



**Dogwood Corners Noise
Assessment**

Dogwood Corners Solar Project

September 5 2023

Prepared for:

Dogwood Corners LLC

Prepared by:

Stantec Consulting Services, Inc
Louisville, Kentucky



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DOGWOOD CORNERS NOISE ASSESSMENT

Executive Summary

EXECUTIVE SUMMARY

Dogwood Corners Solar Project is located near the intersection of Dogwood Kelly Road and Greenville Road, approximately 6.5 miles north of the city of Hopkinsville in Christian County, Kentucky. The Project is a proposed 125-megawatt ("MW") AC solar plus 25 MW AC storage Project and is proposing to interconnect to the 161kV Hopkinsville-Lost City transmission line via a new 3-ring bus substation.

A desktop noise assessment was completed to evaluate potential noise impacts to noise sensitive receptors within 1,000 feet from the Project boundary. 106 residences consisting of single family homes are located within the Noise Assessment Area. Nine of these residences are considered participating receptors. Three churches are present within the study area: Dogwood Christian Church, New Barren Springs Baptist Church and New Zion Baptist Church. No schools, childcare centers, outdoor recreation, medical centers or other types of noise sensitive receptors were observed within the noise assessment area.

Existing noise in and around the Project Site consists of noises typically produced by agricultural activities. These noises include tractors, trucks, and all-terrain vehicles. Rural wildlife noises contribute to the existing noise conditions including birds, frogs and insects.

Noise is expected to increase temporarily and intermittently during the construction phase of the Project due to increases in vehicular traffic, construction equipment and assembly of the solar facility components. This increase in noise is expected to be within accepted ranges and of short duration at any given location within the Project with the majority of the noise producing activities to occur many hundreds to thousands of feet from the nearest noise sensitive receptors. The noisiest portion of the construction includes the use of pile drivers to install the solar panel supports. These will only be used very briefly (approximately 30 seconds to 1 minute per pile) and the worst-case maximum noise [L_{max} (dBA)] expected to occur at the nearest non-participating receptor (R99) is 80.5 dBA which is similar to a lawnmower. The equivalent continuous sound level [L_{eq} (dBA)] from construction including the pile driver is 73.6 dBA which is similar to a washing machine. The model was also evaluated without the inputs of the pile driver since that is more typical of ongoing construction sound levels. The sound levels for typical construction onsite is 60.2 dBA which is similar to an air conditioner (Table 4). Construction activities at the Project Site would move around the site and are not anticipated to be performed near a sensitive receptor for more than a few days or weeks.

Operational noise analysis including evaluating the sounds produces by the tracking motors, inverters and transformers. The nearest non-participating receptor (R99) is more than 518 feet from any solar panels and approximately 1,036 feet from an inverter. Maximum sound levels from the tracking system are expected to be inaudible at the nearest non-participating receptor (R99, <10 dBA). During average daytime operation, the inverters will be similar in noise level (~40.9 dBA_{max}) to a quiet library at the nearest receptor (R98). Since the nearest receptor (R95) is over 1,355 ft from the substation, transformers are not expected to add additional noise above background noise as the noise levels are barely audible (<10 dBA). Site visits and maintenance activities including single vehicular traffic and mowing will be negligible as they are similar to the background agricultural noise characteristics. All site visits, outside of emergency maintenance, will occur during daylight hours.



DOGWOOD CORNERS NOISE ASSESSMENT

Introduction

1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

Dogwood Corners Solar Project ("Project") is located near the intersection of Dogwood Kelly Road and Greenville Road, approximately 6.5 miles north of the city of Hopkinsville in Christian County, Kentucky. The Project is a proposed 125-megawatt ("MW") AC solar plus 25 MW AC storage Project and is proposing to interconnect to the 161kV Hopkinsville-Lost City transmission line via a new 3-ring bus substation. As required pursuant to KRS 278.706, Dogwood Corners LLC is seeking to obtain a construction certificate from the Kentucky Siting Board to construct a merchant electric generating facility. To support the application Dogwood Corners LLC is preparing a Site Assessment Report (KRS 278.708).

A desktop noise assessment was completed to evaluate potential noise impacts to noise sensitive receptors within 1,000 feet from the Project boundary (Noise Assessment Area). Background noise as well as noise generated during construction and operation of the Project were considered in the analysis.

