

CHAPTER 2 – METHODOLOGY AND COORDINATION

2.1 Land Use, Zoning, and Public Policy

Existing patterns of land use, development regulations, and community plans for future use of the land are important considerations in an evaluation of the potential impacts of transportation improvements. This section describes the regulatory framework for land development and the evaluation of land use, the methods used in the evaluation, and coordination with agencies and stakeholders.

Land use describes the ways in which communities use the land for homes, economic activity, community services, and recreation. Existing land use has emerged over time through historic practice shaped by the need for households and businesses to be near resources and energy sources, and near each other to facilitate trade and communications. More recently, patterns of settlement, development, and the use to which land is put have been shaped by deed restrictions, local and state regulation, and the provision of infrastructure, utilities, and services.

In Vermont, land use is primarily regulated at the local level by towns and other incorporated municipalities through zoning and subdivision regulations. Zoning describes the economic and residential uses to which land can be put, and the bulk and form built improvements to the land can take. Subdivision regulations describe the procedure and performance requirements for the creation and development of new parcels of land. Land use is also influenced by other public policy goals articulated at the local, regional, and state levels as part of land use, transportation, and infrastructure planning processes.

2.1.1 Regulatory Framework

Local Zoning and Subdivision Ordinances

Vermont state law establishes the framework for municipal implementation of zoning and subdivision regulations (Title 24, Chapter 117). State law also establishes the framework for regional planning commissions and general land use goals to encourage appropriate development in Vermont (24 V.S.A. § 4302 and 24 V.S.A. § 4341).

The three municipalities making up the project study area (Town of Williston, Town of Essex, Village of Essex Junction) and all towns in Chittenden County have enacted zoning and subdivision ordinances and maintain regularly updated comprehensive plans. In addition, the Chittenden County Regional Planning Commission (CCRPC) has developed a regional plan (*2006 Chittenden County Regional Plan*). Summaries of plans and plan goals relevant to the project area are presented in Chapter 3.

State Land Use Permitting

Vermont law regulates major land use and development decisions through Act 250 (10 V.S.A. Chapter 151). The purpose of Act 250 is to regulate development in such a way as to ensure environmental protection and meet the needs of the citizens of Vermont. Not all development projects are regulated by Act 250. For example, development of less than 10 acres in a municipality with zoning and subdivision ordinances does not require an Act 250 permit (10 V.S.A. § 6001). Development projects subject to Act 250 are evaluated by a District Commission according to ten criteria or standards. These criteria include such issues as air pollution, waste disposal, wetlands, erosion control, traffic, impact on schools and municipal services, effects on scenic beauty, habitats, and agricultural soils, and conformance with town and regional plans. In order to obtain an Act 250 permit, a project must satisfy all ten criteria.

Designated Growth Centers

Act 183 (Creation Of Designated Growth Centers And Downtown Tax Credit Program) enacted during the 2006 legislative session allows for alteration in the treatment of prime agriculture land in communities that go through a planning process to establish state designation for growth centers. Prime agricultural land in designated growth centers may be developed for a lower fee, and would not be subject to requirements to demonstrate that farming would not be a more profitable use of the land. The purpose of Act 183 is to encourage new growth in areas adjacent to existing growth. The act also enables the establishment of tax increment financing in growth centers, allowing municipalities to finance infrastructure improvements based on tax revenue anticipated from development projects in the growth center.

Considerations for Land Use in Environmental Analysis

National Environmental Policy Act

The Council on Environmental Quality (CEQ) regulations for the implementation of the National Environmental Policy Act (NEPA) state that Environmental Impact Statements (EISs) for federal actions must include a discussion of direct impacts to land use and a discussion on possible conflicts between the proposed action and the objectives of Federal, regional, State, and local land use plans, policies and controls for the area concerned (40 C.F.R. § 1502.16(c)). Specifically, CEQ regulations state:

To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law. (40 CFR 1502.16(c))

CEQ guidance on implementation of NEPA indicates that local and regional comprehensive plans or specific area development plans, even though subject to change in the future, should be considered in environmental documentation.¹

Uniform Relocation Act

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended provides guidelines and procedures for the acquisition of real property for federally funded projects. The potential for residential and business relocation impacts associated with the Build Alternatives are in discussed in the Socioeconomics Technical Report.

