Changes to EPA’s “Natural Gas Extraction - Hydraulic Fracturing” Webpage

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Changes to EPA’s “Natural Gas Extraction - Hydraulic Fracturing” Webpage

Overview
The Environmental Protection Agency's (EPA's) former “Natural Gas Extraction – Hydraulic Fracturing” webpage has been updated to entirely remove the page title and change it to “Unconventional Oil and Natural Gas Development.” A section detailing EPA stakeholder outreach called “Promoting Transparency and Conducting Outreach” was removed. A section called “Convening Stakeholders” was added that highlights EPA partnerships with oil and natural gas sectors. Content and links related to EPA guidance and compliance material on hydraulic fracturing were removed.

Description
This report documents extensive content changes to and removals from distinct sections of a single EPA webpage re-titled from “Natural Gas Extraction – Hydraulic Fracturing” to “Unconventional Oil and Natural Gas Development”. The webpage is available via the “Hydraulic Fracturing (Fracking)” link in the “Monitoring and Preventing Water Pollution” section of the EPA’s “Water Topics” page. The “Unconventional Oil and Natural Gas Development” webpage informs the public about the “responsible development of America’s shale gas resources” and work carried out by EPA with key stakeholders to ensure unconventional oil and natural gas extraction “does not come at the expense of public health and the environment”. The most significant changes and removals documented in this report occurred between January 25 and January 26, 2018 (although some title changes occurred in May 2018).

Some of the notable changes to the webpage are summarized here:

1. **Removed content and links related to EPA guidance, press and compliance material on hydraulic fracturing** ([1.6d], [1.6e], [1.6f], [1.6g], [1.6h])

2. **Removed section “Promoting Transparency and Conducting Outreach” that outlines some of the EPA’s stakeholder outreach goals and programs related to hydraulic fracturing and shale gas extraction** ([1.8])

3. **Added “Convening Stakeholder” section highlighting partnerships with oil and natural gas sectors and industry associations, including “Smart Sectors program partners” and industry associations’ concerns about compliance activities** ([1.7a], [1.7c], [1.7d])

4. **Changed content emphasizing potential hydraulic fracturing impacts rather than known impacts** ([1.3a])
5. Removed sentence highlighting goal of improving scientific understanding of and providing regulatory clarity on hydraulic fracturing as it relates to health and environmental safeguards (1.1d)

6. Removed “disposal” in section title and description of underground injection programs related to hydraulic fracturing (1.5a and 1.5b)

7. Removed reference to “hydraulic fracturing activities” from two navigation link titles and URLs (1.2a and 1.2c)

8. Changed webpage title from “Natural Gas Extraction - Hydraulic Fracturing” to “Unconventional Oil and Natural Gas Development”
<table>
<thead>
<tr>
<th>Page Section/Subsection</th>
<th>Change Identified</th>
<th>Corresponding Report Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title &amp; Introduction</td>
<td>Title and section changed</td>
<td>Section 1.1</td>
</tr>
<tr>
<td>“On this page”</td>
<td>Sub-section changed</td>
<td>Section 1.2</td>
</tr>
<tr>
<td>“Improving our Scientific Understanding of Hydraulic Fracturing”</td>
<td>Section not changed</td>
<td></td>
</tr>
<tr>
<td>“Providing Regulatory Clarity and Protections against Known Risks”</td>
<td>Section changed</td>
<td>Section 1.3</td>
</tr>
<tr>
<td>“Ensuring that hydraulic fracturing using diesel fuels is properly permitted”</td>
<td>Sub-section not changed</td>
<td></td>
</tr>
<tr>
<td>“Ensuring the safe management of wastewater, stormwater, and other wastes from hydraulic fracturing activities”</td>
<td>Sub-section changed</td>
<td>Section 1.4</td>
</tr>
<tr>
<td>“Underground injection of waste fluids from oil and natural gas wells (Class II wells)”</td>
<td>Sub-section changed</td>
<td>Section 1.5</td>
</tr>
<tr>
<td>“Related study of private wastewater treatment facilities”</td>
<td>Sub-section not changed</td>
<td></td>
</tr>
<tr>
<td>“Stormwater discharges from oil and natural gas operations or transmission facilities”</td>
<td>Sub-section not changed</td>
<td></td>
</tr>
<tr>
<td>“Use of surface impoundments (pits or ponds) for storage or disposal”</td>
<td>Sub-section not changed</td>
<td></td>
</tr>
<tr>
<td>“Recycling of wastewater”</td>
<td>Sub-section not changed</td>
<td></td>
</tr>
<tr>
<td>“Addressing air quality impacts”</td>
<td>Section changed</td>
<td>Section 1.6</td>
</tr>
<tr>
<td>“Convening Stakeholders”</td>
<td>Added section</td>
<td>Section 1.7</td>
</tr>
<tr>
<td>“Assuring Compliance”</td>
<td>Section not changed</td>
<td></td>
</tr>
<tr>
<td>“Promoting Transparency and Conducting Outreach”</td>
<td>Removed section</td>
<td>Section 1.8</td>
</tr>
</tbody>
</table>
Detailed Description of Changes