1.2 EXISTING LAND USE AND SITE CONDITIONS

The Project is located in a rural area with a mix of open and forested terrain. Existing land use within the Project Site is cultivated cropland with small areas of deciduous forest (MLRC 2016 and USDA-FSA 2018) Land use adjacent to the Project is comprised of scattered homes, cultivated cropland. The community of Fearsville is located to the northeast of the Project while Hopkinsville is located to the southwest. Kentucky Highway 107 (Greenville Road) transects the Project Site from the northeast to the southwest (Figure 2). One 69kV transmission line and one 161kV transmission line also transect the Project.



DOGWOOD CORNERS NOISE ASSESSMENT

Noise Study

2.0 NOISE STUDY

2.1 EXISTING NOISE CONDITIONS

2.1.1 Noise Sensitive Receptors

A noise sensitive receptor is generally defined as locations where people reside or where the presence of unwanted sound may adversely affect the use of the land. Receptors may include but are not limited to schools, homes, churches, hospitals, and certain types of recreation or outdoor land uses such as outdoor restaurant seating.

Potential noise sensitive receptors were evaluated within a 1,000 foot buffer from the pProject boundary. High resolution aerial photography, topographic quadrangles and proposed site layouts were analyzed using ESRI ArcMap 10.8 and Google Earth Pro to determine the presence of potential noise sensitive receptors. These receptors include residential dwellings and are shown on Figure 2. Three churches are present within the study area: Dogwood Christian Church, New Barren Springs Baptist Church and New Zion Baptist Church. Dogwood Christian Church and New Barren Springs Baptist Church are located across the street from each other on Dogwood Kelly Road near the intersection of KY Highway 107 near the center of the Project. New Zion Baptist Church is located along KY Highway 107 in the southern portion of the site. No schools, childcare centers, outdoor recreation, medical centers or other types of noise sensitive receptors were observed within the noise assessment area.

106 residences consisting of single family homes are located within the Noise Assessment Area. These dwellings are referred to as noise sensitive receptors within this report (R1-R106). The Project does not have any residential neighborhood, school, hospital, or nursing home facility within the noise analysis area. Specifically, there are no populated areas within 2,000 feet of five (5) or more acres in relevant parcels containing at least one (1) residential structure per acre. Nine dwellings (R32, R33, R34, R36, R40, R45, R66, R67, and R83) are considered participating receptors. These receptors are shown on the figures but were not modeled as part of the noise analysis. The nearest non-participating residence is approximately 518 feet from the nearest solar panel. Proposed inverters are located even further away with the nearest being approximately 634 feet from a dwelling.



DOGWOOD CORNERS NOISE ASSESSMENT

Noise Study

Table 1. Nearest Non-Participating Sensitive Receptor to the Site

Type	Nearest to	Direction from Project Site	Distance from Property Boundary (Fence)*	Distance from Nearest Solar Panel**	Distance from Nearest Inverter or Transformer***
Residence (R99)	Solar Panels	Northwest	Approx. 514 ft	Approx. 518 ft	Approx. 1,036 ft
Residence (R95)	Substation	Northwest	Approx. 634 ft	Approx. 620 ft	Approx. 1,355 ft***
Residence (R98)	Inverters	Northwest	Approx. 504 ft	Approx. 543 ft	Approx. 634 ft

*For modeling purposes distance to the proposed fencing was used.

**Distances to solar panels used for construction noise modeling

***All values reflect distance to inverters except for R95 which shows the distance to the substation area.

2.1.2 Noise Ordinances

The unincorporated portions of Christian County do not appear to have a specific noise ordinance. However, Chapter 96 of the City of Hopkinsville Code of Ordinances limits excessive loud and/or harsh noises. These noises are defined differently depending on which zoning district the noise is located and the time of day. Since the city limits of Hopkinsville are 6.5 miles away from the Project, the noise ordinance does not apply. (Hopkinsville, Kentucky Code of Ordinances 1994).

2.1.3 Existing Noise from Surrounding Areas

Noise is typically measured in decibels (dBA) to describe the relative loudness of specific sounds. See Table 2 for example sound levels from the Centers for Disease Control and Prevention (CDC 2020) and the Federal Railroad Administration (FRA 2010).

Table 2. Common Sources of Noise and Decibel Levels

Noise Source	Average Noise Level (dBA)*
Loud Entertainment Venues (Nightclubs, Bars and Rock Concerts)	105 – 110
Car horn at 16 ft / Sporting Events	100
Motorcycle	95
Locomotives and Rail Cars at 100 feet**	80-90
Gas powered lawnmowers and leaf blowers	80-85
Heavy Traffic	80-85
Washing Machine / Dishwasher	70
Normal Conversation / Air Conditioner	60
Soft Whisper	30

*CDC 2020 **FRA 2010



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Noise Study

The primary source of noise from the surrounding area is similar to the Project Site with sparse automotive traffic on rural roads and adjacent farms producing agricultural sounds related to tractors, farm machinery, trucks, and all-terrain vehicles. Rural wildlife noises contribute to the local noise conditions including insects, birds and frogs.

