Toronto Area Interviews

The purpose of these interviews is to investigate how residents are reacting to living next to the wind turbines south of Toronto in Deuel County.

There are 24 existing wind turbines in Deuel County according to 2015 satellite imagery. Interviews were conducted with residents who live within 1 mile of the existing wind turbines.

According to 2015 satellite imagery, <u>17 Deuel County residences</u> were counted within 1 mile of the existing wind turbines.

15 interviews were conducted as shown on the following pages. 13 of the interviews were with Deuel County residents. The 2 interviews in Brooking County were with residents who live just south of the Deuel-Brookings county line road.

The number of wind turbines within a mile of each residence is shown on each interview. Distances listed were measured off satellite imagery from the center of the house to the center of the wind turbine. All distances were rounded to the nearest 100 feet. The distances are also shown in miles for informational purposes.

Residents were simply asked what it was like living next to the wind turbines. If a resident voluntarily shared concerns about noise or shadow flicker, some follow up questions regarding the level of noise and frequency of shadow flicker were asked. All interviews were conducted in person (by Mark Junker) at the residence.

Also noted on each interview is any other relevant information that was volunteered. All interviews were ended with a question regarding if the owner was receiving any compensation from the wind developer.

0.89

Turbine	Distance (feet)	Distance (miles)
1	1200	0.23
2	1500	0.28
3	1900	0.36
4	2500	0.47
5	2900	0.55
6	3300	0.63
7	4100	0.78

4700

June 4 and 12, 2016

Noise:

Interview #1

- describes noise as bad & loud (comparable to jets at an airport)
- noise prohibits the joy of campfires in the evening

w/ owners

noise prevents house windows from being opened at night

Shadow Flicker:

- · describes shadow flicker as bad
- shadow flicker occurs approximately ½ hour in morning and evening from approximately November to February
- · can't block the shadow flicker out of the house

- owners worried about property value
- · owners do not receive any compensation from the wind developer

Brookings County

0.97

Turbine	Distance (feet)	Distance (miles)
1	1300	0.25
2	1700	0.32
3 ,	1700	0.32
4	2300	0.44
5	2300	0.44
6	3000	0.57
7	3100	0.59
8	3300	0.63
9	3800	0.72
10	4300	0.81
_ 11	4500	0.85
12	4600	0.87
13	5000	0.95

5100

June 4, 2016

Noise:

Interview #2

w/owner

complained of noise

14

Shadow Flicker:

· complained of shadow flicker

- described living next to wind turbines as "it sucks"
- described a blade flying off of a wind turbine and stabbing in the ground in an upright position – unclear on exact distance the blade landed away from the wind turbine – described distance as "a ways"
- said deer were coming back to the area after being gone since construction of the wind turbines
- owner does not receive any compensation from the wind developer

Brookings County

Turbine	Distance (feet)	Distance (miles)
1	1200	0.23
2	2100	0.40
3	2200	0.42
4	2300	0.44
5	2600	0.49
6	3100	0.59
7	3200	0.61
8	3500	0.66
9	4300	0.81
10	4400	0.83
_ 11	4700	0.89
12	4800	0.91
13	5000	0.95

June 4, 2016

Noise:

Interview #3

• noise really bad in freezing fog

w/ owner

Shadow Flicker:

shadow flicker around 2 pm from approximately February to March

Other:

• owner does not receive any compensation from the wind developer

Interview #4

w/ owner's adult son

October 2, 2016

Deuel County

Turbine	Distance (feet)	Distance (miles)
1	1900	0.36
2	2600	0.49
3	3400	0.64
4	4600	0.87

Noise:

- no noise complaints except can hear wind turbines in the house during the winter
- described moving parts of the wind turbines as louder in the winter (compared it to your vehicle making more sounds in the cold)

Shadow Flicker:

none

- complained field/access road washes out
- father (owner) receives compensation from the wind developer

Interview #5	w/ owner	October 2, 2016	Deuel County
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Turbine	Distance (feet)	Distance (miles)
1	1900	0.36
2	2200	0.42
3	2800	0.53
4	2900	0.55
5	3600	0.68
6	3700	0.70
7	3800	0.72
8	4000	0.76
9	4100	0.78
10	4200	0.80
11	4600	0.87
12	4700	0.89
13	5200	0.98

Noise:

no noise complaints

Shadow Flicker:

- owner did not complain of shadow flicker
- owner mentioned that a guest did wonder what the shadow moving across the guest bedroom was

- only real complaint was they were dealing with some compaction issues in some fields yet due to construction traffic outside of the access roads
- owner receives compensation from the wind developer

Turbine	Distance (feet)	Distance (miles)
1	2200	0.42
2	2400	0.45
3	3000	0.57
4	3300	0.63
5	3800	0.72
6	3800	0.72
7	3900	0.74
8	3900	0.74
9	4200	0.80
10	4400	0.83
11	4500	0.85
12	4700	0.89
13	5200	0.98

October 2, 2016

Noise:

Interview #6

- · can hear noise in the house with the windows closed
- claimed noise can be "10 times louder than today"

Shadow Flicker:

• shadow flicker once in a while in the winter

w/ owner

Other:

• owner receives compensation from the wind developer

Interview #7

w/ owner's fiancé

October 2, 2016

Deuel County

Turbine	Distance (feet)	Distance (miles)
1	4500	0.85
2	4600	0.87
3	4700	0.89
4	5300	1.00

Noise:

- · described noise as light whooshing sound
- no noise problems

Shadow Flicker:

• unknown

Other:

not known if owner receives any compensation from wind developer

Interview #8	w/ owner	October 2, 2016	Deuel County
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Turbine	Distance (feet)	Distance (miles)
1	5000	0.95
2	5000	0.95
3	5200	0.98

