Harding Pump Station

The Harding Pump Station is located in Harding County in South Dakota. The proposed site equipment will initially consist of three (3) pumps and motors, a VFD building, an ESD building and an HV substation. A future planned upgrade to the facility will consist of an additional one (1) pump and motor added to the site. The noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

There are no residences within 1 mile of the site location and thus four hypothetical receptors have been set at 1 mile in each of the cardinal directions from the site. The predicted sound pressure levels at these theoretical nearest sensitive receptors (NSRs) from the proposed pump station, under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1 mile North	39
R2	1 mile East	34
R3	1 mile South	34
R$	1 mile West	35

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1 mile North	43
R2	1 mile East	39
R3	1 mile South	39
R$	1 mile West	39

The predicted levels at each of the NSRs are below the levels as recommended in the US EPA environmental noise guidelines under both the initial Scenario 1 conditions and the future Scenario 2 expansion.

Buffalo Pump Station

The Buffalo Pump Station is located near Buffalo, South Dakota, in Harding County. The proposed site equipment will initially consist of two (2) pumps and motors, a VFD building, an ESD building and an HV substation. A future planned upgrade to the facility will consist of an additional two (2) pumps and motors added to the site. However, the noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

The predicted sound pressure levels at the nearest sensitive receptors (NSRs) from the proposed pump station under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1 mile North	33
R2	1 mile East	35
R3	1 mile South	34
R4	1 mile West	33

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1 mile North	37
R2	1 mile East	39
R3	1 mile South	39
R4	1 mile West	38

The predicted levels at each of the NSRs are below the levels as recommended in the US EPA environmental noise guidelines under both the initial Scenario 1 conditions and the future Scenario 2 expansion.

Faith Pump Station

The Faith Pump Station is located 4 miles west of Opal, South Dakota, in Meade County. The proposed site equipment will initially consist of three (3) pumps and motors, a VFD building, an ESD building and an HV substation. A future planned upgrade to the facility will consist of an additional two (2) pumps and motors added to the site. However, the noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

The predicted sound pressure levels at the nearest sensitive receptors (NSRs) from the proposed pump station, under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	4480 ft Northeast	37
R2	4420 ft Northeast	37

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	4480 ft Northeast	41
R2	4420 ft Northeast	41

The predicted levels at each of the NSRs are below the levels as recommended in the US EPA environmental noise guidelines under both the initial Scenario 1 conditions and the future Scenario 2 expansion.

Haakon Pump Station

The Haakon Pump Station is located near Hartley, South Dakota, in Haakon County. The proposed site equipment will initially consist of two (2) pumps and motors, a VFD building, an ESD building and an HV substation, modeled under Scenario 1. A future planned upgrade to the facility will consist of an additional two (2) pumps and motors added to the site. However, the noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

The predicted sound pressure levels at the nearest sensitive receptors (NSRs) from the proposed TCPL pump station, under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1 mile North	34
R2	1 mile East	34
R3	1 mile South	35
R4	1 mile West	34

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1 mile North	39
R2	1 mile East	39
R3	1 mile South	39
R4	1 mile West	39

The predicted levels at each of the NSRs are below the levels as recommended in the US EPA environmental noise guidelines under both the initial Scenario 1 conditions and the future Scenario 2 expansion.

Murdo Pump Station

The Murdo Pump Station is located near Okaton, South Dakota, in Jones County. The proposed site equipment will initially consist of three (3) pumps and motors, a VFD building, an ESD building and an HV substation. A future planned upgrade to the facility will consist of an additional two (2) pumps and motors added to the site. However, the noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

The predicted sound pressure levels at the nearest sensitive receptors (NSRs) from the proposed pump station, under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	2350 ft Northeast	44
R2	3800 ft Northwest	40

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	2350 ft Northeast	48
R2	3800 ft Northwest	45

The predicted levels at each of the NSRs are below the levels as recommended in the US EPA environmental noise guidelines under both the initial Scenario 1 conditions and the future Scenario 2 expansion.

Winner Pump Station

The Winner Pump Station is located near Winner, South Dakota, in Tripp County. The proposed site equipment will initially consist of three (3) pumps and motors, a VFD building, an ESD building and an HV substation, modeled under Scenario 1. A future planned upgrade to the facility will consist of an additional two (2) pumps and motors added to the site. However, the noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

The predicted sound pressure levels at the nearest sensitive receptors (NSRs) from the proposed pump station, under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1200 ft North	55
R2	1260 ft Southeast	54
R3	4500 ft Southwest	36

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1200 ft North	59
R2	1260 ft Southeast	58
R3	4500 ft Southwest	41

The predicted levels at R1 and R2 are above the levels as recommended in the US EPA environmental noise guidelines under both the initial Scenario 1 conditions and the future Scenario 2 expansion. Noise mitigation has been recommended to reduce the overall predicted sound level of the facility to be within the EPA guidelines for only Scenario 1 conditions. Additional noise mitigation necessary for Scenario 2 compliance will be developed and presented when the Scenario 2 upgrade to the facility is confirmed. The predicted sound pressure levels at the receptors with noise mitigation applied to the site are presented in Table 3 below,

Table 3: Predicted Sound Pressure Levels – Scenario 1 with Noise Mitigation

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1200 ft North	45
R2	1260 ft Southeast	45
R3	4500 ft Southwest	28

Colome Pump Station

The Colome Pump Station is located near Colome, South Dakota, in Tripp County. The proposed site equipment will initially consist of three (3) pumps and motors, a VFD building, an ESD building and an HV substation, modeled under Scenario 1. A future planned upgrade to the facility will consist of an additional two (2) pumps and motors added to the site. However, the noise impact assessment was prepared for the 3/5 pump case for consistency with the other stations and to determine the noise impact of a maximum of 5 total pumps on this site.

The predicted sound pressure levels at the nearest sensitive receptor (NSR) from the proposed TCPL pump station, under Scenarios 1 and 2 are presented in Table 1 and Table 2 below, respectively.

Table 1: Predicted Sound Pressure Levels – Scenario 1 (3 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1280 ft East	48

Table 2: Predicted Sound Pressure Levels – Scenario 2 (5 Pumps and Motors)

Receptor ID	Location (from TCPL Site Fence Line)	Predicted Facility Sound Level (L_{eq}, dBA)
R1	1280 ft East	53

The predicted levels at R1 is below levels as recommended in the US EPA environmental noise guidelines under the initial Scenario 1 conditions but above the recommended levels under the future Scenario 2 expansion. Noise mitigation for Scenario 2 compliance will be developed and presented when the Scenario 2 upgrade to the facility is confirmed.