

**ADAMS TOWNSHIP
PUBLIC HEARING
JULY 11, 2022**

A public hearing of the Adams Township Board was held on Monday, July 11, 2020 at the Township Hall, 17104 First Street, Baltic, Michigan for the purpose of discussing changes made to Wind Turbine Generation Ordinance.

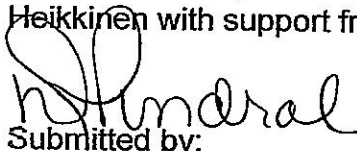
The meeting was called to order at 5:45PM. The Board members were introduced and responded to roll call: Supervisor Heikkinen, Treasurer Immonen, Trustee Eister, Trustee Keranen, and Clerk Pindral. There were 10 guests present.

Supervisor Heikkinen thanked all for attending. He stated the purpose of the public hearing was to inform the public and take comments regarding Ordinance 2022-06-1 Wind Turbine Power Generation Ordinance adopted on 06/06/22 and published in the local newspaper. Public hearing turned over for comments from the public.

James Mihelcic asked to go on record supporting the ordinance. He suggested comments to improve clarity of language (see attached). Lawyer Mackey thanked him for input, stating the ordinance has been published and suggestions could be considered in the future.

Martha Dugdale expressed appreciation to the Board and Lawyer Mackey for adoption of Wind Turbine Ordinance.

With no further questions or comments, a MOTION to adjourn at 6:00PM by Supervisor Heikkinen with support from Trustee Eister. Roll call, all ayes. Meeting Adjourned.



Submitted by:
Debbie Pindral
Township Clerk

Subject: Comments on Adams Township Ordinance Number O2022-06-1

Date: July 11, 2022

Submitted by James Mihelcic, PhD, Board Certified Environmental Engineering Member (BCEEM)

I am providing a hard copy of my comments in support of several technical items contained within Adams Township Ordinance Number O2022-06-1. I also provide several comments to improve clarity.

My Background. I am an environmental engineering professor with over 40 years of experience in industry, engineering consulting, and academia. I was a professor at Michigan Tech for 19 years and am currently the Samuel L. and Julia M. Flom Professor of Civil and Environmental Engineering at the University of South Florida. I am an elected Fellow with the Association of Environmental Engineering & Science Professors (AEESP) and the Water Environment Federation (WEF), a Board Certified Environmental Engineering Member with the American Academy of Environmental Engineers & Scientists AAEEES (where I served on the Board of Trustees for two terms), and a past board member and president of AEESP. I also have served two terms on the U.S. Environmental Protection Agency's Chartered Scientific Advisory Board and currently serve as Associate Editor for two prestigious scientific journals published by the American Chemical Society: *Environmental Science & Technology* and *Environmental Science & Technology Letters*.

Typos. In case you have not caught them, a) there is a typo on bottom of page 3, Section 6. After "FAA regulations" there is a period and a comma. b) there is a period is missing at end of Section 7.

Section 3 State or Federal Requirments You use the language that the system must meet or exceed "any standards and regulations of" US FWS does not regulate wind turbine generators or have standards. They have what are referred to as "voluntary Land-Based Wind Energy Guidelines (March 23, 2012) that have not been updated for many years.

Recommended changes to text.

Any proposed wind turbine generator or anemometer tower shall meet or exceed any standards, **guidelines, and** regulations of the FAA,,,,,

Because several of these organizations do not regulate the structure but the land associated with the structure, I would consider changing the last sentence so it reads "...to regulate wind turbine generators or other tall structures (**and associated land**) in effect at the time the permit is issues.

Section 5.1 Property Setback. I provide several references of scientific studies that support your setback distance of 5,000 feet. I make my comments for reasons of health and well-being and property values.

