

- Payments for actual reasonable moving expenses; and
- Relocation advisory assistance services.

Mitigation for property tax impacts is not proposed because impacts to the Towns would be negligible.

### *Community Character and Cohesion*

Neighborhood cohesion impacts, such as those noted above near the Barka Elementary School area, for Alternatives C and D, or in downtown Derry, for Alternative F, could be mitigated through various transportation improvements and pedestrian safety measures. These could include, but are not limited to, installation of sidewalks, crosswalks, and warning signals at appropriate locations, as well as sidewalk bump-outs or traffic islands where practical. The loss of on-street parking in the downtown could be offset through creation of new off-street lots that are strategically located to compensate those businesses that would lose spaces in front of their shops. Adequate signage could also be installed to direct motorists to these lots. Maintaining a safe and attractive pedestrian environment in the downtown would be challenging under Alternative F, but similar methods to those described above should be considered in this area.

## **4.8 Environmental Justice**

NEPA requires the evaluation of impacts of a proposed project “on the human environment,” particularly minority and low-income populations. Title VI of the 1964 Civil Rights Act requires federal agencies to ensure non-discrimination while implementing their programs and activities. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, stipulates that each federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment to identify and avoid “disproportionately high and adverse” effects on minority and low-income populations.

The U.S. Department of Transportation (USDOT) Order 5610.2(a), *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, sets forth the USDOT policy to consider environmental justice principles in its programs, policies, and activities. FHWA Order 6640.23A, *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, establishes policies and procedures for FHWA to use in complying with Executive Order 12898.

### **4.8.1 Affected Environment**

Council on Environmental Quality guidance provides that minority populations should be identified where either "(a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." FHWA encourages the use of the meaningfully greater threshold to identify potential minority populations and. defines a minority as a person who is:

- (1) Black: a person having origins in any of the black racial groups of Africa;

- (2) Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- (3) Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent;
- (4) American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- (5) Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands (FHWA Order 6640.23A).

The Order defines a low-income person as a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.

The study area block groups (see Figure 4.7-1) and the Towns have few ethnic or racial minority groups. The study area includes a total minority population of 4.1 percent, and 3.1 percent of the population within the study area is of Hispanic descent. As previously stated, these percentages are in line with the percentages of minority and Hispanic persons in Derry and Londonderry as well as Rockingham County. Within the study area, the minority population within the block groups ranges from 0.0 to 7.4 percent, and the Hispanic population within the block groups ranges from 0.0 to 12.1 percent (see Table 4.7-1).

The average household size in the study area is 2.4, and the household size in the individual block groups ranges from 1.9 to 2.9. As such, the 2017 poverty guideline for a family of three was used (HHS, 2017). None of the block groups within the study area has a median household income below \$20,420. Within the study area, median household incomes in the block groups range from \$35,205 to \$100,086. About 3.4 percent of the population within the study area lives below the poverty threshold, and the percentage of the population living below the poverty threshold in the block groups ranges from 0.0 to 7.5 percent (see Table 4.7-2).

## **4.8.2 Environmental Consequences**

### **No Build Alternative**

The No Build Alternative would not result in residential relocations or displacements. Minority or low-income populations would not receive any disproportionately high and adverse effects.

### **Build Alternatives**

Table 4.8-1 provides a summary of census block groups within which residential relocations and business displacements would occur.

**Table 4.8-1. Residential Relocations and Business Displacements by Block Group**

Alternative Requiring Relocations or Displacements	Census Tract	Block Group	Total Population	Total Minority	% Minority	% Hispanic	Median Household Income	% Below Poverty
A, B	3400	4	677	8	1.18	3.99	\$53,097	7.4
A, B	3701	2	1852	75	4.05	0.92	\$100,086	1.1
B, C	3302	1	2750	130	4.73	4.11	\$59,643	5.3
C, D	3703	2	2310	104	4.50	1.21	\$72,344	1.9
F	3500	2	2619	72	2.75	0.00	\$40,060	3.9
F	3500	3	2186	68	3.11	8.78	\$55,625	7.5

The minority population percentage of these block groups ranges from 1.18 percent to 4.73 percent, and the Hispanic population percentage of these block groups ranges from 0.0 to 8.78 percent. The block groups comprising the study area contain 4.1 percent minority and 3.1 percent Hispanic populations. None of the block groups that would experience relocations or displacements under the Build Alternatives has a median household income that would be classified as “low-income”; however, the percentage of the population living below poverty ranges from 1.1 to 7.5 percent, compared to an average of 3.4 percent living below poverty in the block groups comprising the study area. While some of the relocations and displacements could include minority or Hispanic persons or persons living below poverty, the relocations and displacement associated with the Build Alternatives would not be disproportionately borne by minority or low-income populations.

NHDOT conducted an additional environmental justice population analysis based on a larger study area, which included a 1-mile radius for the impacted area and a 3-mile radius for the surrounding area. Appendix A, *Agency Correspondence*, contains the results of this analysis. The NHDOT analysis considered additional populations that are not directly covered by federal environmental justice policies (which focus on low-income and minority populations), such as the elderly. The NHDOT analysis resulted in recommendations about Americans with Disabilities Act access that will be considered as the design is advanced and the identification of organizations related to low-income and elderly populations that should be contacted during Project outreach activities. These organizations have been added to the Project mailing list to be notified of the availability of the SDEIS and the public hearing.

## **4.9 Geology, Minerals, and Soils**

### **4.9.1 Affected Environment**

#### **Geology**

The 2007 DEIS provides an overview of bedrock and surficial geology in the study area (see Section 3.4.1 of the DEIS). Currently, erosion, sedimentation, and landscape alteration is an ongoing process, and soils continue to form in post-glacial material.

#### **Minerals**

Economic mineral resources in the study area include sand and gravel. The stratified drift deposits represent an important source of sand and gravel. The 2007 DEIS noted two gravel pits located on U.S. Geological Survey (USGS) topographic maps that are no longer active.

- The gravel pit to the north of Hoods Pond in Derry is now closed and zoned for residential use.
- A 16.5-acre sand and gravel pit was also once located in Londonderry, just south of Pillsbury Road and north of Wheeler Pond. This gravel pit is no longer in use, and a commercial building has since been constructed at this site.

#### **Soils**

Within 500 feet of the alternatives, there are two general soil associations (Kelsea and Gove, 1994), each named for the dominant soils that are found together within a particular landscape