

STATE OF NEW YORK
SUPREME COURT : COUNTY OF STEUBEN

In the Matter of the Application of the SIERRA CLUB;
PEOPLE FOR A HEALTHY ENVIRONMENT, INC.;
COALITION TO PROTECT NEW YORK; JOHN MARVIN;
THERESE FINNERAN; MICHAEL FINNERAN;
VIRGINIA HAUFF; and JEAN WOSINSKI,

Petitioners,

For a Judgment Pursuant to Article 78 of the Civil Practice Laws
and Rules

-against-

THE VILLAGE OF PAINTED POST; PAINTED POST
DEVELOPMENT, LLC; SWEPI, LP; and
WELLSBORO AND CORNING RAILROAD, LLC,

Respondents.

AFFIDAVIT IN OPPOSITION
TO RESPONDENTS' MOTION
TO DISMISS AND/OR FOR
SUMMARY JUDGMENT

Index No. 2012-0810CV

Justice Alex R. Renzi

State of New York,
County of Steuben, ss.:

JEAN ADAIR WOSINSKI, being duly sworn, deposes and says:

1. I am a resident of the City of Corning. I have lived at 53 Houghton Circle since 1994. [REDACTED]

[REDACTED]

[REDACTED]

2. [REDACTED]

3. My drinking water is supplied by the City of Corning. Pipes from the municipal water system run directly to both of the houses I own.

4. The water for the City of Corning municipal water system is supplied by wells drawing on the groundwater in the Corning aquifer. In addition to supplying water for the City of

Corning water supply, the Corning aquifer also serves as the source of the municipal drinking water supply for the Town of Erwin, the Village of Painted Post, the Village of Riverside and the Town of Corning. A number of businesses and individuals in the area have private wells that also draw from the Corning aquifer.

5. If the Corning municipal drinking water supply were to be diminished or contaminated, it could affect my health and make it difficult for me to continue living in my home. It could also reduce the value of my property. My neighbors and residents of the entire area served by the Corning aquifer could experience the same effects, which could have a negative effect on the overall economy of our area.

6. Based on my training as a geologist and my first-hand experience studying the Corning aquifer, when I first heard that local municipalities were looking into raising revenue by selling water from the Corning aquifer for export to gas drilling companies in Pennsylvania, I became extremely concerned. I felt that their consideration of such ideas showed that our local officials seriously misjudged the character of our local geology and the nature of the aquifer that provides our water supply.

7. For the reasons I explain below, I believe that the extraction of large amounts of water from the Corning aquifer for export to Pennsylvania will seriously and severely diminish both the quantity and the quality of the limited water resource in the aquifer and that this will have a direct negative impact on residents who obtain their water supply from the Corning aquifer, including residents of the City of Corning such as myself.

8. I have a long-standing interest in water issues, both personally and professionally.

9. My childhood years were spent in the suburban community of Silver Spring, Maryland, immediately north of Washington, DC. At that time it was a relatively rural area. The headwaters of Sligo Creek, a tributary of the Anacostia River, flowed at the foot of our property and the creek was an important feature in my childhood environment. The Anacostia River is part of the Chesapeake Bay watershed.

10. As it has turned out, I have lived within the watershed of the Chesapeake Bay for most of my life, except for a few brief years during college and early married life.

11. Growing up, the tragedy of the Dust Bowl was an active concern of the adults of my acquaintance. My father's home in Illinois escaped the worst of the drought's effects, being located in what is referred to as "Little Egypt," the southern portion of the state that fed the remainder during the drought's worst years. Through my father I came to develop a deep appreciation of the potential impact of a diminished water supply..

