

Section 4

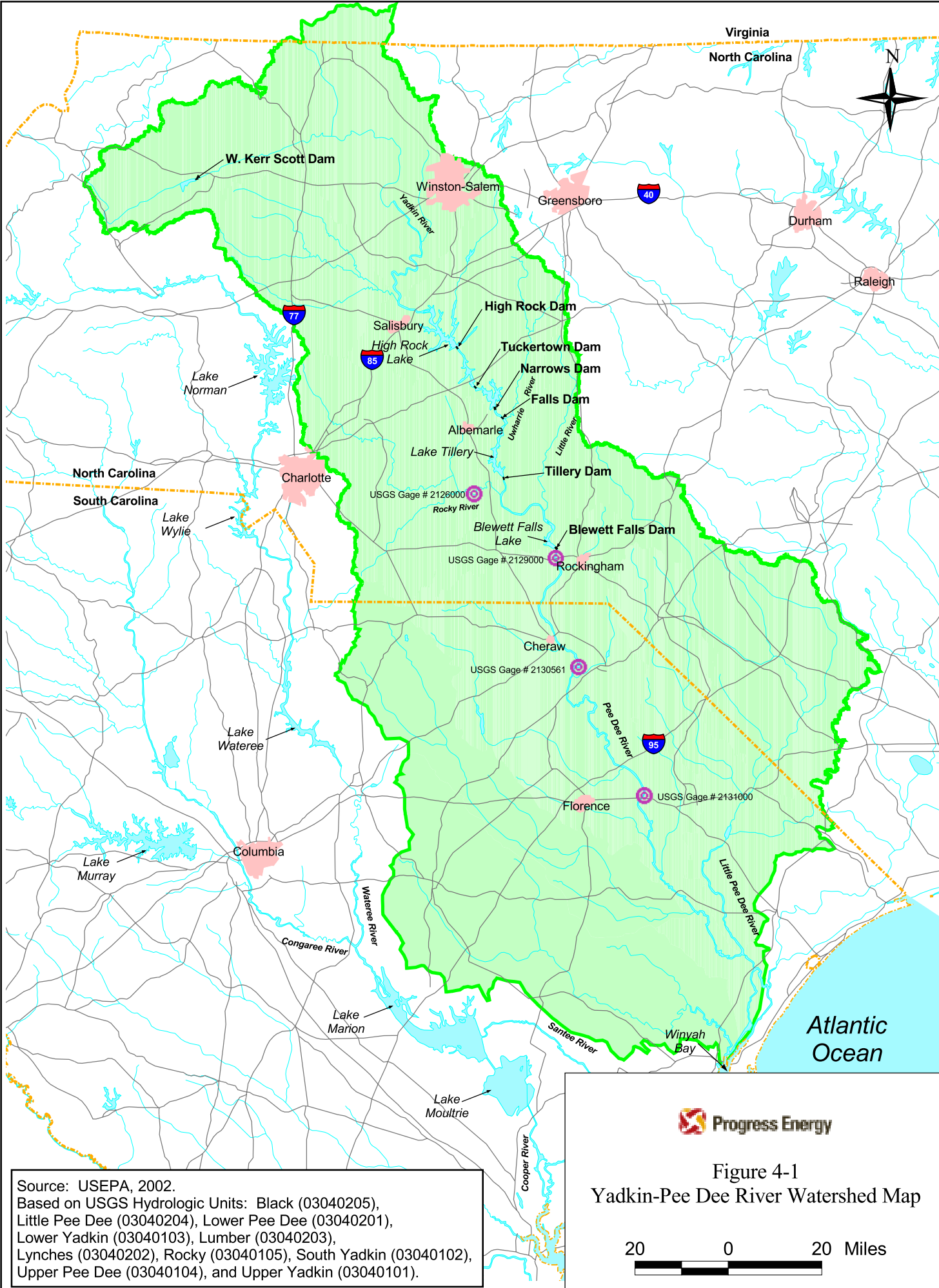
Environmental Resources

4.1 Project Setting


The Yadkin-Pee Dee River Project is located on the Pee Dee River in the south-central part of North Carolina, approximately 50 miles east of Charlotte and 60 miles south of Greensboro. The Project, consisting of the Tillery and Blewett Falls Developments, is located between river miles 188 to 230. There is an approximately 17-mile stretch of river between Tillery Dam and the upper reaches of the Blewett Falls impoundment. The Pee Dee River has its headwaters in the Blue Ridge Mountains and then flows through central North Carolina to the Project area. Below Blewett Falls, it flows another 190 miles before it reaches the Atlantic Ocean at Winyah Bay at Georgetown, South Carolina (Figure 4-1). The river is an important resource for power generation, recreation, wildlife habitat, and a source of domestic and industrial water supply for the region (Yadkin-Pee Dee Lakes Project website 2002).

The Project is located in the Uwharrie Lakes region, in North Carolina's central piedmont. This region consists of rolling hills accentuated by one of the oldest mountain ranges in North America—the Uwharrie Mountains (Yadkin-Pee Dee Lakes Project website 2002). The Uwharrie Mountains are aligned northeast to southwest in the Project area and range up to approximately 1,000 ft above msl in elevation (U.S. Department of Agriculture [USDA] 2001). The Uwharrie River flows through this region and empties into the Yadkin River below Falls Dam. It is at this confluence that the river is known as the Pee Dee River. Although the Project is located in a rural farming region characterized by rolling hills, much of the land immediately adjacent to the Project is managed for timber.

The Uwharrie Lakes region is comprised of the area associated with six lakes that were formed as a result of the construction of six dams along a stretch of the river from Salisbury, North Carolina, downstream approximately 60 miles to the Blewett Falls Dam near Rockingham. The




Source: USEPA, 2002.
 Based on USGS Hydrologic Units: Black (03040205), Little Pee Dee (03040204), Lower Pee Dee (03040201), Lower Yadkin (03040103), Lumber (03040203), Lynches (03040202), Rocky (03040105), South Yadkin (03040102), Upper Pee Dee (03040104), and Upper Yadkin (03040101).

 **Progress Energy**

**Figure 4-1
 Yadkin-Pee Dee River Watershed Map**

