Local Oil and Gas Comprehensive Plan

The Governor’s Oil and Gas Task Force Recommendation #17:

“The purpose is to reduce impacts to and conflicts with communities, and include siting tools to locate facilities away from residential areas when feasible.”

“Creates incentive for early resolution of concerns about siting in urban communities by providing local government with opportunity to participate in siting facilities before an Operator finalizes locations.”

from Colorado Oil and Gas Task Force Final Report, February 27, 2015, Pages 5-6
Broomfield City Council created an Oil and Gas Comprehensive Plan Update Committee, by resolution, which consisted of 14 Citizen Members, with oil and gas, legal, environmental, and other backgrounds.

The Committee conducted meetings for six months, engaging with consultants and researchers, and produced a new chapter to Broomfield’s Comprehensive Plan on Oil and Gas Development.

The presentations, legal analysis of issues, and complete Oil and Gas Chapter can be found at this link:

https://drive.google.com/drive/folders/0BxAJnoFWbi4RR1U3YU5RX2dHc00
Planning Sub-committee:
Large Compilation Map
### Final Weighted Criteria

#### Heavily Weighted towards Distances and Residential Density

Weighted Criteria Were Used to Evaluate Potential Adverse Community Impacts to Public Health, Safety, Welfare and the Environment for Alternative Well Sites

<table>
<thead>
<tr>
<th>Factor</th>
<th>Weighting Criteria Development</th>
<th>Type of Impact</th>
<th>General Comments on Approaches for Using Criteria to Evaluate Alternative Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of Occupiable Residential Units within 1500 foot Radius Circle</td>
<td>12 10.0</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>2</td>
<td>Distance to Nearest Surface Water</td>
<td>12 10.0</td>
<td>Env</td>
</tr>
<tr>
<td>3</td>
<td>Distance to Nearest Occupied Residence</td>
<td>11 9.2</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>4</td>
<td>Distance to Nearest School Property Line</td>
<td>11 9.2</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>5</td>
<td>Potential Impact on Residential Property Values during Drilling through Flowback Phases</td>
<td>7 5.8</td>
<td>PW</td>
</tr>
<tr>
<td>6</td>
<td>Visual Impact during Drilling through Completion Phases</td>
<td>6 5.0</td>
<td>PW</td>
</tr>
<tr>
<td>7</td>
<td>Distance to Nearest Hospital/Overnight Health Care Facility</td>
<td>6 5.0</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>8</td>
<td>Number of Occupiable Residential Units within 3000’ radius (Major Event impact case)</td>
<td>5 4.2</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>9</td>
<td>Use of Active Well Site or Previously Disturbed Industrial Use Site</td>
<td>3 2.5</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>10</td>
<td>Distance to Nearest Platted Residential lot (ft)</td>
<td>2 1.7</td>
<td>PHS, PW</td>
</tr>
<tr>
<td>11</td>
<td>Land Use % Breakdown within 80-Acre Circle (Radius of 1050 feet from Center of Well Site)</td>
<td>2 1.7</td>
<td>PHS, PW</td>
</tr>
<tr>
<td></td>
<td><strong>TOTALS</strong></td>
<td><strong>77</strong></td>
<td><strong>64</strong></td>
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#### Categories of Criteria

<table>
<thead>
<tr>
<th>Category</th>
<th>#</th>
<th>% Weight of Total Criteria</th>
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<tbody>
<tr>
<td>Resident Distances - (from Site to Buildings)</td>
<td>4</td>
<td>39%</td>
</tr>
<tr>
<td>Resident Density</td>
<td>3</td>
<td>31%</td>
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<tr>
<td>Environmental – Distance to Surface Water</td>
<td>1</td>
<td>16%</td>
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<tr>
<td>Visual Impact</td>
<td>1</td>
<td>8%</td>
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<tr>
<td>Current Land Use surrounding site</td>
<td>2</td>
<td>6%</td>
</tr>
</tbody>
</table>

- **Distances from Well Site:** Nearest Residence, School, Overnight Health Care Facility, Platted Residence, and Surface Waters (Environmental)
- **Density of Residences:** Number of Residences within Specific Distances of Well Site (3000’, 2500’, 1500’)
- **Visual Impacts:** From Drilling thru Completion using Drone Panos (100’ and 30’ Elevations) and City Overhead Maps
- **Types of Land Uses Nearest Well Site:** Within 1050’ (~80 acres)
- **Current Use of Site:** Active Well Site, Previously Disturbed Site, Industrial Site
### Alternative Sites Total Score on Scale 1 to 100

**Site Ranking Transposed to 100 Scale**

<table>
<thead>
<tr>
<th>Site Location</th>
<th>Rank</th>
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<tbody>
<tr>
<td>Loc. #15</td>
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<td>Loc. #14</td>
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<td>Loc. #3</td>
<td>98</td>
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<tr>
<td>Loc. #16</td>
<td>95</td>
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<tr>
<td>Loc. #20 - Huron</td>
<td>93</td>
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<tr>
<td>Loc. #38</td>
<td>93</td>
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<tr>
<td>Loc. #19 - United</td>
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<td>Loc. #13</td>
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<td>Loc. #21 - Coyote Trails</td>
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<td>Loc. #2</td>
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<td>Loc. #12</td>
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<td>Loc. #9</td>
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<td>Loc. #3A</td>
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<td>Loc. #8</td>
<td>71</td>
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<td>Loc. #17 - Lowell</td>
<td>65</td>
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<tr>
<td>Loc. #22</td>
<td>56</td>
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</tbody>
</table>
More Rigorous State Regulations for Urban Areas

- Onsite power generation
- Noise
- No on site storage tanks
- Closed looped systems with 98% hydrocarbon control
- Required mapping of flowlines and pipelines, with more routine testing
- Setbacks
- Routine testing and monitoring of new and P&A’s wells
- Increased financial assurances
- More frequent water quality monitoring in the GWA
- Require a more rigorous alternative site analysis
EXTRACTION/BROOMFIELD OPERATOR AGREEMENT

- From 10 well sites to six well sites
- From 139 wells to 84 wells
- Extraction to plug and abandon 42 old wells in Broomfield, Adams & Weld Counties
- All oil, gas & produced water to be removed from well sites by pipeline
- 57 best management practices on COGCC permits, including closed looped systems, containment berms, air modeling, quiet drilling technology, setback requirements, minimal pad equipment after completion
- Dedication of 39 acres of open space to Broomfield
- Comprehensive Drilling Plans that includes 28 plans on topics like air quality, emergency response, risk analysis, electrification of well sites, noise mitigation, water quality
- As built map of pipelines and flowlines
- $100,000,000 general liability insurance and environmental liability insurance
- https://drive.google.com/file/d/0B2fG3PRBssZzMLV4UjJBb0ZXQ3pGejVIMThhUHVvQjhyT2c0/view