Responsiveness Summary to public comments on the Hillbex Dairy draft Permit to Install and draft Permit to Operate

February 4, 2008

On September 27, 2007, the Ohio Department of Agriculture (ODA) issued a public notice of Hillbex Dairy's draft Permit to Install and draft Permit to Operate. This public notice opened the public comment period on the draft permits and informed the public that a public meeting would be held on October 24, 2007, to accept comments. The comment period ended at 5:00 p.m. on October 30, 2007.

The director's final decision on these draft permits must be made in accordance with the laws regulating and facts contained in the permits. According to Ohio Administrative Code 901:10-6-04, information presented during the public comment period shall be limited to the criteria and information that are applicable to the permit application that is the subject of the public meeting. Ohio Revised Code Section 903.09 states that the director is to hear comments pertinent to the draft permits. The Ohio Department of Agriculture considers pertinent comments to be comments relating to the draft permits and the way in which the draft permits comply with the ODA rules. Public comments also need to relate to issues under the regulatory control of the Director of Agriculture. The Ohio General Assembly has not given the Director of Agriculture unlimited control. The Permit to Install and the Permit to Operate are environmental permits covering issues pertaining to water pollution control such as manure management, construction of manure containment structures, containment of stormwater runoff, insect and rodent control, mortality and emergency response.

Comments about large-scale farming in Ohio, about other farms in Ohio, or other permits will not be considered as comments that pertain to these draft permits. Comments about roads, taxes, property values and air quality are not under the regulatory control of the Director of Agriculture and will not be considered as comments that pertain to these draft permits.

Presented below are the comments made during the public meeting on October 24, 2007, and received by mail and e-mail. Similar comments are grouped and summarized.

No.	Date Received	Name	Organization, if any	City, State
1	10-11-07	Doris Gabel		Fremont, OH
2	10-12-07	Gregory Edwards	Napoleon Veterinary Clinic	Napoleon, OH
3	10-12-07	Brian Harr	Napoleon Veterinary Clinic	Napoleon, OH
4	10-12-07	Kate Colliflower	Napoleon Veterinary Clinic	Napoleon, OH
5	10-12-07	Dale & Phyllis Duquette		Helena, OH
6	10-13-07	Dave & Jill Tippett		Gibsonburg, OH
7	10-15-07	Charles F. Nopper	Madison Township Trustee	Gibsonburg, OH
8	10-15-07	Linda S. Aspacher		Toledo, OH
9	10-15-07	Mary Torok		Gibsonburg, OH
10	10-17-07	Daniel Laity		Elmore, OH
11	10-18-07	Mary Smith		Gibsonburg, OH
12	10-18-07	Mildred Sedlmeier		Woodville, OH
13	10-19-07	Dale Clark		Woodville, OH
14	10-22-07	Virginia Rahe		Gibsonburg, OH
15	10-22-07	Lonnie Mendoza		Gibsonburg, OH
16	10-22-07	Helen Pierce		Helena, OH
17	10-22-07	Carol Baker		Elmore, OH
18	10-22-07	Robert Baker		Elmore, OH
19	10-22-07	Fred & Linda Bursiek		Gibsonburg, OH
20	10-22-07	Lawrence McCarthy		Woodville, OH
21	10-22-07	Becky McCarthy		Woodville, OH
22	10-22-07	Britt Bowe		Columbus, OH
23	10-23-07	Norman Powers		Helena, OH
24	10-23-07	Laura Ruggiero	Village of Gibsonburg	Gibsonburg, OH
25	10-23-07	Edward Herman	Village of Gibsonburg	Gibsonburg, OH
26	10-23-07	Donald Kirwen	Village of Gibsonburg	Gibsonburg, OH
27	10-23-07	Robert A. Schroeder	Village of Gibsonburg	Gibsonburg, OH
28	10-24-07	Don Miller		Fremont, OH
29	10-24-07	Susan Fisher		Gibsonburg, OH
30	10-24-07	Edward A. McCabe		Gibsonburg, OH
31	10-24-07	David G. Pollick	Sandusky County Health Department	Fremont, OH
32	10-24-07	Terri Reinhart		Helena, OH
33	10-24-07	Norman Powers		Helena, OH
34	10-24-07	Nancy J. Fisher		Millbury, OH
35	10-24-07	Ginny Roessner		Gibsonburg, OH

36	10-24-07	Paula Fahle		Lindsay, OH
37	10-24-07	Bob Morton		Fremont, OH
38	10-24-07	Dwight Wise		Fremont, OH
39	10-24-07	Karen Peck		Gibsonburg, OH
40	10-24-07	Lynn Henning		Clayton, MI
41	10-24-07	Roger A. Riehm		Elmore, OH
42	10-24-07	R.J. Reinhart		Fostoria, OH
43	10-24-07	Carl Schuh		Gibsonburg, OH
44	10-24-07	Tom Younker		Gibsonburg, OH
45	10-24-07	Virginia P. Moll	SCCPR	Gibsonburg, OH
46	10-24-07	David Pasch		Helena, OH
47	10-24-07	Gary Babcock		Risingsun, OH
48	10-24-07	Mike Young	SCCPR	Gibsonburg, OH
49	10-24-07	Rick Vitte		Helena, OH
50	10-24-07	Clair Aldrich		Woodville, OH
51	10-24-07	Carl Myers		Kansas, OH
52	10-24-07	Donald Rozick		Woodville, OH
53	10-24-07	Tom Kline		Gibsonburg, OH
54	10-24-07	Danny Brubaker	SCCPR	Helena, OH
55	10-24-07	Robert Kline		Helena, OH
56	10-24-07	Sharon Aldrich	SCCPR	Woodville, OH
57	10-24-07	Eleanor Hahn		Clyde, OH
58	10-24-07	Robert Meyer		Woodville, OH
59	10-24-07	Linda Meyer		Woodville, OH
60	10-24-07	Andrew Dean		Gibsonburg, OH
61	10-24-07	Stephen L. Younker		Gibsonburg, OH
62	10-24-07	Judy Reino	SCCPR	Gibsonburg, OH
63	10-24-07	Joyce Bower		Gibsonburg, OH
64	10-24-07	Tom Stuckey		Woodville, OH
65	10-24-07	Sandy Bihn	Western Lake Erie Waterkeeper	Oregon, OH
66	10-24-07	Sandy Clark		Gibsonburg, OH
67	10-24-07	Jerry Giesler		Elmore, OH
68	10-24-07	Dan Scheckelhoff		Leipsic, OH
69	10-24-07	Debbie Chimahusky		Fremont, OH
70	10-24-07	Dan Laity		Elmore, OH
71	10-24-07	Grayson Koepke		Oak Harbor, OH
72	10-24-07	Becky Wilhelm		Portage, OH
73	10-24-07	Tim Gebes		Risingsun, OH
74	10-24-07	Terry Krukemyer		Pemberville, OH
75	10-24-07	Laura Ruggiero		Gibsonburg, OH
76	10-24-07	Donald J. Rozick		Woodville, OH
77	10-24-07	Leslie Markworth		Pickerington, OH
78	10-24-07	Leonard & Judy Reino		Gibsonburg, OH
79	10-24-07	Leonard & Judy Reino		Gibsonburg, OH
80	10-24-07	Carl W. Layman		Helena, OH
81	10-24-07	Ralph Clink		Gibsonburg, OH

82	10-24-07	Walter Webb		Woodville, OH
83	10-25-07	C. Montressa Younker		Gibsonburg, OH
84	10-25-07	Stephen L. Younker		Gibsonburg, OH
85	10-25-07	Charles Shanfelt		Gibsonburg, OH
86	10-26-07	Suzanne Giesler		Elmore, OH
87	10-26-07	Janet Diab		Gibsonburg, OH
88	10-26-07	Scott & Paula Pertner		Gibsonburg, OH
89	10-27-07	Dana K. Bollin		Oak Harbor, OH
90	10-27-07	Scott Chalfin	Sandusky County Farm Bureau	Risingsun, OH
91	10-28-07	Tom & Heather McGough		Helena, OH
92	10-29-07	Joyce & Henry Hansen		Fremont, OH
93	10-29-07	Michelle Fairbanks		
94	10-29-07	David Pollick	Sandusky County Health Dept.	Fremont, OH
95	10-29-07	Sue Claire		Toledo, OH
96	10-29-07	Mike, Jean & Robert Wonderly		Helena, OH
97	10-29-07	Lonnie Mendoza		Gibsonburg, OH
98	10-29-07	Deborah L. Wingert		Fremont, OH
99	10-29-07	Rita Brown		Gibsonburg, OH
100	10-29-07	Karol L. Courtney		Fremont, OH
101	10-29-07	Shirley M. Fork		Gibsonburg, OH
102	10-29-07	Kathy D. Vallejo		Gibsonburg, OH
103	10-29-07	Keith & Patty Copley		Gibsonburg, OH
104	10-29-07	Roger L. Swinehart Sr. & Brenda J. Baker		Fremont, OH
105	10-29-07	Sid S. Davisson		Fremont, OH
106	10-29-07	Jane & Robert Aldrich		Helena, OH
107	10-29-07	Betty Hovis		Risingsun, OH
108	10-29-07	Nancy Fisher		Millbury, OH
109	10-29-07	Judy Reino		Gibsonburg, OH
110	10-29-07	Calvin & Justine Magsig		Woodville, OH
111	10-29-07	Carol Baker		Elmore, OH
112	10-29-07	Robert Baker		Elmore, OH
113	10-29-07	Nancy Sullivan		Cincinnati, OH
114	10-29-07	Mary Beam		
115	10-29-07	Beth Melnek		Woodville, OH
116	10-29-07	Erma Gallagher		Kansas, OH
117	10-29-07	Jean Johnson		Helena, OH
118	10-29-07	Matt Wonderly		Helena, OH
119	10-29-07	Roger Riehm		Elmore, OH
120	10-29-07	Thomas Stuckey		Woodville, OH
121	10-29-07	John Hammer		Gibsonburg, OH
122	10-29-07	Jane Wicks		Woodville, OH
123	10-29-07	Tom Wicks		Woodville, OH

124	10-29-07	Herbert Sneider		Helena, OH
125	10-30-07	Evan Kruse		Woodville, OH
126	10-30-07	Kathleen Kanipe		Woodville, OH
127	10-30-07	Joshua Kanipe		Los Angeles, CA
128	10-30-07	Carrie Kanipe		Canal Winchester, OH
129	10-30-07	Elisia Kanipe		Washington, DC
130	10-30-07	Jean Mendoza		Gibsonburg, OH
131	10-30-07	Lynn A. Reineck		Fremont, OH
132	10-30-07	Mr. & Mrs. Jack Vincent		Gibsonburg, OH
133	10-30-07	Longino Mendoza		Gibsonburg, OH
134	10-30-07	The Reinharts		Helena, OH
135	10-30-07	Larry & Vickie Askins		Cygnet, OH
136	10-30-07	Charles Nopper		Gibsonburg, OH
137	10-30-07	Michael D. Lincicome		Elmore, OH
138	10-30-07	Tamilyn Shean		Elmore, OH
139	10-30-07	Sue Hoffman		Gibsonburg, OH
140	10-30-07	Daniel Barbee		Gibsonburg, OH
141	10-30-07	Peggy Rodriquez		Woodville, OH
142	10-30-07	Meghan Rodriquez		Woodville, OH
143	10-30-07	Alejandro Rodgriquez		Woodville, OH
144	10-30-07	Lana Picciuto		Gibsonburg, OH
145	10-30-07	Rick Vitte		Helena, OH
146	10-30-07	Sandy Vitte		Helena, OH
147	10-30-07	Sharon Aldrich		Woodville, OH
148	10-30-07	Jennifer & Timothy Gebes		Risingsun, OH
149	10-30-07	Karen Peck		Gibsonburg, OH
150	10-30-07	Donald Knepper		Perrysburg, OH
151	10-30-07	Tom Kline		Gibsonburg, OH
152	10-30-07	Marsha Henery		
153	10-30-07	Daniel Henery		
154	10-30-07	Martin Hoddinott		Gibsonburg, OH
155	10-30-07	Robert & Patricia Kline		Helena, OH
156	10-30-07	Joyce Bower		Gibsonburg, OH
157	10-30-07	Susan Fischer		Gibsonburg, OH
158	10-30-07	Linda Brubaker		Helena, OH
159	10-30-07	Danny Brubaker		Helena, OH
160	10-30-07	Kris Gerwin		Gibsonburg, OH
161	10-30-07	Donald Gerwin		Gibsonburg, OH
162	10-30-07	Robert Meyer		Woodville, OH
163	10-30-07	Linda Meyer		Woodville, OH
164	10-30-07	Carolyn Young		Gibsonburg, OH
165	10-30-07	Michael Young		Gibsonburg, OH
166	10-30-07	Bob Reickard		Woodville, OH
167	10-30-07	Clair Aldrich		Woodville, OH

