

## Chapter 8. Environmental Effects Evaluation

The following sections include a description of the evaluation methodology and existing conditions in the project study area, and a comparative evaluation of each alternative's effects for 12 environmental resources. The topics that are covered in the following sections are:

- ◆ Land use and socioeconomics
- ◆ Biology
- ◆ Wetlands
- ◆ Water quality
- ◆ Utilities
- ◆ Visual resources
- ◆ Hazardous materials
- ◆ Geology and soils
- ◆ Cultural resources
- ◆ Noise
- ◆ Energy
- ◆ Air quality

Each section begins with a summary of the key effects or trade-offs between alternatives. The key effects are linked to an analysis of the ability of each project alternative to meet the stated Goals and Objectives of the project, as well as the pertinent evaluation criteria for those Goals and Objectives. To the extent possible, each resource is analyzed for potential direct, indirect, and cumulative effects.

- ◆ Direct effects are those caused at the same time as the project action. Direct effects can be temporary, long-lasting, or permanent. For example, construction impacts will directly affect traffic, noise, and dust in the short term and would result in permanent impacts to natural features such as wetlands, or they would have long-term effects caused by changes in impervious surfaces resulting from construction.
- ◆ Indirect effects are caused by the action and occur later in time or farther removed in distance, but they are still reasonably foreseeable. Indirect effects associated with the proposed action include those effects related to changes in land use patterns and increased population growth in areas served by the new connector.
- ◆ Cumulative effects are the sum of impacts from past, current, and other expected improvements or public actions.

Potential mitigation measures and enhancement opportunities are introduced in each section as appropriate.