20 0 20 Miles



Yadkin Project, owned and operated by APGI, is located upstream of the Tillery and Blewett Falls Developments, and consists of four dams and their respective reservoirs: High Rock, Tuckertown, Narrows, and Falls. Flow into the Tillery Development is dependent on the releases from the upstream APGI project, and to a much lesser extent, the Uwharrie River.

The region's population centers are located along U.S. Interstate Highways I-85 and I-40, extending from Charlotte to the Raleigh-Durham area in an area known as the "Piedmont Crescent". This is one of the most rapidly developing regions in the country (NCDWQ 1988). The population increase in this region has resulted in pressure for residential development along the lakes. Lake Tillery has experienced greater shoreline residential development than Blewett Falls. While there are over 1,000 homes and cottages along the Tillery shoreline, there are only a few homes or seasonal dwellings at Blewett Falls Lake. The region of the state centered around the six reservoirs has been termed as North Carolina's "Central Park". The Central Park area has been considered by some organizations as a region that can serve as a rural hub for outdoor recreation and tourism for local residents and the surrounding metropolitan areas (ASU 1999). This planning concept is discussed further in Section 4.9.

Downstream from the Project, the Pee Dee River flows approximately 17 miles where it enters South Carolina. From there it continues for another approximately 170 miles through bottomland forests and eventually into swamp lands and the coastal flats before it discharges into the Atlantic Ocean via Winyah Bay. Much of the area in South Carolina is rural; however, the Pee Dee River is important to municipalities and industry alike as a source of water and for receiving treated wastewater. The major municipalities that utilize the Pee Dee include Bennettsville, Cheraw, Florence, and the Grand Strand Water and Sewer Authority. Industries and commercial development in proximity to the river are located primarily in the areas near Cheraw, Bennettsville, and Florence.

The climate of the project area is typical for the southeast U.S. The average annual air temperature recorded in Wadesboro is 60.9°F, with a daily average maximum of 72.0°F and daily average minimum of 49.8°F. Average annual precipitation is 47.04 inches (USDA 2002 NRCS website).