168	10-30-07	Edward Herman Jr.	Village of Gibsonburg, Mayor	Gibsonburg, OH
169	10-30-07	Donald Kirwen	President of Council	Gibsonburg, OH
170	10-30-07	Robert A. Schroeder	Fiscal Officer	Gibsonburg, OH
171	10-30-07	David Pasch		Helena, OH
172	10-30-07	Sheila Bowen		Helena, OH
173	10-30-07	Allen Peck		Gibsonburg, OH
174	10-30-07	Carl Myers		Kansas, OH
175	10-30-07	James & Virginia Moll		Gibsonburg, OH
176	10-30-07	Eleanor Hahn		Clyde, OH
177	10-30-07	Harold Hill		Gibsonburg, OH
178	10-30-07	Ken Aspacher		Toledo, OH
179	10-30-07	Linda Aspacher		Toledo, OH
180	10-30-07	Carl Schuh		Gibsonburg, OH
181	10-30-07	Mary Ottney		Gibsonburg, OH
182	10-30-07	John Bresler		Bloomdale, OH
183	10-30-07	Larry Askins		Cygnet, OH
184	10-30-07	Vickie Askins		Cygnet, OH
185	10-30-07	Jerald Baumgardner		Custar, OH
186	10-30-07	Michael Young		Gibsonburg, OH
187	10-30-07	Carolyn Young		Gibsonburg, OH
188	10-30-07	Leota Bishop		Helena, OH
189	10-30-07	Mark Bishop		Helena, OH
190	10-30-07	Leonard Reino		Gibsonburg, OH
191	10-30-07	Judy Reino		Gibsonburg, OH
192	10-30-07	Tom Younker		Gibsonburg, OH
193	10-30-07	Linda Brubaker		Helena, OH
194	10-30-07	Robert Kline		Helena, OH
195	10-30-07	Patricia Kline		Helena, OH
196	10-30-07	Elfriede Stahl		Risingsun, OH
197	10-30-07	James N. Thrasher		Risingsun, OH
198	10-30-07	Michelle Thrasher		Risingsun, OH
199	10-30-07	Jen Gebes		Risingsun, OH
200	10-30-07	Tim Gebes		Risingsun, OH
201	10-30-07	Wendy Morgan		Risingsun, OH
202	10-30-07	Robert L. Klotz		Risingsun, OH
203	10-30-07	Jody Clark		Helena, OH
204	10-30-07	Holly Tyson		Helena, OH
205	10-30-07	Bart Tyson		Helena, OH
206	10-30-07	Linda Meyer		Woodville, OH
207	10-30-07	Robert Meyer		Woodville, OH
208	10-30-07	Eleanor A. Hahn		Clyde, OH
209	10-30-07	Clair Aldrich		Woodville, OH
210	10-30-07	Sharon Aldrich		Woodville, OH
211	10-30-07	Stephen Younker		Gibsonburg, OH
212	10-30-07	Danny L. Brubaker		Helena, OH

213	10-30-07	Tom Kline		Gibsonburg, OH
214	10-30-07	Cathy Kline		Gibsonburg, OH
215	10-30-07	Elvin Jones		Helena, OH
216	10-30-07	Virginia P. Moll		Gibsonburg, OH
217	10-30-07	James W. Moll		Gibsonburg, OH
218	10-30-07	Deborah Wingert		Fremont, OH
219	10-30-07	Andrew Deam		Gibsonburg, OH
220	10-30-07	Fred Bursiek		Gibsonburg, OH
221	10-30-07	Linda L. Bursiek		Gibsonburg, OH
222	10-30-07	Helen Hill		Gibsonburg, OH
223	10-30-07	Betty Hovis		Risingsun, OH
224	10-30-07	Elvin Jones		Helena, OH
225	10-30-07	William E. Toller		Helena, OH
226	10-30-07	Karen Toller		Helena, OH
227	10-30-07	Roger Gilbert		Helena, OH
228	10-30-07	Tina R. Manuel		Helena, OH
229	10-30-07	Jenny King		Helena, OH
230	10-30-07	Jean Gegman		Burgoon, OH
231	10-30-07	Shirley Bilger		Helena, OH
232	10-30-07	Robert Heminger		Helena, OH
233	10-30-07	Jerry Swaisgood		Helena, OH
234	10-30-07	Linda Swaisgood		Helena, OH
235	10-31-07	Kathy Barbee		Gibsonburg, OH
236	10-31-07	Barbara & Thomas Peiffer		Gibsonburg, OH
237	10-31-07	Virginia Roessner		Gibsonburg, OH
238	10-31-07	Jeff Lydon		Watkins Glen, NY
239	10-31-07	Kurt Stevenson		Woodville, OH
240	10-31-07	Kathleen Darr		Fremont, OH

Comments received after the public comment period.

241	11-1-07	Jeff Baker	Sandusky County SWCD	Fremont, OH
242	11-1-07	Carol & Jeff Miller		Fremont, OH
243	11-1-07	Ruth Davies		Gibsonburg, OH
244	11-1-07	Marion Miller		Fremont, OH
245	11-1-07	Kathy Gonya		Fremont, OH
246	11-1-07	Sue Dorsey		Fremont, OH
247	11-1-07	Cathy Darr		Port Clinton, OH
248	11-1-07	Ronald Bosch, Sr.		Millbury, OH
249	11-1-07	James & Janice Stricker		Helena, OH
250	11-1-07	James Brien		Woodville, OH
251	11-1-07	Mary Jo Bosch		Millbury, OH
252	11-1-07	Phyllis Duquette		Helena, OH
253	11-2-07	Steven & Krista Paul		Gibsonburg, OH

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1. Ground Water Pollution

a. Leakage

Many comments were received expressing concerns about manure leaking through the clay liner and soil and into local drinking water supplies. Some examples are:

"With bedrock only 3 feet below the surface, storage of millions of gallons of manure in up-ground lagoons is dangerous. A breach in the dike will cause massive environmental destruction."

"The geological composition of these areas is NOT suited for such an endeavor."

"Will there be any comparison testing of area water and air quality the dairy before and after operation, with continued monitoring while the dairy is in operation?"

"Why has the ODA failed to require Hillbex to install an additional liner pursuant to Chapter 901:10-2-06(A)(9)(c)(i)?"

"These are shallow soils over fractured limestone on this site and there is a concern for potential ground water contamination."

"Manure tanks do leak and the clay liners that are proposed for these facilities are not expected to be successful because of the effect of temperature changes on clay liners. I understand that this permit has required higher requirements on the liners of the storage pits of this facility. What studies have been completed to show that the extra layer of clay will be sufficient to contain the manure in this facility?"

"Clay is not impervious. Reports state that "Waste lagoons, even with clay liners, allow contaminants to leach into the ground below the lagoon. At the maximum allowable rate, a 3-acre lagoon could legally leak more than a million gallons a year." Please explain how the dairy will monitor this potential leakage."

"Will the manure waste containment ponds be totally leak proof?"

Are there any other permitted farms with less than the recommended fifteen vertical feet of material between the bottom of the manure storage pond and the uppermost aquifer? If so, have there been any problems? If there are not any other farms, how do you know this will work?

Response:

Bedrock is located a minimum of 5.7 feet below the bottom of the proposed manure storage facilities. ODA rules specify that a minimum of 15 feet of low permeability material be present between the bottom of the ponds and the uppermost aquifer, with 3 feet of that material having a hydraulic conductivity not to exceed 1×10^{-7} cm/sec. If this is not present at the site, then the design must incorporate additional design criteria that must be reviewed and approved by the Director. The standard of 3 feet of soil with a permeability not to exceed 1×10^{-7} cm/sec has been used by ODNR Division of Soil and

Water Conservation and the USDA-Natural Resources Conservation Service for 30 years without any problems of groundwater contamination.

Because the proposed Hillbex Dairy site does not have 15 feet of low permeability material between the bottom of the proposed manure storage ponds and the uppermost aquifer, the dairy has been designed to incorporate additional design criteria to protect water quality. Travel time calculations are provided in Appendix M of the Geological Report in the PTI that demonstrate how the additional design criteria proposed for this site is as protective as ODA's minimum standards set forth in rule. The manure storage ponds at this site will be constructed with an additional liner system consisting of a 4-foot recompacted soil liner that will be constructed to achieve a permeability not to exceed 1 x 10^{-7} cm/sec. ODA rules do not require that the liner be completely impervious, and most liners, including plastic or geosynthetic liners, are not considered impervious.

A properly constructed soil liner acts as a very slow filtering mechanism for the organic nutrients associated with dairy manure. Such a liner does not allow suspended solids to move through it and serves to remove dissolved solids associated with manure through chemical reactions between the soil and the dissolved solids. For instance, ammonia is a positive charged ion, while clay particles in soil are negatively charged. Being oppositely charged ions, these ions attach to each other, preventing movement of the ammonia through the clay liner. Organic solids that collect on the bottom of the pond also physically clog and reduce the permeability of the recompacted soil liner.

The site will also incorporate a groundwater monitoring system that will be implemented as part of the Permit to Install. Generally, groundwater is sampled from a well existing at the facility that is used to provide water for the animals. However, this site will have an additional network of wells, consisting of a minimum of three down-gradient and one up-gradient, that will be sampled twice annually for nitrate, total phosphorus, E. Coli and field pH, field specific conductivity and field temperature. After the wells have been installed, water samples will be taken and recorded prior to ODA granting authority to the facility to use the manure storage structures.

Several other permitted facilities have been approved, or are in operation, that have a groundwater monitoring system because the manure storage or treatment facilities were constructed within 15 feet of a potential aquifer, thus requiring that additional criteria be added to the design. To date, all groundwater monitoring that has been completed at these sites has not detected pollutants at increased levels.

ODA's rules were developed, reviewed and recommended by a diverse group of scientific professionals, including representatives of the ODNR Division of Soil and Water Conservation, Division of Water, and Division of Geological Survey; United States Geological Survey (USGS); USDA Natural Resources Conservation Service and Agricultural Research Service; and the Ohio EPA Division of Surface Water and Division of Drinking and Ground Waters. The rules were challenged but upheld in *Citizens Against Megafarm Dairy Development, Inc. et al. v. Dailey*, 2007-Ohio-2649, Franklin County Court of Appeals, 10th District, May 31, 2007. See also 2c, below.

ODA has no regulatory authority over air quality.

b. Karst Geology

Many comments were received concerning the location of karst geology. Some examples are:

"Even the EPA has advised not to place an operation like this in a karst area."

