establish the local region as a major exporter of cutting-edge technical know-how for the 21st century. This would have the intended effect of creating long-term jobs in a newly developed, highly technical, manufacturing and engineering sector. Additional ongoing employment opportunities would be available in western Pennsylvania if the proposed system expands beyond the current project area, or as other parts of the country recognize local achievements and utilize maglev technology to address their transportation problems.

The project would also result in the immediate reduction of vehicular traffic in the region and would support long-term national goals to reduce air travel. Maglev would provide an alternative transportation option to federal, state, and local transportation officials for alleviating future highway congestion. If eventually extended beyond the immediate project area, the high-performance of maglev transportation systems would provide air-competitive travel times at longer distances than other high-speed