

KLA Hydrofracking & Well Disposal Committee Update

July 2013

KLA Position on Hydrofracking (HVHF)

- No High Volume Horizontal Hydraulic Fracturing (Hydrofracking) in the Keuka Lake Watershed--plus a 4000 foot buffer.
- Following KLA Membership questionnaire results.
- Waiting for the DEC decision!

KLA Hydrofracking & Well Disposal Committee

Met frequently.

Provided Information for E-mail, Newsletters and Newspapers.

Corresponded with DEC & Governor.

Identifying future Plans should DEC permit HVHF in the Keuka lake Watershed

Roughly 200 tanker trucks deliver water for the fracturing process.

A pumper truck injects a mix of sand, water and chemicals into the well.

Natural gas flows out of well.

Recovered water is stored in open pits, then taken to a treatment plant.

Storage tanks

0 Feet

Water table

Well

1,000

2,000

3,000

4,000

5,000

6,000

7,000

Hydraulic Fracturing

Hydraulic fracturing, or "fracing," involves the injection of more than a million gallons of water, sand and chemicals at high pressure down and across into horizontally drilled wells as far as 10,000 feet below the surface. The pressurized mixture causes the rock layer, in this case the Marcellus Shale, to crack. These fissures are held open by the sand particles so that natural gas from the shale can flow up the well.

Sand keeps fissures open

Natural gas flows from fissures into well

Shale

Fissure

Well

Mixture of water, sand and chemical agents

Well turns horizontal

Marcellus Shale

Fissures

The shale is fractured by the pressure inside the well.

High Volume Hydraulic Fracturing

- Is not conventional vertical drilling with hydrofracking.
 - Which has been used for years.
 - Uses up to 80,000 gallons of water.
- Is a significant heavy industrial process.
 - Uses 3-7 million gallons of water with chemicals.
 - Multiple wells on a single well pad.
 - Horizontal lines are up to one mile long.
- 30-50% of fluids return to the surface as flowback and must be disposed in approved sites.

NYS-DEC

Waiting for completion of Health Study by the NYS Department of Health prior to releasing revised SGEIS.

Decision likely to come later this year--2013.

DEC has not indicated any of its thoughts into any specific geographical limitations except:

- NYC Water sources in the Catskills.

- Syracuse Water sources--Skaneateles Lake.

Legend

- Depth to the Top of the Marcellus Shale
- ▨ Marcellus Shale and Hamilton Group Outcrop
- Extent of the Marcellus Shale in New York