"Karst limestone fractures extremely easily leading to the CAFO's pollutes to leach into the local creeks. Once in the creeks, the pollutants will flow into the Portage River which will flow into Lake Erie, thereby affecting the entire Great Lakes Region."

"The Hillbex Dairy may be in karst geology which means that pathways for migration into the waters are likely. Karst areas are not good geology for a factory farm."

"Hillbex Dairy draft permit includes notations that it is to be located in a karst area. The requirements set forth in 901:10-2-06(A)(11) of the Ohio Administrative Code indicate that manure storage ponds or manure treatment lagoons constructed in karst areas must be designed to prevent seepage of manure into the groundwater. Further, based upon the geological exploration completed by the ODA, any portion of the manure storage pond or manure treatment pond that is located below the pre-construction soil surface level must be constructed utilizing a rigid material such as concrete or steel or a properly designed clay or synthetic liner. Given the fact that the Hillbex Dairy is located in a karst area, why has the ODA failed to require Hillbex adhere to the strict standards of lagoon construction and manure storage ponds to ensure that no seepage of manure into the groundwater occurs?"

"Pursuant to the recommendations of the Ohio Department of Natural Resources set forth in its webpage, animal feedlots, manure lagoons, and other potential sources of bacterial contamination should not be located near sinkholes. Because of the proposed location of Hillbex Dairy in a karst area with noted sinkholes identified, this totally contradicts the recommendations of the ODNR who recommends that animal feedlots not be located near karst areas with sinkholes. Why would the ODA authorize a permit in direct contradiction with the ODNR?"

Response:

The manure storage and treatment facilities proposed at Hillbex Dairy will not be located in a karst area. The geological explorations done on the site did not reveal any karst areas. Probable karst areas are shown on a map in Appendix F of the Geological Report. Several possible karst features were identified by aerial photography to the north and northwest of the site of the proposed dairy. In addition, groundwater monitoring and additional design criteria are included as part of the Permit to Install.

c. Water Source Protection Area

"Right now the Hillbex Dairy is located approximately 8,000 feet from a surface water protected area around the village of Gibsonburg."

Response:
All manure storage and treatment facilities proposed at Hillbex Dairy are not within any source water protection areas for public water systems.

d. Leakage Detected
"What action will be taken if leakage has been determined?"

"What do they do for an emergency such as the manure pond leaking?"

"What is the protocol if contamination is found during routine groundwater sampling? Who takes the samples? An ODA inspector or the operator? Are residences in the immediate area notified? Are samples taken from the residences in the immediate area? Is the local Health Department notified?"

Response:
If an increase in pollutants is detected in the groundwater from the monitoring wells, then a further investigation will be completed by the dairy. A groundwater assessment plan has been added to the final permit and can be found in Appendix K of the Geological Report. For each sampling event, the dairy shall determine whether or not there is a significant increase of parameter concentrations compared to the historical background data. If an increase is determined to be verified, the dairy will begin an assessment monitoring program, which shall determine the rate, extent and magnitude of the impact upon the groundwater. Once the extent and magnitude of the impact is determined, the dairy is required by the groundwater assessment plan to submit a corrective measures plan to ODA for review and approval. The plan shall outline the remediation options and processes to be utilized.

While the groundwater assessment plan requires the dairy to conduct an investigation, ODA is entitled by law to collect water well samples from regulated facilities for purposes of investigation. If the sampling results raise a concern for neighbors or a public water supply, then neighboring residences and the appropriate state or local agencies (such as Ohio EPA or local health departments) would be contacted for assistance and for cooperation. The local health department retains authority to collect samples from private wells within the scope of its regulatory jurisdiction.

e. Monitoring of Ground Water
In OAC 901:10-2-02 Permit to install: siting criteria, section H: Aquifer, a fabricated structure, manure storage pond or manure treatment lagoon shall have fifteen vertical feet of low permeability material, between the waste placement location and the uppermost aquifer, unless additional design criteria or groundwater monitoring are added, installed and implemented as approved by the director. According to ODA engineer Andy Ety, the Hillbex dairy will have 5.7 feet but instead of the standard 3 feet of recompacted clay, Hillbex will have 4 feet. Also, instead of annual groundwater sampling Hillbex will have twice a year groundwater sampling. My questions on this issue are:

1) If there is a third of the recommended distance between the bottom of the manure pond and the uppermost aquifer, shouldn't there be at least three times a year groundwater sampling?

2) Of that 5.7 feet, does that include the 4 feet of recompacted clay? Or is it 5.7 feet of low permeability material and then the 4 feet of recompacted clay?

3) What is the depth of the uppermost aquifer from the current surface?

4) Why wasn't a synthetic liner or flexible plastic membrane ordered for manure storage ponds #2 and #3? I read in OAC 901:10-2-06 those were some of the options the director may require.

5) What contaminants is the groundwater samples tested for? Is E. Coli one of them?

"I understand the bottom of these lagoons must be 15 vertical feet above the uppermost aquifer per your requirements. There you have inserted or unless other requirements are met. I do not understand why an additional 1 foot of clay can change 15 vertical feet to 5.7 feet or approximately 1/3 of the required material. Shouldn't 2 or 3 additional layers of clay be required or better yet a synthetic or plastic liner be a better alternative?"

"Please explain this 'additional design criteria' and how one more foot of compacted dirt would give the same protection as 15' of non-permeable material."

Response:
See response to comment 1a. above. The 5.7 feet includes the 4-foot recompacted soil liner. The depth to the uppermost aquifer is described on page 7 of 14 of the geological report that is provided in the Permit to Install and completed by North Point Engineering. The Director may require any type of additional liner system and in this case has chosen to utilize the natural clay material since it is very capable of achieving the required permeability. If clay was not available at the site for constructing a recompacted clay liner, then an alternative material for the liner would have been proposed by the design engineer and required by ODA.

The groundwater monitoring program is described in Appendix K of the geological report completed by North Point Engineering. E. coli is one of the parameters that will be analyzed.

f. Water Quality Testing
"Who is responsible for testing of water quality in the area? How frequently do they do this? What are the consequences if there are problems?"

"Is any testing of water supplies prior to start up of any of these farms ever done? If not, WHY?"

Response:
See response to comments 1a, 1d. and 1f above for more information about groundwater testing. Sample results from a well located at the proposed facility were required and included as part of the permit application. As required by the Permit to Install and to be completed as part of construction, groundwater monitoring wells will also be installed and baseline samples will be collected for each monitoring well prior to granting any approval to use the manure storage or treatment facilities. The facility will also be

required to collect additional samples from the groundwater monitoring wells every six months afterwards. The local health department retains authority to collect samples from private wells as part of its regulatory jurisdiction.

g. Oil Well Shafts
Comments concerning the old oil well shafts in the area.

"OAC 901:10-2-03 (b}(2}(h) requires that "The department may require additional subsurface geological explorations depending on the soils and geological formations on site to ensure the protection of the ground water, surface water or the structural integrity of the manure storage pond .... to determine the pollution potential for each site, the PATHWAYS OF CONTAMINATION, if any, and whether additional liners are needed to protect water and ground water. The ODNR has stated that old oil well shafts are "pathways of contamination". What will the ODA do to safely protect our ground water?"

Response:
One abandoned oil and gas well is located in the southern part of Section 16 of Scott Township. An Oil and Gas Well Spot map has been provided in the final geological report, Appendix N. However, no old, abandoned oil and gas well was identified on the site for the proposed Hillbex Dairy. Nevertheless, as a precautionary measure, a construction note on Sheet 2 of the engineering plans reads as follows:

"Oil and Gas Well Note: Although none have been identified, possible abandoned oil and gas wells could be located on the property. Contractor shall use care when conducting excavations and immediately bring it to the attention of the owner if any suspect wells are located. Dairy facilities shall not be located over an oil and gas well if a well is located. Appropriate adjustments will be made to the location of the dairy facility (with ODA approval) or the well will be properly abandoned."

The State is responsible for assuring proper sealing and abandonment of gas and oil wells when they are found. If one is discovered, the ODNR, Division of Mineral Resources Management will be notified by either ODA, the contractor or owner of the facility and the process of sealing initiated.

h. Limestone Mining
Concerns with the history of limestone mining in the area and questions if the blasting has been taken into consideration.

"The blasting at the lime quarries in Woodville, OH, frequently rattles my windows and the hanging tools in my garage even though I live four miles away. Families living closer to these blasting sites have cracked walls in their homes and pictures falling from the walls. The manure holding ponds would be subject to similar limestone fracturing and cracks to the holding pits causing leakage into the watershed and aquifers."

Response:
No active limestone quarries are present adjacent to the Hillbex Dairy. According to ODNR Division of Mineral Resource Management's Publication; **Blasting in Ohio's Quarries and Surface Coal Mines**, fracturing of rock generally occurs no greater than

20 to 30 feet from any blast hole. Vibrations in the home can be experienced due to ground vibrations and/or air blasts and there is no direct correlation between how a blast feels or sounds and its potential for causing structural damage to a home.

i. Comparison between Home Septic Tanks and CAFO Manure Lagoons
Many comments discussed the federally funded program to replace failing septic systems with large-dairies establishing holding ponds or manure pits in the same watershed.

Response:
Typical septic tanks with leach fields are designed to settle out some of the solids in the septic tank and allow the remaining effluent to leach into tile lines and percolate into the soil profile, with no utilization of the nutrients that may be associated with the effluent. Septic systems in some of these areas are more than likely failing because the permeability of the soils is too low to allow the effluent to percolate as designed. Typical septic systems are designed to have 500 to 1000 gallons per day absorbed on usually less than ¼ acre leach fields or well over 730,000 gallons/acre/year. Manure storage and treatment facilities at CAFFs are designed and constructed to contain liquid effluent by providing a liner system as described in the comments above. The manure is then applied to crop lands at lower application rates (for example, 13,000 gallons/acre) to allow for proper utilization and for the effluent and associated nutrients to be taken up by crops in production agriculture. Unlike septic systems, the CAFF is required to document that manure is utilized by crop uptake. This means that records are required to be kept of targeted and actual crop yields and of cropping schedules.

j. Contamination of Surrounding Wells
Many comments were received asking who would be responsible to pay homeowners should the manure pond contaminate the surrounding wells and the fresh water supply is unfit for consumption.

Response:
The investigation would have to demonstrate that the CAFF was the source of contamination, that the facility failed to comply with the laws and rules governing operation of a CAFF, and that an alternative water supply is necessary; then like anyone who causes damage to others, they could be held liable.

2. Ground Water Use

a. **Water Usage**
"The request for permit claims 23 million gallons of water will be needed at both Sandusky County CAFOs. Documents from major USDA and Extension Services indicate that a more realistic rate of 30 million gallons of water is more accurate and that usage can actually double during hot weather."

Response:
Hillbex Dairy estimates that approximately 65,300 gallons per day will be used with a maximum capacity of 2,251 cows, which equates to approximately 29 gallons per cow per day. In comparison with similar type Ohio dairy facilities that have a metering system to provide a baseline on daily water withdrawal, this figure is very representative. Data collection at these other Ohio dairies shows a daily withdrawal range of 30-32

gallons per cow per day. See http://ohioline.osu.edu/aex-fact/Dairy_Water_Use.pdf. Therefore, the daily and annual estimates are very typical of similar type facilities operating in Ohio that recycle a lot of water.

b. Availability
Many comments were received concerning the surrounding wells going dry from the amount of water used by the dairy. The question of who would be responsible for digging new wells should the surrounding wells go dry was also raised.

"Since Hillbex Dairy proposes annual water usage of 25,531,750 gallons, how does the ODA intend to ensure the ground water rights of the citizens of Scott Township as set forth by the Ohio Supreme Court in Cline v. American Aggregates; and what steps has the ODA taken to ensure that any harm caused by Hillbex Dairy is borne by Hillbex Dairy?"