2.1.4 Existing On-Site Noise

Existing noise on the Project Site consists of noises typically produced by agricultural activities. These noises include tractors, trucks, and all-terrain vehicles. Rural wildlife noises contribute to the existing noise conditions including birds, frogs and insects.

2.2 PROPOSED CONSTRUCTION NOISE CONDITIONS

2.2.1 Equipment and Machinery

The Project Site consists primarily of cultivated land and only minimal earthmoving and tree removal activities are anticipated during Project construction. Typical construction equipment is expected to be used for site preparation and infrastructure installation and may include dump trucks, pile drivers, backhoes, dozers, and excavators. The Federal Transit Administration outlines typical construction equipment noise levels and is presented in Table 3 (FTA 2018). The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to evaluate noise during construction (FHWA 2006). Pile drivers are expected to be the loudest machinery and will only be used during installation of the solar panel supports. Since pile drivers will only be used briefly, model results have been presented both with and without pile drivers in use.

Table 3. Construction Equipment Noise Emission Levels

Equipment	Typical Noise Levels at 50 ft from Source (dB _A)*
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pile Driver (Impact)	101



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Equipment	Typical Noise Levels at 50 ft from Source (dBA)*
Pile Driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

**Taken from FTA 2018*

2.2.2 Roadway Noise During Construction

Traffic noise is expected to increase temporarily during construction due to the mobilization of labor and materials, equipment and staff moving between sections of the Project and vehicles like dump trucks entering and leaving the site. Construction related activity is expected to occur between 7 a.m. and 9 p.m. and will be of short duration at any given location within the Project.

2.2.3 Assembly of Solar Array and Construction of Facilities

The solar facility consists of solar panels, a panel tracking system, inverters and electrical equipment associated with the solar facility and substation. All facility equipment is expected to be assembled using handheld equipment and power tools. Assembly will occur within the Project Site several hundred to thousands of feet from the nearest receptors. Assembly will take place during daytime hours and will be of short duration at any given location within the Project.

2.3 PROPOSED OPERATIONAL NOISE CONDITIONS

2.3.1 Solar Array and Tracking System

The solar array associated with this Project includes single-axis tracking panels distributed evenly across the site (Figure 2). Tracking systems involve the panels being driven by small, 24-volt brushless DC motors to track the arc of the sun to maximize each panel's potential for solar absorption. Panels would turn no more than five (5) degrees every 15 minutes and would operate no more than one (1) minute out of every 15-minute period during daylight hours. These tracking motors are a potential source of mechanical noise and are included in this assessment. Tracking motors will not be installed closer than 300 feet from the Project boundary. The sound typically produced by panel tracking motors (NexTracker or equivalent) is approximately 20 dBA at 100 feet when the motor is running. Comparing similar noise



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values and distances from the RCNM, at all non-participating receptors the tracking system will be less than 10 dBA as a worst-case maximum noise [L_{max} (dBA)] which is inaudible at that distance.

2.3.2 Inverters

Approximately 30 inverters are expected to be installed across the Project Site. Inverters installed onsite are expected to be SMA PCS or GE LV5 PCS similar. Manufacturer's specifications for the equipment include a range of noise emission for the GE LV5 PCS ranges from 73.6 dBA at lowest cooling level to 91.3 dBA at highest cooling levels at 10 meters (32.8 feet) from the source while the SMA PCS ranges from 49 dBA at 50 meters (164 feet) distance to 67 dBA at 10 meters (32.8 feet) from the source. This roughly translates to 40.9 dBA at the nearest receptor (R98) which is comparable to a quiet library. The noise produced by the inverters can be characterized as a hum and during average operation is similar in noise level to a household air conditioner at the unit. Proposed inverter locations are shown on Figure 2.

2.3.3 Transformers

The proposed substation covers approximately two acres and is located in the western portion of the Project. Transformers associated with the Project will include an SBG-SMIT 3 phase 630 kVA transformer or similar. According to manufacturer specifications the loudest the transformer is expected to be is just over 60 dBA, measured 1 meter (3.2 feet) from the source, or the level of a normal conversation. The nearest sensitive receptor (R95) is approximately 1,355 feet away which equates to a sound level of <10 dBA and is barely audible.

