

## 5 Potentially Affected Populations

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The population density along the mainline rail route directly affects the risk; thus, an example route with varying population density was considered in this analysis.

The example mainline route consists of 227 miles of mainline track. The mainline track was evaluated as 227 one-mile long segments to characterize the population density per mile along the example route. The maximum population density was approximated to be 20,000 people/mile<sup>2</sup>. Thus, a range of population densities from 500 people/mile<sup>2</sup> to 20,000 people/mile<sup>2</sup> were explored at both high and low train speeds to analyze the risk along the route.

The range of population densities included the following:

- 20,000 people/mile<sup>2</sup>
- 17,500 people/mile<sup>2</sup>
- 15,000 people/mile<sup>2</sup>
- 13,000 people/mile<sup>2</sup>
- 11,000 people/mile<sup>2</sup>
- 9,000 people/mile<sup>2</sup>
- 7,000 people/mile<sup>2</sup>
- 5,000 people/mile<sup>2</sup>
- 4,000 people/mile<sup>2</sup>
- 3,000 people/mile<sup>2</sup>
- 2,000 people/mile<sup>2</sup>
- 1,000 people/mile<sup>2</sup>
- 500 people/mile<sup>2</sup>