State Policy and Regulation

Several aspects of policy and regulation in the State of Vermont are important to note in the consideration of the land use impacts of transportation projects. These include the following:

- *Executive Order 01-07* – An executive order enacted by Governor Dean in 2001 instructs all state agencies to work to foster conservation of land in and around interstate interchanges and ensure that development reflects traditional settlement patterns in accordance with Act 200. In particular, the order instructs the Vermont Agency of Transportation (VTrans) to investigate whether lands near interchanges should be protected for “conservation, scenic, and recreational uses” prior to allocating federal or state funds near interchanges or approving additional means of vehicular access (such as curb-cuts) drives, highways, rights of way).

¹Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, CEQ, 1981.

- *Interstate Interchange Guidelines* – Consistent with Executive Order 01-07, the Vermont Department of Housing and Community Affairs issued Vermont Interstate Interchange Planning and Development Design Guidelines to assist state, regional, and local agencies in planning for growth and land use change in and around interstate interchanges. The guidebook proposes planning strategies and design guidelines for use in local land use planning.
- *Access Management* – Title 19 V.S.A. 1111 grants VTrans the authority to control of vehicular ingress to, and egress from, the State Highway System. VTrans amended its criteria for consideration of curb-cuts on state highways to include consistency with the state's land use goals and conformance with state agency plans, any regional plan and approved municipal plan. In 2001, VTrans developed Access Management Program Guidelines outlining access management standards appropriate for various roadway classifications. Access management standards can affect land use through the form and orientation development takes on parcels, lot coverage, developability and other factors.

2.1.2 Data Collection and Methodology

Information on land use conditions was gathered through consultation with CCRPC and the municipalities in the project area. The following methodology was employed for the evaluation of potential impacts to these resources.

- *Identification of Existing Conditions* – Current land use and zoning conditions were identified through reference to GIS datasets on land use by tax parcel and zoning district boundaries obtained through CCRPC, along with reference to 2004 orthophotography for the project area. These data were supplemented, as necessary with reference to the zoning and subdivision ordinances for each municipality in the study area² and interviews with town planning officials. Data gathered was verified through field visits and windshield surveys. The study areas for all analyses in the Land Use Technical Report are defined as the land area within one quarter-mile of the centerline of the proposed alternative alignment. Study areas are enlarged to one half-mile around proposed interchange locations. Study areas for each alternative corridor are further divided into map segments for ease of display.
- *Evaluation of Land Use Policies and Plans* – Land use policies and plans for the project area and study areas for each alternative were identified through a review of regional and municipal comprehensive plans including the *2006 Chittenden County Regional Plan*, the *2006 Williston Town Plan*, the *2006 Essex Town Plan*, and the *Essex Junction 2002 Comprehensive Plan Update*. Reference was also made to other relevant studies including the *Williston Comprehensive Transportation Study (2003)*, the *Williston Build-out Analysis (2005)*; *Essex Junction Designated Village Center Application (2004)*.
- *Identification of Future No-Build Conditions* – To develop an estimate of land use conditions in the future, the study team consulted each of the municipalities in the project area to identify planned and permitted developments. For the study area, this evaluation involved review of Town development reports (Williston 2005 Growth Report, Essex Town and Village of Essex Junction New Development Project maps³), supplemented by reference to minutes of Planning Commission meetings and consultations with municipal planners. This exercise was carried out for all municipalities in Chittenden County for input into the Chittenden County Transportation Model and is documented in more detail in the Indirect

² Town of Williston Zoning Ordinance; Town of Essex Outside the Village of Essex Junction Official Zoning Regulations; Village of Essex Junction Land Development Code.

³ Current Planning or Zoning Applications, www.essex.org.

Effects and Cumulative Impacts Technical Report. Development projects identified for the VT 2A and Circ A/B corridor study areas are documented in Chapter 4.

- *Analysis and Disclosure of Potential Impacts* – Impacts to land use attributable to right-of-way acquisitions were identified through overlaying mapping of alternative designs and right-of-way acquisitions over land areas identified by use and zoning. The residential and commercial properties that would be acquired to construct the Build Alternatives were determined. In most cases, the need to acquire a structure is due to its location within the proposed right-of-way, and in some cases, it is due to the loss of access. Structures were grouped into two categories: residential and business. Residential included all forms of housing, both single and multifamily, and business included all non-residential uses.