2.3.4 Site Operation and Maintenance

2.3.4.1 Vehicular Traffic

During operation, the solar facility is expected to have a maximum of one technician visiting the site daily for inspection and two to three technicians up to 70 days per year. Operation and maintenance work may proceed at night for up to 30 days per year. Weekend work is not anticipated but may be required upon any component outages that may impact energy production from the site. Other than the scenarios mentioned, vehicular traffic onsite will be limited to typical weekday business hours. Technicians will drive mid- or full-sized trucks and will not contribute noticeably to the existing traffic noise levels.

2.3.4.2 Maintenance Activities

Typical maintenance activities may include inspection, minor repair and maintenance on the solar panels, the tracking system, wiring, and/or inverters. Grounds maintenance will include periodic inspection of the boundary fencing and vegetation control through mowing and herbicide applications.

2.4 NOISE SUMMARY AND CONCLUSIONS

Noise is expected to increase temporarily and intermittently during the construction phase of the Project due to increases in vehicular traffic, construction equipment and assembly of the solar facility components. This increase in noise is expected to be within accepted ranges and of short duration at any



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given location within the Project with the majority of the noise producing activities to occur many hundreds to thousands of feet from the nearest noise sensitive receptors. The noisiest portion of the construction includes the use of pile drivers to install the solar panel supports. These will only be used very briefly (approximately 30 seconds to 1 minute per pile) and the worst-case maximum noise [L_{max} (dBA)] expected to occur at the nearest non-participating receptor (R99) is 80.5 dBA which is similar to a lawnmower. The equivalent continuous sound level [L_{eq} (dBA)] from construction including the pile driver is 73.6 dBA which is similar to a washing machine. The model was also evaluated without the inputs of the pile driver since that is more typical of ongoing construction sound levels. The sound level for typical construction onsite is 60.2 dBA which is similar to an air conditioner (Table 4). Construction activities at the Project Site would move around the site and are not anticipated to be performed near a sensitive receptor for more than a few days or weeks.

Table 4. Calculated Noise Levels at Nearest Non-Participating Receptor Due to Construction

	Distance (ft)* fence / panel	Calculated L_{max} (dBA)	Calculated L_{eq} (dBA)
Noise Level at Nearest Residential Receptor (R99) (including pile driver)	514 / 518	80.5	73.6
Noise Level at Nearest Residential Receptor (R99) (minus pile driver)	514 / 518	60.2	57.7

*Distance to fence line is used for truck noise during construction; distance to panels incorporated into model for pile driver activity and other heavy equipment

During site operation, intermittent noise related to the panel tracking system and the constant noise of the inverters is expected. The nearest non-participating receptor (R99) is more than 518 feet from any panels and approximately 1,036 feet from an inverter. Maximum sound levels from the tracking system are expected to be inaudible at the nearest receptor (R99, <10 dBA).

It should be noted that the trackers and the inverters for the panels themselves will not operate at night when residential receptors are most sensitive. During average daytime operation, the inverters will be similar in noise level (~40.9 dBA_{max}) to a quiet library at the nearest receptor (R98). According to manufacturer specifications the loudest the transformer is expected to be is just over 60 dBA at 1m from the source, or the level of a normal conversation. Since the nearest receptor (R95) is over 1,355 ft from the substation, transformers are not expected to add additional noise above background noise as the noise levels are barely audible (<10 dBA). Site visits and maintenance activities including single vehicular traffic and mowing will be negligible as they are similar to the background agricultural noise characteristics. All site visits, outside of emergency maintenance, will occur during daylight hours. A table of the operational noise levels at the nearest receptors is below in Table 5 while results for all receptors is in Appendix B.

At the nearest receptors, besides intermittent and infrequent pile driver activity, no elevated and prolonged noise levels above background levels are expected either during construction or operation of the Project Site. Construction (pile driving) is not expected to remain in any area beyond a week.



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Table 5. Approximate Noise Levels During Operation at the Nearest Non-Participating Receptors

Receptor (Nearest to)	Nearest Panel Tracking System		Nearest Inverter		Nearest Transformer	
	Distance (ft)	dB _A *	Distance (ft)	dB _A *	Distance (ft)	dB _A *
R95 (Substation)	620	<10	953	37.4	1,355	<10
R99 (Panel)	518	<10	1,036	36.7	2,821	<10
R98 (Inverter)	543	<10	634	40.9	2,574	<10
Note	Operates 1 minute every 15 minutes during daylight hours		Continuous low hum during daylight hours		Substation area	

*Noise Levels are L_{max} – maximum noise levels expected.

