

Project Narrative: Proposed Orange County / Piedmont Cooperative Electric Power Substation

The purpose of the proposed subdivision of PIN 9870751483 is to provide a suitable site for a much needed Piedmont Electric Cooperative power substation. The site was mainly selected because of its close proximity to the adjacent electrical easement to the north and the location of the area where the power supply needs to be enhanced for critical backup. The current use of the site is for a soil borrow pit for the Orange County Solid Waste Department. Much of the central portion of the site and a large portion of the area desired to be subdivided has been previously cleared and lacks any significant natural features.

The access to the proposed subdivided site will be through a dedicated easement through the Orange County Solid Waste site (PIN 9870662810). This access will be limited to access by Orange County Solid Waste; Piedmont Electric Cooperative and Emergency Management Services and will not have any effect on nearby traffic circulation. Once the substation is installed access by Piedmont is anticipated to be less than 3 trips per month.

The proposed project area will likely require the clearing of a small portion of the wooded areas, approximately 0.4 acres, along the eastern bounds of the proposed plat area. This area is primarily composed of a very young stand of dominantly loblolly pine trees, with height averaging around 30 feet, and diameter ranging from 3-10 inches. There are mixed hardwoods in the mid story and understory, composed of early successional species such as sweetgum, red maple, and eastern red-cedar. The area was likely an open field which was left to fallow approximately 15 years ago, according to aerial photos. There is a small area on the crest of a constructed ridge line, within the plat area, which contains larger trees of similar species that may be affected. The dominant crown species is still loblolly pine (>50%), but a few larger oak species and yellow poplar are within the furthest eastern boundary line, with heights averaging 5—60 feet, and diameter ranging from 10-18 inches on the larger trees. The remainder of the forested areas, which contain the more dominant and larger mixed hardwood species, including the previous mention “heritage oak” recognized in the original SUP, are located well outside of the plat area and will not be affected.

The current SUP for PIN 9870751483; allows for the use of the site as a soil cover borrow pit for the Orange County Solid Waste Department it also stipulates for 100’ buffers along the western property line; along the eastern portion of the northern property line; along a stream to the northeast and around a large heritage oak tree located midway along the eastern boundary.

In addition the buffer area along the northeast stream is also shown on the Orange County Wildlife Connectivity Map. The major impact of this proposal to neighboring properties and all of Orange County is to provide secure and reliable power to homes and businesses.

The proposed stormwater conveyance will be achieved through sheet flow, and perimeter grassed swales. One small culvert will be utilized at the driveway access to transport the water under the driveway. During the initial and final stages of construction, erosion control measures will include temporary sediment control fencing around the property, silt fence rock outlets and rock check dams for the grassed swales.

Maintenance and enhancement of the electric grid in the area is consistent with the Town's Comprehensive Plan. With the advent and success of alternative energy sources, many of which use electricity in some capacity, the proposed substation will expand and support the capacity for new sources of energy and thus work to mitigate the effects of climate change and promote sustainability.