

## **19.0 COMMITMENT OF RESOURCES RESULTING FROM THE EVALUATED ALTERNATIVES**

### **19.1 Introduction**

This chapter presents a discussion of the permanent commitment of resources of the Proposed Project and an evaluation of the potential “costs” of consumption of environmental resources during the short-term construction phase of the Proposed Project compared to the longer term productivity benefits associated with the operation of the Proposed Project.

In accordance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality’s implementing procedures under Title 40, Part 1502 of the Code of Federal Regulations (C.F.R.), any Environmental Impact Statement (EIS) prepared pursuant to NEPA must include an analysis of both the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and of any irreversible or irretrievable commitments of resources that would occur should the action be implemented (see 40 C.F.R. 1502.16).

### **19.2 Irreversible and Irretrievable Commitment of Resources**

Resources that would be irreversibly and irretrievably committed to the Proposed Project include funds, land, construction materials, energy and labor. However, based on social and economic studies undertaken for the analysis of potential impacts as a result of the proposed project, these are not considered to be in limited supply. Thus, the use of such resources in the construction of the proposed project would not adversely impact the availability of such resources for other projects both now and in the future. Depending on the Build Alternative, it is estimated that construction of the proposed project would generate approximately 80 to 240 construction and construction-related jobs annually over the estimated three-year construction period (see Section 16.2.2). Thus, the use of labor for the construction of the proposed project would be a temporary benefit consistent with local and county plans for the maintenance and expansion of employment opportunities in the Chittenden County region. Depending on the Build Alternative, the Proposed Project could also irreversibly and irretrievably alter historic resources. The No Build Alternative would also irreversibly and irretrievably commit funds, land, construction materials, energy and labor to maintain and improve the project area roadway network.

#### **19.2.1 Build Alternative Irreversible and Irretrievable Commitment of Resources**

##### **Commitment of Funds**

The total commitment of Federal funds for the construction of the proposed project is estimated to be between \$62.4 million and \$90.1 million in 2007 dollars, depending on which Build Alternative is selected. This includes construction costs, right-of-way acquisition costs and differences in design and permitting requirements between alternatives (see Chapter 11.0). The construction and operation of the proposed project will require the commitment and expenditure of state and federal funds which will not be available for other projects and activities.

The commitment of financial resources will produce a one-time benefit to the local and regional economy through labor and capital expenditures for construction and, secondarily, through the flow of these monies within the local economy. These benefits would take the form of a

temporary increase in demand for goods and services provided locally, earnings of local employees and jobs. (see Section 16.2.2).

Direct losses to the local and county governments as a result of the proposed project include property tax payments which will be lost due to the acquisition of residential and commercial and undeveloped taxable properties within the proposed right-of-way. Depending on the Build Alternative, the Town of Williston, Town of Essex and Village of Essex Junction could lose up to \$8,300, \$12,000 and \$9,300, respectively, in annual tax revenue. These losses represent less than one-half of one percent of the property tax base of the Town of Williston and one-tenth of one percent of the property tax base of the Village of Essex Junction and the Town of Essex. This loss is considered to be an irretrievable commitment associated with the Proposed Project.

### **Commitments of Land**

A total of approximately 0 to 19 acres of acquired land would be committed for the construction and operation of the proposed project, depending on which Build Alternative is selected. The land used in the construction of the Proposed Project is considered to be an irreversible commitment during the time period that the land is used for construction and during the operational periods. Should, however, a greater need arise for the use of the land, or should the Proposed Project no longer be needed, the land can be converted and committed to another use, although at this time, there is no indication that such a need for conversion could develop or be desirable.

### **Commitments of Energy and Materials**

The proposed project will also require the use of various types of fossil fuels, electrical energy and other resources during the construction and operation. These resources are considered to be irretrievably committed to the project. At this time, these resources are not in short supply and considered to be readily available to the Proposed Project. As a result, the use of these resources is not expected to result in an adverse effect upon the continued availability of these resources.

The proposed project will require the commitment of various types of construction materials, including cement, aggregate, steel and asphalt (bituminous materials), electrical supplies, piping and other raw materials such as metal, stone, sand and fill material. Additionally, large amounts of labor and natural resources will be committed to the fabrication and preparation of these construction materials. This commitment of resources is irretrievable but not in short supply, and their use will not result in any adverse effect upon their continued availability. Much of the material accumulated for construction may at some time be recycled or used for fill or for some other use.

Development of the proposed project would result in a temporary increase in energy and fuel consumption during construction. The operation of the proposed project may result in a slight increase in energy consumption when compared to the No Build Alternative but would be expected to result in a long-term decrease in energy consumption, through increased travel efficiency along new or improved roadways during operation.

### **Commitments of Labor**

Depending on the alternative, the construction of the proposed project will require the commitment of an estimated 247 to 726 person-years of employment, or approximately 82 workers to 242 workers per year during the three-year construction period. These workers will,

by necessity, not be available for other projects during the construction period and should be considered as irretrievably committed to the proposed project.