"Where is the 29 gallons of water a day per cow going to come from?"

Response:
The annual water use at this facility is approximately 23.8 million gallons. On a daily basis, approximately 45 gallons per minute will be required to sufficiently supply this facility. ODNR Division of Water's Groundwater Resources Map for Sandusky County indicates the aquifers in the area of the dairy have the capability to yield greater than 100 gallons per minute. The water will come from groundwater by withdrawing from private wells to be developed at the site.

ODA has no regulatory authority over groundwater withdrawal. If a facility has the capacity to use greater than 100,000 gallons of groundwater per day, it is required to register with the Ohio Department of Natural Resources, Division of Water, as required by Ohio Revised Code Section 1521.16. Hillbex Dairy estimates a daily withdrawal rate of approximately 65,300 gallons and therefore is not required to register with ODNR Division of Water. If there are additional concerns, local government officials, in cooperation with area residents, can request ODNR's Division of Water to assist in conducting detailed studies. ODA does not, nor does any state agency, have the authority to allocate quantities of ground water among all actual or potential users. *Cline v. American Aggregates*, 1984 Ohio LEXIS 1308, allows for the reasonable use of ground water for beneficial purposes.

3. Surface Water Pollution

a. Flooding
Many comments were received concerning the possibility that the manure ponds will overflow during heavy rains and from the type of flooding that occurred this past summer.

"IF A MANURE LAGOON RUNS OVER FROM EXCESSIVE RAINS AND GETS INTO A CREEK OR RIVER WILL THE CAFO OPERATOR BE RESPONSIBLE FOR THE CLEANUP? WILL THERE BE A CLEAN UP?"

Response:
All manure storage and treatment facilities are required to be constructed and operated to not only contain the raw manure and process wastewater from the CAFF, but also rainfall and contaminated runoff. OAC 901:10-2-04(D) and (E) explicitly describe what has to be accounted for in sizing these manure storage or treatment facilities. The annual rainfall that falls onto the manure storage ponds and the runoff associated with normal rainfall on contaminated areas within the production area must be accounted for in the sizing of the ponds. In addition, the manure storage ponds, whether for raw manure or contaminated stormwater, must be designed to always contain a 25-year, 24-hour storm event, to meet USEPA regulations. Under the Hillbex Dairy design, a majority of the contaminated stormwater will be collected in a concrete pump station, which will be pumped into manure storage pond #1. This facility exceeds design requirements in OAC 901:10-2-04 and is designed to contain a 100-year, 24-hour storm event in any of the proposed manure storage ponds while still leaving an additional 1-foot of freeboard. Therefore, this facility will not be allowed to discharge any manure or contaminated runoff from the facility up to the 100-year, 24-hour storm event.

Finally, the design capacity and operating levels established and approved in the PTI must be maintained by the facility in compliance with the rules and the terms and conditions of the PTO, which is one of the reasons that the permits are reviewed and decided upon at the same time. The PTO requires weekly inspections of liquid manure levels and periodic manure removal to maintain freeboard and an adequate manure storage capacity, especially through the months of November to March, when land application is limited.

If any facility causes a discharge to waters of the state, they may be subject no only to fines and penalties but also to cleanup costs and repair of damages. As part of the permit, any facility that has or may have a discharge, must notify ODA as well as mitigate and/or eliminate the discharge and undertake immediate steps to prevent further water quality impacts.

There were no known manure discharges from any ODA permitted facilities during the flooding this past summer. ODA inspectors followed up on all permitted dairy facilities in operation and verified the storage capacities. This is unlike many combined sewer systems, such as Gibsonburg, which, during that same flooding event discharged 1,680,000 gallons of untreated sewage into the Lake Erie Basin, per their OEPA permit. Many municipal sewer systems are designed to discharge during storm events; the proposed Hillbex Dairy's manure storage ponds are designed for zero discharge, up to the 100-year, 24-hour storm event. Similarly designed ponds held to that standard even during the flooding this past summer.

b. Over Application of Nutrients
Many comments that the manure would be over applied to the fields and would eventually end up in Lake Erie, undermining efforts by both the United States and Canada to improve the water quality of the lake.

"Once in the creeks, the pollutants will flow into the Portage River which will flow into Lake Erie, thereby affecting the entire Great Lakes Region."

"Sugar Creek is a high quality stream, but it is a small stream and it cannot dilute or oxygenate the wastes of a large-scale dairy."

Response:
Manure is to be applied using best management practices and in accordance with ODA rules, with the intent to replace more soluble commercial chemical fertilizers that are currently being utilized to provide nutrients on the same cropland. ODA requires that soil samples be taken for every 25 acres of the planned land application area. These results are provided in the final permit in the Manure Management Plan (MMP). The soil sampling rule, OAC 901:10-2-13, requires representative soil tests of not more than 25 acres and requires soil testing once every three years.

ODA also requires that manure samples be taken, kept in the operating record and provided to all persons receiving or applying manure. Twice each year, an ODA inspector conducts a full inspection and correlates the MMP with the data recorded in the Operating Record, such as the crop yields, annual manure analysis, and new soil samples collected. See OAC 901:10-2-10 for manure and OAC 901:10-2-13 for soils and testing frequency.

All of the application rate criteria are evaluated to determine what the most limiting factor for the field is at the time of application. See OAC 901:10-2-14. Based on this evaluation, the permitted application rate is determined, and that application rate is used for that period of application. Generally, the most limiting factors are the nutrients evaluated and, for liquid manure, the Available Water Capacity (AWC) of the soils in the field. The AWC is often the most limiting factor for a single time liquid manure application because the water holding capacity of the soil will be achieved for a single application before the allowable nutrients are applied. For further analysis of the Available Water Capacity chart, refer to Appendix B of rule 901:10-2-14. In addition, depending on the time of year, additional nitrogen limitations not associated with crop needs are evaluated, as provided in ODA rule 901:10-2-14(D). Additional criteria also heavily restrict application on frozen or snow-covered ground, as provided in ODA rule 901:10-2-14(G).

As described in rule 901:10-2-14(E), either the agronomic rate (based on crop needs) for phosphorus application shall be used or an environmentally protective rate of phosphorus application shall be used, which includes the phosphorus risk assessment procedures listed in the appendices to rule 901:10-2-14. ODA rule 901:10-2-14(E)(2)(b) specifically states that "The application rate of phosphorus shall not exceed the rate provided in appendix C, table 1 or appendix D, tables 1 to 5 of this rule, unless following the procedures in paragraph (E)(3) of this rule." The tables referenced and found in appendix C and D of this rule describe the crop needs and crop removal for phosphates, based on a given crop, yield, and specific soil test value. Paragraph (E)(3) describes the phosphorus risk assessment procedures, which determine the potential for phosphorus applied in excess of crop needs, to run off to surface waters. OAC 901:10-2-14(E)(3)(a) provides that a site where phosphorus is to be applied in excess of crop needs can be evaluated using either of two different phosphorus risk assessment procedures: the Phosphorus Index (P-Index) Risk Assessment Procedure (described in Appendix E, table 1) or the Phosphorus (P) Soil Test Risk Assessment Procedure (described in Appendix E, table 2).

Another requirement of manure application is looking at soil conditions. According to OAC 901:10-2-14 Appendix A, Note 11, the migration of liquid into tiles through cracks in the soil is to be controlled by disturbing the top 3-5 inches of soil, monitoring the tile outlets and/or plugging the tile outlets. All tile outlets must be visually inspected during and after application, and if for some reason liquid manure would reach tile lines, tile plugs or tile stops must be available and utilized to block the tile lines and avoid impact on waters of the state.

Weather conditions and predictions must be recorded 24-hours before, during manure application, and for a period 24-hours after manure applications to ensure that rainfall will not cause manure to leave the application site. OAC 901:10-2-14(C)(6).

Following these BMPS and ODA rules will minimize any potential impact to the watersheds where the manure will be utilized. However, in the event of a discharge, the Dairy is required to immediately notify ODA of any discharge, begin immediate remediation and corrective measures to stop further discharges, collect samples of discharges and allow ODA to inspect and test. Enforcement measures, including fines and penalties, are provided in rules and statute to address violations.

c. Stream Sampling
"Do you have any provisions to test the water in nearby streams, creeks, and rivers?"

Response:
The facility is not allowed to discharge any manure into waters of the State. In the event of a discharge, the Director may require samples of manure discharges from the production area as outlined in OAC 901:10-2-08(A)(4)(l)(iii) & (iv):

> (iii) The director may require samples of manure discharges from the production area that may occur; and
>
> (iv) Results of sampling and analysis shall be documented in the operating record and, for manure discharges from the production area, results shall also be recorded in the annual report submitted to the director in accordance with rule 901:10-2-20 of the Administrative Code.

4. Manure Application

a. Landowner Permission
"Are landowners required to give permission to put manure on the ground or is it the one who farms the land?"

(What are the names of) *"All of the land-owner's names & locations of the property on which the manure waste is to be spread?"*

"Farm ground renters have not notified landowners of their plan to apply this manure to their property and the land owners have the final say in the matter. Many of these landowners do not want this manure applied to their land due to potential liability. How can a permit be approved when false and misleading information is included with the application?"

Response:
Agreements between landowners and farmers are between the landowner and the farmer and are limited to the interests of these two parties, including assignment of any potential liability as between these two parties. Agreements to use the nutrients in the manure as a replacement for chemical fertilizers are generally between the producer and the crop farmer. A map of the proposed land application sites along with the corresponding soil tests are part of the manure management plan in the draft permits.

b. Legal Responsibility For Improper Manure Application
Many comments concerning the legal liability associated with improper manure application.

"In the event such a situation arises at the Hillbex Dairy and manure is applied contrary to OAC 901:10-2-14, and such application results in public health issues, public water contamination, private well contamination or a negative impact of any kind to innocent parties not profiting by these mega-farms, what role, if any, will the ODA play in addressing such violation(s)? Who will be financially responsible for the violation(s)? Who has an immediate right to address such violations(s)?"

"Who is responsible for manure spills, the landowner, the crop farmer or the manure applicator?"

"The manure field application plan holds the applicator along with the land owner responsible for proper application and any consequences for improper application. If the dairy hires an applicator set-up under a shell corporation, the dairy avoids all consequences for improper application and the shell corporation applicator simply files for bankruptcy. Is that the way it works?"

"Are the landowners notified that they are the ones who are responsible for any spills and possible contamination?"

"IF I SIGN A CONTRACT TO HAVE THE MANURE APPLIED TO LAND THAT I OWN, WHO IS RESPONSIBLE IF THE MANURE LEACHES INTO STREAMS, CREEKS, RIVERS, ETC.?"

"According to Mr. Elder at the 10/24 meeting, the person who applies manure is responsible for any contamination, compliance issues, or violations from that property. Yet 3 different lawyers that I have seen written comments from have said it is the property owners who have ultimate responsibility. Mr. Elder did not address this from what I can remember at the 10/30 meeting so please clarify."

Response:
According to Peggy Hall, OSU Agricultural & Rural Law Program, discharges and spills of waste resulting from land application create the possibility of liability through ORC Chapters 6111 [Water Pollution Control], 1511 [Agricultural Pollution Abatement Law], and 903 [Concentrated Animal Feeding Facilities] and permits. Where the applicator, landowner and livestock operator are different parties, these situations often present the question of "which party is liable?" Several factors dictate the outcome to this question:

the terms and restrictions in a permit, the agreement between the parties, who has authority and control over the waste application, and the chain of events that resulted in the discharge or spill. Clearly written agreements between the various parties could address most of these factors and help alleviate the uncertainty of liability allocation.

