Local water sources can supply hydrofractureing needs

- Supplying the water required for fracking will not deplete our water supplies
- Example of Tompkins County

L. M. Cathles
Cornell University
Hydrofracking
- 1 horizontal well can tap 80 acres
- 8 wells per ~5 acre pad
- $2.5\text{ million}
- $5\times10^6 \text{ gal/well; } 40\times10^6 \text{ gal/pad}
- 1 pad per square mile

Tompkins County (pop 100,153)
- 421 mi$^2$ could be drilled
- if 50% developed over 10 years with 1 pad/mi$^2$
  - 21 pads/yr
  - 210 wells/yr
  - 2,500 jobs (10 p/well) ~4% TC workforce
  - $10^9$ gallons of water/yr = 5 cfs

1 cubic ft = 7.48 gallons
1 cfs = 0.24x10$^9$ gallons per year

Pad development scenario is from a presentation by Art Pierce in Lansing
June 29, 2011
Water needs not very severe

Tompkins Co Needs 5 cfs for 21 pads/yr

Local rivers could easily supply

<table>
<thead>
<tr>
<th>River</th>
<th>Flow (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall C</td>
<td>140</td>
</tr>
<tr>
<td>Salmon C</td>
<td>1,000</td>
</tr>
<tr>
<td>Senaca</td>
<td>4,100</td>
</tr>
<tr>
<td>Susquehanna</td>
<td>29,000</td>
</tr>
</tbody>
</table>

River flows vary greatly, these are average flows

Similar to current usage

<table>
<thead>
<tr>
<th>Location</th>
<th>Flow (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolton Point Power Plant</td>
<td>4</td>
</tr>
<tr>
<td>City of Ithaca</td>
<td>6</td>
</tr>
<tr>
<td>Cornell University</td>
<td>2</td>
</tr>
</tbody>
</table>