### **19.2.2 No Build Alternative Irreversible and Irretrievable Commitment of Resources**

The No Build Alternative for the proposed project would result in an irreversible or irretrievable commitment of resources associated with maintenance and potential rehabilitation activities that could be taken over the short-term and long-term to address safety and level of service deficiencies of existing project area roadways. Maintenance and rehabilitation activities under the No Build Alternative would require commitments of construction materials, energy, labor, funds and land.

Over the short-term, commitments of funds, materials, energy, land and labor under the No Build Alternative would be less than those under the Build Alternatives because construction of the proposed project would not occur. However, over the long-term, energy use under the Build Alternatives will generally be lower than the No Build Alternative because of improvements in traffic flow.

The cost of long-term roadway maintenance under the No Build Alternative compared to the Build Alternatives is uncertain. The Build Alternatives may create a new roadway or enlarge an existing roadway that will need to be maintained in the future. The No Build Alternative may require more maintenance to compensate for the increased use of existing roadways without the proposed project. There is no reasonable method available to determine the future roadway maintenance costs associated with the Build and No Build Alternatives.

## **19.3 Relationship between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity**

NEPA requires the disclosure of the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, in other words, the tradeoffs between the potential adverse impacts of the proposed project and the potential long-term benefits of the proposed project. This section defines “short-term” as being construction related and “long-term” as being the operational phase of the proposed project.

### **19.3.1 Short-Term Uses**

The No Build Alternative would not require construction and this would not result in any short-term impacts.

Short-term construction impacts of the proposed project would be associated with the economics of affected and displaced businesses; traffic detours; pedestrian and bicycle access; noise and vibration; and air quality, including dust. The construction of the proposed project would create economic benefits during construction, in the form of jobs and the direct and indirect demand for goods and services associated with construction activities (see Chapter 16.0).

The highway system and the local road network do not meet the local or regional transportation needs for which they were intended. If the proposed project was not constructed, VT 2A would remain a primary facility utilized by locally and regionally generated traffic. As a result, the levels of service which are at unacceptable levels would decrease and service to and from the area's traffic generators would continue to decline.

The Build Alternatives would have greater impacts during the construction period than the No Build Alternative. The environmental effects of the Build Alternatives are described in detail in Chapters 6.0-16.0. Depending on the alternative, adverse direct construction impacts may include residential and retail displacements, disruption of existing traffic patterns, temporary noise and dust, and the disturbance of vegetation and soils. Most of the adverse impacts can be minimized through mitigation, as described in detail for each resource topic in Chapters 6.0-16.0. Beneficial short-term construction impacts include economic benefits to the local region through the generation of new employment and local expenditures.

### **19.3.2 Long-Term Productivity**

The operation of the proposed project may have long-term adverse impacts including the encroachment/fragmentation of some wildlife habitat, wetland filling, increased use of deicing salts, minor increases in pollutant loadings to surface water bodies, and conflicts with local land use plans and community character. Most of the adverse impacts can be mitigated, or avoided, depending on the alternative. The alternatives themselves present trade-offs between the long-term productivity impacts on different resource categories. For example, the Circ A/B alternatives generally avoid historic properties, but impact wetlands. The VT 2A alternatives impact some historic properties, but have relatively few wetland impacts.

The long-term benefits of the proposed project include reduced roadway congestion and time delays and enhanced access to important employment centers in Williston and Essex. The proposed project would also improve safety conditions and enhance pedestrian/bicycle travel, as described in Chapter 2.0: Purpose and Need for the Proposed Project.

In comparison to the short-term and long-term environmental consequences and mitigation, the operation of the Proposed Project contributes to the overall enhancement of the quality of life in the Proposed Project area and throughout the region. The proposed project would improve travel conditions and efficiency, thus contributing to long-term productivity.

Through the construction and operation of the proposed project and depending on the alternative selected, the following improvements would occur:

- Reduction in congestion and time delays for normal traffic as well as emergency vehicles, particularly along VT 2A.
- Provision of additional capacity and improved levels of service for traffic movements along VT 2A and the adjacent roadways.
- Improved safety conditions for motorists, bicyclists, pedestrians and school children along VT 2A and in the roadway network serving the area.
- Reduction in automobile related air pollution and noise.
- Improved regional access through the widening and functional improvements along VT 2A, at the new interchanges, along the Circ A/B corridor and along the adjoining local road network.

The construction of the proposed project will be phased and only portions of the proposed project area would be committed as a construction site at any given time (see Chapter 16.0). Therefore, the land area to be used during the various construction phases is considered as a short-term use while during the operation of the proposed project this land area is considered to be a long-term use. The productivity of this land, in terms of its economic productivity in generating property and sales taxes, would be lost during this period and in the long-term.

The construction period will generate new productivity in terms of new construction related employment, new payrolls and purchases of materials, supplies and services. As a result of the proposed project, non-construction related employment would be generated temporarily during the period of construction, with the addition of new purchases both from construction related activity and the added expendable income resulting from the generated part-time and permanent employment.

Depending on the alternative, the long-term effect of the construction and operation of the proposed project would be reduce congestion and improve mobility between Williston, Essex, and Essex Junction in Chittenden County (see Chapter 5.0).