12. As an undergraduate at Denison University in Granville, Ohio, I majored in geology. During my sophomore year in the summer of 1952, I was hired by the U.S. Geological Survey field office in the Groundwater Branch of the Water Resources Division, located in the coastal plain area of Maryland in Salisbury. There I regularly measured water levels in several active industrial and private wells and a number of abandoned wells, and managed records of their fluctuating water levels. I also serviced several automatic water level gages. Later in the summer I was responsible for collecting and labeling samples at a well drilling site of bedrock penetrated by the boring at periodic depths. Those samples along with samples collected from wells throughout the state were used to construct a three-dimensional model of a several county area of Maryland's Eastern Shore which I created for public display at state and county fairs to portray the classic nature and the extent of various porous rock layers (aquifers) carrying rainfall from the mountains of Western Maryland under the Chesapeake Bay to deep wells on the Del-Mar-Va peninsula.

13. Returning to the Washington, DC area after college in 1954, I rejoined the U.S. Geological Survey. I worked in a USGS office in DC that, in cooperation with the State Department, sent experienced federal, state, and academic ground water geologists to arid countries overseas that needed technical assistance in the provision of adequate water supplies for urban, industrial and agricultural use.

14. My marriage in 1956 to a fellow geologist from Denison University who was

entering graduate school at Brown University afforded an opportunity for me to return to field work at the Providence, R.I. Geological Survey office of USGS's Ground Water Branch. While there, I was allowed to participate in joint field trips conducted by the Brown and Harvard University geology departments. Through my job and the field trips, I was exposed to the complex New England geology and this exposure broadened my understanding of the diversity of water supply problems encountered in meeting municipal and industrial needs.

15. In 1958, my husband and I moved to Corning, NY, upon his employment by Corning Gas Works. We purchased a modest home on extensive rural acreage in the Town of Hornby immediately north of Corning. I appreciated its location at the northern boundary of the Chesapeake Bay watershed.

16. In 1971, I was asked to fill the role of geology instructor for a geologist on sabbatical leave at Corning Community College. That academic year ended with the dramatic Flood of 1972 in the region, induced by Hurricane Agnes.

17. The response of local school administrators to the flood inspired me to prepare information for children who had become traumatized by experiencing the flood and who needed to understand why the flood had occurred. I prepared a talk with slides giving a visual explanation of the weather history preceding the flood and its effect in combination with the steep slopes and flat valley geology of our regional landscape. Although developed for area school children, I gave my talk to many local service clubs as well, providing hundreds of children and adults with information on our local geology and its advantages, limits and hazards.

18. I also spoke out on other matters affecting our environment when I believed I had access to information not generally known to my fellow citizens. My college geology professor had challenged his students to participate in any community discussion throughout our lives when we could offer assistance in civic decisions based upon our understanding of the underlying local geology.

19. I participated for many years in local planning processes—where decisions often

involve a consideration of specific geologic conditions. I was appointed to the Town of Hornby Planning Board in 1968 and subsequently became Chairman. During that period I also served as the Hornby representative to a newly formed Regional Planning Board, then guided by the Three Rivers Development Foundation, headquartered in Corning. The first-ever zoning ordinance in the Town of Hornby was adopted during my tenure as Chair, which ended in 1982.

20. From my study of the Corning aquifer, I learned that, unlike the extensive, porous, water bearing rock layers that comprise what people most often think of as an aquifer, the Corning aquifer consists of relatively narrow branches of loose glacial fill located at the bottom of four deep river valleys. See diagram attached as Exhibit A, Fig. 22 from the USGS report on the Corning Aquifer, from Surficial Aquifer System, Valley-Fill Glacial Aquifers http://pubs.usgs.gov/ha/ha730/ch_m/M-text1.html.

21. The bedrock underlying our valleys and the hills surrounding them is sandy limestone and shale. The bedrock is not sufficiently porous to absorb much water. For this reason, we have no deep bedrock aquifers in this area. Precipitation on our hills is largely shed in the form of fast flowing streams and waterfalls. The aquifers we have are surficial aquifers formed along the valley floors by the rock and sediment debris released by melting glacial ice.

22. Much of the water in the Corning aquifer comes from our relatively reliable precipitation, which replenishes or recharges the valley aquifers and maintains the generally reliable surface flow of the Tioga, Canisteo, Cohocton and Chemung Rivers. These valley bottom aquifers are also recharged by groundwater baseflow from up-gradient portions of the tributary aquifers.