Natural Gas Extraction - Hydraulic Fracturing
(Page now titled: Unconventional Oil and Natural Gas Development)

- The URL for the current webpage is https://www.epa.gov/uog.
  - The previous URL was https://www.epa.gov/hydraulicfracturing and redirects to https://www.epa.gov/uog as of January 26, 2018).
- Side-by-side View: 12/23/17 - 05/24/18
- Changes occurred between Jan 25, 2018, 12:27 PM ET and May 24, 2018, 9:50 AM ET
  - (Redirect occurred between January 25, 2018 12:27 PM ET and January 26, 2018 2:20 PM ET)

Screenshot 1.1

Changes corresponding to webpage introductory section
(1.1a) Changed page title from “Natural Gas Extraction - Hydraulic Fracturing” to “Unconventional Oil and Natural Gas Development”
(1.1b) Changed sentences from “Natural gas plays a key role in our nation’s clean energy future. The U.S. has vast reserves of natural gas that are commercially viable as a result of advances in horizontal drilling and hydraulic fracturing technologies enabling greater access to gas in shale formations. Responsible development of America's shale gas resources offers important economic, energy security, and environmental benefits.” to “Unconventional oil and natural gas play a key role in our nation's clean energy future. The U.S. has vast reserves of such resources that are commercially viable as a result of advances in horizontal drilling and hydraulic fracturing technologies. These technologies enable greater access to oil and natural gas in shale formations. Responsible development of America's shale gas resources offers important economic, energy security, and environmental benefits.”
(1.1c) Changed sentence from “EPA is working with states and other key stakeholders to help ensure that natural gas extraction does not come at the expense of public health and the environment.” to “We work with states and other key stakeholders to help ensure that the economic prosperity from unconventional oil and natural gas extraction does not come at the expense of public health and the environment.”
(1.1d) Removed sentence “The Agency is investing in improving our scientific understanding of hydraulic fracturing, providing regulatory clarity with respect to existing laws, and using existing authorities where appropriate to enhance health and environmental safeguards.”
(1.1e) Added sentence “We have played a lead role in convening stakeholders and conducting outreach to individual citizens, communities, tribes, state and federal partners, industry, trade associations and environmental organizations that have a strong interest in
the agency’s work and policies related to unconventional oil and natural gas extraction.”

[Note: a version of this sentence is in the removed section “Promoting Transparency and Conducting Outreach” documented in screenshot 1.8b below]

Internet Archive’s Wayback Machine: previous version from January 25, 2018, 12:27 PM ET and current version from January 26, 2018, 2:20 PM ET
### Screenshot 1.2

#### Changes corresponding to section “On this page”

1. **(1.2a)** Changed navigation link text and link URL “Ensuring the safe management of wastewater, stormwater, and other wastes from hydraulic fracturing activities” to “Ensuring the safe management of wastewater, stormwater, and other wastes”

2. **(1.2b)** Added navigation link text and link URL “EPA study on managing produced water”

3. **(1.2c)** Changed navigation link text and link URL “Addressing air quality impacts associated with hydraulic fracturing activities” to “Addressing air quality impacts” *(Note: The content of this section is documented in section 1.6)*

4. **(1.2d)** Removed navigation link text and link URL “Promoting transparency and conducting outreach”. *(Note: The content of this section is documented in section 1.8)*

