



Figure 2-2. Arkansas Nuclear One - Exclusion Area

The property consists primarily of meadows, with surface elevations ranging from about 120 m (400 ft) to 150 m (500 ft) on the peninsula. The site has excellent natural drainage. Surface runoff from the site is collected in storm water drains, the intake canal, and the emergency cooling pond where it is discharged to Lake Dardanelle. The average annual rainfall at the site area is approximately 124 cm (49 in).

Lake Dardanelle is part of the Arkansas River and is 80 km (50 mi) long. The lake was created as part of the multi-purpose project for improvement of the Arkansas River by the construction of the Dardanelle Lock and Dam. The Dardanelle Lock and Dam facilitates navigation on the river and provides for generation of hydroelectric power, as well as recreation and fish and wildlife resources. The lake was one of 17 impoundments built along the Arkansas River to provide a 724-km (450-mi) navigable channel from the Mississippi River to Catoosa, Oklahoma. Lake Dardanelle is over 18 m (60 ft) deep at its lower end, averaging 3 m (10 ft). The lake has a surface area of approximately 14,975 ha (37,000 acres) and a storage capacity of $6 \times 10^8 \text{ m}^3$ (486,000 acre-ft). ANO is located about 9.5 km (6 mi) upstream from the Dardanelle Dam. The Arkansas River Navigation Channel is about 2.2 km (1.4 mi) south of the reactor buildings.