23. During times of high rainfall or snow melt, the Corning aquifer can contain an overly generous supply of water. Because its areal extent is limited to the four river valleys, it readily sends excessive water downstream, towards the Chesapeake Bay. Brief floods have historically inundated valley communities when water cannot be shed quickly enough to avoid spillover from surface river channels.

24. During periods of severely reduced rainfall, surface flows in the rivers are somewhat replenished by up-gradient portions of the aquifer, but ultimately, river levels are reduced and the level of the top of the aquifer, represented by the “water table” level, drops.

25. This area has experienced a number of periods of low rainfall in the more than 50 years that I have lived within the Corning watershed. I recall 5 or 6 instances when the rainfall was so low that Corning residents were urged to reduce water consumption by restricting the watering of lawns and washing of cars.

26. We experienced low rainfall this past summer, the summer of 2012, and this resulted in extremely low flow in the Chemung River in Corning.

27. I think the low river flow we saw this summer was exacerbated by the water exports of the Town of Erwin, which started in September 2010 and continued throughout the summer, and by the water exports of the Village of Painted Post which started-up in Mid-August.

28. I anticipated a situation such as this when I read in 2011 that the Village of Painted Post and the City of Corning were considering plans to sell millions of gallons of water per day to gas drilling operators in Pennsylvania, and that the Town of Erwin had already embarked upon such sales in 2010.

29. After reading of these plans, I spoke out about my concerns about detrimental impacts in an op-ed piece in the *Corning Leader* on January 27, 2012, and as a panelist in a program on municipal water sales held in Bath on March 7, 2012, that was sponsored by the Steuben County League of Women Voters and the Bath Peace and Justice Group. See Exhibit B.

30. In my op-ed, I said that the Susquehanna River Basin Commission (SRBC) misjudged the character of our local geology and the nature of our water supply, and had ill-advised our local municipalities.

31. At the time I wrote the op-ed piece, it was my understanding that the SRBC had evaluated the impact of the proposed withdrawals and determined that the aquifer was sufficient to

support them. In my op-ed, I disagreed with that determination. I have since been advised by my attorneys in this case that in granting approvals to gas drilling operators to use a particular municipal water source, the SRBC's project review regulations, 18 CFR Part 806, rely on state permits issued to public water supplies and exempt pre-compact consumptive uses from review, so that my assumption, as stated in the op-ed, that the SRBC determined that the Corning aquifer was sufficient to support the Painted Post and Erwin exports may not have been correct.

32. Whether or not the SRBC evaluated the aquifer in granting approvals for these withdrawals does not change the basic point of my op-ed—that the aquifer is not sufficient to support exports for hydrofracking in Pennsylvania by our municipalities.

33. I also attended as many of the meetings of the Painted Post Village Board as I could for which the published agenda included a discussion of possible water sales. I wanted to understand the Board's reasoning on the issue and help them, if possible, better understand the limits of the valuable, indispensable, but limited resource they were dealing with—the water of the Corning aquifer. I hoped to convey to the Board my concern for the impact of their decision upon the water supply of the residents of their village and upon other residents in the area drawing their water from the Corning aquifer, including residents of the City of Corning, its schools, hospital and businesses, such as myself, given the unique geology of our area.

34. I learned that all the Village board was considering in evaluating the water sale proposal was the financial benefit. They never even mentioned possible impacts on the water supply or the aquifer, or other environmental impacts. They seemed to think that because water demands in the Village were not as great as they had been in the past, there was plenty of water to be sold for export and that approval SWEPI had received from the SRBC was sufficient. They did not consider the differences between uses in the Village which are returned to the local aquifer and the export of large volumes of water away from the aquifer. Apparently feeling themselves to be under financial duress, the village board appeared to prefer the option of the water sales to the other option they felt they had, merger of the Village with the Town of Erwin.