The potential for induced land use change on a localized and regional level attributable to the Build Alternatives is addressed in Chapter 17 of the DEIS and the Indirect Effects and Cumulative Impacts Technical Report.

- *Discussion of Avoidance and Mitigation* – Avoidance and mitigation is discussed, as appropriate for land use impacts.

2.1.3 Agency Consultation and Coordination

As noted in Section 2.1.2, the evaluation of land use impacts was based on data on local land use and zoning districts available from the Town of Williston, Town of Essex, Village of Essex Junction and the CCRPC. During scoping, interviews were conducted with the Select Boards and key municipal staff to identify issues of importance and key data sources. Municipal planning staff were consulted during the course of the land use analysis. In addition, the CCRPC was represented at Circ-Williston EIS agency coordination meetings.

2.2 Community Facilities and Services

Community facilities are vital to the health, cohesion, and quality-of-life of a community and it is important to evaluate the potential for transportation improvements to impact the availability, capacity, provision of services, and access to these community resources. Community facilities are comprised of all public, quasi-public, and non-profit entities that serve the community as a whole or specific sectors within the community. Community facilities typically include facilities such as parks or public recreation (see Section 2.4), schools/educational facilities, churches, libraries, community centers, municipal offices, institutional residences, hospitals and health care facilities, childcare facilities, and police, ambulance and fire services.

Public utilities are also included in the evaluation of community services. Consideration of the provision of public utilities and evaluation on any effects on these services are important because these services can play a part in the location decisions of households and businesses. Water service relates to potential development density. With public water service, the economics for a higher development density and for nonresidential uses desiring a higher level of fire protection are assisted. Development, particularly single family residential development, is not prohibited by the lack of a public water supply. Lack of sewer service combined with soil conditions, on the other hand, may prohibit higher densities due to the large amount of land required for disposal. Additionally, without a public sewer system, the development itself must be of a large enough scale to cover the economic cost of a private sewer system.

2.2.1 Data Collection and Methodology

Information on current community facilities and services and potential future conditions were gathered through consultation with the CCRPC and the municipalities in the project area, and publicly available data sources. The following methodology was employed for the evaluation of potential impacts to these resources.

- *Identification of Community Facilities* – Current and proposed future community facilities were identified through a review of regional and municipal comprehensive plans. GIS mapping files indicating the location of community facilities were obtained from CCRPC and supplemented through review of private data sources such as community maps and phone listings. Data gathered was verified through field visits and windshield surveys and supplemented as necessary through consultation with municipal planning staff. Community facilities within or adjacent to the project area are listed in tables and shown on maps in Chapter 3.
- *Identification of Water and Sewer Service Areas* – Current and proposed future water and sewer service areas were identified through a review of regional and municipal comprehensive plans and plans related to infrastructure such as the Town of Essex *Sanitary Sewer System Capacity Study Update* (February 2003). GIS mapping files indicating the location of water and sewer service areas were obtained from CCRPC. Data contained in local plans and mapping was supplemented as necessary through consultation with municipal planning staff. Utility service areas within or adjacent to the project area are depicted in maps in Chapter 3.
- *Analysis and Disclosure of Potential Impacts* – Impact to a community facility or service may occur if there is a change in the operation of the facility during the construction of the proposed project or as a result of a proposed alternative. Changes to be considered include:
 - Direct displacement of facilities and services;
 - Modification of accessibility to remaining facilities and services;
 - Effect on response time of emergency vehicles (police, fire, and ambulance);
 - Impacts on highway and traffic safety as well as on overall public safety;
 - Requirements to expand the provision of services to meet needs posed by the proposed alternatives (i.e. police, fire, and ambulance).
- *Discussion of Avoidance and Mitigation* – Avoidance and mitigation is discussed, as appropriate for potential community facility impacts.

The study areas for evaluation of community facilities impacts corresponds exactly to the land use study area (see Section 2.1.2, above).

2.2.2 Agency Consultation and Coordination

As noted in Section 2.2.2, the evaluation of impacts to community facilities was based in part on data on local facilities and services available from the Town of Williston, Town of Essex, Village of Essex Junction and the CCRPC. During scoping, interviews were conducted with the Select Boards and key municipal staff to identify issues of importance and key data sources. Municipal planning staff was consulted during the course of the evaluation. In addition, the CCRPC was represented at Circ-Williston EIS agency coordination meetings.

