Work Plan Agreement between Iowa DNR and EPA Region VII

Kenneth Hessenius
Supervisor
Field Office 3 - Spencer
Iowa – Number One
2012 Census of Agriculture

- Small state but ag products total $30.8 billion in sales
  - #1 in grain sales - $17.4 billion
  - Livestock sales - $13.4 billion
- #1 in corn, soybeans
- #1 in hogs and pigs - 22.9 million
- #1 in layers - 52.2 million
- #6 in cattle and calves - 4 million
- #9 in turkeys - 4.4 million
- #12 in dairy cattle
State Law - Open Lots and Confinements

Unroofed or Roofed
Animal Feeding Operations in Iowa (2014)
Another way to look at it...

- More than 80 million livestock and poultry animals
- 3 million people
Petition for Withdrawal of NPDES Program

- Submitted September 2007 by
  - Iowa Citizens for Community Improvement
  - Sierra Club
  - Environmental Integrity Project

- Informal investigation in 2012 found deficiencies in Iowa’s CAFO NPDES program

- Iowa satisfactorily resolved 26 of 31 alleged deficiencies

- The Work Plan Agreement addresses remaining issues
Work Plan Agreement

• Means to strengthen NPDES program, particularly Animal Feeding Operations (AFOs)
• Generally spans 5 years
• Commits to environmental improvement
• Signed Sept. 11, 2013
Work Plan Agreement
Between
The Iowa Department of Natural Resources and the Environmental Protection Agency Region 7

The Iowa Department of Natural Resources (DNR) and the U.S. Environmental Protection Agency (EPA) Region 7 currently work together to implement the federally authorized, National Pollutant Discharge Elimination System (NPDES) Program within Iowa in a timely, appropriate and effective manner. We establish priorities, negotiate program commitments and work sharing, and evaluate program performance.

DNR and Region 7 are executing this Work Plan as a means to strengthen Iowa’s implementation of the federally authorized NPDES program. This Work Plan contains activities and commitments by DNR and Region 7 that generally span federal fiscal years (FFY) 2013 – 2019.

DNR and Region 7 will monitor progress under this Work Plan via existing program to program communications, new reporting pursuant to this Agreement, as well as during our annual joint senior management planning meeting. Work Plan elements may be adjusted by mutual agreement. As part of our joint Performance Partnership Grant (PPG) planning process, DNR and Region 7 will formally assess the need to negotiate any revisions to this Work Plan.

The execution of this Agreement demonstrates our continuing commitment to environmental improvement through a strong partnership and shared responsibility for meeting our regulatory obligations.

Entered into on __9/11/13__

For DNR:  
Chuck Gipp  
Director

For U.S. EPA Region 7:  
Karl Brooks  
Regional Administrator
Work Plan elements

• Incorporate federal regulations by reference
• Adopt federal regulations related to setbacks for land application of manure
• Add setbacks to NMP form
• Add Alternative Technology modeling requirements to construction permit application
Compliance Evaluation and Inspections

• Implement a comprehensive survey to identify CAFOs that discharge without an NDPES permit
• Provide baseline inventory of AFOs to EPA
• Systematically locate and identify unknown
  – large CAFOs and
  – medium-sized AFOs
Compliance Evaluation and Inspections

• Complete a comprehensive survey of all large CAFOs and medium-sized AFOs within 5 years

• May be either
  – on-site inspections or
  – desk-top evaluations

• Perform approximately 20% annually

• DNR estimates approximately 8,500 facilities in Iowa

• Inspect 20% of NPDES-permitted facilities annually
On-site or desk-top inspections

- All large CAFOs received an on-site inspection – Some inspections after Nov. 1, 2011 may count if they were substantially equivalent
- Medium-sized AFOs may or may not receive an on-site inspection depending on
  - location
  - housing type and
  - manure storage
Resources and Training

- Legislature appropriated funding for approximately 7 new DNR AFO staff
- Annual evaluation of staff resources
- DNR
  - Hired staff
  - Developed CAFO NPDES training curriculum
  - Trained new and existing staff
Enforcement Action and Issuance of NPDES permits

• Facilities found to be discharging must either
  – apply for an NDPES permit or
  – clearly eliminate the discharge

• Enforcement required against CAFOs found with illegal discharges

• Consistent and appropriate enforcement responses
Update of progress to EPA and to the public

