

Applicant: Madelyn Nierengarten; CenterPoint Energy
Consultant: Monica Entinger; Merjent, Inc.
Project: Natural Gas Pipe Replacement
Location: Willow Creek Road: Eden Prairie
Applicable Rule(s): 2, 4, 5, and 6
Reviewer(s): Louise Heffernan and Bob Obermeyer; Barr Engineering Co.

General Background & Comments

CenterPoint Energy is proposing to replace 205 lineal-feet of 2-inch plastic natural gas pipeline along Willow Creek Road in Eden Prairie. The pipe installation will be installed by directional boring and will cross the South Fork of Nine Mile Creek (Creek). The replacement pipe at the Creek crossing will be a minimum of 10-feet beneath the bottom of the Creek. At this location, the Creek provides the outlet for Bryant Lake. The directional boring pits for the Creek crossing will be a minimum distance of 100-feet from the centerline of the Creek. The southern boring pit will be located at an approximately elevation of 851.2 M.S.L., 4.3 feet below the 100-year frequency flood elevation of 855.5 M.S.L. for Bryant Lake and the Creek.

The project is a linear project, as defined by the NMCWD rules, because the proposed land-disturbing activities include reconstruction of a public improvement, and reconstruction of utilities in a linear corridor. The project proposes no new impervious area for the installation of the replacement pipeline.

A NMCWD permit under Rule 2.0 Floodplain Management and Drainage Alterations Rule 6.0 Waterbody Crossings and Structures applies to the project.

Exhibits Reviewed:

1. Permit Application received July 14, 2022.
2. Project narrative and description dated July 14, 2022, prepared by Merjent.

2.0 Floodplain Management and Drainage Alterations

Proposed earth work (excavation for the directional boring pits) for utility improvements will take place below 855.5 M.S.L., the 100-year frequency flood elevation of Bryant Lake and the Creek. Because the project will involve land-altering activities below elevation 855.5 M.S.L., the project must conform to the requirements of the District's Floodplain Management and Drainage Alterations Rule 2.0 in accordance with Rule 2.2.1.

Rule 2 criteria for floodplain and drainage alterations includes the following:

2.3.1: The low floor elevation of all new and reconstructed structures must be constructed in accordance with the NMCWD Stormwater Rule, subsection 4.3.3

The project does not include new or reconstructed buildings bridges or boardwalks that qualify as “structures” pursuant to NMCWD Resolution #22-02 adjacent to Bryant Lake or the Creek.

2.3.2: Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage is provided within the floodplain and:

- a. at the same elevation +/- 1 foot for fill in the floodplain; or*
- b. at or below the same elevation for fill in the floodplain of a water basin or constructed stormwater facility.*

The project will not result in fill material placed below elevation 855.5 M.S.L., the flood elevation of Bryant Lake and the Creek. The southern directional boring pit will result in excavation and temporary disturbance below elevation 855.5 M.S.L. At the completion of the pipe installation, the area will be restored to pre-project conditions and elevations.

2.3.3. The District will issue a permit to alter surface flows only if it finds that the alteration is not reasonably likely to have a significant adverse impact on any upstream or downstream landowner and is not reasonably likely to have a significant adverse effect on flood risk, basin or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

The project will not alter existing surface flows therefore will not have an adverse effect on flood risk, basin or channel stability, groundwater hydrology, stream base-flow, water quality or aquatic or riparian habitat.

2.3.4 No structure may be placed, constructed, or reconstructed and no surface may be paved within 50 feet of the centerline of any water course, except that this provision does not apply to:

- a. Bridges, culverts, and other structures and associated impervious surface regulated under Rule 6.0;*
- b. Trails 10 feet wide or less, designed primarily for nonmotorized use.*

No structure is proposed to be placed, constructed, or reconstructed as part of the project and no water course is located within the project area.

4.0 Stormwater Management

The district’s requirements for both stormwater management and erosion and sediment control do not apply to the project because less than 50 cubic yards of material will be disturbed and less than 5,000 square feet of surface area will be altered, Rules 4.2.1a and b and 5.2.1a and b. The project also qualifies as a linear project as defined for purposes of the NMCWD rule, and subsection 4.2.4 determines applicability of NMCWD’s stormwater-management requirements. For linear projects creating less than one (1) acre of new or additional impervious area (zero (0) acres of net new impervious area is proposed to be created), the stormwater requirements of Rules 4.3.1 or 4.3.2 do not apply.

5.0 Erosion and Sediment Control

The district's requirements for erosion and sediment control does not apply to the project because less than 50 cubic yards of material will be disturbed and less than 5,000 square feet or more of surface area will be altered, Rules 5.2.1a and b.

6.0 Waterbody Crossings and Structures

The District's Waterbody Crossings and Structures Rule 6.0 applies to the project because the replacement pipe is to be directionally bored beneath the South Fork of Nine Mile Creek. The pipe at the Creek crossing will be a minimum of 10-feet beneath the bottom of the Creek. The boring pits for the Creek crossing will be a minimum distance of 100-feet from the centerline of the Creek.

