

implemented over time as several projects, the likely regulatory scenario would be Section 404 Permits for each stand-alone improvement. For some projects, however, wetland impacts may be minimal, and qualify for the Regional Permit Program.

The Section 404 permit is contingent upon receipt of 401 Water Quality Certification from the IEPA. IEPA provides water quality certification pursuant to Section 401 of the CWA. The preferred alternative would be subject to the requirements of Section 401 Water Quality Certification. IEPA has granted Section 401 Water Quality Certification for projects that qualify for the USACE Regional Permit Program.

A cooperative agreement between the USACE and the local SWCDs requires a detailed review of erosion and sediment control in conjunction with Section 404 permitting. In North Cook County, review would be conducted by the North Cook County SWCD, whereas in DuPage County, the review would be conducted by the Kane/DuPage County SWCD. During Section 404 permitting, a soil erosion and sediment control plan for the build alternative would be prepared and submitted to the appropriate SWCD office for confirmation that the plan meets technical standards. The soil erosion and sediment control plan would require installation, maintenance, repair, and inspection of soil erosion and sediment control BMPs throughout the construction process.

The preferred alternative will be subject to the requirements of an NPDES permit for stormwater discharges from the construction site in Tier Two. NPDES coverage is required when a construction project disturbs one acre or more of total land area, or is part of a larger common plan of development that ultimately disturbs one or more acres of total land area. Permit coverage will be obtained either under the IEPA general permit for stormwater discharges from construction site activities, or under an individual NPDES permit. Permit requirements would include preparation of an SWPPP. The SWPPP would identify potential sources of pollution and would describe or identify practices to be used to reduce the discharge of pollutants associated with construction site activity. The permit would require the installation, maintenance, repair, and inspection of BMPs and reporting.

The IDNR-OWR issues floodway construction permits for work within regulatory floodways and for the crossing of streams with more than 640 acres of drainage area. Each preferred alternative would require issuance of this permit. The involvement of stream floodways and floodplains for each alternative are described under subsection 4.2, Water Resources and Quality, and subsection 4.4, Floodplains.

4.15 Relationship of Short-Term Uses versus Long-Term Productivity

This subsection examines short-term costs and long-term gains for the build alternatives. The short-term use refers to immediate consequences of the project; long-term use refers to direct or indirect effects on future generations.

Short-term consequences of the build alternatives include the following:

- Relocation of residences and impacts on businesses
- Removal of private properties from tax rolls, thereby reducing the property tax base

- Losses of employment
- Conversion of floodplain and wetland to transportation use
- Inconvenience to residents, business owners, suppliers, and employees during construction

Long-term benefits to be realized from the either build alternative include the following:

- Improved access throughout the study area
- Improved travel on local and regional roads
- Better connectivity between automobile and transit modes of transportation
- Improved transit opportunities for area residents and employees of businesses in the area
- Economic benefits that would result in the creation of additional jobs and spending:
 - Construction of Alternative 203 would create an estimated 9,200 jobs per year in the highway construction industry, and 21,600 jobs per year in all sectors in the region. Total value-added (the additional value of a commodity produced over the cost of commodities used to produce it) per year would be an estimated \$1.6 billion and \$4.8 billion over the three-year construction period.
 - Construction of Alternative 402 would create an estimated 7,000 jobs per year in the highway construction industry, and 16,600 jobs per year in all sectors of the region. Total value added per year would be an estimated \$1.3 billion and \$3.9 billion over the three-year construction period.
- Improvement of the competitive position of the area by promoting private investment in the redevelopment of underused properties, thus growing employment opportunities in the area to new levels
- Substantial economic benefits when considering the cumulative effects of other reasonably foreseeable actions such as the following:
 - The total construction costs for Alternative 203 including the Tollway Projects, the transit improvements and the STAR Line Project are estimated to be \$6.1 billion in 2009 dollars. Total value added for the life of the construction project (2012–2027) is estimated to be \$8.1 billion in 2009 dollars. Total sales volume as measured by total output is \$14.8 billion. The maximum number of jobs created will be in the initial years with 13,300 in the highway construction industry and 31,400 within the regional economy and then taper off during the following two construction periods.
 - The total construction costs for Alternative 402 including the Tollway Projects, the transit improvements and the STAR Line Project are estimated to be \$5.1 billion in 2009 dollars. Total value added for the life of the construction project (2012–2027) is estimated to be \$6.8 billion in 2009 dollars. Total sales volume as measured by total output is \$12.2 billion. The maximum number of jobs created will be in the initial years with 11,000 in the highway construction industry and 26,200 within the regional economy and then taper off during the following two construction periods.

The build alternatives are based on comprehensive transportation planning that considers the need for present and future traffic movement within the context of existing and future land use development and the environment. Therefore, the local short-term impacts and use of resources by the proposed action is consistent with the maintenance and enhancement of long-term productivity.

4.16 Irreversible and Irrecoverable Commitments of Resources

The build alternatives would involve committing a range of natural, physical, human, and fiscal resources. Land acquired for constructing the proposed project is considered an irreversible commitment during the period the land is used for highway purposes. Right-of-way requirements would convert land from residential, commercial, and natural environmental resource uses. Both alternatives generally are compatible with land use patterns within the study area, and adjacent land uses will remain consistent.

Fossil fuel, labor, and highway construction materials, such as steel, cement, aggregate, and asphalt, would be required during construction. Considerable labor and natural resources would be used in construction. Those resources generally are irretrievable (although they can be recycled somewhat), but their use overall would not adversely affect continued availability.

The build alternatives would require irretrievable federal, state, and local funding. Land converted from private to public uses would displace local tax revenues.

Resources are committed based on the concept that residents in the study area, region, and state would benefit from the improvements brought about by the proposed project. Improved access to commercial and industrial areas, reduced travel times, and increased economic development are expected to outweigh the commitment of resources in the long term.

4.17 Summary of Environmental Consequences

Table 4-32 summarizes the environmental effects of the No-Action Alternative and the build alternatives in combination with South Bypass Connection Options A and D. The effects would be minimized to the extent possible by using appropriate design techniques and considerations, construction methods, and mitigation measures as discussed in this document and companion technical reports.

TABLE 4-32
Summary of Environmental Consequences

	Alternative 203		Alternative 402	
	Option A	Option D	Option A	Option D
Length (miles) ^a	25.0	23.3	24.6	22.9
Right-of-way (acres)	1,910	1,895	1,600	1,585
Roadway construction costs	\$3,061M	\$2,987M	\$2,405M	\$2,331M
Roadway right-of-way costs	\$563M	\$648 M	\$388 M	\$473 M
Total roadway costs	\$3,624M	\$3,635M	\$2,793M	\$2,804M
Transit cost ^b	\$430M	\$430M	\$250M	\$250M