2.4.1 Local Regulations

It should be noted that this noise study follows industry standards for noise evaluation and considers noise sensitive receptors to be areas of frequent human use. This study includes residences and churches but no schools, hospitals, nursing facilities are present. Other buildings and structures such as barns, sheds, garages, restaurants, or commercial properties were not considered as noise sensitive receptors and were not included in this study since none exhibited outdoor areas of frequent human use such as outdoor seating.

The Project is committed to maintaining a 500-foot setback from non-participating residences as that distance would adequately address noise-related concerns. It is helpful to compare noise levels from receptors that are 500 ft away from the site versus further distances (as shown in Appendix B). Construction is likely to be at noticeably different noise levels depending on distance from the site. As noted in earlier sections construction will take place during daytime hours and will be of short duration at any given location within the Project. No discernible difference will be able to be made whether the tracking motors and the substation are 500 feet away or 2,000 feet away. The difference in sound for the inverters would be comparing a soft whisper (~30dBA) to a quiet refrigerator hum (~40dBA).

Table 6. Noise Level Distance Comparison

Source	Approximate Noise Levels dB _A	
	~500 ft Distance	~2000 ft Distance
Construction (with pile driver)	80.8	68.8
Construction (without pile driver)	60.6	48.5
Operation		
Panel Tracking Motor	<10	<10
Inverter	43.5	30.8
Transformer (Substation)	14.9	<10

*Noise levels L_{max} and are taken from receptor data within this study that are closest to 500ft and 2000ft



DOGWOOD CORNERS NOISE ASSESSMENT

References

3.0 REFERENCES

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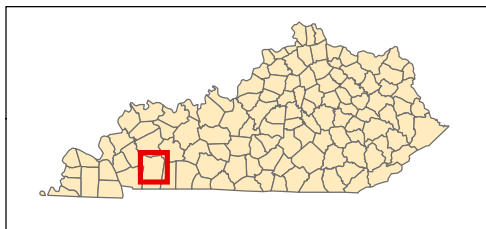
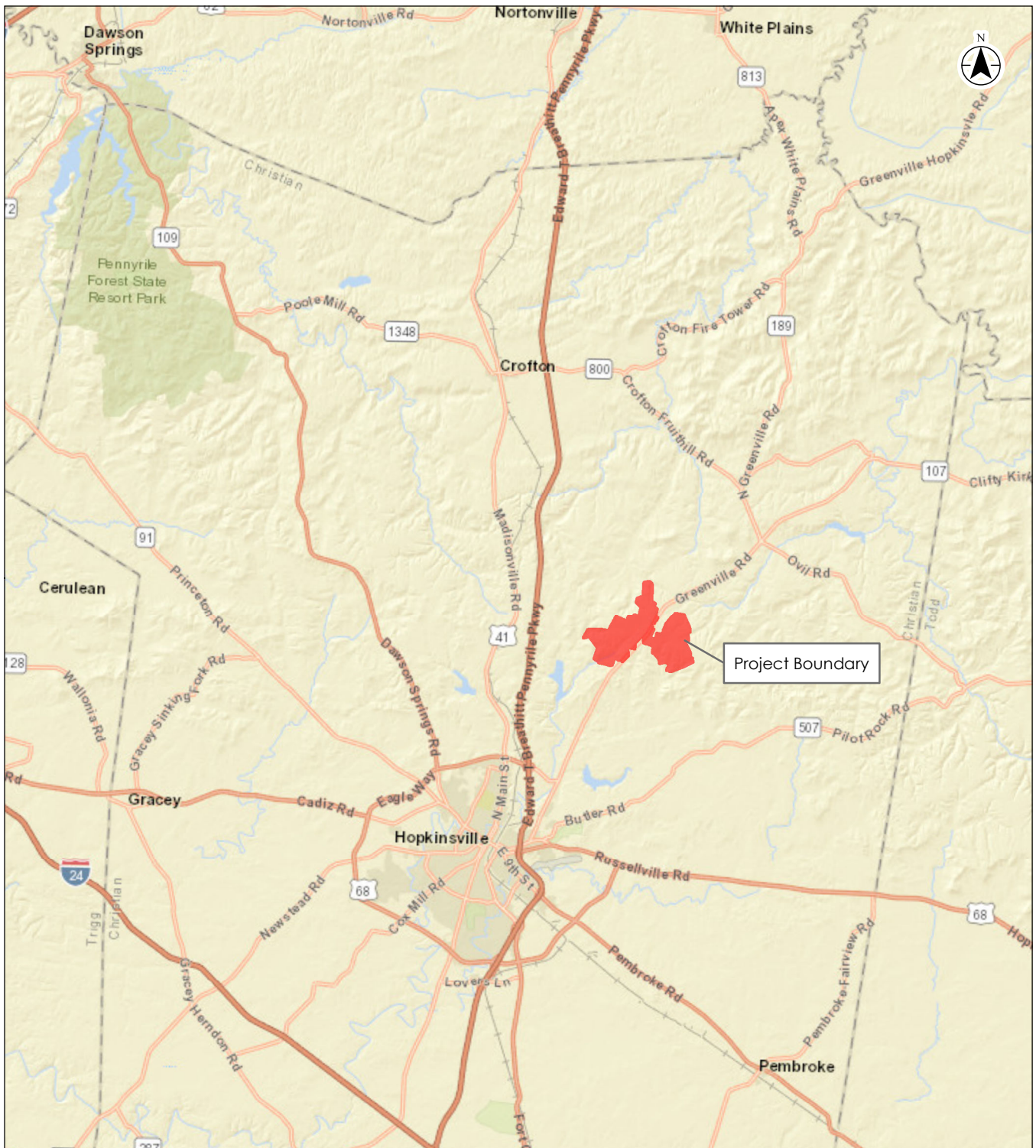