35. Not being a citizen of Painted Post, I was not offered an opportunity to speak at the Village Board meetings, other than at one public hearing. Thus I had only a few brief opportunities to express my concerns, mostly to individual Board members informally, following their meetings.

36. Because of my concerns about the impacts of the water withdrawals on the Corning aquifer, I have joined some of my fellow petitioners in testing my tap water and the tap water elsewhere in Corning for total dissolved solids (TDS). I have been using a HM Digital COM-100 combo meter. The HM Digital COM-100 meter measures electrical conductivity, total dissolved solids and temperature. This meter is factory calibrated. The results of each of the three measurement options are read by switching directly from one mode to another. I used the TDS mode in my water quality testing.

37. My initial test on 10/26/12 showed that the tap water at my home at 56 Houghton Circle was very hard: 815 ppm TDS. This is significantly above the EPA National Secondary Drinking Water Regulations, which set 500 mg/L (ppm) as Total Dissolved Solids (TDS) as a Secondary Maximum Contaminant Level. Later testing showed some softening. My most recent test at my home on 11/24/12 found a TDS level of 798 ppm. My testing at other properties in the area showed similar results. My test results are shown in Exhibit C attached.

38. I find it very interesting that the water supply of the City of Corning shows higher TDS levels than tests of the water supply in the Village of Painted Post this fall, as shown by a comparison of my testing results with the results described in the affidavits of some of my fellow petitioners. This is an indication that the withdrawals may be having a more serious impact on the Corning water supply than they are having on the Painted Post water supply.

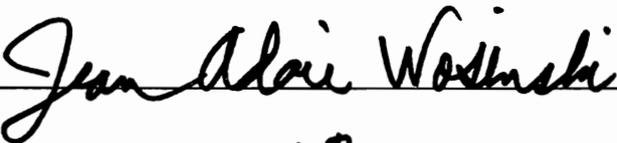
39. Whatever the reason for the differences, whether it is due to the shape of the aquifer, the location of the wells or something else, the differences highlight the need for a full-scale analysis of the possible impacts on the aquifer before any more withdrawals are allowed.

40. Based on my training as a geologist and my first-hand observations of the Corning

aquifer over more than 50 years, I believe that continuation of large water exports from the Corning aquifer will seriously and severely diminish both the quantity and the quality of this limited water resource.

41. Water is our most valuable and vulnerable resource and a valid understanding of our environment is crucial to the continuation of good health and industrial wealth in our community. The extremely short-sighted action by the Village of Painted Post in selling large amounts of our regions water to SWEPI for gas drilling in Pennsylvania displays a deep ignorance of the character of our local geology and the nature of our local water supply.

I have personal knowledge of the facts set out in this affidavit.



Sworn to before me this 18th day of December 2012.



Notary Public, State of New York

RACHEL TREICHLER
Notary Public, State of New York
No. 02TR5058999
Qualified In Steuben County
Comilssion expires 04/22/2014

Exhibit A

Figure 22. The Corning aquifer occupies four deeply incised bedrock valleys drained by the Chemung, Canisteo, Tioga, and Cohocton Rivers.

Modified from Miller, T. S., Stelz, W. C., and others, 1982, Geohydrology of the valley-fill aquifer in the Corning area, Steuben County, New York: U.S. Geological Survey Open-File Report 82-85, 6 sheets, scale 1:24,000.

