STAFF REPORT 07/17/2023 **PERMIT #675**

ITEM: Floodplain Permit Application is for the installation of an electric transmission line across Norman through the Canadian River, Ten-Mile Flat Creek, and Little River floodplains.

BACKGROUND:
APPLICANT: NextEra Energy Transmission Southwest (NEET), LLC c/o Kim Austin
ENGINEER: Burns and McDonnell Engineering Co., Inc. c/o Jacob Clouse

This application is for a proposed construction of an overhead electric transmission line. The proposed alignment will begin at the west boundary of the City limit (approx. 0.45 miles south of W. Robinson St.) and extend to the north boundary of the City limit (approx. 0.15 miles east of 48th Ave. NE). A total of 35 overhead electric transmission line pole structures are proposed to be constructed in the Special Flood Hazard Areas (SFHA) of Norman. Structure foundations for the transmission poles are engineered based on the size of the structure and soil conditions encountered. In addition to the pole structure installation, tree clearing within the 150-foot right-of-way along with temporary access road construction consisting of drive and crushed rock access roads or installation of crane mats. Sediment controls will be installed as needed.

Typical poles will be spun concrete or steel monopoles approximately four feet in diameter at ground level. Two of the poles will be in the regulatory floodway of the Canadian River and the other 33 poles will be in the floodplains of Ten-Mile Flat and the Little River and its Tributaries. Hydraulic analyses using HEC-RAS modeling was submitted by the applicant for each of the locations. For the 2 poles in the Canadian River floodway report from February 28, 2023, it was determined that no rise in the BFE would occur. The hydraulic analysis report for the remaining 33 poles was submitted in the HEC-RAS model floodplain analysis report dated April 21, 2023. Of these, 17 are in the Ten-Mile Flat Creek floodplain and will cause no rise in the BFE. The remaining 16 are in the Little River floodplain or its tributaries. 2 of the poles in the Little River floodplain will cause a rise of 0.01 feet in the BFE according the applicant's report, the others will cause no rise.

The applicant included in their application a chart indicating a minimum volume of material to be removed from each pole location in the various floodplains in order to meet the compensatory storage requirement of the Flood Hazard Ordinance. Spoils from excavation and compensatory storage creation will be removed from the floodplain and spread in upland areas outside of the floodplain. Some of the installation locations in this application are themselves outside of the regulatory floodplain, but the access and tree clearing to reach the site require crossing the floodplain.

The applicant has indicated that tree clearing will take place prior to construction to create temporary access roads. Where conditions allow, overland travel will be utilized with no grading or road construction. If temporary construction of access roads or improvements to existing roads are needed within floodplains, crane mats will be temporarily placed on the access roads. Air-bridges will be constructed where underground pipelines are crossed by access roads. The applicant has also indicated that sediment controls will be installed during construction. Any temporary crane mats that are utilized will be removed following construction. Access roads will be removed and reclaimed, if necessary, to original contours. The applicant has also indicated that revegetation will occur where appropriate.

Site located in Little River Basin or its Tributaries? yes ✓ no __

STAFF ANALYSIS: According to the latest DFIRM, the project site is located in the floodplain of the Canadian River (Zone AE).

Applicable Ordinance Sections: Subject Area:

36-533	e(2)(a) ……	Fill Restrictions in the Floodplain
	e(2)(e) …….....	Compensatory Storage
	e(2)(o)…….	Storage of Material or Equipment
	f(3)(a)(8) ……..	No Rise Considerations

e(2)(a) and e(2)(e) Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill in the floodplain is restricted. However, the placement of fill is allowed to elevate structures if compensatory storage is provided. The applicant has indicated a minimum quantity of material to remove from each of the floodplains as compensatory storage for installation of base structures and transmission poles. In addition, the applicant has indicated that all spoils from excavations will be removed from the floodplain. This meets ordinance requirements.

e(3)(o) Storage of Material or Equipment – Storage of material or equipment may be allowed if not subject to major damage by floods and firmly anchored to prevent flotation or if readily removable from the area within the time available after the issuance of flood warning by The National Weather Service. Any stored material or equipment must be removable. The applicant is aware that materials and equipment must be removed from the floodplain if warning is given meeting this ordinance requirement.

f(3)(a)(8) No Rise Considerations – For proposed development within any flood hazard area (except for those designated as regulatory floodways), certification that a rise of no more than 0.05 ft. will occur in the BFE on any adjacent property as a result of the proposed work. The project engineer has certified that the project will cause no rise in the BFE at the any location in the regulatory floodway and no more than 0.01 feet rise at any other location, which meets this ordinance requirement.

RECOMMENDATION: Staff recommends that Floodplain Permit Application #675 be approved.

ACTION TAKEN: _____