Rule 6.3.1 states construction, improvement, repair, or removal of a waterbody crossing in contact with the bed or bank of a waterbody:

- a) *Must retain adequate hydraulic capacity and assure no net increase in the flood stage of the pertinent waterbody:*

The project will not result in a flood stage of either Bryant Lake or the Creek. The southern directional boring pit will result in excavation and temporary disturbance below elevation 855.5 M.S.L. At the completion of the pipe installation, the area will be restored to pre-project conditions and elevations.

- b) *Must retain adequate navigational capacity pursuant to any requirements of the waterbody's classification by the district:*

The outlet channel for Bryant Lake and the Creek at the project location are not used for navigational purposes.

- c) *Must not be reasonably likely to significantly adversely affect water quality, change the existing flowline/gradient, or cause increased scour, erosion, or sedimentation:*

Rule 6.3.1c criteria is addressed in **Section 2.0 Floodplain Management** of this report.

- d) *Must provide post-project wildlife passage along each bank and riparian area*

The project will not permanently change conditions in a manner that will deter wildlife from using the area adjacent to Bryant Lake or the Creek. Construction activities may temporarily displace wildlife until the area is restored to pre-project conditions. Because wildlife native to the area will be able to continue using the project corridor, the NMCWD engineer concurs that the proposed project is in compliance with subsection 6.3.1e criteria.

- e) *Must represent the "minimal impact" solution to a specific need with respect to all other reasonable alternatives:*

The directional boring option proposed for the pipe replacement is significantly less disruptive than "open-cutting" a construction trench for the pipe installation.

Rule 6.3.2 states, *projects involving directional boring or horizontal drilling must provide for minimum clearance of 3 feet below the bed of a waterbody and a minimum setback of 50 feet from any stream bank for pilot, entrance and exit holes.*

The replacement pipe at the Creek crossing will be installed a minimum of 10-feet beneath the bottom of the Creek. The directional boring pits at the Creek crossing will be a minimum distance of 100-feet from the centerline of the Creek.

Rule 6.3.3 states, removal of structures or other waterway obstructions:

a) *Must maintain the original cross-section and bed conditions to the greatest extent practicable:*

No removal of structures or other water obstructions is proposed with the project.

b) *Must achieve complete removal of the structure, including any footings or pilings that impede navigation:*

No removal of structures or other water obstructions is proposed with the project.

c) *Must not involve the removal of a water-level control device:*

No removal of structures or other water obstructions is proposed with the project.

Rule 6.3.4 requires *that the plans must state no activity affecting the bed of a protected water may be conducted between April 1 and June 30 on public water basins to minimize impacts on fish spawning and migration:*

The replacement pipe installation and associated work does not include activities that affect the bed of Bryant Lake or the South Fork of Nine Mile Creek.

Rule 6.3.5 states, *a separate permit under District Rule 7.0 is not required for shoreline or streambank stabilization associated with a waterbody crossing or structure, but such stabilization must comply with the criteria 7.3.3c to e.*

No shoreline stabilization is proposed.

In accordance with the requirements of subsection 6.5 for the maintenance of the waterbody structures, CenterPoint Energy must submit a draft agreement with NMCWD providing for maintenance of the waterbody crossings (that is within City of Eden Prairie right-of-way), then execute the agreement on approval of NMCWD.

11.0 Fees

Fees for the project are:

Rules 2.0, 4.0, 5.0 and 6.0	\$1,800
-----------------------------	---------

12.0 Financial Assurances

Financial Assurances for the project are:	\$0
---	-----

Since project activities do not trigger the requirements of the district's stormwater management or erosion and sediment control rules, a financial assurance is not required for the project.

Findings

1. The proposed project includes the information necessary, plan sheets for review.
2. The proposed project conforms with Rules 2 and 6. Rules 4 and 5 do not apply since less than less than 50 cubic yards of material will be disturbed and less than 5,000 square feet or more of surface area will be altered.

Recommendation

Approval, contingent upon:

General Provisions

Per Rule 6.5, the City must submit for NMCWD approval, then execute an agreement providing for the maintenance of the utility crossing beneath the channel of the South Fork of Nine Mile Creek.