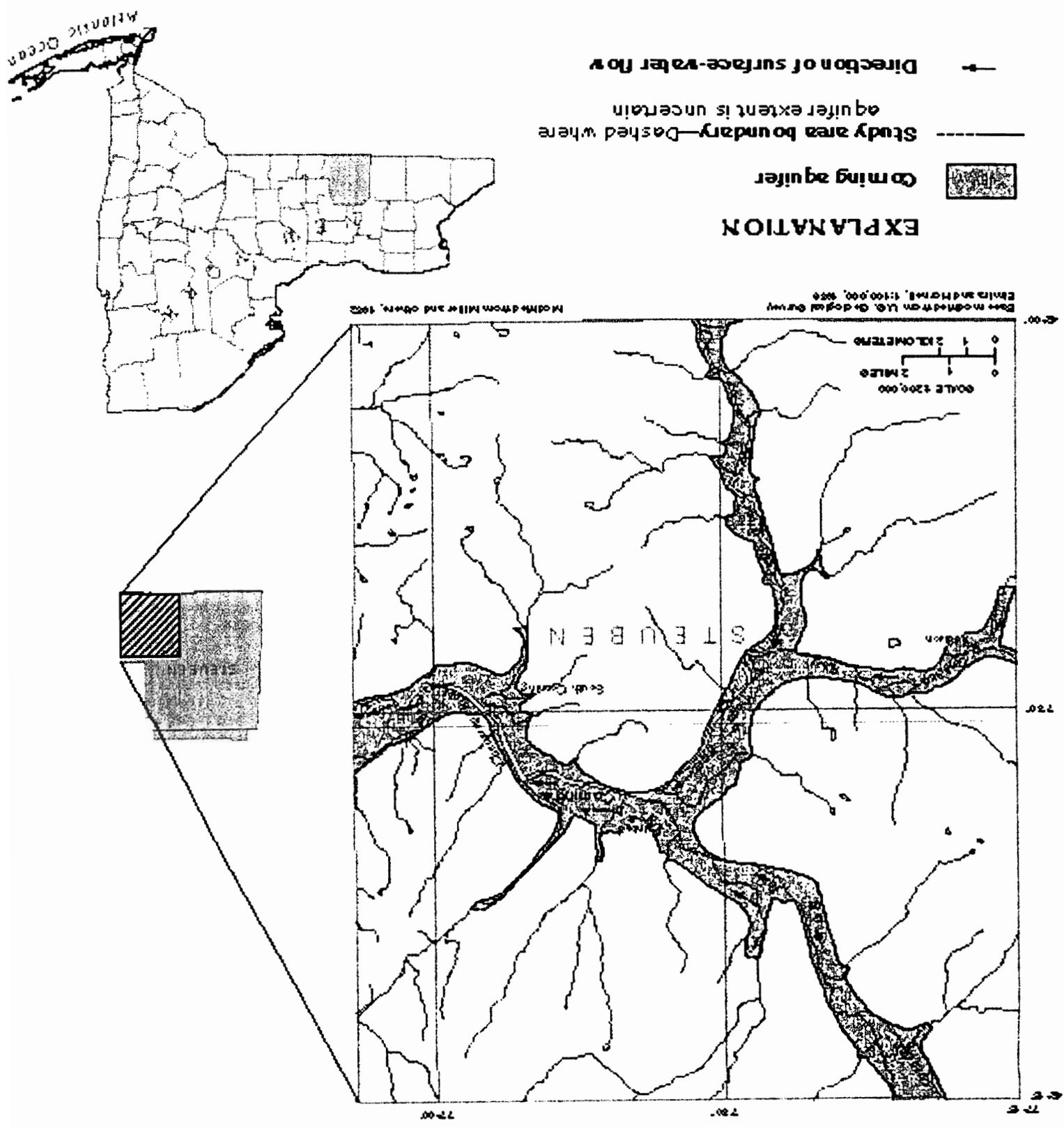


Exhibit B

OPINION

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GUEST VIEW | JEAN WOSINSKI

Don't let drillers tap our water

I write to join three or four others of your readers who have expressed concern regarding possible sale of water supplies to well drilling operators in Pennsylvania. I am aware that the Susquehanna River Basin Commission has decided that the "aquifer" which supplies Painted Post and Corning is sufficiently generous to allow both municipalities to engage in this commerce and so it is with that Commission that I must disagree. I rely upon my college professors, my five years with the Water Resources Division of the U.S. Geological Survey and my familiarity with the local geology to judge them in error.

There is no "aquifer" in the traditional sense that provides our local water. The village and the city lie in a valley which is downstream from a network of valleys, all of which have been at least partially filled with glacial deposits. These deposits are our "aquifer."

