Environmental Practice ›

Volume 14, 2012 - Issue 4

104 Views | 36 CrossRef citations to date | 8 Altmetric

Features

Environmental Reviews and Case Studies: Addressing the Societal Costs of Unconventional Oil and Gas Exploration and Production: A Framework for Evaluating Short-Term, Future, and Cumulative Risks and Uncertainties of Hydrofracking

Simona L. Perry

Pages 352-365 | Received 15 May 2012, Accepted 20 Aug 2012, Published online: 03 Jan 2017

Cite this article https://doi.org/10.1017/S1466046612000336

Sample our Environment & Agriculture Journals
>> Sign in here to start your access to the latest two volumes for 14 days

Full Article | Figures & data | References | Citations | Metrics

Reprints & Permissions | Read this article | Share

Abstract

This article proposes a framework for addressing societal costs—psychological, social, community, and human health risks and uncertainties—associated with natural gas extraction and production from tight shale, tight sand, or coal-bed methane formations that use hydraulic fracturing processes. The US Environmental Protection Agency's 2011–14 study of hydraulic fracturing and the risks posed to drinking-water resources is used as a case study of how such a framework could be applied. This report also discusses some of the current regulatory and institutional barriers that make

incorporation of societal costs into science-based and proactive decisions regarding unconventional oil and gas exploration and production in the United States more difficult and recommends some general steps for getting past those barriers.

Acknowledgments

I thank several anonymous contributors from federal agencies who provided insight and thoughtful correspondence on the framework proposed and overall direction of this article. All analysis and critique of current risk assessments being planned or carried out by federal agencies are mine alone. Many thanks also to the three anonymous peer reviewers whose thoughtful, detailed comments greatly improved the original draft.

Related research

People also read | Recommended articles | Cited by 36

A Review of Hydro “Fracking” and Its Potential Effects on Real Estate

Ron Throupe et al.
Journal of Real Estate Literature
Published online: 18 Jun 2020

Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Keep up to date

Register to receive personalised research and resources by email

Sign me up

Copyright © 2026 Informa UK Limited Privacy policy

Cookies Terms & conditions Accessibility

Registered in England & Wales No. 01072954
5 Howick Place | London | SW1P 1WG