5. **(1.2e)** Added navigation link text and link URL “Convening stakeholders”. *(Note: The content of this section is documented in section 1.7)*

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### Unconventional Oil and Natural Gas Development | US EPA

**Improving our Scientific Understanding of Hydraulic Fracturing**

- Improving our scientific understanding of hydraulic fracturing
- Providing regulatory clarity and protections against known risks
- Ensuring that hydraulic fracturing using diesel fuels is properly permitted
- Ensuring the safe management of wastewater, stormwater, and other wastes from hydraulic fracturing activities
- Wastewater discharges to treatment facilities
- Stormwater discharges from oil and gas operations or transmission facilities
- Use of disposal ponds and impoundments
- Recycling of wastewater
- Addressing air quality impacts associated with hydraulic fracturing activities
- Assuring compliance
- Promoting transparency and conducting outreach

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**Internet Archive’s Wayback Machine:** previous version from [January 25, 2018, 12:27 PM ET](https://web.archive.org/web/20180125122700/https://www.epa.gov/hcd/1.2) and current version from [May 24, 2018, 9:50 AM ET](https://web.archive.org/web/20180524095000/https://www.epa.gov/hcd/1.2)
Changes corresponding to section “Providing Regulator Clarity and Protections against Known Risks”

(1.3a) Changed sentence from “Although the national study should enhance our scientific knowledge, some concerns associated with overall natural gas and shale gas extraction, including hydraulic fracturing, are already well known. These operations can result in a number of potential impacts to the environment, including:” to “Natural gas and shale gas extraction operations can result in a number of potential impacts to the environment, including:”

(1.3b) Removed sentence “Because natural gas development is increasing rapidly in many regions, prudent steps to reduce these impacts are essential now even as further research to understanding potential risks continues.”
Screenshot 1.4
Changes corresponding to added subsection within “Ensuring the safe management of wastewater, stormwater, and other wastes”

(1.4a) Added subsection title “EPA Study on Managing Produced Water”
(1.4b) Added text “The study will consider available approaches to manage wastewater from both conventional and unconventional oil and gas extraction at onshore facilities, and will address questions such as:

- how existing federal approaches to produced water management under the CWA can interact more effectively with state regulations, requirements or policy needs, and
- whether potential federal regulations that may allow for broader discharge of treated produced water to surface waters are supported.

(1.4c) Added link text and link URL “Learn more about the study.”

Changes corresponding to section “Underground injection of waste disposal fluids from oil and gas wells (Class II wells)”

(1.5a) Changed section title from “Underground injection of waste disposal fluids from oil and gas wells (Class II wells)” to “Underground injection of waste fluids from oil and natural gas wells (Class II wells)”.

(1.5b) Changed sentences from “In many regions of the U.S., underground injection is the most common method of disposing of fluids or other substances from shale gas extraction operations. Disposal of flowback and produced water via underground injection is regulated under the Safe Drinking Water Act’s Underground Injection Control (UIC) program.” to “In many regions of the U.S., underground injection is the most common method of managing fluids or other substances from shale gas extraction operations. Management of flowback and produced water via underground injection is regulated under the Safe Drinking Water Act’s Underground Injection Control (UIC) program.”

(1.5c) Changed link text from “Class II oil and gas-related injection wells” to “Class II oil and natural gas-related injection wells”.

(1.5d) Removed link text and link URL “2014 permitting guidance for oil and gas hydraulic fracturing activities using diesel fuels”

(1.5e) Removed sentence “To view the press release for the 2012 draft guidance, search the EPA archive for ‘EPA Releases Draft Permitting Guidance for Using Diesel Fuel in Oil and Gas Hydraulic Fracturing/Guidance will clarify means of compliance with 2005 Amendments to the Safe Drinking Water Act’”

