## **<u>3: ELEVATION/HILLSHADE</u>**

This elevation relief depiction is based on the reclassified 10-meter Digital Elevation Model. This model is produced by ArcGIS utilizing the 3-D Analyst Module. The elevation database is supplied by NJDEP. This modeled view is useful for portraying the area's topography and conceptualizing slope. The hillshade image for Franklin Township is color coded to express relative differences in elevation and slope (Figure 3). Shades of blue and gray are representative of lower elevations, while brown shades are indicative of higher elevations. Green shades denote a range of mid- elevation values. Areas of changing colors are areas of significant relief, often times slopes in excess of 20%, which is the maximum slope at which development is allowed within parts of the Township that lie within the Highlands Preservation area. More uniform areas of color are relatively flat and lack significant topographic relief. The importance and relevance of slope is discussed in greater detail in the Steep Slopes section.

The unique topography of Franklin Township is derived from its varied geology characterized by faulting and folding. This produces sharp relief and a varied terrain with a difference of over 915 feet from the lowest to the highest point. The lowest elevation in the Township is 254 feet above mean sea level. Areas of low elevation lie along the Pohatcong Creek and Musconetcong River valleys. These areas are relatively flat characterized by low-lying valleys associated with sedimentary geological formations and agricultural lands. The highest elevation in the Township is 1,169 feet above mean sea level. The north and central portions of the Township are characterized by rugged ridgeline. The central ridgeline, called the Pohatcong Ridge separates the Pohatcong valley from the Musconetcong valley. The northern ridgeline contains Scotts Mountain which extends into Harmony Township. The topography that occurs in Franklin Township is referred to as karst topography due to the underlying limestone, sinkholes and depressions.

It is useful to view equal interval ranges from lowest to highest elevations to more easily discuss Township topography. The lowest and highest intervals respectively account for 42.7% and 8.7% of the Township. The lowest interval ranging from 254.4 to 411.7 feet accounts for the greatest percentage of Township area at 42.7%. The mean elevation of the Township is 531.6 feet. This information describes a land area punctuated by relatively low valleys and relatively high peaks.

