

From: Smith, Greg
Sent: Thursday, January 24, 2019 1:54 PM
To: Beth Schweitzer
Cc: Laura Wallrabenstein; hstacy@senecacountyohio.gov; mkerschner@senecacountyohio.gov; stthomas@senecacountyohio.gov; info@sanduskycohd.org; Pschade@ecghd.org
Subject: RE: EPA Ground Water data

Dear Seneca County General Health District Commissioner,

I am following up on my previous email sent on November 23, 2018 as I have yet to receive a response from you. My questions still stand regarding the risk of ground water contamination. Furthermore I am raising additional health risk concerns related to the proposed wind turbine projects such as expected noise levels that exceed the World Health Organization (WHO) standards, effects on autistic people related to expected shadow flicker levels, and last but not least infrasound.

I have attached:

- Ohio EPA high risk ground water map
- My household well report
- Seneca Wind noise level study map with WHO guidelines related to wind turbines
- Seneca Wind shadow flicker map
- (3) documents related to infrasound
- Link to German ZDF documentary on studies done on infrasound generated by wind turbines <https://www.youtube.com/watch?feature=youtu.be&v=ywWNx3OJyuo&app=desktop&fbclid=IwAR30HLHyHdOYkYaXmyJFhGtg5DgSAQay63Dmrw0W9AT9gZTWqJpPYNx3qIw>

I don't know what it is going to take for you as our County Health Commissioner to take notice of these potential health risks and take action. We all need to have the foresight to anticipate problems before they become problems. We should learn from the experiences of others and not repeat the same mistakes here in Seneca County.

Greg Smith

From: Smith, Greg
Sent: Friday, November 23, 2018 9:19 AM
To: 'bschweitzer@senecahealthdept.org'
Cc: 'lwallrabenstein@senecahealthdept.org'; hstacy@senecacountyohio.gov;
mkerschner@senecacountyohio.gov; stthomas@senecacountyohio.gov; 'info@sanduskycohd.org';
'Pschade@ecghd.org'
Subject: EPA Ground Water data

Dear Seneca County General Health District Commissioner,

I have attached an Ohio EPA map that illustrates areas throughout the state where the ground water is at high risk of contamination. I was surprised to see a large high risk zone located in the Seneca, Sandusky, and Erie counties. This high risk area coincides with the proposed location of the Republic Wind and Seneca Wind projects. I am concerned what the effect will be on the quality of our ground water after 143 proposed turbine foundations are dug.

For example, the Village Of Republic 's water source is from wells. The area in question is a well-known karst region that I feel needs to be taken into consideration with the proposed wind projects. Many residential homes in the area have shallow wells. For example, the well on my property has a static water level of only 15'. See the attached report.

While the wind companies may be required to study the effects on ground water per the Ohio Power Siting Board's process, I think it is prudent to have a local and unbiased review of the situation. Therefore I am asking for your help.

We all need to be knowledgeable enough to anticipate problems before they happen to avoid serious issues later on. I have copied the Health Commissioners from Sandusky and Erie Counties as well.

Thank you,

Greg Smith

FW: EPA Ground Water data



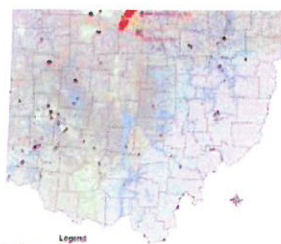
Beth Schweitzer

Yesterday, 3:46 PM

Laura Wallrabenstein

Reply all |

This message was sent with high importance.



