

2 Environmental Consequences

3 This chapter describes the impacts of the No Action Alternative and the Build alternatives
4 on the natural, social, and economic resources described in Chapter 4, "Affected
5 Environment." The No Action Alternative and Build alternatives, including the Preferred
6 Alternative, are described in Chapter 3, "Alternatives Development." The impact discussion
7 in this chapter addresses the following 15 topics:

- 8 • Social and Economic Conditions/Environmental Justice
- 9 • Land Use/Relocations
- 10 • Farmlands
- 11 • Historic, Cultural, and Archaeological Resources
- 12 • Visual Quality
- 13 • Transportation
- 14 • Noise
- 15 • Air Quality
- 16 • Surface Water/Floodplains/Water Quality
- 17 • Groundwater
- 18 • Geology and Soils
- 19 • Wetlands
- 20 • Wildlife, Fish, and Vegetation
- 21 • Threatened and Endangered Species
- 22 • Hazardous Materials

23 Each topic of discussion provides an analysis of direct impacts associated with the No Action
24 and Build alternatives. This chapter also considers the indirect (secondary) effects of the
25 Proposed Action, as well as cumulative effects that might occur from other past, present, and
26 reasonably foreseeable future actions within the study area. BMPs and legal requirements to
27 minimize identified impacts are presented in this chapter; specific mitigation measures in
28 addition to these are discussed in Chapter 9, "Mitigation."

29 The impact analyses were guided by the requirements of NEPA and recommendations from
30 the Council on Environmental Quality, *Considering Cumulative Effects under the National*
31 *Environmental Policy Act*. The Council on Environmental Quality defines direct, indirect, and
32 cumulative impacts as follows:

- 33 • **Direct impacts** are caused by the action and occur at the same time and place
34 (40CFR1508.8).
- 35 • **Indirect impacts** "are caused by the action and are later in time or farther removed in
36 distance, but are still reasonably foreseeable" (40CFR1508.8). They may include growth-
37 inducing effects related to changes in the pattern of land use, population density, or
38 growth rate, and related effects on air, water, and other natural systems. Indirect impacts
39 associated with highway improvements are those that affect the natural or built
40 environment beyond the immediate "footprint" of the highway improvements. An
41 example of an indirect impact is the loss of agricultural land at an interchange when the

1 development of service stations, restaurants, and motels occurs after the intersection is
2 constructed.

- 3 • **Cumulative impacts** result from the incremental consequences of an action when added
4 to other past, present, and reasonably foreseeable future actions regardless of what
5 agency (federal or non-federal) or person undertakes such other actions (40CFR1508.7).
6 They can result from individually minor but collectively significant actions taking place
7 over a period of time. For example, degradation of a stream's water quality by several
8 developments – that taken individually would have minimal effects, but collectively
9 would cause a measurable negative impact – is considered a cumulative effect. The
10 cumulative effects of an action may be undetectable when viewed in the individual
11 context of direct and even indirect impacts, but nonetheless can add to other
12 disturbances and eventually lead to a measurable environmental change.

13 The impacts in this chapter are summarized from detailed technical analyses conducted for
14 each resource topic. Those interested in reviewing the detailed technical analyses are
15 referred to the CD-ROM that accompanies this document.

16 NEPA and the SAFETEA-LU requirements in Section 6002, *Efficient Environmental Reviews*
17 *for Project Decision-making*, call for a systematic, interdisciplinary approach in considering
18 environmental and community factors in decision making. This requirement is the
19 overarching approach used in this DEIS and applies to all environmental topics, so it is not
20 cited specifically in each regulatory framework section.

21 5.1 Social and Economic Conditions/Environmental Justice

22 5.1.1 Methodology

23 Demographic information on the study area was obtained from the U.S. Census Bureau, the
24 U.S. Department of Commerce, ITD, the Idaho Department of Commerce, COMPASS, and
25 the communities of Meridian and Nampa, among others. In addition, several field visits
26 were made to the study area to document existing conditions. A number of phone
27 conversations and other contacts with ITD, COMPASS, and Meridian and Nampa planning
28 officials occurred in late spring 2007 and early spring 2008 to gather background data and
29 anecdotal information on the study area.

30 Potential effects on social and economic elements in the study area were identified by
31 reviewing existing data and assessing these data in regards to the Proposed Action.

32 5.1.2 Regulatory Framework

33 NEPA (42 USC Section 432) and SAFETEA-LU require a systematic, interdisciplinary
34 approach in considering environmental and community factors in decision making.
35 Community factors include cohesiveness of the neighborhoods; social, recreational, and
36 civic elements; and established travel behaviors. Other applicable laws and regulations
37 include the following:

- 38 • Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as
39 amended