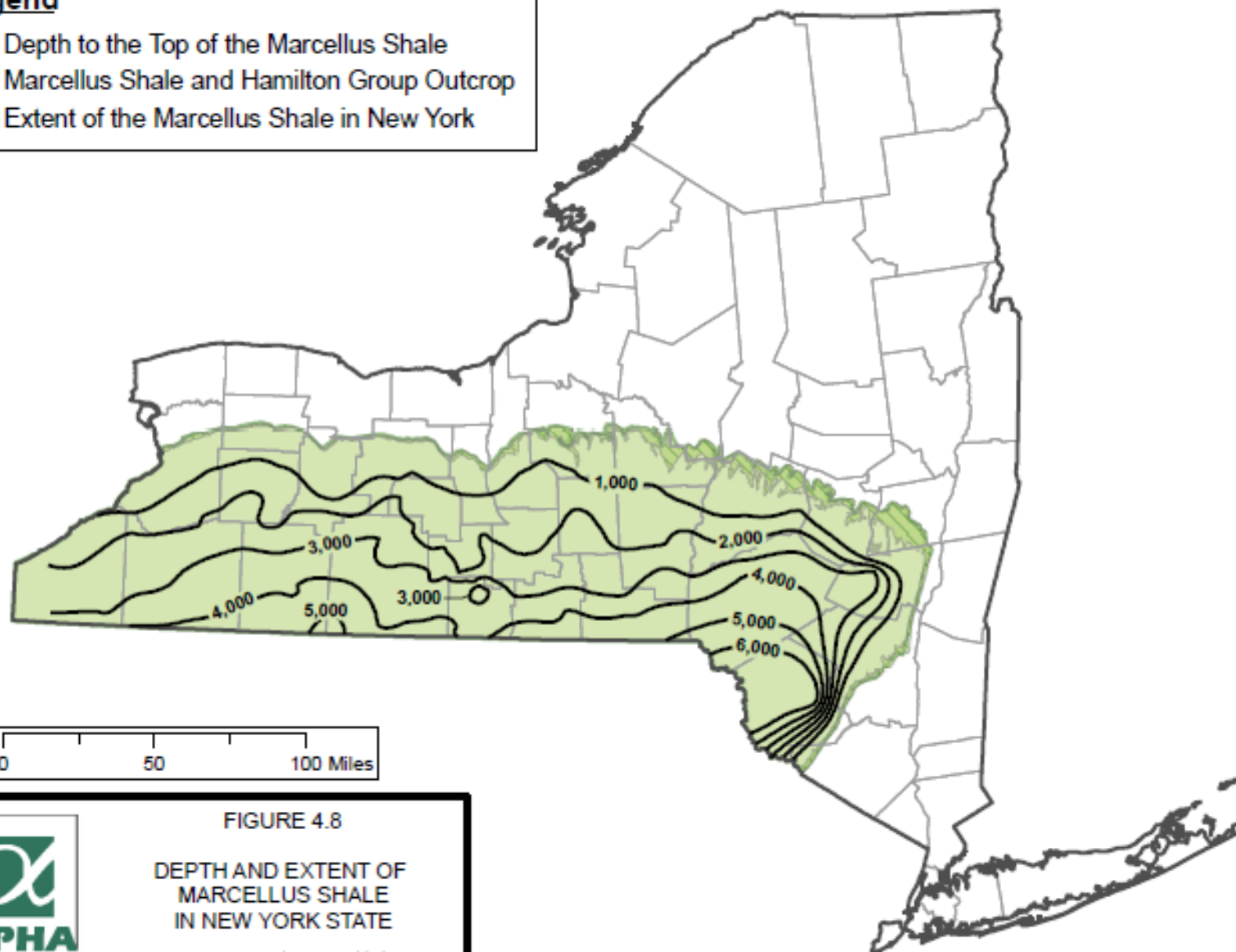


FIGURE 4.8

DEPTH AND EXTENT OF MARCELLUS SHALE IN NEW YORK STATE

Technical Support Document to the
Draft Supplemental Generic
Environmental Impact Statement

Source:
- New York State Museum - Reservoir Characterization Group (Leone, 2008).

Steuben County

- A minor portion of Steuben County is in Keuka Lake Watershed
- Steuben County has refused to consider a moratorium for the Keuka Lake Watershed portion of the County.
- Parts of the Steuben County Towns in the Keuka Lake Watershed:
 - Pulteney--refused to enact a moratorium.
 - Urbana--likely to enact a moratorium once the DEC decides.
 - Wayne--moratorium in place.

Yates County Status:

Yates County Legislature twice adopted a unanimous resolution that Yates County be treated like the waters sources for NYC & Syracuse.--No HVHF in the Keuka Lake Watershed plus a 4000 feet buffer!

Jerusalem adopted a prohibition.

Barrington and Milo adopted moratoria but no prohibitions.

KLA Actions.:

- The entire Keuka Lake Watershed plus a 4000 feet buffer including the portion in Steuben County must be protected from HVHF.
 - Not the Keuka Lake boundaries.
 - Not NYS
- The Finger Lakes Regional Watershed Alliance (FLRWA) has taken a similar position for the entire Finger Lakes Watershed.

Summary

Marcellus Shale Layer under the Keuka Lake Watershed:

- thin and less attractive to HVHF development

- top of the Layer is less than 2000 feet below the surface beneath the northern branches of Keuka Lake.

Steep slopes border most of Keuka Lake

HVHF in the Keuka Lake Watershed could require a site specific SPEDES permit:

- NYS Appellate Court has upheld Towns right to prohibit HVHF

Revised SGEIS expected in 2013.

CONCERNS

- Contamination of the Keuka Lake Watershed.
 - Gas permeation of the aquifer.
 - Accidents.
 - Hydrofracking chemicals and NORMS are not confined within the Marcellus Shale Layer.
 - The Utica Shale Layer lies below the Marcellus Shale Layer and extends north and east throughout most of New York State.

CONCERNS

- Although the KLA's mission is protecting the Watershed, there are other non-environmental issues:
 - Truck traffic/
 - Noise.
 - Multiple “quality of life” issues.

Actions:

- Keep informed
- Voice and vote your opinion.
- Although the KLA is concerned with protecting the watershed, there are other organizations addressing “quality of life issues”
 - Committee to Preserve the Finger Lakes (CTPFL).
 - Keuka Citizens Against Hydrofracking (KCAH)

Cannot over emphasize becoming actively involved.