2018.01.09 Seneca Karst...
176 KB

FW: Seneca and Republi...
30 KB

3 attachments (1 MB) Download all

From: Bob.Frey@odh.ohio.gov [mailto:Bob.Frey@odh.ohio.gov]

Sent: Wednesday, January 9, 2019 2:47 PM

To: Beth Schweitzer

Cc: Rebecca.Fugitt@odh.ohio.gov; Stephen.Helmer@odh.ohio.gov; matthew.butler@puco.ohio.gov

Subject: FW: EPA Ground Water data

Importance: High

Dear Health Commissioner Schweitzer,

I apologize for the delay in getting this response back to you. Enclosed as an attached PDF is our response to your questions regarding a resident's concerns about the siting of proposed wind turbine projects on karst surfaces in eastern Seneca County. His concerns were primarily directed a potential water quality impacts on the local aquifer used by area residents as their drinking water supply. We do not see these developments as having much of an impact of groundwater quality in the area. Our concerns center more on the stability of the ground surfaces in this type of terrain and the ability of the ground to support these wind turbine structures. We refer you to a response to the resident's concerns from representatives of the Ohio Power Siting Board in which it is stressed that the applicants for these two power development projects must completely characterize the geology under these proposed developments and determine and account for any possibilities of these projects having an impact on groundwater quality and public safety in the area of these developments. Attached is a copy of response from the OPSB to the resident for your consideration. I hope these provide you with the information you were looking for.

From: BEH
Sent: Monday, November 26, 2018 12:09 PM
To: Phillips, Gene <Gene.Phillips@odh.ohio.gov>; Fugitt, Rebecca <Rebecca.Fugitt@odh.ohio.gov>
Subject: FW: EPA Ground Water data

From: Beth Schweitzer <bschweitzer@senecahealthdept.org>
Sent: Monday, November 26, 2018 10:57 AM
To: BEH <BEH@odh.ohio.gov>
Subject: FW: EPA Ground Water data

I am forwarding this letter from a concerned citizen in Seneca County. As you will see in his letter a reference is being made to the area where proposed turbine installations are being proposed. We are not aware of any health hazards relating to the installation of turbines but would appreciate you providing us with research and information about such hazards if there are any. I look forward to your response.

Thanks you very much.

Beth Schweitzer
Seneca County Health Commissioner

From: Smith, Greg [<mailto:gsmith@nationalmachinery.com>]
Sent: Friday, November 23, 2018 9:19 AM
To: Beth Schweitzer
Cc: Laura Wallrabenstein; hstacy@senecacountyohio.gov; mkerschner@senecacountyohio.gov; stthomas@senecacountyohio.gov; info@sanduskycohd.org; Pschade@ecghd.org
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Thank you,
Greg Smith

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OHIO DEPARTMENT OF HEALTH

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Columbus, Ohio 43215

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www.odh.ohio.gov

John R. Kasich/Governor

Lance Himes/Director of Health

01/09/2019

Beth Schweitzer
Health Commissioner
Seneca County Health Department
71 Washington Street, Suite 1102
Tiffin, Ohio, 44883

Dear Health Commissioner Schweitzer,

Your recent email regarding questions and concerns posed by a Seneca County resident on the proposed siting of two wind turbine developments in eastern Sandusky County has been forwarded to the Health Assessment Section (HAS) in the Bureau of Environmental Health and Radiation Protection. Specifically, this resident was concerned about the impacts of the installation and operation of the wind turbines on the water quality of numerous private wells and the village of Republic's public water supply, all of which are dependent on local groundwater for their drinking water.

The resident expressed his concerns regarding two proposed wind turbine developments in the vicinity of his home in eastern Seneca County. The proposed Seneca and Republic Wind Projects include areas south of Green Springs, north of Republic, and southwest of Bellevue, in Pleasant, Adams, Scipio, and Thompson townships in Seneca County and adjacent portions of Green Creek and York townships in Sandusky County. Both the Republic and Seneca Wind Projects have submitted applications to the Ohio Power Siting Board (OPSB) for review and consideration.

Both wind turbine projects are situated on what is termed the Bellevue-Castalia Karst Plain. Karst is a landform that develops on or in limestone, dolomite, or gypsum as the result of the slow dissolving solution of the bedrock rather than its mechanical erosion. As such, it is characterized by the presence of solution features such as sinkholes, caves, and underground drainage through solution enlarged fractures. Karst landforms have the potential to be geological hazards due to the formation of sinkholes and collapse structures. As indicated in the letter from the concerned citizen, Ohio EPA has designated the aquifers underlying the Bellevue-Castalia Karst Plain as being Drinking Water Protection Areas with High Susceptibility to Contamination and Water Quality Impacts. Surface bedrock in the area consists of up to 175 ft of fractured Devonian limestone overlying Silurian dolomite, anhydrite, and gypsum. Karst development in the Bellevue-Castalia Karst Plain is due to the collapse of overlying carbonate bedrock into voids created by the dissolution and removal of the underlying soluble gypsum beds.