2.3 Farmland

Farming has been an important use of the landscape in Vermont since the state's founding. Farmland has also played a key role in the state's economic progress. In 2002, farming and farm-related industries accounted for over 15 percent of Vermont's employment base and farmland in active use amounted to over 20 percent of the state's total land area. In all, total output from the agricultural industry in Vermont is over \$645 million.⁴ Chittenden County ranks fifth in terms of agricultural sales, with neighboring Franklin and Addison counties ranking first and second. Approximately 15 percent of Chittenden County's land area is currently in used as crop and pasture land. In neighboring counties, up to 25 to 35 percent of land area is in farming.

Farmland also plays a role beyond agricultural output. Vermont's pastoral landscapes attract tourism, and the presence of active farming is a key element of the character and quality of life in Vermont and Chittenden County.⁵

Although farming is still a major industry and farmland a key land use, the increasing population and value of land in Vermont has resulted in the conversion of farmland to other uses over the last 30 years. To address farmland conversion in rural and urbanizing areas, federal and state laws have been enacted to promote preservation of prime farmlands. This section outlines those protections and summarizes the approach for evaluation of potential farmland impacts of the Build Alternatives.

2.3.1 Regulatory Framework

The Federal Farmland Protection Policy Act (FPPA) of 1981 (7 U.S.C. § 4201-4209) requires federal agencies to consider the adverse effects government investments and programs may have on the preservation of farmland. The FPPA does not apply to land "committed to urban development or water storage." Two types of farmland potentially subject to FPPA requirements occur in the project area, prime farmland and farmland of statewide importance.

- *Prime Farmland* – Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. It has the soil quality, growing season, and moisture supply needed to economically produce a sustained high yield of crops when the land is treated and managed using acceptable farming methods. Prime farmland produces the highest yields with minimal inputs of energy and economic resources and causes the least damage to the environment. Prime farmland usually has an adequate and dependable supply of moisture from precipitation or irrigation. It also has a favorable temperature and growing season and acceptable acidity or alkalinity. It has few or no rocks and is permeable to water and air. Prime farmland is not excessively erodible or saturated with water for long periods and either does not flood frequently or is protected from flooding. The slope ranges mainly from 0 to 8 percent. Prime farmland may now be in crops, pasture, or woodland, but not urban and built-up land or water areas. It must either be used for producing food or fiber or be available for these uses.
- *Farmland of Statewide Importance* – Land, in addition to prime farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. Generally, these farmlands include those areas that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

⁴ Output for 2004. Statistics from United States Department of Agriculture Economic Research Service.

⁵ 2001 Chittenden County Regional Plan, pg. 8.9.

Act 250 contains provisions for the protection of primary farmland soils. Primary agricultural soils are defined by Act 250 as “soil map units with the best combination of physical and chemical characteristics that have a potential for growing food, feed, and forage crops, have sufficient moisture and drainage, plant nutrients or responsiveness to fertilizers, few limitations for cultivation or limitations which may be easily overcome and an average slope that does not exceed fifteen percent.” Primary agricultural soils must also be of a “size and location, relative to adjoining land uses, so that those soils will be capable, following removal of any identified limitations, of supporting or contributing to an economic or commercial agricultural operation” (10 V.S.A. § 6001.15).

As noted in section 2.1.1, Act 183 (Creation Of Designated Growth Centers And Downtown Tax Credit Program) allows for alteration in the treatment of prime agriculture land in communities that go through a planning process to establish state designation for growth centers. Prime agricultural land in designated growth centers may be developed for a lower fee, and would not be subject to requirements to demonstrate that farming would not be a more profitable use of the land.

2.3.2 Data Collection and Methodology

CEQ Guidance on the implementation of NEPA (1987) outlines the procedure for evaluating impacts to farmland. The VTrans Project Development Process Manual is fully consistent with the CEQ Guidance in this area. Data collection and analysis techniques employed for evaluation of farmland impacts for the Circ-Williston Transportation Project adhere to this federal and state guidance. Steps in the evaluation are as follows.

