



However, the wastewater collection system presently serves only a few areas of Route 102. These areas are in the vicinity of East Avenue, Clear River Drive, and Central Street. The Town's new Facilties Plan has proposed extension of sewers to serve parts of Nasonville and Mapleville. These new sewers will cross Route 102, but won't provide service along Route 102. Therefore, new sewer extensions along Route 102 would be necessary to serve commercial or industrial developments in the project area.

In summary, it is anticipated that the Harrisville Water Department will be able to provide water for future commercial/industrial development of approximately 720 to 840 acres. It is estimated that the Wastewater Treatment Facility will have sufficient treatment capacity for accommodating wastewater from approximately 200 to 210 acres of commercial/industrial development. Based on the foregoing information, the Town will have the water and wastewater capacity necessary to develop approximately 200 to 210 acres along the Route 102 corridor. However, extensions of water and sewer service will be required to take advantage of this available capacity.

# 1. Transportation

Route 102 (Bronco Highway) is classified as a Principal Arterial according the Federal Highway Administration (FHWA) Functional Classification system, see Figure 8. Victory Highway, which runs the length of Route 102 through Burrillville, is classified as a Collector according to the same system. Route 102 is intersected by Lapham Farm Road, Central Street, and Spring Lake Road, all of which are also classified as Collector roads. East Avenue, which intersects Route 102 from the west, is listed as a Principal Arterial. Douglas Pike enters into Route 102 from the east as a Principal Arterial. West of Route 102, Douglas Pike is not considered in a functional class category as this road traverses only recently become paved.

Daily traffic counts along Route 102 range from approximately 10,500 to 13,100 trips per day. The "level of service" along the corridor ranges from A to B as you travel south along the highway during the morning commute. During the afternoon commute the "level of service" is classified as B. "Level of Service" is a measure of traffic capacity that ranges from A to F, with A being an extremely good, free flowing condition and F representing stopped conditions or traffic failure (traffic "jam"). Level of service D is considered the minimum acceptable condition for urban highways. Therefore Route 102, with levels of service in the A and B range, is considered to be functioning below capacity. Route 102 therefore has considerable remaining capacity to accommodate additional vehicle traffic, which might result from anticipated commercial, industrial and residential development in the project area.

# A. Environmental Constraints

The evaluation of the study area was conducted through the use of field studies and a variety of maps including aerial photographs, R.I. Geographic Information System data (GIS), and United States Geological Survey (USGS) data maps. USGS Quadrangles along which the Route 102 corridor passes include the Blackstone, Georgiaville, and the Chepachet. The topography of the area is best characterized as being of rural character, predominately forested open land with areas



of rock outcroppings and steep slopes as seen in Figure 9. Environmental constraints are also depicted in Figure 10.

## 1. Soils

An analysis of soil conditions was developed using a GIS data layer provided by the Town using soils classification guidelines as described by the Rhode Island Municipal Comprehensive Plans using the United States Department of Agriculture (USDA) soil survey classification system. The classification system used in defining the Development Groups was developed according to restrictions or constraints to residential or commercial development. From a soil constraints analysis, the study area is characterized by a variety of constraints ranging from seasonal high water table and hydric soils to severe slopes and bedrock as shown in Figure 11. Seasonal high watertable is classified as water within 19-42 inches of the surface. Hydric soils ranging from 0-19 inches in depth are considered another potential development constraint within the soils analysis. Another development constraint found along the Route 102 corridor is bedrock and slopes greater than 15 %. The area with the most serve environmental constraints is located just north of the proposed Clear River Drive. This area contains rock constraints as well as hydric soils with two small areas subject to seasonal high water table immediately adjacent to the Clear River. Another area with potential development constraints includes the land just south of Sucker Pond, which is characterized by bedrock and slope constraints. The presence of wet soils along both sides of Route 102 between Lapham Farm Road and Central Street constitutes another potential area with development constraints. Bedrock and slope constraints interspersed with serve hydric soil constraints area located just north of East Avenue. Parcels within the vicinity of the Glendale area proceeding north to Douglas Pike are predominately characterized by seasonal high water table and hydric soils along both sides of the Route 102 corridor.

# 2. Surficial Geology

The geology of the study area is classified as Glacial till with outwash deposits along the rivers and other low-lying areas. Topographical features of the area are consistent with this type of geology in that they are irregular with steep slopes and rock outcrops.

# 3. Water Quality

Surface water resources were evaluated using RIGIS data in addition to GIS information provided by the Town. As shown in Figure 12, the study area is located within the Branch River, Clear River, and Chepachet River sub-basins of the Blackstone River Basin. Surface water bodies either within or in close proximity to the study area include the Slatersville Reservoirs, Lapham Pond, and Sucker Pond in addition to the Branch and Clear Rivers.

Surface water bodies such as the Slaterville Reservoirs and Lapham Pond are classified as Class B under RIDEM Office of Water Resources Water Quality Regulations. These waters are therefore classified as being available for designation for fish and wildlife habitat and primary and secondary contact recreational activities. These water bodies may also be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses. Additionally, these waters are classified as having good aesthetic value.