The resident's main concern with regard to the siting of these proposed wind turbine projects seems to be their potential to adversely impact groundwater quality in these hazard-vulnerable karst areas. While the geology of the area increases the potential for local and regional contamination of these groundwater resources, there is little evidence that the installation and operation of these wind turbines would have any long-lasting, significant impacts on drinking water quality in these areas.

ODH consulted with the Ohio Power Siting Board (OPSB) regarding these applications. OPSB provided a copy of a letter sent to Mr. Smith regarding his concerns about the siting of these wind turbine projects in eastern Seneca County (attached). OPSB indicated the following:

OPSB rules require the applicant in any proposed electric generation facility project to provide the following information regarding water impacts, including:

- An evaluation of the impact to public and private water supplies due to construction and operation of the proposed facility.
- Existing maps of aquifers, water wells, and drinking water source protection areas that may be directly affected by the proposed facility.
- A description of how construction and operation of the facility will comply with any drinking water source protection plans near the project area.

This information is reviewed in the course of the staff investigations of each case.

Additionally, 60 days before the preconstruction conference is held for any OPSB-authorized wind farm project, the applicant must provide a fully detailed geotechnical exploration and evaluation to confirm that there are no issues to preclude development of the facility. This geotechnical exploration and evaluation must include borings at each turbine location to provide subsurface soil properties, static water level, rock quality description, per cent recovery, and depth and description of the bedrock contact and recommendations needed for final design and construction of each wind turbine foundation, as well as the final location of the transformers substation and interconnection substation.

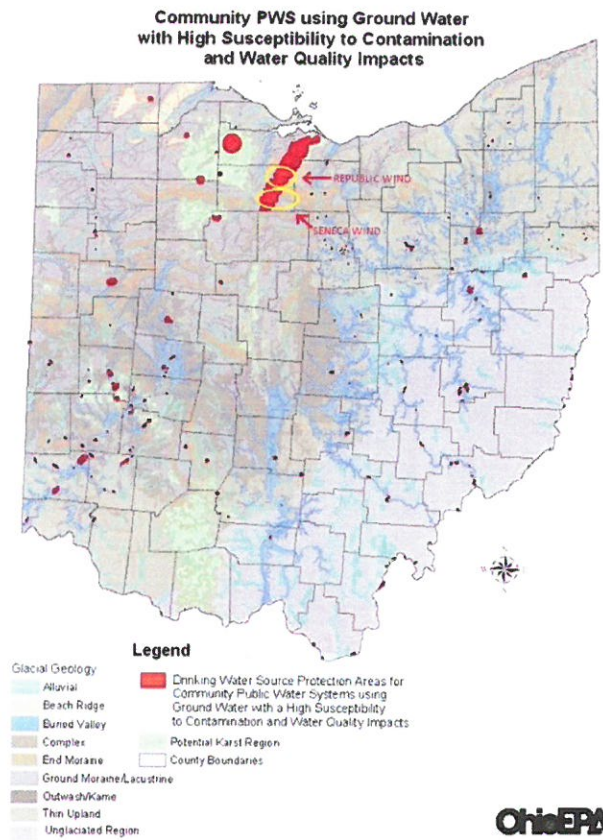
OPSB's established siting requirements address both Mr. Smith's concerns about potential impacts on water quality affecting area drinking water wells, and also address the siting of wind turbine projects on top of unstable karst surfaces.

If you have any additional questions or concerns regarding this issue, don't hesitate to give me a call at (614) 466-1069 or email me at Bob.Frey@odh.ohio.gov.