- *Identification of Farmland Soils* – The *Chittenden County Soil Survey Handbook* was obtained from the NRCS office in Williston Vermont. GIS shapefiles for soil map units from the NRCS Soil Survey Geographic Database (SSURGO) were obtained from the Vermont Center for Geographic Information (VCGI). Soil types indicated as prime, of statewide importance, unique, or of local importance were mapped for each corridor segment in the project area and compared to estimated right-of-way acquisition areas for each alternative. Soil identification and mapping are presented in Chapter 3; potential impacts are presented in Chapter 4.
- *Identification of Land Use and Zoning Conditions* – Urban and built-up areas and areas planned and zoned for residential, commercial, and industrial use are not considered primary farmlands under the FPPA. Map and site survey data gathered for the land use evaluation (see Section 2.1.2, above) were used to identify areas with prime farmland soils that are currently used or planned for non-farming purposes.
- *Identification of Active Farmland* – Special attention was given to identify areas of active farming in land use mapping and site surveys so that active uses could be distinguished from potential uses based on soil mapping.
- *Disclosure of Impacts* – Impacts to farmland attributable to right-of-way acquisitions are identified through overlaying mapping of alternative designs and right-of-way acquisitions and farmland areas identified through soil and land use analysis. The potential for farmland conversion through indirect development associated with the Build Alternatives is analyzed in the Indirect Effects and Cumulative Impacts Technical Report.
- *Discussion of Avoidance and Mitigation Measures* – CEQ guidance on evaluation of farmland impacts calls for a discussion in the EIS of avoidance measures where the Land

Evaluation and Site Assessment (LESA) score from Form AD 1005 is 160 points or greater. If avoidance is not possible, measures to minimize or reduce the impacts should be evaluated and, where appropriate, included in the proposed action.

The study areas for evaluation of farmland impacts corresponds exactly to the land use study area (see Section 2.1.2, above).

2.3.3 Agency Consultation and Coordination

As noted in Section 2.3.2, the evaluation of farmland impacts was based on data on local soil condition collected from the NRCS and local land use and zoning data available from the Town of Williston, Town of Essex, Village of Essex Junction and the CCRPC. The Vermont Department of Agriculture, Agency of Natural Resources and CCRPC were represented at Circ-Williston EIS agency coordination meetings.

2.4 Parks and Recreation Resources

2.4.1 Regulatory Framework

Section 4(f) of the Department of Transportation Act of 1966 states "...special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges and historic sites." A summary of the Section 4(f) statute and implementing regulations is contained in Chapter 21 of the DEIS, Draft Section 4(f) Evaluation.

2.4.2 Data Collection and Methodology

Information on current and potential future parks and open space were gathered through consultation with the CCRPC and the municipalities in the planning area. The following methodology was employed for the evaluation of potential impacts to these resources.

- *Identification of Parks and recreation resources*– Current and proposed future parklands were identified through a review of regional and municipal comprehensive plans and municipal plans specific to recreation such as the Town of Williston *2006 Open Space Plan* and the Town of Essex *2004 - 2010 Recreation Needs Assessment*. GIS mapping files indicating the location of local, regional, and state parks, known open space, and lands in conservation were obtained from CCRPC. As with all land use information, data contained in local plans and mapping was verified through field visits and windshield surveys and supplemented as necessary through consultation with municipal planning and recreation staff.
- *Analysis and Disclosure of Potential Impacts* – Impacts to parks, and recreation resources attributable to right-of-way acquisitions were identified through overlaying mapping of alternative designs and right-of-way acquisitions over land areas identified as current or future park resources.
- *Discussion of Avoidance and Mitigation* – Avoidance and mitigation is discussed, as appropriate for potential parks and recreation resource impacts.

The study areas for evaluation of parkland and recreation resource impacts corresponds exactly to the land use study area (see Section 2.1.2, above).

2.4.3 Agency Consultation and Coordination

As noted in Section 2.4.2, the evaluation of impacts to parkland and recreation resources was based on data on local land use and future recreation plans available from the Town of Williston, Town of Essex, Village of Essex Junction and the CCRPC. During scoping, interviews were conducted with the Select Boards and key municipal staff to identify issues of importance and key data sources. Municipal planning staff were consulted during the course of the evaluation. In addition, the CCRPC was represented at Circ-Williston EIS agency coordination meetings.