• Post progress reports on DNR website
• Annual reports due Aug. 1

www.iowadnr.gov/afo/
search for EPA DNR work plan

or

Inspections Completed For Work Plan as of 7/23/18

- 2013 – Baseline Inventory 8582
- 8197 – Desk Top Inspections Conducted
- 4588 – On-Site Inspections Completed
- 252 – Return On-Site Inspections
## Unclassified AFO Search

*5,063 AFOs Identified from Aerial Photography*

<table>
<thead>
<tr>
<th>July 31, 2018</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Small AFO</td>
<td>1,445</td>
<td>52%</td>
</tr>
<tr>
<td>Medium AFO</td>
<td>501</td>
<td>18%</td>
</tr>
<tr>
<td>Medium AFO (Needing MMP)</td>
<td>10</td>
<td>0.3%</td>
</tr>
<tr>
<td>Large CAFO</td>
<td>8</td>
<td>0.3%</td>
</tr>
<tr>
<td>Not an AFO</td>
<td>134</td>
<td>4.8%</td>
</tr>
<tr>
<td>Abandoned or Closed AFO</td>
<td>538</td>
<td>19.4%</td>
</tr>
<tr>
<td>Part of Existing AFO</td>
<td>136</td>
<td>4.9%</td>
</tr>
<tr>
<td>Left to Contact</td>
<td>2,291</td>
<td>45.2%</td>
</tr>
</tbody>
</table>
## 2017 Construction Totals

These totals are as of 12/31/17

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpermitted Hogs (new)</td>
<td>39</td>
<td>45</td>
<td>68</td>
<td>18</td>
<td>15</td>
<td>33</td>
<td>218</td>
<td>204</td>
<td>203</td>
<td>127</td>
<td>137</td>
<td>267</td>
<td>121</td>
<td>28</td>
<td>26</td>
<td>200</td>
<td>362</td>
</tr>
<tr>
<td>Unpermitted Hogs (expansion)</td>
<td>14</td>
<td>3</td>
<td>22</td>
<td>3</td>
<td>2</td>
<td>12</td>
<td>56</td>
<td>41</td>
<td>40</td>
<td>30</td>
<td>25</td>
<td>60</td>
<td>36</td>
<td>16</td>
<td>12</td>
<td>31</td>
<td>50</td>
</tr>
<tr>
<td>Permitted Hogs (new)</td>
<td>6</td>
<td>27</td>
<td>19</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>77</td>
<td>64</td>
<td>77</td>
<td>42</td>
<td>81</td>
<td>80</td>
<td>10</td>
<td>2</td>
<td>5</td>
<td>98</td>
<td>125</td>
</tr>
<tr>
<td>Permitted Hogs (expansions)</td>
<td>15</td>
<td>22</td>
<td>40</td>
<td>4</td>
<td>6</td>
<td>13</td>
<td>100</td>
<td>95</td>
<td>99</td>
<td>67</td>
<td>73</td>
<td>102</td>
<td>76</td>
<td>16</td>
<td>20</td>
<td>96</td>
<td>117</td>
</tr>
<tr>
<td>Permitted Poultry</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Unpermitted Poultry</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>17</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Permitted Open Cattle lots</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>11</td>
<td>5</td>
<td>21</td>
<td>15</td>
<td>5</td>
<td>7</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Permitted Confined Beef Cattle</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>15</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Permitted Confined Dairy Cattle</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>17</td>
<td>12</td>
<td>7</td>
<td>14</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Permitted Combined Operation</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>14</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpermitted Confined Beef/Dairy</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>17</td>
<td>7</td>
<td>14</td>
<td>17</td>
<td>20</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Swine Manure Storage</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy Manure Storage</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permitted Fish</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>84</td>
<td>108</td>
<td>173</td>
<td>34</td>
<td>32</td>
<td>71</td>
<td>502</td>
<td>448</td>
<td>474</td>
<td>330</td>
<td>363</td>
<td>588</td>
<td>324</td>
<td>105</td>
<td>107</td>
<td>486</td>
<td>704</td>
</tr>
<tr>
<td>Permitted Truck Washes</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These totals are as of 12/31/17
September, 2018
Iowa DNR AFO Database

- 170 – Facilities With NPDES Permits
- 3,704 – Large CAFOs
- 7,703 – Medium AFOs
- 968 – Small AFOs
  - Most Not Included In Database
- 8,452 - Total MMPs
  - Required For Confinements 500 AU or Greater
Kenneth Hessenius
Northwest Iowa: Field Office 3 - Spencer
kenneth.hessenius@dnr.iowa.gov
712-262-4177
www.iowadnr.gov/afo/

Questions?