Sincerely,

Robert C. Frey, PH.D.
Program Administrator
Health Assessment Section

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FW: Seneca and Republic wind farms [ref:_00Dt0GzXt._500t0CobZP:ref]



Rebecca.Fugitt@odh.ohio.gov

Fri 11/30/2018, 12:03 PM

Gene.Phillips@odh.ohio.gov; Bob.Frey@odh.ohio.gov; Bennett.Trotter+1 more

Reply all |

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To always show content from this sender, [click here](#).

FYI.

From: Matt Butler <matthew.butler@puco.ohio.gov>

Sent: Friday, November 30, 2018 11:49 AM

To: Fugitt, Rebecca <Rebecca.Fugitt@odh.ohio.gov>

Cc: Steele, Ed <Edward.Steele@puco.ohio.gov>; Pawley, Jonathan <jonathan.pawley@puco.ohio.gov>; Morrison, Eric <Eric.Morrison@puco.ohio.gov>; Odell, James <James.O'Dell@puco.ohio.gov>

Subject: Seneca and Republic wind farms [ref:_00Dt0GzXt._500t0CobZP:ref]

Hello Rebecca,

Below is my correspondence with Mr. Greg Smith. Please let me know if you have any questions.

Thanks,

Matt Butler
Public Information Officer
Ohio Power Siting Board

----- Forwarded Message -----

From: Ohio Power Siting Board [contactopsb@puc.state.oh.us]

Sent: 11/5/2018 11:38 AM

To: gsmith@nationalmachinery.com

Subject: RE: Public Comment [ref:_00Dt0GzXt._500t0CobZP:ref]

Hello Mr. Smith,

Thank you for reaching out to the Ohio Power Siting Board (OPSB) with your concerns. I have forwarded

your comments to be filed in case number 17-2295-EL-BGN and 18-0488-EL-BGN.

[OPSB rules](#) require the applicant in any proposed electric generation facility project to provide the information regarding water impacts, including:

- An evaluation of the impact to public and private water supplies due to construction and operation of the proposed facility.
- Existing maps of aquifers, water wells, and drinking water source protection areas that may be directly affected by the proposed facility.
- A description of how construction and operation of the facility will comply with any drinking water source protection plans near the project area.

This information is reviewed in the course of the staff investigation in each case.

Additionally, 60 days before the preconstruction conference is held for any OPSB-authorized wind farm project, [the applicant must provide](#) a fully detailed geotechnical exploration and evaluation to confirm that there are no issues to preclude development of the facility. This geotechnical exploration and evaluation must include borings at each turbine location to provide subsurface soil properties, static water level, rock quality description, per cent recovery, and depth and description of the bedrock contact and recommendations needed for the final design and construction of each wind turbine foundation, as well as the final location of the transformer substation and interconnection substation.

Respectfully,

Matt Butler
Public Information Officer
Ohio Power Siting Board

----- Original Message -----

From: Smith, Greg [gsmith@nationalmachinery.com]

Sent: 11/4/2018 11:06 PM

To: contactopsb@puco.ohio.gov

Subject: Public Comment

Matt,

Please post the following public comment for the Republic Wind (17-2295-EL-BGN) and Seneca Wind (18-0488-EL-BGN) projects. Please also include the attached file.

I don't understand why the information shown in this Ohio EPA map isn't a major issue that needs serious consideration and investigation. The EPA map clearly illustrates that the footprint of both projects falls within a Protected Area for public water systems that has a high susceptibility of contamination. The idea of digging foundations for 143 turbines (total for Republic Wind and Seneca Wind projects) in this specific

area seems like it could potentially cause ground water contamination problems per the EPA's map. If so, why isn't this a showstopper for both projects?

Greg Smith
Bloomville, OH

ref:_00Dt0GzXt._500t0CobZP:ref

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2/5/2019 4:29:38 PM

in

Case No(s). 18-0488-EL-BGN, 17-2295-EL-BGN, 18-1607-EL-BGN

Summary: Public Comment received via website electronically filed by Docketing Staff on behalf of Docketing.