Noise:

• noise described as minimal

Shadow Flicker:

none

Other:

owner does not receive any compensation from the wind developer

Interview #9

w/ owner

October 2, 2016

Deuel County

Turbine	Distance (feet)	Distance (miles)
1	4500	0.85
2	5100	0.97

Noise:

- · describes noise as similar to military aircraft with propellers
- does not sleep with windows open due to noise
- · does not wear hearing aids outside to avoid hearing the noise

Shadow Flicker:

- · shadow flicker in evenings for approximately 20 minutes
- · no shadow flicker in summer time

- · the blinking lights on the wind turbines at night are an annoyance
- had house for sale 79 days this summer, owner's opinion is that there was no interest in the house due to the wind turbines
- owner does not receive any compensation from the wind developer

0ctober 8, 2016 794-7023 w/owner Interview #10 **Deuel County**

Turbine	Distance (feet)	Distance (miles)
1	1300	0.25
2	1300	0.25
3	2200	0.42
4	2500	0.47
5	3200	0.61
6	3600	0.68
7	4100	0.78
8	4100	0.78
9	4800	0.91
10	5100	0.97

Noise:

described noise as bad
wind turbines are much noisier than they are today
can hear noise inside the house with windows closed (owner also noted it
was a very well built house)

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Shadow Flicker:

- owner wants to sell house, but can't
- owner hates the wind turbines
- no geese in the area since construction of the wind turbines
- owner does not receive any compensation from the wind developer

Turbine	Distance (feet)	Distance (miles)
1	1200	0.23
2	2000	0.38
3 *	2400	0.45
4	2800	0.53
5	2900	0.55
6	3500	0.66
7	3800	0.72
8	4500	0.85

October 8, 2016

Noise:

• owner was used to the noise - no noise complaints

w/ owner

· can't hear noise in house

Shadow Flicker:

Interview #11

• no shadow flicker complaints

- owner does not mind the wind turbines
- not known if owner receives any compensation from wind developer

Interview #12	w/ owner	October 8, 2016	Deuel County
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Turbine	Distance (feet)	Distance (miles)
1	2500	0.47
2	3300	0.63
3	4100	0.78
4	4800	0.91
5	4900	0.93
6	5000	0.95
7	5100	0.97

Noise:

- · described noise as bad
- described a vibration inside the house at times from the wind turbines
- · dogs go nuts sometimes due to noise

Shadow Flicker:

described shadow flicker as happening all the time

- no geese or wildlife around anymore due to wind turbines
- owner #@!#&% hates the wind turbines
- owner does not receive any compensation from the wind developer

Turbine	Distance (feet)	Distance (miles)
1	2700	0.51
2	3000	0.57
3	3500	0.66
4	4100	0.78
5	5000	0.95

October 8, 2016

Noise:

- owner can hear them
- owner cannot hear them in the house

w/ owner

Shadow Flicker:

Interview #13

• some shadow flicker in kitchen in winter time

Other:

• owner does not receive any compensation from the wind developer

Turbine	Distance (feet)	Distance (miles)
1	3300	0.63
2	3700	0.70
3	3900	0.74
4	4100	0.78
5	4400	0.83
6	5100	0.97

October 8, 2016

Noise:

· can hear noise in the house with the windows closed

Shadow Flicker:

Interview #14

· no shadow flicker problems in the yard

w/ owner

- complained of erosion in the fields next to the access roads
- · says red lights flashing at night on the wind turbines are annoying
- · owner does not receive any compensation from the wind developer

Turbine	Distance (feet)	Distance (miles)
1	2700	0.51
2	2700	0.51
3 *	3300	0.63
4	4200	0.80
5	5100	0.97

October 8, 2016

Noise:

- used to the noise
- · no noise in the house

w/ owner

Shadow Flicker:

Interview #15

no shadow flicker

- couldn't get TV reception with antenna anymore after wind turbines were built
- owner does not receive any compensation from the wind developer

Results

Noise:

- ➤ 6 out of 15 (40%) of residents interviewed are negatively impacted by the noise generated from the wind turbines (#1, #2, #6, #9, #10 and #12)
- ➤ 4 out of 15 (27%) of residents interviewed are mildly affected by the noise generated from the wind turbines (#3, #4, #13 and #14)
- > 5 out of 15 (33%) of residents interviewed are not affected by the noise generated from the wind turbines (#5, #7, #8, #11 and #15)

Shadow Flicker:

- > 5 out of 15 (33%) of residents interviewed are negatively impacted by the shadow flicker generated from the wind turbines (#1, #2, #9, #10 and #12)
- > 3 out of 15 (20%) of residents interviewed are mildly affected by the shadow flicker generated from the wind turbines (#3, #6 and #13)
- > 7 out of 15 (47%) of residents interviewed are not affected by the shadow flicker generated from the wind turbines (#4, #5, #7, #8, #11, #14 and #15)

- > 1 resident interviewed reported devaluation of property due to the wind turbines (#10)
- > 1 resident interviewed claimed difficulty selling house due to the wind turbines (#9)
- 1 resident interviewed worried about property value (#1)
- ➢ 3 residents interviewed reported wildlife has been negatively impacted due to the construction of the wind turbines (#2, #10, and #12)

Conclusion:

Although not scientific, there is nothing unique about the residents that were interviewed. Therefore, the sample of people interviewed is representative of the Toronto – White area wind development. All interviews conducted (both negative and positive) are contained within this report.

There is a wide range of reactions from residents living next to the wind turbines.

There is sufficient evidence from the interviews to demonstrate that a substantial number of Deuel County residents are negatively impacted from noise and shadow flicker generated from wind turbines.

Therefore, the current Deuel County ordinance does not protect a substantial number of residents from noise and shadow flicker generated from wind turbines.