



R.D. Jacobi / *Tectonophysics* 353 (2002) 75–113

MAP OF CONFIRMED AND PROPOSED EARTHQUAKE FAULTS. This map by Jacobi depicts some of the proposed fault lines that extend great distances and intersect with known faults (RD Jacobi, 2002, *Basement Faults and Seismicity in the Appalachian Basin of New York State*, *Tectonophysics (TTP)* V.353).

The far right of this map depicts a complex network of faults in proximity to the NYC Watershed. The Sprakers Fault (S) and Noses Fault (N), in black box, both known to be seismically active, are parallel faults oriented north-south through Schoharie and Delaware Counties. They intersect with another pair of parallel faults running west into Otsego County through a known seismic high-risk area (star and dots, in black circle). Jacobi lists other examples of fault intersections and risk areas throughout NYS.

He hypothesizes that the epicenters of three seismic events in easternmost Otsego County are related to the nearby Sprakers Fault in Schoharie County which, in turn, is linked with two seismic events in Delaware County. All this known seismic activity is just to the north and west of the NYC Watershed.

There is need for further research before pursuing hydrofracking amongst this web of faults, a need recognized by the gas industry: “fractures and faults.... make predicting hydraulic fracture behavior difficult” and “models fail to predict fracture behavior precisely, and in many cases, models fail completely...” (Bennett *et al*, *Oilfield Review*, Winter 2005-2006, p 44). Contaminants can “stair-step” through faults toward aquifers, according to 2004 EPA study (EPA 816-04-003.pdf, p.12).

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