DOGWOOD CORNERS NOISE ASSESSMENT

Appendix A Figures

Appendix A FIGURES





Legend
Project Boundary



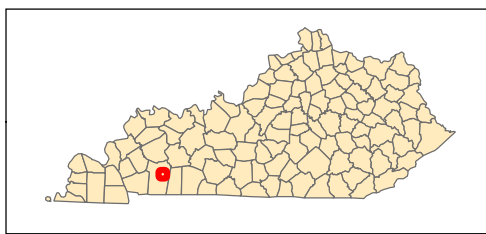
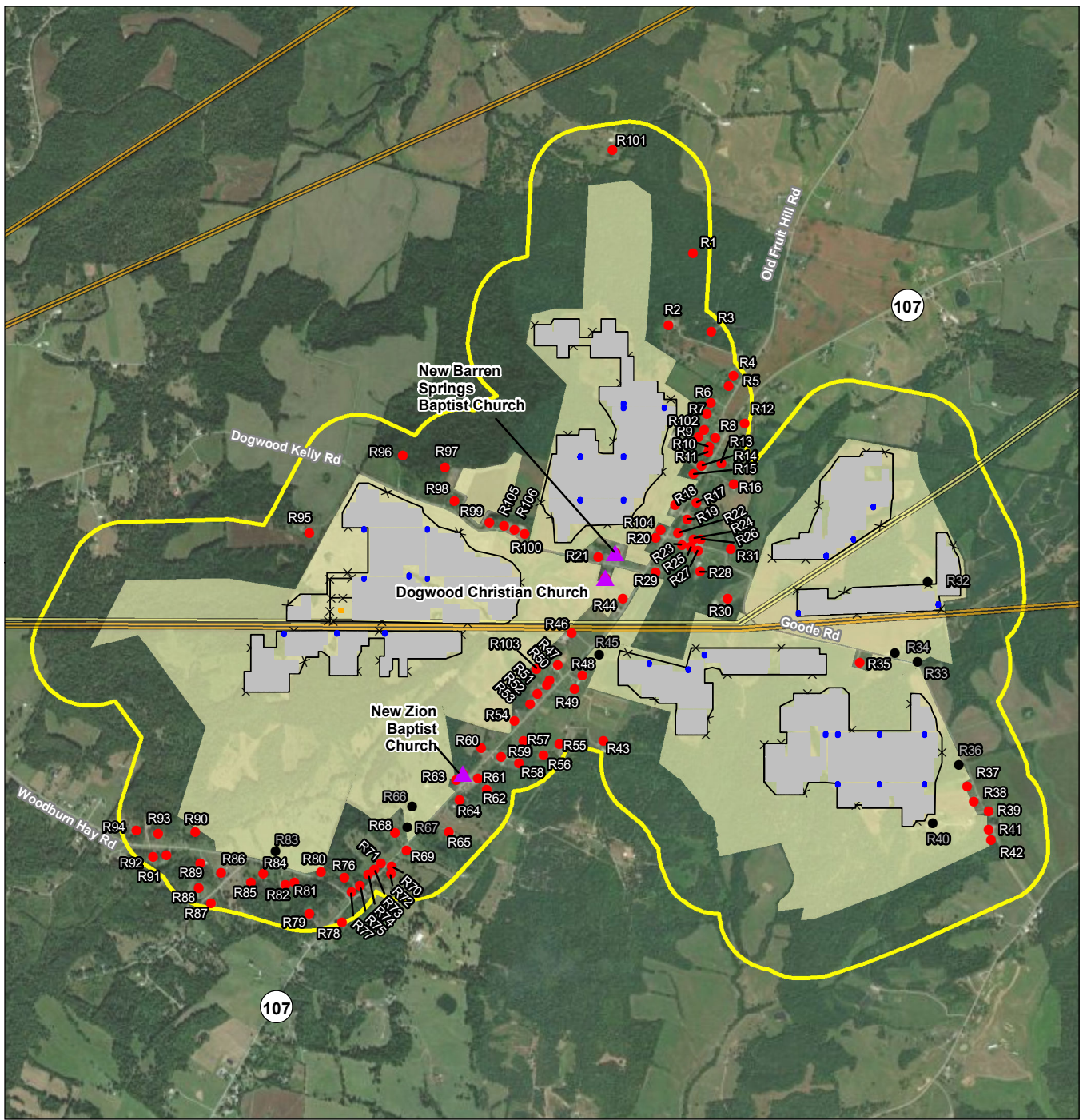
Project Location
Christian County, KY
Prepared by GRG on 2022-11-15
Technical Review by ALC on 2022-12-05
Independent Review by MMR on 2022-12-05