For example, a 2021 study by Finnish scientists reveals symptoms associated with industrial wind turbine infrasound were relatively common in 15% of individuals living with 1.5 miles (2.5 km) of industrial wind turbines (the study found impacts farther than 1.5 miles but I will focus on results for those living closest). Example symptoms include pressure sensations in the ear, tinnitus), sleep disturbance, headache, dizziness, and fatigue. One third of the symptomatic respondents rated their symptoms severe and had to visit a doctor because of symptoms they suspected to result from wind turbine infrasound. Furthermore, 17% reported being placed on sick leave. Half of respondents with symptoms reported having symptoms at least several times per week, and almost 30% of the symptomatic respondents reported having difficult or extremely difficult symptoms (Turunen, A. W., Tiittanen, P., Yli-Tuomi, T., Taimisto, P., & Lanki, T. (2021). Symptoms

intuitively associated with wind turbine infrasound. *Environmental Research*, 192, 110360). Researchers have also reported “the construction of industrial wind turbines within 2.5 miles of one’s home has a significant and sizeable negative effect on life satisfaction” (Krekel, C., & Zerrahn, A. (2017). Does the presence of wind turbines have negative externalities for people in their surroundings? Evidence from well-being data. *Journal of Environmental Economics and Management*, 82, 221-238).

Regarding property values, there are many studies showing “windfarm visibility reduces local house prices, and the implied visual environmental costs are substantial” (Gibbons, S. Gone with the wind: Valuing the visual impacts of wind turbines through house prices. *Journal of Environmental Economics and Management*, 72, 177-196, 2015). Other studies conclude wind turbines negatively affect the price of surrounding properties up to many miles and this negative impact increases with the number of wind turbines (e.g., Jensen, C. U., Panduro, T. E., Lundhede, T. H., Nielsen, A. S. E., Dalsgaard, M., & Thorsen, B. J. (2018). The impact of on-shore and off-shore wind turbine farms on property prices. *Energy Policy*, 116, 50-59). A Swedish study showed property values being reduced by 3-6% when just two turbines were placed within 1 km of a home. (Jensen, C. U., Panduro, T. E., Lundhede, T. H., Nielsen, A. S. E., Dalsgaard, M., & Thorsen, B. J. (2018). The impact of on-shore and off-shore wind turbine farms on property prices. *Energy Policy*, 116, 50-59). Related to Adams Township, another study concluded that properties that are most negatively impacted were “old houses and those in rural areas” with home prices in urban areas hardly affected. (Frondel, M., Kussel, G., Sommer, S., & Vance, C. (2019). Local cost for global benefit: The case of wind turbines (No. 791). *Ruhr Economic Papers*). Research from prestigious London School of Economics showed “wind farms reduce house prices in postcodes where the turbines are visible” And as might be expected decreases in property values are larger when there are a greater number of turbines. Finally, a study from Upstate New York surveyed 11,369 property transactions over a 9-year period in upstate New York. The study site is a very rural, lightly populated area of small towns and villages that has a lower household income than the state average. In this study, two of three counties showed large declines in the value of their home/property. In fact, the presence of turbines in these two counties resulted in a property value decrease of 10 to 16%. As expected, the results did differ with property distance from the turbines; however, properties 3 miles away still experienced a decrease in their home value of 2-8%. For our neighbors who may reside close to an industrial turbine, residents within 0.5 mile saw a decline in the sale value of their home/property up to 35%!Heintzelman, M. D., & Tuttle, C. M. (2012). Values in the wind: a hedonic analysis of wind power facilities. *Land Economics*, 88(3), 571-588.

Section 5.2 Sound Press Level. I am supportive of Adams Township setting the sound pressure level to 40 db(A) at the property line closest to the wind system, This is because typical decibel levels for a location that is “quiet rural nighttime” are reported as 25 decibels and quiet suburban background readings are around 50 (data from: <https://www.noisequest.psu.edu/noisebasics-basics.html> & Wind Turbines and Sound: Review and Best Practice Guidelines (report prepared by Howe Gastmeier Chapnik Limited, 2007).