(1.5f) Removed link text and link URL “SEARCH EPA ARCHIVE”
Changes corresponding to section “Addressing air quality impacts”
(1.6a) Changed section title from “Addressing air quality impacts associated with hydraulic fracturing activities” to “Addressing air quality impacts”
(1.6b) Removed link text and link URL “October 2012: Notification Requirement for Well Completions”
(1.6b) Changed link text from “Controlling Air Pollution from the Oil and Natural Gas Industry” to “Controlling Air Pollution from the Oil and Natural Gas Industry home page”
(1.6d) Changed link text and link URL “More Information” to “Regulatory actions”
(1.6e) Removed text “April 2012: EPA Issues Oil and Natural Gas Air Pollution Standards. To view the press release, search the EPA archive for ‘EPA Issues Updated, Achievable Air Pollution Standards for Oil and Natural Gas / Half of fractured wells already deploy technologies in line with final standards, which slash harmful emissions while reducing cost of compliance’”
(1.6f) Removed link text and link URL “SEARCH EPA ARCHIVE”
(1.6g) Removed text “June 2011 USDA/EPA/Department of Interior memorandum of understanding (MOU) setting forth expectations and agreements for addressing air quality analyses and mitigation measures through the NEPA process related to federal oil and gas planning, leasing, or field development decisions: To view the press release, search the EPA archive for ‘Federal Agencies to Improve Coordination to Support Energy Development and Safeguard Air Quality’”
(1.6h) Removed link text and link URL “MOU (PDF)”
(1.6i) Removed link text and link URL “Questions and answers about the MOU (PDF)”
(1.6j) Added link text and link URL “About our Oil and Gas Methane Partnerships”
(1.6k) Added link text and link URL “Greenhouse Gas Reporting Program and the Oil and Gas Industry”
Unconventional Oil and Natural Gas Development | US EPA
https://www.epa.gov/hydrofracturing

Addressing air quality impacts associated with hydraulic fracturing activities

There have been well-documented air quality impacts in areas with active natural gas development, with increases in emissions of methane, volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). EPA, the Department of the Interior, other federal agencies and states are working to better characterize and reduce these emissions and their associated impacts. Through the Natural Gas STAR program, EPA and partner companies have identified technologies and practices that can cost-effectively reduce methane emissions from the oil and natural gas sector in the U.S. and abroad. Through the Clean Construction USA program, EPA is promoting newer, more efficient technology and cleaner fuels to increase the ways in which hydraulic fracturing equipment and vehicles reduce emissions. EPA has also implemented Clean Air Act regulations for oil and natural gas production, including regulations on reporting greenhouse gas emissions.

- October 2012: Revised Operator Requirement for Well Completions
- April 2012: EPA Issues Oil and Natural Gas Air Pollution Standards
  - To view the press release, search the EPA archive for “EPA issues New
    Air Pollution Standards for Oil and Natural Gas
    and New Standards for Hazardous Air Pollutants”.

- More information
- June 2011 USGS/EPAs Department of Interior memorandum of
  understanding (MOU) setting forth expectations and agreements for
  addressing air quality analyses and mitigation measures through the
  NEPA process related to federal oil and gas planning, leasing, or field
  development (current MOU).
- To view the press release, search the EPA archive for “Federal
  Agencies to Improve Coordination to Support Energy Development
  and Safeguard Air Quality”.
- MOU (PDF): Questions and answers about the MOU (PDF)
- Natural Gas STAR Program
  - Recommended Technologies to Reduce Methane Emissions
  - Global Methane Initiative
- Clean Construction USA Program
- Convening Stakeholders

Convening Stakeholders

We occasionally partner with, or convene, oil and natural gas stakeholders to increase opportunities for environmental improvements.

- Our Smart Sectors Program partners with sectors that represent the engine of the American economy in order to explore significant opportunities for environmental improvement. Currently, we are partnering with 14 sectors, including oil and gas. Additional sectors may be added over time.

- In April 2018, various industry associations expressed their concerns to us about our compliance assurance activities. See the letter and memo to us, dated July 2018 for more. In response to these concerns, Administrator Pruitt convened this roundtable in February 2018 in cooperation with the Environmental Protection Agency (EPA) and the Interagency Oil and Gas Working Group.

