



ST. CHARLES
SINCE 1834

AGENDA ITEM EXECUTIVE SUMMARY

Title:	IMUA Scholarship Award to David Eilken
Presenter:	Ed Cobau – IMUA – Director – State Association Services & Communications

Please check appropriate box:

<input type="checkbox"/> Government Operations	<input type="checkbox"/> Government Services
<input type="checkbox"/> Planning & Development	<input checked="" type="checkbox"/> City Council 06-03-2013
<input type="checkbox"/> Public Hearing	

Estimated Cost:	\$500	Budgeted:	YES	X	NO	
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If NO, please explain how item will be funded:

Executive Summary:

The Illinois Municipal Utilities Association (IMUA) has an annual essay contest related to energy. This year, a St. Charles North High School student, David Eilken, wrote a winning essay regarding the controversy around the hydraulic fracturing method of extracting natural gas. IMUA presents a \$500 scholarship, and the City of St. Charles matches that scholarship. Both checks will be presented to Mr. Eilken as part of this presentation.

Attachments: *(please list)*

Winning Essay

Recommendation / Suggested Action *(briefly explain):*

Presentation for Information Only.

For office use only:

Agenda Item Number:

Q. Natural Gas

Whenever a new energy source or extraction method is released to the public, an outcry of skepticism is sure to follow. Public outcry was witnessed with Russia's Chernobyl, BP with the Gulf of Mexico disaster, and the Cleveland East Ohio Gas explosion come to mind with anything energy related. However, despite these founded worries, mainstream media and the public muster up an even greater number of illogical and un-factual fears. Whether a slow news day or a misinterpreted fact, these controversies and fears are a reality and remain a reality until fact is completely separated from fiction.

What if it isn't black and white though? What if the public's fear isn't entirely true, but neither is the energy extraction process entirely safe? That is the situation presented to us in the case of shale gas and more specifically, hydraulic fracturing. Natural gas is found relatively deep underground, often extracted at depths ranging from 8,000-10,000 feet below the surface. In hydraulic fracturing, water and a few other chemicals are pumped down a pre-drilled hole at high pressure to fracture the rock that the natural gas is encased in. This greatly increases the amount of natural gas released, thus increasing the energy output of the hole. The problem with this is the chemicals pumped down the hole are not always safe to humans, nor is the natural gas that is released. As we know, chemicals and gasses deep in the earth have the ability to rise. Where they are rising to, critics of hydraulic fracturing say, is straight into drinking supplies which are often drilled at a much shallower depth (around 800 feet below the surface on average.) It has never been proven that this occurs. However science does suggest the possibility so steps must be taken to ensure that our water sources are not contaminated.

What are these steps? Well, many of them are already in place. For example, “natural gas extraction wells” are already required to place steel and cement “casings” in their wells. Essentially, these casings act as pipes that ensure the water, chemicals, and gas stays in the well and doesn’t leak out to the surroundings. Although the casings are a good start, higher quality and better engineered casings should be used to further prevent cross contamination. A majority of research and development funding should go to update these casings. Another step that is *partially* in place but should be expanded upon is legal drilling depths. There are certain regulations in place that prevent companies from extracting natural gas too close to water supplies, but these regulations are far too lenient. In Wyoming natural gas is extracted a mere 300 feet below city water wells – too close for comfort. As the difference in distance increases, the chance of contamination decreases exponentially. Guidelines should require a minimum of 2,000 feet between drinking wells and natural gas extraction. Should these requirements be implemented and steps taken, natural gas will continue to have an increasing role in fueling the energy needs of consumers for years to come.