By accepting the permit, when issued, the applicant agrees to the following stipulations for closeout of the permit and release of the financial assurance after the project:

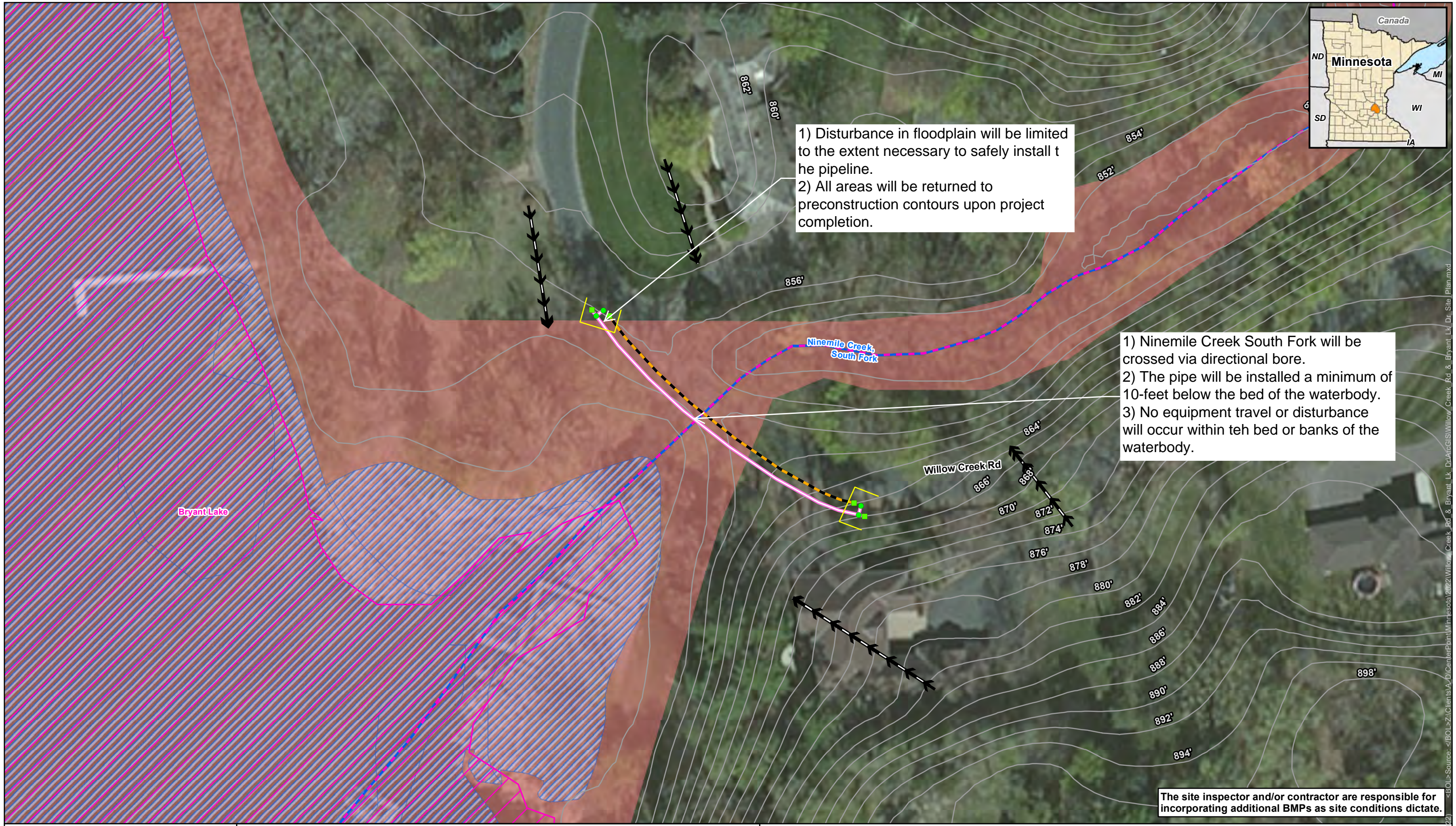
Per Rule 4.5.6, an as-built drawing of the floodplain areas disturbed and restored conforming to the design specifications as approved by the district.



1) Disturbance in floodplain will be limited to the extent necessary to safely install the pipeline.
 2) All areas will be returned to preconstruction contours upon project completion.

1) Ninemile Creek South Fork will be crossed via directional bore.
 2) The pipe will be installed a minimum of 10-feet below the bed of the waterbody.
 3) No equipment travel or disturbance will occur within the bed or banks of the waterbody.

The site inspector and/or contractor are responsible for incorporating additional BMPs as site conditions dictate.



0 25 50 Feet
 1 inch = 50 feet

merjent. CenterPoint Energy
 For Environmental Review Purposes Only

Figure 2: Site Plan
Willow Creek Rd & Bryant Lake Dr Project (WO# 103231276)
 CenterPoint Energy
 Eden Prairie, Hennepin County, Minnesota

2" Proposed Pipeline - Bore Method	BMP	PWI Basin
Proposed Abandonment	2' Contour	NHD Waterbody
Bore/Tie-In Site	Stormwater Flow	NWI Wetland
Cut and Cap	PWI Waterway	1% Annual Chance Flood Hazard

<BOL>Date: <BOL>6/13/2022 <BOL>Source: <BOL>D:\CenterPoint\Minnesota\2022\Willow Creek Rd & Bryant Lk Dr\ArcGIS\Willow Creek Rd & Bryant Lk Dr_Site_Plan.mxd