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**AGENDA ITEM:**

**MEETING DATE:**

6/12/2012

**TO:**

City Council/Planning Commission

**FROM:**

Bill Cahill, City Manager

**PRESENTER:**

Greg George, Director, Development Services

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**TITLE:**

Panel discussion regarding oil and gas extraction and development

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**RECOMMENDED CITY COUNCIL/PLANNING COMMISSION ACTION:**

Informational only

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**DESCRIPTION:**

On May 15 2012, City Council approved an emergency ordinance (Attachment A) imposing a nine month moratorium on the acceptance, processing, and approval of any applications, permits, or other approvals for oil and gas uses. The ordinance is intended to allow the City time to investigate the extent of the City's authority to regulate such uses and develop and implement appropriate regulations, if necessary, to protect the public's health, safety and welfare.

Staff will seek direction from Council in the development of the appropriate regulations over the next few months.

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**SUMMARY:**

The following six panelists have been invited to present information to City Council, Planning Commission, City staff and the public.

**1. DR. KENNETH H. CARLSON**

Ken Carlson is an Associate Professor in Civil and Environmental Engineering at Colorado State University with over 20 years of experience in water treatment, wastewater handling and environmental engineering. Dr. Carlson is the co-director of the Colorado Energy Water Consortium, a public-private partnership that is addressing water issues associated with oil and gas exploration and production in Colorado and the Rocky Mountain region. Through the consortium, Dr. Carlson is working with industry, the Colorado Oil and Gas Association and the National Renewable Energy Lab on water quantity characterization and frac flowback/produced water quality assessment. Current work includes studies related to fuel source water intensity, treatment of frac fluid flowback and produced water and optimization of water handling and management with GIS-based tools. Dr. Carlson has been instrumental in organizing the Colorado State University Natural Gas Symposium in 2011 and 2012 and the Fundamentals of the Natural Gas Industry class in 2012. Dr. Carlson has a BS in chemical engineering from

the University of Wisconsin, MS in Civil Engineering from Colorado State University and a PhD in Environmental Engineering from the University of Colorado – Boulder. Before coming to Colorado State University, Dr. Carlson worked for over 10 years in private industry including multiple positions in the environmental consulting field.

**2. TISHA CONOLY SCHULLER**

Ms. Tisha Conoly Schuller serves as President and Chief Executive Officer of the Colorado Oil & Gas Association. As President, Ms. Schuller is responsible for leading the industry in Colorado legislative, regulatory, and public relations matters. Previously, Ms. Schuller served as a Principal and Vice President with Tetra Tech, a national environmental consulting and engineering firm. In addition to running business operations, Ms. Schuller spent 15 years conducting environmental permitting for oil and natural gas projects across the country. She has a B.S. in Earth Systems with an emphasis in Geology from Stanford University. Tisha is an Advisory Board Member of the American Red Cross in Denver.

**3. SHANE DAVIS**

Shane Davis currently chairs the Poudre Canyon Group of the Rocky Mountain Chapter of the Sierra Club, and serves as the Group's Conservation Chair. He serves as an At-Large Member of the Chapter Executive Committee and as the Information and Research Manager - Oil & Gas Mining. Mr. Davis is a research biologist, and currently is a lead investigator into adverse environmental and human health impacts related to the Colorado oil and gas industry's use of hydraulic fracturing. He has also worked with the Colorado State Parks Department of Natural Resources, and is a former National Science Foundation grant recipient in molecular genetics. While overseas managing a pilot program in environmental safety and security for the Department of Defense, he was awarded a medal for his work by NATO.

**4. THOM KERR**

Thom Kerr is the Acting Director at the Colorado Oil and Gas Conservation Commission (COGCC). Prior to securing his COGCC position, Mr. Kerr spent fourteen years in the oil and gas industry with exploration and seismic firms. Since August 2007, Mr. Kerr has been heavily involved in COGCC's latest rule making initiative and has contributed to several other rulemaking proceedings since 1994.

**5. KENT KUSTER**

Kent Kuster has served as the Oil and Gas Liaison from the Colorado Department of Public Health and Environment for four years and prior to this Kent spent six years working for the Water Quality Control Division. In his role as CDPHE Oil and Gas Liaison, Kent is responsible for consultations with the Local Governmental Designee, COGCC and the Oil and Gas Operator as well as coordination between the COGCC and CDPHE. Before joining CDPHE in 2001, Kent was a Public Works Director with 20 years of experience in the public utility field.

**6. RANDY MIROWSKI**

Randy Mirowski is the Fire Chief for Loveland Fire Rescue Authority (LFRA). He is also the liaison to the City of Loveland's Management Team (M-Team), the Loveland Fire

Rescue Authority Board, the Loveland Rural Fire District Board, and the Fire Rescue Advisory Commission (FRAC). Chief Mirowski has accredited degrees from Aims Community College, (A.A.S. Fire Science Technology), Colorado State University (B.S. Technology, Education and Training), and an M.A. in Organizational Leadership from Gonzaga University in Spokane, WA (May 2011). Chief Mirowski's fire service career has spanned over 38 years. He holds numerous command certifications in the National Incident Management System (NIMS) and most recently completed his Blue Card certification in Hazard Zone Management.

Citizens have raised concerns regarding potential environmental impacts resulting from directional drilling and horizontal fracking. Attachments B, C and D provide information on potential impacts on air and water quality and Attachment E provides information on earthquakes.

A short video will be presented at the beginning of the meeting to illustrate the basic processes of directional drilling and horizontal fracking. The following is a link to that video:

[http://www.api.org/policy-and-issues/policy-items/hf/drilling\\_video.aspx](http://www.api.org/policy-and-issues/policy-items/hf/drilling_video.aspx)

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#### **REVIEWED BY CITY MANAGER:**

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#### **LIST OF ATTACHMENTS:**

- A. Moratorium Ordinance
- B. Abstract - Human health risk assessment of air emission from development of unconventional natural gas resources: Lisa M. McKenzie, Roxana Z. Witter, Lee S. Newman, John L. Adgate (for a copy of the full study e-mail Dr. McKenzie at: [lisa.mckenzie@ucdenver.edu](mailto:lisa.mckenzie@ucdenver.edu))
- C. Investigation of Ground Water Contamination near Pavillion, Wyoming, (Draft): Dominic C. DiGiulio, Richard T. Wilkin and Carlyle Miller, U.S. Environmental Protection Agency and Gregory Oberley, U.S. Environmental Protection Agency, Region 8
- D. Abstract - Natural Gas Operations from a Public Health Perspective, Human and Ecological Risk Assessment: Theo Colborn, Carol Kwiatkowski, Kim Schultz, Mary Bachran (to link to this article: <http://cce.cornell.edu/EnergyClimateChange/NaturalGasDev/Documents/PDFs/fracking%20chemicals%20from%20a%20public%20health%20perspective.pdf>)
- E. Earthquakes Triggered by Humans in Colorado — a background paper by the Colorado Geological Survey: Submitted to the City of Loveland by Vince Matthews, Director and State Geologist
- F. Panelist's presentations/outlines