

Did You Know?

- The lake was created by Dominion Energy to provide cooling water for the North Anna Power Station.
- Lake Anna is 17 ½ miles long and 1 ½ miles wide.
- Offers 200 miles of shoreline.
- There are 9,600 acres in Lake Anna Reservoir and 3,400 acres in the private Waste Heat Treatment Facility.
- The Waste Heat Treatment Facility was formed by diking off a portion of the Lake Anna Reservoir, and consists of three cooling lagoons interconnected by canals.
- In 1972, the Commonwealth stocked the lake with 5 ½ million fish and it is restocked periodically.
- Some 33 species of fish thrive in the lake, including large mouth bass, striped bass and catfish.



The clearing of Lake Anna's bed started in 1968. This photo captures the clearing of the lake bed where the Pamunkey Creek and North Anna River intersect at Spotsylvania and Louisa County.



North Anna Nuclear Information Center

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Visit Us On The Internet At:

<http://www.DominionEnergy.com>

Visiting Hours: Monday – Friday
9 a.m. to 4 p.m.
Closed Holidays
Admission Free

The Information Center offers numerous ways to learn about energy and electricity. Groups are welcome and should make reservations in advance to ensure program availability. Pack a lunch, and relax at our outdoor wooded picnic area.



Lake Anna



Lake Anna

Dominion Energy built Lake Anna and the Waste Heat Treatment Facility (WHTF) in the late 1960s to provide cooling for the North Anna Power Station. When the station is at full operation, about 2 million gallons per minute of water will pass through the station.

The water level in Lake Anna fluctuates above or below the normal lake level elevation of 250 feet above mean sea level (MSL). Normal fluctuations experienced to date have been between 249 feet and 251 feet, however maximum water levels of 255 feet or low water levels of 242 feet could be experienced during extreme conditions. Dominion Energy is required by regulatory permits to discharge normally at least 40 standard cubic feet per second (scfs) from the spillway. The discharge flow will be increased as necessary following precipitation to return Lake Anna level to 250 feet. The discharge flow will be reduced to 20 scfs, in accordance with regulatory permits, if Lake Anna level decreases to 248 feet. The discharge flow is continuously monitored and adjusted as necessary by full-time spillway operators.

Waste Heat Treatment Facility

North Anna Power Station uses water from Lake Anna to condense steam back into water inside the station. The water is released into the WHTF slightly warmer than when it was taken. The discharged water cools to ambient temperatures as it flows through a series of private lagoons and is returned to Lake Anna.

The water level in the WHTF fluctuates above or below the median operating level of 250.8 feet above msl. Docks in the WHTF should be constructed above the initial design limit of 251.5 feet. The water level fluctuates based on Lake Anna level and the number of circulating water pumps that are in service to support operation of North Anna. During refueling outages – typically one month in duration in the spring or fall – the circulating water pumps may be turned off on the outage unit, resulting in a temporary water level decrease of about 8.5 inches. During the winter months, two circulating water pumps are turned off and the

discharge of the other six pumps may be throttled for cold water operations. This results in a seasonal WHTF level decrease of about 8 inches.

The WHTF actual water temperature is available electronically [HERE](https://www.dominionenergy.com/about-us/making-energy/nuclear/north-anna-power-station/waste-heat-treatment-facility): <https://www.dominionenergy.com/about-us/making-energy/nuclear/north-anna-power-station/waste-heat-treatment-facility>

North Anna Dam

The North Anna Dam was built across the North Anna River and is 5,000 feet long and 90 feet high. The spillway is designed to discharge water from Lake Anna into the river. Spillway operators control the flow of water through the spillway to maintain water level at 250 feet above msl.