Client/Project
Dogwood Corners Solar Project
Noise Assessment

Figure No.
1

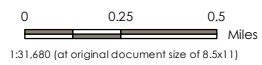
Title
Vicinity Map

Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky South FIPS 1602 Feet
2. Base Features: ESRI, Dogwood Corners LLC



Notes
 1. Coordinate System: NAD 1983 StatePlane Kentucky South FIPS 1602 Feet
 2. Base features: ESRI, Stantec, Dogwood Corners LLC
 3. Background: BING Aerials Kentucky Transportation Cabinet (KYTC).

- Legend**
- X — Potential Fence Line
 - Potential Inverter Location
 - Potential Substation Location
 - Potential PV Layout
 - Noise Sensitive Receptors
 - Participating Receptors
 - 1000 ft Noise Assessment Area
 - ≡ 61kV Transmission Line
 - ≡ 161kV Transmission Line



Project Location: Christian County, KY
 Prepared by ALC on 2023-08-31
 Technical Review by SK on 2023-08-31

Client/Project:
 Dogwood Corners Solar Project
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Figure No.
2

Title
Receptor Map

DOGWOOD CORNERS NOISE ASSESSMENT

Appendix B Results

Appendix B RESULTS



DOGWOOD CORNERS NOISE ASSESSMENT

Appendix B Results

Table 7. Approximate Noise Levels During Operation

Receptor*	Nearest Panel		Nearest Inverter		Nearest Transformer (Substation)	
	Distance (ft)	dB _A	Distance (ft)	dB _A	Distance (ft)	dB _A
R1	1784	<10	2849	27.9	8621	<10
R2	2138	<10	2687	28.4	8843	<10
R3	1276	<10	1509	33.4	7848	<10
R4	1321	<10	1469	33.6	7931	<10
R5	983	<10	1145	35.8	7582	<10
R6	614	<10	785	36.1	7169	<10
R7	544	<10	721	39.8	6984	<10
R8	747	<10	977	37.2	6946	<10
R9	755	<10	992	37.0	6807	<10
R10	2138	<10	2687	28.4	8843	<10
R11	791	<10	1039	36.6	6752	<10
R12	1200	<10	1388	34.1	7536	<10
R13	1017	<10	1332	34.5	6892	<10
R14	680	<10	1124	36.0	6564	<10
R15	555	<10	1201	35.4	6386	<10
R16	1215	<10	1755	32.1	6983	<10
R17	775	<10	1237	35.1	6270	<10
R18	551	<10	848	38.4	5869	<10
R19	1204	<10	1466	33.7	6189	<10
R20	539	<10	786	39.1	5404	<10
R21	551	<10	963	37.3	4357	<10
R22	853	<10	1069	36.4	5802	<10
R23	1013	<10	1236	35.1	5826	<10
R24	1128	<10	1363	34.3	6177	<10
R25	1154	<10	1375	34.2	5995	<10
R26	839	<10	1111	36.1	6033	<10
R27	1270	<10	1508	33.4	6094	<10
R28	1261	<10	1520	33.3	6058	<10
R29	952	<10	1285	34.8	5327	<10
R30	868	<10	1006	36.9	6489	<10
R31	740	<10	1589	33.0	6657	<10
R35	556	<10	1235	35.1	8873	<10
R37	583	<10	717	39.9	11076	<10
R38	687	<10	869	38.2	11254	<10
R39	947	<10	1166	35.6	11547	<10
R41	988	<10	1320	34.6	11645	<10