The deposits consist of sands, gravels, clays and boulders left behind by the melting of glacial ice, which had been forced into this part of what is now New York state from the Canadian Shield. Snow there had accumulated to such great depth that over the years its own weight converted it to ice. That weight - pressing down and outward - caused it to slowly flow across the landscape as if it were thick pancake batter flowing across a hot grill. As it crept and scraped along in this direction, it brought here whatever loose soil and rock had stuck to it.

Generally, the ancient pre-glacial network of north-flowing rivers and streams still remains, buried or only partially filled with well worn soils and sands and rock debris from Canada and northern New York. "Valley fill," as it is called, yields water readily because it is full of billions of small voids which rain water can occupy and which allow the water to flow, as if from a sponge. It is that network of valleys, partially filled with loose glacial material of a wide range of grain size, (from clay and sand to huge boulders), which the Susquehanna River Basin Commission considers as being our "aquifer."

In contrast, the flat-lying, gray shales and sandy limestone of Devonian age which underlies our generally hilly landscape, sometimes yields fossils but it does not like to yield water. In fact, our bedrock is about as unhappy yielding water as the Marcellus Shale is of yielding natural gas.

A classic aquifer is a broad formation which is composed of porous material, (ideally sandstone), which can absorb rainfall and through which that water can flow to wells and to streams and lakes, for our use. Instead, our broad bedrock formation is stingy - tightly holding what little water it contains. But, fortunately enough, its rough topography was swept across by a very dirty glacier four times in the last few million years. Its ice melted and left behind a spongy network for us to stick our straws, (our wells), into. It works well for us, (no pun intended), but it is not the broad expanse of a classic "aquifer." It is a limited network of narrow debris-filled valleys in a region where rainfall is sometimes very generous and sometimes very stingy. We have witnessed, this past year, exactly how fickle our rainfall can be.

The Susquehanna River Basin Commission has misjudged the character of our local geology and the nature of our water supply. They have ill-advised our local municipalities. We should, with urgency, request of our city officials that water from our limited "aquifer" not be shared or sold to operators of gas drilling outside our area and across state boundaries. Pennsylvanians will have their opportunity to use the Susquehanna River water downstream, after the Chemung has joined it in Waverly and Sayre and Athens, Pa. If we have "surplus" water, it's readily available to them there.

©Jean Adair Wosinski is a Corning resident.

To sell or not to sell water to Pa.



THE COURIER/MARY PERHAM
A forum on issues raised by recent plans for local municipalities to sell water from municipal water supplies for gas drilling in Pennsylvania was held 7 p.m. March 7, at the Bath Fire Hall, 50 East Morris St.

The forum featured Jean Wosinski, a geologist from Corning, who addressed the geology of our local water sources and whether they can sustain large water exports. Other speakers included Rachel Treichler and Virginia Rasmussen who spoke on legal issues surrounding the sale of water.

Exhibit C

Exhibit C

Water Testing for Total Dissolved Solids by Jean Wosinski in Corning and Hornby, NY

Date	TDS mg/L	Address		Comments
10/26/12	815	52 Houghton Circle	City of Corning	
11/04/12	690	52 Houghton Circle	City of Corning	
11/08/12	633	52 Houghton Circle	City of Corning	
11/10/12	526	65 Pershing St.	City of Corning	Before laundry
11/10/12	530	65 Pershing St.	City of Corning	After laundry
11/21/12	609	52 Houghton Circle	City of Corning	
11/21/12	609	65 Pershing St.	City of Corning	
11/24/12	798	52 Houghton Circle	City of Corning	
11/25/12	764	101 Columbia St.	City of Corning	
11/28/12	768	101 Columbia St.	City of Corning	
11/29/12	763	101 Columbia St.	City of Corning	
12/06/12	116	County Rt. 42	Town of Hornby	Cutler Creek
12/06/12	255	County Rt. 42	Town of Hornby	Private well