Looking to liability in other cases, pesticides for example, the liability goes mainly toward who caused the problem. Some of the information examined would be, were the application labels followed correctly, were proper records kept and who directed the application. If the farmer hired an applicator and the applicator misapplied and caused damages, the applicator would have the majority of the liability. If the farmer bought and applied the pesticides then the farmer would be responsible. The landowner in both cases would have minimal liability if the ground was cash rented. If the landowner was share renting and paying for the pesticides, he would or could have more responsibility.

c. ODA Oversight of Manure Application
"Will the ODA be overseeing the application of the wastes when it is being applied to the area fields, to make sure it is applied in proper amounts and in proper conditions?"

Response:
ODA oversees manure application through twice-per-year inspections, review of operating records, and complaint investigations. The department has regulatory authority over the facility if they are in control of the application or a custom manure applicator who is required to be a Certified Livestock Manager. If these parties are not controlling the manure application, then ODA would coordinate with other government agencies that would have the right to enforce. These agencies include Ohio EPA, ODNR-Division of Soil and Water Conservation, ODNR-Division of Wildlife, etc.

d. Number of Acres Actually Applied To
"The number of acres contracted to take the manure according to the requirements does not mean that they will use all of those acres. They will only go as far away as they have to when applying and the cases of over-application have been witnessed at many of these factory farms."

"As far as the fields to put the manure on the fields, 13,000 gallons per acre, I think is some place in there. Who monitors to see if that is all that gets put on that field? They can do it today -- it says per application. But they are not going to drive any further than they have to put more manure on your fields."

Response:
Not every acre identified in the manure management plan will be utilized every year. This generally depends on the crop rotation of the fields that would best utilize the manure nutrients. It is anticipated that the fields located the farthest from the facility will utilize the manure solids, since they would be more economical to transport farther distances. Some facilities that generate solid manure broker their manure to cropland that may be in excess of 50 miles from the facility. As commercial fertilizer continues to increase in price, the economics of moving this manure, whether liquid or solid, will become more favorable in production agriculture. The crop acres located nearer to the facility are also generally those acres that will be used to grow forage crops for the dairy and will thus allow for more nutrients to be removed than a grain crop. Once the dairy is

in operation, additional acres that are closer may become available to receive manure, further reducing transportation costs.

Over-application of manure and nutrients is not allowed and all application must be in accordance with ODA rules. See response to comment 3b. above.

e. Amount of Manure Applied
"How much manure can be knifed into fields before they become so saturated that the bacteria in the soil has depleted the oxygen in the soil so nothing can grow?"

"From past experience how much manure can an acre of land accept per year?"

"Is there a law governing how much manure a farmer can spread on his fields and how close to a house?"

Response:
See response to comment 3b above. Land application setbacks are required from residences and are 300 feet if manure is surface applied and 100 feet if manure is incorporated or injected. For additional setback requirements, refer to Appendix A, Table 2 of rule 901:10-2-14 – Land Application Restrictions. Application of manure to soil increases the organic matter in the soil and thus provides positive influences on soil structure, tilth, bulk density and moisture holding characteristics instead of saturating the soil and depleting the oxygen within the soil. The amount of manure that can be applied on an acre of land varies, depending on the amount of phosphate already in the soil, the crops to be grown, and other limiting factors described in the response to comment 3b above. For example, over-application of manure to a condition that would saturate the soil with phosphate is not allowable under this permit to operate. Also, the amount of manure that can be applied is limited by the planned crop rotation and other factors described in OAC rule 901:10-2-14(D).

f. Amount of Acres Required
"How many acres of farmland is required to dispose of the manure?"

Response:
Refer to Section 5 of the CNMP, page 61 of 72, Farm Nutrient Budget section of the Manure Management Plan included in the Permit to Operate. Also see the responses to comments 3b. and 4e. above.

g. Shallow Soil Depth
"Due to the shallow soil depth of the Dunbridge and Millsdale soils and the limited filtering capability of the Dunbridge soils, we object to the use of any sites with Dunbridge and Millsdale soils for the land application of manure. We object to the use of these fields for the land application of manure unless there is field verification of adequate soil depth on site."

"The permit approves the land application of manure over areas of shallow soils over fractured limestone, and there is a concern for potential ground water contamination with this practice."

Response:
In evaluating USDA-NRCS standards for manure application, which were utilized to develop ODA rules and are followed by the local Soil and Water Conservation Districts to develop CNMPs for smaller animal feeding facilities, it was determined that no standards prohibit manure application to land that may have shallower bedrock. In discussions with Soil and Water Conservation District personnel that develop CNMPs in areas that have shallower bedrock on land application sites, they have started to implement special recommendations for the producers to follow under such conditions.

In researching this concern, ODA personnel performed field evaluations of all fields in the Hillbex Dairy permit that were identified as having either a Millsdale or a Dunbridge soil. The purpose of the evaluation was to determine if all the acres that were mapped with these soils were capable of growing a crop, at what depth the bedrock would be encountered and if the soil survey of Sandusky and/or Wood County was consistent with field evaluations. In all fields evaluated, the location and depth to the bedrock appeared to be consistent with the soil surveys.

Based on the site evaluations and varying and shallow depths to bedrock of the Millsdale and Dunbridge soils, a special condition has been placed in this Permit to Operate that will limit the amount of liquid manure application to 5,000 gallons per acre per application event on these soils. This will apply only to the areas of the fields that are mapped in the soil survey as either Millsdale or Dunbridge. Liquid application on these soil types shall be performed by either surface application on a growing crop (i.e.: alfalfa) or if no growing crop is present, it shall be lightly tilled to a depth of 1 to 2 inches immediately prior to, or immediately following, the surface application event. Injection of manure on these soil types will be prohibited.

h. Salt Build-Up
"What about Salt buildup that could make the land unfarmable? Is Salt level checked as well as phosphate level?"

Response:
OAC 901:10-2-13(C) requires soil sampling every three years and potassium is one of the standard parameters that is analyzed during this testing. However, neither ODA nor USEPA rules have a limit on the maximum potassium application or soil build-up that is allowed for potassium. However, excessive salt build-up can limit crop yields, which in turn would reduce the amount of other nutrients that can be applied (and thus the amount of manure that can be applied) if the average yields decrease and the soil phosphorus in turn increases.

i. Time of Year
"At what time of the year will the manure waste be spread?"

Response:
Generally in the fall, but it can be spread any time of the year, provided manure is not applied on frozen and/or snow-covered ground. Winter applications have special restrictions set forth in OAC 901:10-2-14(G).

j. Number of Years
"For how many years will the manure waste be spread on these properties?"

Response:
The Manure Management Plan and the Permit to Operate have a life of five years, at which time they are required to be renewed by the facility if the facility intends to continue operations. Applying manure as a crop nutrient and following the requirements would allow the land use to be sustainable forever.

k. Subsurface Drain Flow
"The manure management plan (MMP) fails to follow the best management practices because the MMP fails to include that the owner or operator shall maintain or have access to methods or devices to capture or stop subsurface drain flow if liquid manure reaches the subsurface drain outlets."

Response:
The MMP is not required to have this statement, since tile stops or tile plugs are already required by the rules: OAC 901:10-2-14(C)(4): "For all land application of liquid manures, the owner or operator shall maintain or have access to methods or devices to capture or stop subsurface drain flow if liquid manure reaches the subsurface drain outlets. Use of drain outlet plugs or other devices shall be recorded in the operating record in accordance with rule 901:10-2-16."

l. Grab Samples
"The manure management plan (MMP) fails to follow the best management practices because the MMP fails to require the owner or operator to collect representative grab samples from discharges of manure from the land application sites."

Response:
The best management practice that this facility is required to meet is to have no discharges to waters of the State when applying manure to land or from land applied manure, unless the discharge is composed of storm water runoff from a land area where manure was applied in compliance with the facility's manure management plan and all land application restrictions in ODA's laws and rules, most notably those in OAC 901:10-2-14. ODA rules require CAFOs to be built and operated to have zero discharge. If there is a discharge or spill, then ODA rules require the discharge to be reported and the Director may require sampling, including grab sampling. This facility is required as part of its Emergency Response Plan under OAC 901:10-2-17 to report discharges or spills to ODA as soon as possible, but in no case later than 24 hours after the facility first learns of the discharge. As part of that report, the facility must notify ODA of the approximate amount and characteristics of the discharge and any waters of the State affected, so that ODA can investigate and order samples to be collected or collect samples itself as necessary. See also response to comment 3c. above.

m. Pounds of Phosphorus
"There are 2251 cows on 2600 crop acres. The herd will generate approximately 345,000 pounds of phosphorous. That equates to 130 pounds per acre. Using corn as the extracting crop, it will remove approximately 65 pounds of phosphorous. It appears to

me that the herd will produce twice as much phosphorous as the 2600 acres of crops can use."

"If the excess phosphorous is retained, the soil would reach the saturation point of 250 pounds in approximately three years."

"I could understand the mathematics of a maximum of 1100 cows, I do not understand the math allowing 2251 cows."

"It appears that the Hillbex Permit has seriously under-estimated the phosphorus generated. According to an OAC Appendix, the total phosphorus "out the tail" for 2,251 cows would be approximately 345,000 Ibs. per year. According to the Farm Nutrient Budget in this permit, the total phosphorus generated by this facility will only be 126,270 Ibs. per year. That's 2 % times more P every year for five years which would account for over 1 million additional pounds of phosphorus during the length of this permit. How did the ODA come up with these numbers and why don't they adhere to published guidelines?"

Response:
Refer to Section 5 of the CNMP, page 61 of 72, Farm Nutrient Budget section of the Manure Management Plan that is included in the Permit to Operate. Hillbex Dairy estimates that approximately 126,000 lbs. of phosphate will be generated annually and approximately 134,600 lbs. of phosphate will be removed annually. These estimates are based on actual manure analyses from a similar type facility, which is allowed for planning new facilities and is in accordance with OAC 901:10-2-10(A). Because of variability involved with manure sampling and characteristics, Hillbex Dairy, like all permitted farms, would be required to analyze a sample of its own manure before any manure is applied under this Permit to Operate and to analyze a new manure sample from the facility annually thereafter. These actual analyses shall be utilized for adjusting and figuring the appropriate land application rates for the nutrients.

This is a plan and any deviations from the nutrients removed or nutrients generated must be accounted for during operation, and nutrients under the control of the CAFF will still have to be applied in accordance with the land application restrictions contained in ODA rules. See response to comment 3b above.

n. Phosphate Plan
"I did not see a long-term phosphate plan and I think that that should be a requirement. Like we said, we have a severe phosphate problem, this could contribute severely to a phosphate problem and land does to the break down phosphate quickly. So I request that the draft be re-submitted including a phosphate plan."

Response:
Refer to Section 5 of the CNMP, pages 61-71, Farm Nutrient Budget section of the Manure Management Plan that is included in the Permit to Operate. The Manure Management Plan provides predicted soil phosphorus levels based on the nutrient budget and manure application period for the five-year life of the Permit to Operate.

o. Phosphorus Soil Analysis
"The manure management plan (MMP) fails to follow the best management practices because the MMP exceeds the application rate for phosphorus based upon the soil test analysis."

Response:
This comment is not clear as to which manure applications are not in compliance with ODA rules. ODA has reviewed the plan in response to this comment and believes that the plan was developed in accordance with ODA rules. Any technical error, such as errors in calculations made in determining land application rates, must be corrected prior to land application and would be an operational change as stated in Appendix to rule 901:10-1-09.

p. Phosphorus Applications
"The manure management plan (MMP) fails to follow the best management practices because the MMP indicates manure application of phosphorus exceeding two hundred and fifty pounds per acre."