Furthermore, the World Health Organization has even written in the Guidelines for Community Noise” that “Where noise is continuous, the equivalent sound pressure level should not exceed 30 dBA indoors if negative effects on sleep are to be avoided. ... When the noise is composed of a large proportion of low-frequency sounds a still lower guideline value is recommended, because low- frequency noise can disturb rest and sleep even at low sound pressure levels.” http://www.ruidos.org/Noise/WHO_Noise_guidelines_4.html (accessed July 11, 2022)

Section 7. Effect or Impact on Wildlife? The ordinance states “adverse impact on migratory bird species” I would write this as “adverse impact on migratory **and resident** bird species.

In last paragraph of this Section, you might want to make it clear these annual reports provided to the township will be made available to the public. Reports submitted to MI DNR and US FWS are rarely made public.

ADAMS TOWNSHIP
MONTHLY MEETING
July 11, 2022

The regular monthly meeting of the Adams Township Board was held on Monday, July 11, 2022 at the Township Hall, 17118 First Street, Baltic, Michigan.

The meeting was called to order at 6:00PM immediately following public hearing. Meeting started with reciting the Pledge of Allegiance. The following board members responded to roll call: Supervisor Heikkinen, Trustee Eister, Treasurer Immonen, Trustee Keranen, and Clerk Pindral. There were 17 guests participating.

MOTION made by Trustee Eister with support from Trustee Keranen to accept the minutes of the June 2, 2022 Monthly Meeting, and June 2, 2022 Wholesale Water meeting. Roll call, all ayes. Motion carried.

PUBLIC COMMENT:

- Martha D. and Terry P. thanked the Board for the adoption of the Wind Turbine Ordinance.
- Terry P. reported the wind anemometer is in process of being taken down on Whealkate Bluff.

CORRESPONDENCE:

1. Chris Holmes, UPEA, contacted the bond agency regarding language to fire hall millage proposal for November ballot. It would be a 30-year bond with a \$1,600,000 cap. Copies of the proposal given to Board members to review for August meeting. No update on availability of grant monies.
2. MI Attorney General letter regarding trail easement for water main improvement received. Lawyer Mackey stated a new easement application is requested along with the stipulation of all old lines removed when the new line goes in. Tom Flamenio, EGLE, agrees with leaving one line behind when new line goes in as insurance in case of line break as the line serves close to 10,000. Lawyer Mackey stated the Township has a legal agreement from 1967 with Copper Range as well as a 1981 State of Michigan agreement, and reiterated rights from previous agreements cannot be taken away. He will again contact the Attorney General's office in attempt to resolve. Need to contact elected officials to intervene and ask for assistance in resolving easement issues.
3. Invoice received from Keweenaw Chamber of Commerce for \$200 annual dues. MOTION by Trustee Keranen with support from Trustee Eister to approve payment of Keweenaw Chamber of Commerce dues in the amount of \$200. Roll call, all ayes. Motion carried.

FINANCIAL REPORT:

Supervisor Heikkinen inquired if there were any questions or issues regarding the financial reports for June. Reported the second payment of ARPA funds (\$93,212,63) has been received along with State Revenue Sharing funds. MOTION by Trustee Eister with support from Trustee Keranen to accept the June 2022 financial reports. Roll call, all ayes, Motion approved.

FIRE DEPARTMENT:

There were 17 medical calls and 1 fire call since last report. Dan Coponen stated the land for new fire department would not be donated by Moyle but if bid received, the cost could possibly be subtracted from services.

ASSESSOR REPORT: Board reviewed assessor report for June. BOR will be held on 7/12/22 at 1PM for any corrections.

CEMETERY REPORT: Cemeteries are looking good. There will be some dead trees removed from both cemeteries due to safety concerns.

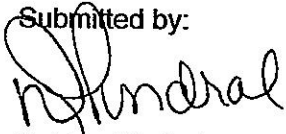
BUSINESS – UNFINISHED/NEW:

- Chris Holmes stated no new updates on water project application.
- Don Cline reported the Village of South Range will discuss at their monthly meeting a land swap in exchange for the property for tank placement.
- No updates from Circle Power,
- Planning Commission has no update. Will meet on July 21st. Report possible land donation in Baltic for playground.
- Ontario Street resident has requested a "Dead End" sign. If resident pays for sign, Board approves.
- Reminder from Semco to call 811 for emergencies, digging in ground, etc. Dig by hand around pipeline, no equipment.