DOGWOOD CORNERS NOISE ASSESSMENT

Appendix B Results

Receptor*	Nearest Panel		Nearest Inverter		Nearest Transformer (Substation)	
	Distance (ft)	dBA	Distance (ft)	dBA	Distance (ft)	dBA
R42	1089	<10	1460	33.7	11739	<10
R43	996	<10	1509	33.4	4851	<10
R44	1002	<10	1141	35.8	4693	<10
R46	916	<10	1386	34.1	3832	<10
R47	1029	<10	1533	33.3	3701	<10
R48	636	<10	1155	35.7	4113	<10
R49	759	<10	1324	34.5	4066	<10
R50	1160	<10	1692	32.4	3658	<10
R51	1216	<10	1759	32.1	3634	<10
R52	1322	<10	1926	31.3	3533	<10
R53	1452	<10	2095	30.6	3496	<10
R54	1504	<10	2464	29.1	3387	<10
R55	1404	<10	1994	31.0	4247	<10
R56	1766	<10	2356	29.5	4138	<10
R57	1878	<10	2481	29.1	3712	<10
R58	2162	<10	2791	28.1	3880	<10
R59	1928	<10	2869	27.8	3557	<10
R60	1653	<10	2527	28.9	3205	<10
R61	2128	<10	2914	27.7	3550	<10
R62	2358	<10	3165	27.0	3800	<10
R63	1991	<10	2777	28.1	3367	<10
R64	2325	<10	3110	27.1	3685	<10
R65	2786	<10	3559	26.0	4078	<10
R68	2698	<10	3400	26.3	3776	<10
R69	3010	<10	3726	25.6	4125	<10
R70	3401	<10	4102	24.7	4452	<10
R71	3221	<10	3921	25.1	4246	<10
R72	3274	<10	3974	25.0	4328	<10
R73	3333	<10	4034	24.9	4341	<10
R74	3425	<10	4127	24.7	4417	<10
R75	3559	<10	4321	24.3	4593	<10
R76	3349	<10	4161	24.6	4441	<10
R77	3626	<10	4425	24.1	4703	<10
R78	4082	<10	4937	23.1	5219	<10
R79	3839	<10	4793	23.4	5100	<10
R80	3166	<10	4086	24.8	4376	<10
R81	3303	<10	4258	26.6	4619	<10



DOGWOOD CORNERS NOISE ASSESSMENT

Appendix B Results

Receptor*	Nearest Panel		Nearest Inverter		Nearest Transformer (Substation)	
	Distance (ft)	dB _A	Distance (ft)	dB _A	Distance (ft)	dB _A
R82	3337	<10	4290	24.3	4689	<10
R84	3130	<10	4098	24.7	4584	<10
R85	3295	<10	4282	24.3	4803	<10
R86	3151	<10	4214	24.5	4844	<10
R87	3710	<10	4788	23.4	5516	<10
R88	3487	<10	4791	23.4	5360	<10
R89	2996	<10	4091	24.7	4779	<10
R90	2572	<10	3699	25.6	4455	<10
R91	3139	<10	4283	24.3	5072	<10
R92	3271	<10	4420	24.1	5233	<10
R93	2821	<10	3974	25.0	4837	<10
R94	3052	<10	4204	24.5	5080	<10
R95	620	<10	953	37.4	1355	<10
R96	726	<10	1327	34.5	2749	<10
R97	812	<10	1084	36.3	2903	<10
R98	543	<10	634	40.9	2574	<10
R99	518	<10	1036	36.7	2821	<10
R100	540	<10	1059	36.5	3284	<10
R101	3064	<10	4484	23.9	9201	<10
R102	527	<10	754	39.4	6843	<10
R103	959	<10	1940	31.2	3487	<10
R104	534	<10	759	39.4	5518	<10
R105	544	<10	1268	34.9	3009	<10
R106	541	<10	1174	35.6	3139	<10
Dogwood Christian Church	917	<10	1353	34.4	4560	<10
New Barren Springs Baptist Church	520	<10	899	37.9	4814	<10
New Zion Baptist Church	1956	<10	2747	28.2	3481	<10
Note	Operates 1 minute every 15 minutes during daylight hours		Continuous low hum during daylight hours		Substation area	