Internet Archive’s Wayback Machine: previous version from January 25, 2018, 12:27 PM ET and current version from May 24, 2018, 9:50 AM ET
Detailed changes corresponding to added webpage section “Convening Stakeholders”

(1.7a) Added section title “Convening Stakeholders”
(1.7b) Added sentence “We occasionally partner with, or convene, oil and natural gas stakeholders to increase opportunities for environmental improvements.”
(1.7c) Added sentences “Our Smart Sectors program partners with sectors that represent the engine of the American economy in order to explore significant opportunities for environmental improvement. Currently, we are partnering with 14 sectors, including oil and gas. Additional sectors may be added over time.”
(1.7d) Added sentences “In April 2017, various industry associations expressed their concerns to us about our compliance assurance activities. View the letters and memos to us, and our July 2017 responses. In response to these concerns, Administrator Pruitt committed to convene a national oil and natural gas roundtable. We are convening this roundtable in cooperation with the Environmental Council of States (ECOS) and the Interstate Oil and Gas Compact Commission (IOGCC).”

Convening Stakeholders

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Screenshot 1.8
Description of content contained in the removed section “Promoting Transparency and Conducting Outreach”

(1.8a) Removed section title “Promoting Transparency and Conducting Outreach”
(1.8b) Removed sentences “Within the federal government, EPA has played a lead role in conducting stakeholder outreach to individual citizens, communities, tribes, state and federal partners, industry, trade associations and environmental organizations that have a strong interest in the Agency’s work and policies related to hydraulic fracturing and shale gas extraction. EPA is also committed to promoting informed decision making and transparency regarding chemicals and mixtures used in hydraulic fracturing activities.” [note: a version of this sentence was added to the introductory section that is documented in screenshot 1.1e above]
(1.8c) Removed sub-section “Hydraulic Fracturing Chemicals and Mixtures” including sentences and links “On May 9, 2014, EPA issued an Advance Notice of Proposed Rulemaking (ANPR) under Section 8 of the Toxic Substances Control Act (TSCA). The notice will begin the public participation process and seek public comment on:

- the types of chemical information that could be reported and disclosed under TSCA, and
- the approaches to obtain this information on chemicals and mixtures used in hydraulic fracturing activities, including non-regulatory approaches.

This process:

- will help inform EPA's efforts to facilitate transparency and public disclosure of chemicals used during hydraulic fracturing and
- will not duplicate existing reporting requirements.

The Federal Register published the notice on May 19, 2014. The comment period is now closed. On Regulations.gov, you can view:

- text of the notice in HTML format
- docket folder summary
- comments submitted. [Note: The Internet Archive's Wayback Machine isn't able to capture the three preceding linked pages.]

You can also:

- Read the original notice in PDF format (7 pp, 216 K, About PDF)
- To view the press release, search the EPA archive for "EPA Seeking Public Comment on Enhancing Transparency for Chemicals and Mixtures Used in Hydraulic Fracturing" SEARCH EPA ARCHIVE
- Learn more about the TSCA petition that the notice responds to
- EPA Region 3 Online FOIA Reading Room - Key Documents about Mid-Atlantic Oil and Gas Extraction (Region 3 is located in Philadelphia and covering the Marcellus and Utica Shales in Pennsylvania, West Virginia, Virginia and western Maryland)

EPA's Hydraulic Fracturing Study:
● Stakeholder outreach
● Peer review
● Transparency

Stakeholder involvement on draft UIC guidance for permitting oil and gas hydraulic fracturing activities using diesel fuels”
Promoting Transparency and Conducting Outreach

Within the federal government, EPA has played a lead role in conducting stakeholder outreach to individual citizens, communities, tribes, state and federal partners, industry, trade associations and environmental organizations that have a strong interest in the Agency’s work and policies related to hydraulic fracturing and shale gas extraction. EPA is also committed to promoting informed decision making and transparency regarding chemicals and mixtures used in hydraulic fracturing activities.

- **Hydraulic Fracturing Chemicals and Mixtures.** On May 9, 2014, EPA issued an Advance Notice of Proposed Rulemaking (ANPR) under Section 8 of the Toxic Substances Control Act (TSCA). The notice will begin the public participation process and seek public comment on:
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- **EPA Region 3 Online FOIA Reading Room - Key Documents about Mid-Atlantic Oil and Gas Extraction**
  (Region 3 is located in Philadelphia and covering the Marcellus and Utica Shales in Pennsylvania, West Virginia, Virginia and western Maryland)

- **EPA’s Hydraulic Fracturing Study:**
  - Stakeholder outreach
  - Peer review
  - Transparency

- Stakeholder involvement on draft UIC guidance for permitting oil and gas hydraulic fracturing activities using diesel fuels

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