- Request for Fab Cat Roller for paving and trails. Cost \$12,000, time availability unknown. Tabled until August to investigate machine versability.
- Clerk Pindral asked for feedback on revisions made on Personnel Policy Book.

With no other business brought before the Board, a MOTION at 7:05PM by Trustee Eister with support from Trustee Keranen. Roll call, all ayes. Meeting adjourned.

Submitted by:

A handwritten signature in black ink that reads "Pindral". The signature is written in a cursive, flowing style.

Debbie Pindral
Township Clerk

ADAMS TOWNSHIP
Wholesale Water Board
July 11, 2022

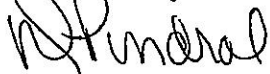
The regular monthly meeting of the Adams Township Wholesale Water Board was held on Monday, July 11, 2022 at the Township Hall, 17104 First Street, Baltic, Michigan.

The meeting was called to order at 7:10PM. The following board members responded to roll call: Supervisor Heikkinen, Treasurer Immonen, Trustee Eister, Trustee Keranen., and Clerk Pindral, Heather Platzke, and Water Dept Supervisor Don Cline.

- Don Cline reported Terry Wiitala and Travis Cline passed their tests! Both received the pay upgrade for licensure, and will be taking the next level exams in November.
- Two major water leaks in past month, one in Trimountain and one in Painesdale. In Trimountain a 2" line was eliminated and one service line added. In Painesdale there are 4-6 houses on 1" main. Game plan is being set for Adams Street improvements. Lots of daisy chains are coming to light.
- Lagoons have been discharged, looking good.
- There is a leak by the old church/rectory in Painesdale by highway, which may be an issue.
- Don stated the Township will need to own the land for the water tank to get the EGLE emergency funds. Tank would be 1.5 million with 16"/10" line.
- Heather and Don have been invited to the EGLE virtual award ceremony on 7/25.
- Supervisor Heikkinen inquired on status of audit. Has to be finalized by 9/30 and to State or accrue fines. Treasurer Immonen stated it has been delayed 2 weeks due to contracting Covid.

With no other business or comments before the board, a MOTION by Trustee Keranen with support from Trustee Eister to adjourn the Wholesale Water meeting at 7:30P.M. Roll call, all ayes, Motion approved.

Submitted by:



Debbie Pindral, Township Clerk

NOTICE

Adams Township

Election Committee Meeting

July 11, 2022

Immediately following the regularly
scheduled 6:00PM Township
Meeting/Wholesale Water Meeting

Posted 7/8/22

D. Pindral, Clerk

A meeting of the Adams Township Election Committee was held on Monday, July 11, 2022 at the Township Hall, 17104 First Street, Baltic, Michigan.

The meeting was called to order at 7:30PM. The following board members responded to roll call: Supervisor Heikkinen, Treasurer Immonen, and Clerk Pindral.

Clerk Pindral nominated the following as election inspectors for the August 2, 2022 election with specific appointments TBD:

Torey Dugdale, Election Chairperson (D)

Kathy DeForge, Back-up Chairperson (D)

Margaret Burkman (R)

Marti Rashleigh (R)

Jean Stevens (R)

Gail Mickalich (D)

Nancy Tinsley (G)

Deborah Paavola (D)

Helen Schutz (D)

MOTION by Treasurer Immonen with support from Supervisor Heikkinen to support and approve the above election inspector nominations. Roll call, all ayes. Motion carried.

Public accuracy test is scheduled for Tuesday, July 26, 2022 at 6PM.

With no other business before the board. MOTION by Clerk Pindral with support from Supervisor Heikkinen to adjourn the meeting at 7:35 P.M. Roll call, all ayes. Meeting adjourned.

Submitted by:

Debbie Pindral, Township Clerk