Response:
ODA reviewed the manure application plan contained in the Permit to Operate for such an error and did not find any annual applications that exceeded 250 lbs. of phosphate. However, any technical error, such as errors in calculations made in determining land application rates, must be corrected prior to land application and would be an operational change as stated in Appendix to rule 901:10-1-09.

q. Phosphorus Levels
"Why should phosphorus be limited in cleaning products but these farms are free to spew extra phosphorus into the environment. Agriculture shouldn't have free rein to ruin the environment for other people."

Response:
Phosphorus is an essential nutrient for crop production. The use of manure replaces the use of commercial fertilizers that also contain phosphorus. The restrictions on phosphorus application noted in the response to comment 3b. and contained in ODA rules are designed to prevent the discharge of phosphorus to waters of the State.

The use of phosphorus in cleaning products is limited because traditional wastewater treatment plant technologies are designed to remove organic matter and do not remove substantial amounts of phosphorus. To remove large amounts of phosphorus from the effluent a wastewater treatment plant discharges to waters of the State, the wastewater treatment plant must use additional (and often expensive) treatment technologies. For a brief description of how wastewater treatment plants work, see U.S. EPA's public information brochure at http://www.epa.gov/npdes/pubs/centralized_brochure.pdf. A more detailed explanation is also available at http://www.epa.gov/npdes/pubs/bastre.pdf.

r. P Levels in Excess of 60 Lbs.
"There is no agronomic justification for raising soil-test phosphorus levels above those that provide adequate nutrition to the crop." (Best Management Practices: Land

Application of Animal Manure - OSU Extension AGF-20895.) Why are most of the P levels in this Permit in excess of 60 Lbs.?"

Response:
As described in rule 901:10-2-14(E), either the agronomic rate (based on crop needs) for phosphorus application shall be used or an environmentally protective rate of phosphorus application shall be used, which includes the phosphorus risk assessment procedures listed in the appendices to rule 901:10-2-14. ODA rule 901:10-2-14(E)(2)(b) specifically states that "The application rate of phosphorus shall not exceed the rate provided in appendix C, table 1 or appendix D, tables 1 to 5 of this rule, unless following the procedures in paragraph (E)(3) of this rule." The tables referenced and found in appendix C and D of this rule describe the crop needs and crop removal for phosphates, based on a given crop, yield, and specific soil test value. Paragraph (E)(3) describes the phosphorus risk assessment procedures, which determine the potential for phosphorus applied in excess of crop needs, to run off to surface waters. OAC 901:10-2-14(E)(3)(a) provides that a site where phosphorus is to be applied in excess of crop needs can be evaluated using either of two different phosphorus risk assessment procedures: the Phosphorus Index (P-Index) Risk Assessment Procedure (described in Appendix E, table 1) or the Phosphorus (P) Soil Test Risk Assessment Procedure (described in Appendix E, table 2). Therefore, additional phosphorus in excess of the following crop needs can be stored or "built-up" in the soil, provided it follows one of the phosphorus risk assessment procedures described in rule.

s. Crop Removal or Crop Need
"Are manure nutrient applications in this permit limited to "crop removal or crop needs"? If not, why would the ODA allow application of more nutrients than the crops need?"

"Explain why the ODA allows phosphorus to be applied in excess of crop needs."

Response:
See response to comment 4r above.

t. Agronomic Rates
"Numerous times in the Hillbex permit it states that the rates are agronomic. Please explain how the ODA can state that this permit is using agronomic rates when it is actually using a maximum 150 ppm (300 Ibs.) phosphorus rate that has nothing to do with what the crops agronomically need?"

Response:
See response to comment 4r above. In determining a total nutrient budget, the agronomic crop removal rates must be utilized to provide an estimated comparison of the amount of nutrients to be applied versus the amount of nutrients to be removed. If excess phosphate is applied in a given year, its application must be completed in accordance with one of the phosphorus risk assessment procedures described above.

u. Nutrient Levels for Liquid Manure
"OSU Bulletin 604 shows nutrient levels for liquid manure are much higher than the levels used in the Hillbex Permit. Which regulation or resource does the ODA use to authenticate the reduced phosphorus levels in this Permit?"

Response:
See response to comment 4m above.

v. "N need"
"It appears that the nutrient levels are being manipulated to fit the land base in the Hillbex Permit. Please explain why the Hillbex Permit is based on "N need" when sometimes P is the Most Limiting Factor."

Response:
The "N need" column in the manure application plan should not be taken as meaning that the nitrogen requirement is the only factor that comes into play with this MMP. The majority of the fields identified in this plan to receive manure have soil phosphorus levels less that 150 lbs./acre, which is approximately 50% of the soil phosphorus risk assessment procedures threshold of 300 lbs./acre. Therefore, for those acres where soil phosphorus levels are not a concern, up to 250 lbs per acre of phosphate can generally be applied, provided that the nitrogen limitations for the following crop are not exceeded. However, given the manure analyses for dairy manure, generally the nitrogen limitation is reached prior to reaching the phosphate limitations. In the future, if soil tests approach or exceed the soil phosphorus limitations of 300 lbs./acre, then the application of phosphate plays a limiting role in deciding the application rate. See responses to comments 3b and 4e for more information about the limiting factors on manure application rates.

w. USEPA Versus ODA Rules
"Contrary to the ODA's rules, the federal EPA states that CAFOs must develop and implement a nutrient management plan that bases nutrient applications on ***agronomic rates*** *and also that this will require them to spread their manure over a much larger land base than they are currently using. Explain why the ODA rules do not have to comply with these federal regulations."*

Response:
U.S. EPA's rules allow for assessment procedures to be utilized that evaluate the potential for nitrogen and phosphorus transport from a land application field. 40 CFR 412.4(c)(1) states: "…The CAFO must develop and implement a nutrient management plan that incorporates the requirements of paragraphs (c)(2) through (c)(5) of this section based on a field specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters." ODA's rules and assessment procedures for evaluating the movement of nitrogen and phosphorus from the land application field are consistent with this requirement in the Clean Water Act regulations, and ODA's rules are currently under review by U.S. EPA based on ODA's submittal to obtain authority to administer the NPDES permitting program for CAFOs.

x. Bulletin 604

"Kevin H. Elder is listed on the "Authors and Editorial Committee" for Bulletin 604. If the ODA disputes the data in Bulletin 604, does that mean that Mr. Elder and the other members of this Committee have published invalid data in this OSU Extension publication or does it mean that there is false and misleading information in this Permit?"

Response:

ODA does not dispute the data published in OSU Extension Bulletin 604, but the Permit to Operate for this facility must follow ODA rules. The bulletin 604 data are from other references that have not been updated as recently as the bulletin itself. Those older references do not account for the newer recommendations for livestock feeds that reduce the phosphorus excretion of the animals. For instance the use of phytase in swine can reduce the amount of phosphorus in manure by 40%, and the National Research Council's Nutrient Recommendations for Dairy Cattle recently reduced the phosphorus requirements in dairy rations. Both of these changes are not reflected in the bulletin 604 charts. That is why ODA rules provide for the use of actual tests of manure nutrient levels from similar facilities and from the actual facility when it is up and operating.

y. Fall Applications

"The Permit states that most of the land application fields have a high potential to leach nitrates below the root zone. That means these fields "require management that applies the nitrogen closer to the time the crop can utilize the applied nitrogen." If this is the case, why are most of the manure applications in this Permit scheduled for the Fall?"

Response:

The fields are listed as having a high potential to leach nitrates mostly because of subsurface drainage being present, not because of the potential to leach nitrates into groundwater. Please refer to ODA rule 901:10-2-14(D)(3)(b). For fields with high nitrogen leaching potential, the limitation is that prior to October 1, no more than 50 lbs. of available nitrogen can be applied, unless growing vegetation is present in the field to utilize or uptake the nitrogen. After October 1, the available nitrogen may be applied to meet the requirements of the following crop, generally planted in the spring. The intent of this rule was to put a date on when the soil temperature is expected to be below 50 degrees Fahrenheit. The reason for this is that ammonium nitrogen is converted to nitrate by soil bacteria when the soil temperature is <u>above</u> 50 degrees for a period of several weeks. Nitrate is readily dissolved in water and can be a concern with leaching into the tile lines in a well drained field. Therefore, a high leaching field cannot have more than 50 lbs. of available nitrogen applied prior to the October 1st date if the additional criteria are not met as described in rule.

z. Legumes

"According to OSU Bulletin 604 - "Soybeans are a legume and can fix adequate atmospheric nitrogen to produce a yield of 70 to 80 bushels per acre." The Iowa Environmental Protection Commission voted to recommend a ban on manure application on soybeans because it is a wasteful practice resulting in water pollution. Why does the ODA continue to approve manure application to soybeans if nitrogen is <u>not needed</u> for legumes?"

"Since, as stated above, the legume crops do not need additional nitrogen application, doesn't that mean this permit would need more acres to apply all the manure which has been wrongly recommended for legume crops?"

"If manure nutrients are applied to legumes and they don't need it - isn't that just waste disposal?"

"Why has the Iowa state Dept. of Ag. banned the application of manure on fields that are to be planted to soybeans? They have found soybeans don't utilize the nutrients in the manure, causing run off problems. Do you have any plans to regulate manure application with this in mind or will you wait until there is a problem?"

Response:
In Ohio, ODA rules, USDA-NRCS standards, and OSU Extension recommendations allow for manure to be applied to legume crops, generally soybeans and alfalfa. If nitrogen is provided to the legumes, they will utilize this nitrogen instead of affixing their own. Unlike typical commercial fertilizers, the specific nutrients (N-P-K) in manure are not segregated and cannot be applied as separate nutrients. Therefore, as long as the nitrogen applied is capable of being utilized by the following crop without becoming an environmental issue, manure is allowed to be applied to provide the benefit from the other nutrients, notably, phosphorus and potassium.

From everything we can find, the Iowa Department of Natural Resources has proposed to limit the application of liquid manure on soybeans for five years and to ban the application after that time, but this proposal has not been adopted as a final rule.

aa. Manure Analysis
"Why were the most recent manure analysis lab sheets not provided in the Hillbex Permit?"

Response:
This manure management plan utilizes an average analysis from several similar type operations. Including the actual lab sheet in the permit for each sample is not required by the rule. OAC 901:10-2-04(B). When this facility begins operating under this Permit to Operate, the actual manure analyses will be recorded on the approved operating record forms or the actual lab sheets will be maintained in the operating records. OAC 901:10-2-10.

bb. Soil Tests
"What all does the soil get tested for? Can and will these tests detect supplements to the feed, E-coli, hormones, antibiotics?"

'How can you truly monitor for correct application practices and levels when you're only testing the land every three years?"

Response:
At a minimum, soil samples shall be taken to a uniform depth and the fertility analysis shall include: pH, phosphorus, potassium, calcium, magnesium and cation exchange capacity. Phosphorus levels in soil will not dramatically change over a period of one year

and the sampling frequency is generally adapted to the crop rotation of the crop producer. A sampling frequency of 3 years is consistent with the requirements set forth in USDA-NRCS standards and recommendations of the Ohio State University. Refer to OAC 901:10-2-13.

USEPA did not require pathogen testing of manure or of the other items listed by the commenter in its 2003 CAFO rules, and ODA rules similarly do not require soil tests of these parameters. It is difficult to determine what is the source of pathogen pollution because such contamination may be caused by domestic animals, wild animals, or badly maintained septic systems, not just livestock.

cc. Runoff During Heavy Rain
Concerns that excessive rainfalls, like what occurred this past summer, after manure has been applied would have bacteria everywhere.

"There are many manure applications without incorporation. Wouldn't this practice result in runoff danger during heavy rains?"

Response:
See response to comment 3b above. Incorporation of manure is not required of ODA rules. However, permitted farms are required to follow OAC 901:10-2-14, which contains land application restrictions designed to prevent manure application and runoff during heavy rains. For instance, Appendix A Table 2 of that rule requires land applications of manure, both surface applied and incorporated, to meet setbacks from waters of the State, public surface drinking water intakes, and wells. Appendix A Table 2 also imposes restrictions on land application to certain flood plains, floodways, and highly sloped cropland, based on the potential of runoff. The amount of liquid manure that can be land applied is limited under OAC 901:10-2-14 by the available water capacity in the soil at the time of application. See OAC 901:10-2-14 Appendix B. Land application also must be performed based on weather forecasts for rainfall. OAC 901:10-2-14(C)(6) states that manure shall not be applied if the forecast contains a greater than 50% chance of precipitation exceeding an amount of ½ inch for a period extending 24-hours after the start of land application. The facility must record weather conditions and forecast to demonstrate compliance.

dd. Cracks in Soil
"Conversely, if there is a very dry summer, explain why manure application without incorporation would not result in drainage through the cracks in the soil and earthworm borrows directly to the tiles. (See "Funnels to field tiles" a research study by Frank Gibbs.)"

Response:
OAC 901:10-2-16(A)(1)(c)(xvi) requires farms to examine soil conditions at the time of application, including available water capacity, soil cracks and related information on soil conditions. For tiled fields, liquid manure application rates are required to be less than 13,576 gallons per acre (assuming they are not further restricted by nutrient standards or the available water capacity of the soil) and generally end up being less than 10,000 gallons per acre as a precautionary measure by the producers or manure applicators. In addition, on tiled fields without a growing crop, use of an Aerway tool or similar tool is

used to disrupt/close (using horizontal fracturing) the preferential flow paths in the soil. Tillage of the soil following application to "soak up" the manure is also an acceptable means to prevent migration of liquid manure to tile lines if soil cracks or other preferential pathways are present in the application field.

ee. Setbacks to Surface Waters
"The manure management plan (MMP) fails to follow the best management practices because the MMP fails to provide adequate setbacks from surface waters and conduits to surface waters, including grassed waterways and surface drains."

Response:
The MMP is not required to have this statement, since setbacks for manure application are set forth as legal requirements in OAC 901:10-21-14 Appendix A Table 2. This Land Application Restriction table is also present in the Operating Record that is located at the end of the Permit to Operate.

ff. Setbacks to neighboring Properties
"Since we are surrounded by farmland how do we protect our property from manure overspray or runoff?
How do we keep the manure overspray or runoff out of our pond where our family swims?"

Response:
See response ee to comments above.

gg. Land Application Properties
"Will this facility share properties for land application with other facilities?"

Response:
ODA is not aware of any land that is to be shared between Hillbex Dairy and another facility. All nutrients that are applied on land under the control of the CAFF must be accounted for in the operating record for the facility. This includes manure nutrients and nutrients from commercial fertilizer.

hh. Monitoring Tile Outlets
Concerns that the proposed land application site maps fail to identify which of the fields are tiled and without their locations being identified visual monitoring of the tiles is unlikely.

Response:
See response to comment 3b above. Fields identified in the Manure Management Plan as having a "high" nitrogen leaching potential are identified as such generally because of being systematically tiled. A permitted facility in control of the manure application must know where the tile outlets are located prior to commencing application so that they can be properly monitored to comply with OAC 901:10-2-16(A)(1)(c)(iii)-(iv). Each tile outlet is not required to be identified for all 2,600 acres as part of the Permit to Operate.

ii. Winter Manure Application
What are ODA's regulations for land application of this manure during wet seasons and during the winter months? How are these regulations enforced? What are the penalties for violations?

Response:
Hillbex Dairy will be required to follow ODA rules in regards to any manure application on frozen and/or snow covered ground. See OAC 901:10-2-14(G) and Appendix A Table 2 of that rule.

Surface land application of manure on frozen or snow-covered ground is not absolutely prohibited by ODA rules but is only to be used during emergency situations. A manure management plan must be developed that does not include the winter months as typical manure application periods. As shown in the manure application plan for Hillbex Dairy in the Draft Permit to Operate, all manure application is planned during times of the year (April through November) when frozen or snow-covered conditions are less likely to occur. The manure storage period and manure storage capacity provided at the facility is designed to enable the facility to not have to apply manure on frozen or snow-covered ground. Sufficient manure storage for the winter months is one item the inspectors specifically check in inspections prior to the winter months. The manure storage at the facility must be managed to ensure that the dairy has exhausted all available means to get manure applied during the appropriate times of the year. Any facility that would need to surface apply manure during emergency situations on frozen or snow-covered ground must first contact ODA for approval and be in compliance with the additional land application restrictions imposed by OAC 901:10-2-14(G) and Appendix A Table 2 for such application. The amount that they can apply is to be the minimum amount to get them through to better application conditions. Some of these additional restrictions include: a total setback of 200 feet from any surface water feature (i.e., streams, grassed waterways, ponds, etc.), a maximum application rate of 5,000 gallons per acre for liquid manure; a minimum of 90% residue cover; less than 6% slope; and manure cannot be applied on more than 20 contiguous acres without a break of at least 200 feet. Although the plan does not include manure application during the winter months, manure can still be applied during these months if the ground is not frozen or snow-covered or if the manure can be injected or incorporated and the application meets all the other ODA criteria for land application of manure.

jj. Abandoned Oil Wells
"Why would the ODA allow this dairy operator to land apply millions of gallons of untreated, pathogen-laden, liquid manure on surrounding fields that have old oil and gas well cut off below the surface of our ground, some of which have had the casings removed, and would be direct links to the aquifer?"

"Jim Raab, Hydrogeologist/Supervisor, ODNR, Division of Water stated that 'An open borehole would be a direct pathway for surface water to the subsurface; bypassing the natural filtering process of the soil material. Because most of the oil and gas wells were probably drilled before regulations were enacted in Ohio, it is hard to say how the casings were installed. Any boreholes that are still open should be properly sealed.' The ODNR has opined that they have neither the resources nor the time to locate and seal

these wells. Who is responsible for properly sealing all of the many old oil and gas wells in the manure application fields for the Hillbex Dairy?"

Response:
Liquid manure application is to be done in accordance with ODA rules. Farmers have been applying liquid chemical fertilizers, pesticides and herbicides to these application fields and ODA is unaware of any groundwater pollution events that have resulted from abandoned oil and gas wells being a direct conduit of nutrients applied through either manure or chemical fertilizers. Regardless, if any land application fields have a well, the well either must be properly sealed and plugged or the setbacks from wells in OAC 901:10-2-14 must be utilized for application.

The State is responsible for assuring proper sealing and abandonment of gas and oil wells when found. If one is discovered, the ODNR, Division of Mineral Resources Management must be notified and the process of sealing initiated.

kk. Manure Application Training
"I understand that there are guidelines in place for the application of manure. How is the training to the farmers completed? What procedure is in place for monitoring this training? Who is responsible for the training to the farmers for appropriate application numbers? Who is responsible for monitoring compliance? What is the time frame for monitoring? How often is each field monitored? Is there adequate staff for appropriate monitoring? In my review of the proposed permit it does not appear that best management practices are in place for manure application and monitoring."

Response:
Ohio is one of only a handful of states that requires anyone who manages and/or handles manure at a major concentrated animal feeding facility or anyone who buys, sells, or land applies, or who transports and land applies, more than 4,500 dry tons or 25 million gallons of liquid manure a year to receive training and to become a Certified Livestock Manager (CLM). To receive Certified Livestock Manager licensing through ODA, a farmer or custom applicator must attend three "core" training sessions covering environmental rules and regulations, on-farm nutrient balance and manure storage and handling. The training also requires three elective sessions ranging from a variety of topics such as biosecurity, good neighbor relations, spill response, odor minimization and land application best management practices. Certified Livestock Managers need 10 hours of continuing education every three years to maintain certification.

Although the owner/operator of the Hillbex facility is not required to be a CLM, Peter Van den Heuvel the operator of Hillbex Dairy has taken the CLM training and has received his CLM certification for the purpose of additional training and experience. If producers have questions about the requirements of their Permit or ODA rules, ODA inspectors or engineers provide technical information on an as-requested basis. All farms are required to know and comply with the terms of their permits regardless of whether they have attended formalized training. One of the ODA inspectors will monitor compliance at Hillbex Dairy.

ll. Written Contracts
"The largest contracted farmer in the first Reyskens Permit stated under oath that he had verbal agreements for the land in that permit but later recanted this statement during the ERAC hearing. Since the truthfulness of some farmers involved in these dairies is already in question, did the ODA require written contracts for the Hillbex Dairy in order to protect the dairy operator, the contracted farmer and the landowner?"

Response:
No. Written contracts are not required by the ODA, and ODA has no knowledge of recanted testimony in an ERAC case.

mm. Distribution And Utilization
"Hillbex Dairy proposes distribution and utilization methods for beneficial use of manure as part of its manure management plan. Pursuant to 901:10-2-11, Hillbex Dairy shall record in the operating record the name and address of the manure recipient, the date of distribution, and the approximate amount in tons or gallons distributed on that date. Further, if the recipient of manure is not in compliance with rule 901:10-1-06 of the Administrative Code or best management practices set forth in Chapter 1501: 1505 of the Administrative Code or with other applicable laws and rules, Hillbex Dairy would be required to cease providing manure to such recipient until written authorization to continue is received from the ODA. Has Hillbex Dairy provided the ODA with confirmation that it has addressed the reporting requirements and best management practices with the manure recipients? If yes, how was this done? If not, how can the manure recipients ensure compliance when they have never been advised what compliance is?"

Response:
Hillbex Dairy is required to record information in the operating record when the dairy is constructed, its construction is approved by ODA, and it has subsequently received stocking approval from ODA. At that time, the dairy starts to record operating information in the facility's operating records and the dairy is routinely checked in ODA's bi-annual inspections. Therefore, reporting requirements do not have to be started until the dairy operation commences operation.

nn. Required Acreage
"How many acres does the law state the farm will need to have 3 barns that can house 2,251 mature dairy cows, 3 manure ponds, and a solid manure pond on?"

Response:
The area that includes the three barns to house mature dairy cows, three manure ponds, and the separated solid storage and feedstuff storage areas is called the "production area" in Ohio law and under federal rule. There are no size requirements for the production area under the U.S. EPA rule, nor are there any under Ohio law. Rather, OAC 901:10-2-02 lists siting criteria to be met for manure storage or treatment facilities located in the production area.

oo. Actual Acreage
"How many acres does the farm have on Count Road 41?"

Response:
This comment is assumed to be a question about the tract of land where the dairy will be located. There are approximately 133 acres at this site.

5. Emergency Response Plan
"I understand that this proposed facility uses the term best management practices to describe the plans to contain spills, to monitor spillage into local waterways, and emergency response. Please provide detail on what these management practices are to respond to the spillage into local waterways. What agencies or organizations will be involved in the emergency response? What training has been completed with these emergency response agencies? How will residents be notified of contamination? What is the time frame for notification of contamination?"

"In case of an emergency, how long would it take for someone from the ODA to respond or would the Sandusky County Health Department be given any power to act then?"

"What does the ODA consider to be an immediate threat to public health, our drinking water, or the environment? Will the ODA shut down the Hillbex factory if such an event were to occur? Will the ODA require the Hillbex factory to remove the cows from Sandusky County to help minimize and contain the threat? What actions of real substance will the ODA take to stop an immediate threat to public health, our drinking water, or the environment?"

Response:
A runoff retention plan and a listing of agencies that may be involved in an emergency situation can be found in the Emergency Response Plan located near the end of the PTO. Residents are not required to be notified unless they would be directly impacted by the spill for safety reasons. A spill must be reported to ODA within 24 hours. ODA inspectors and other staff are available 24 hours and, depending on their location at the time of notification, can be to a site within less than a couple of hours. We also are in contact with other agencies and work closely with Ohio EPA, the Ohio Department of Natural Resources, local Soil and Water Conservation Districts and Health Departments in the event of a spill and routinely send them information on regular inspections. ODA does, at times, rely on local agencies (i.e., SWCDs, Health Departments, etc.) for assistance with inspections if an ODA inspector would not be able to make it to the site in a reasonable timeframe.

As mentioned previously in the above responses, this facility is to be constructed and operated not to discharge manure into surface water or groundwater. If a discharge does occur, no matter its impact on the water or environment, an investigation will take place to gather all the facts associated with the discharge. Depending on the outcome of the investigation, appropriate enforcement actions will be determined by ODA based on the facts from the investigation and the cooperativeness of the facility to contain and eliminate the discharge.

6. First Responders to Emergencies
"If ODA is to respond to an emergency, how many hours would it take before they could get here and what would they do when they got here?? The local EMTs are furious because they know that they would be the first ones called and they have NO training for

hazards, such as hydrogen sulfide or methane gas poisoning, that are encountered at manure facilities. They have NO air packs or emergency breathing apparatus. They have NO chemical hazard suits and they have NO funding for this. Who's going to pay for this? The fire departments are pretty much all volunteer-staffed around there and they are trained for the fire aspects, but the EMTs would most likely be expected to be the first responders."

Response:
Local EMTs should not be called upon unless physical harm to humans has occurred. Hydrogen sulfide poisoning generally occurs in areas that are enclosed manure storage (i.e.: deep concrete storage pits that are covered and have poor ventilation). Hillbex Dairy does not have a manure storage or treatment facility that is enclosed.

7. Emergency Management Fund [See also, item 15, below]
"Pursuant to the provisions of Ohio Revised Code 903.18, if the director of agriculture determines that an emergency exists that requires immediate action to protect the public health or safety or the environment, the director may issue an order stating the existence of the emergency and requiring that action be taken that is necessary to meet the emergency. Further, the person that is responsible for causing or allowing the unauthorized spill, release, or discharge of manure that requires emergency action to protect public health or safety or the environment is liable to the director for the costs incurred in investigating, mitigating, minimizing, removing, or abating the spill, release, or discharge. Moneys recovered are paid into the state treasury to the credit of the livestock management fund. How often did the Director declare such an emergency in the past 5 years? What types of circumstances constituted such an emergency? How much money has been paid into the management fund in the past 5 years? What is the balance in the management fund today? What steps would the Director take in the event of an emergency related to Hillbex Dairy?"

"What is the size of the clean-up fund in an event of an emergency?"

Response:
The Director has had to use this authority only once in the past five years, and issuance of the emergency order was sufficient to gain compliance from the facility that posed a threat to public health. That is, upon receipt of the Director's emergency order, the affected facility took all steps and incurred all costs necessary to address the emergency. The emergency order was issued to an egg farm because of extreme levels of flies resulting from the farm's failure to follow its Insect and Rodent Control Plan. To date, the Director has not had to expend any money to address an emergency.

As to other questions posed, it is somewhat difficult to speculate on the nature or types of emergency to which the Department might respond and what actions would be part of the response. In Ohio and other states, the most "typical" emergency involves fires or weather conditions that may cause a catastrophic loss of animals. For this reason, ODA permits require prior planning for catastrophic mortality losses. In cases where mortality and/or waste product (e.g., milk or egg product) must be disposed of in a landfill, ODA coordinates with Ohio EPA.

The Livestock Management Fund currently has a balance of over $250,000.

8. Manure Storage

a. Storage Pond Construction

"What is the procedure for testing the manure pits - both at the time of construction and after receiving the manure?"

Response:
Manure ponds at Hillbex Dairy will be tested and inspected by independent testing firms that are qualified to perform such work. Compaction testing on the liner will occur at a minimum of 5 tests per acre lift of fill placed. Other testing and evaluation will occur during construction, such as documenting the exploratory trench completion, proofrolling of the sub-bases that will receive earthfill, and other evaluations that can be found on the approved set of engineering plans included in the PTI. Once in operation, the CAFF is required to inspect the liquid manure storage structures on a weekly basis and ODA will inspect them during the two annual inspections that will be performed. The manure storage ponds at Hillbex Dairy will also be monitored by the groundwater monitoring system as described in the response to comment 1a.

b. Clay for Liner

"Where are they going to get all the soil needed to make a 4' compacted liner for the ponds? The soil around here especially soil close to rock is not a heavy clay like what is good for pond liners."

Response:
Soil will be borrowed from areas around the site that are acceptable to the owner of the facility. The soil will need to exhibit the capability of providing a permeability not to exceed 1×10^{-7} cm/sec. Initial permeability testing has been completed with the application and additional testing will be completed during construction. Additional detail of the borrow areas (areas where soil will be taken from to build the facility) has been added to the final engineering plans.

c. Monitoring

"Who is responsible for monitoring the manure pits?"

"How often are the manure pits tested? Is there enough adequately trained governmental staff to handle the required testing?"

Response:
See response to comment 8a. above. ODA engineers conduct site visits and receive periodic status updates during facility construction. In addition, ODA engineers review the final as-built drawings of the facility and review to assure the manure storage or treatment facilities were constructed in accordance with the approved plans. ODA inspectors review operating records and check manure pond conditions and manure levels during their routine inspections.

d. Capacity

A concern that during the growing season when manure cannot be applied to the crops, that there isn't going to be enough storage capacity to hold on the manure.

"Chapter 901:10-2-04 (D) of the Ohio Administrative Code sets forth the general design and construction criteria for manure storage or treatment facility. The manure storage or treatment facility is to be designed and constructed to handle manure volume, precipitation and surface water runoff in a manner that prevents the discharge of manure to waters of the state. The Hillbex Dairy plans underestimate manure volume based upon the number of cows proposed to be housed at the dairy. In addition, the Hillbex Dairy plans fail to include precipitation based upon current precipitation data. What will the ODA require of Hillbex Dairy as this is misleading and/or false and constitutes a basis for denying the permit pursuant to 901 : 10-1-03?"

Response:
Manure generation volumes stated on Sheet 6 of the engineering plans are reasonable and in accordance to ODA rules. They reflect what have been actual volumes experienced by existing facilities.

e. Milkhouse Washwater
After citing Ohio Dairy Sanitary Code rule 901:11-2-17 (stating that milkhouse, or milkroom and toilet wastes shall be disposed of in a manner that will not pollute the soil surface, contaminate any water supply or be exposed to insects), the comment states that adding the milkhouse water to the ponds is exposing it to insects and is not suitable.

"Where is the milk from sick cows disposed?"

Response:
The rule stated above applies to a Manufacturer Grade and not a Grade A milking facility. Therefore, the rule is not applicable to the proposed Hillbex Dairy since they will not be a Manufacturer Grade facility. The parlor and milkhouse washwater will be stored in the manure storage system (the sand settling basin and then into the manure storage ponds) and this volume is calculated into the annual volume of manure to be stored. In Ohio law, R.C. 903.01(O) "manure" is defined to include discarded agricultural products, such as milk.

f. As-Builts
"Why are as-built drawings submitted after the facility is completed?"

Response:
As-built drawings are a set of engineering plans that show any minor deviations from the approved plans that would not have otherwise constituted a Major Operational Change or a Permit Modification. They are used once the facility is up and operating. They are proof that what was permitted was actually constructed and are required from all facilities prior to beginning operation or stocking of animals.

g. Solid Removal
"There will be solids settling out in the ponds. How will these solids be collected and disposed of?"

Response:
Some of the solids will be separated by the mechanical system proposed and re-used as bedding material in the freestall barns. In addition, manure storage pond #1 will have a concrete bottom to be able to access and remove the solids that will settle out in it. After this pond, the effluent that overflows into manure storage pond #3 and #2 should be low in solids and any solid build-up shall be minimal. However, each of these ponds will be constructed with concrete scour pads that will allow access with an agitator that can stir the solids off the bottom of the ponds and allow them to be removed with the liquid. The manure solids will be utilized as nutrients on cropland.

h. Collecting Stormwater
"Why are the dairies required to add water to the manure? Is it just for convenience of clean up and more cost effective? Isn't dry manure better for the land?"

"Chapter 901:10-2-04 (F) of the Ohio Administrative Code sets forth the criteria for stormwater pollution prevention plans. The Hillbex Dairy plans do not include how the dairy will maintain separation of uncontaminated stormwater runoff from contaminated water. Further the plans fail to state how it will divert stormwater runoff and roof water away from the manure storage or treatment facility or other structures in the production area. What will the ODA require of Hillbex Dairy to correct this failure?"

"Where will the rainwater from the buildings roofs be stored?"

Response:
Any additional clean water to the system shall be minimized as much as possible. New and existing dairies continue to evaluate ways to increase the efficient use of all water and minimize the amount of unnecessary water that would come into contact with manure and thus be considered manure under ODA rules.

Without a particular area of concern noted in the comment, ODA believes the plans clearly depict how the runoff and roof water will be managed at the site and off the production area. Areas and volumes of the contaminated stormwater areas are addressed in the manure generation volume calculations as well. Any roof water from the dairy is considered to be clean water and will not be stored on the site.

i. First Storage Pond
"The first storage pond has cement, what kind of base is that going on? The 4' compacted soil? How thick is the cement? And does it cover the entire inside of the pond or just the bottom?"

Response:
A 6 inch concrete pad will be constructed in the bottom of this pond to allow for access for equipment in case settled solids are built up and need removed. The pad will be poured on the 4 foot re-compacted soil liner and will cover the entire bottom of the pond with an access ramp in one corner.

j. Liner Filtration
"What all does the 4' compacted liner filter out? Example, does it filter out the additives that are fed to the cows? E-coli?"

Response:
See response to comment 1a above. The type of additives that would be fed to the cows is not specific within the comment, but it is assumed that these would be typical feed-type additives that are generally bio-degradable. Therefore, the soil liner system will act as a filtering mechanism for these bio-degradable materials, including pathogens. In addition, a groundwater monitoring program is proposed at this dairy and will sample for E.coli.

k. Liner and Agitation
"When the ponds are agitated how do you know that over time they won't break down the compacted soil and then cause leaks? Or at least make the liner thinner and thinner over time."

Response:
A majority of the solids will be separated in this manure storage system during the mechanical separation process or the settling effect of manure storage pond #1, which is constructed with a concrete pad as discussed in response to 8i above. As discussed in response to 8g above, the other ponds (#3 and #2) will be constructed with concrete agitation pads to allow for access for agitation and protection of the liner system if either of these ponds needs to be agitated in the future. See sheet 4 of engineering plans.

l. Pond Covers
"Why not have the ponds covered? It would help with flies and the smell, also it would help the worry about excessive rain fall causing an overflow."

Response:
Manure storage ponds are not required to be covered by ODA rules. Flies are generally not a concern with liquid manure storage facilities and all rainfall on the ponds is calculated into the storage calculations. See responses to comments above.

m. Stacking Pad
"The manure that has solids separated out and put on a pad does that get covered?"

Response:
A small portion of this concrete pad is proposed as covered to allow for access to dryer material for bedding purposes. However, a majority of this pad is not covered and all the runoff is collected in the manure storage pond system.

n. Blackwater
"The definitions set forth in 901:10-1-01 of the Ohio Administrative Code do not include a definition for "blackwater". The National Safety Council defines "blackwater" as "water that contains animal, human, or food waste". Wikipedia defines "blackwater" as "water containing fecal matter and urine. It is also known as brown water, foul water, or sewage. It is distinct from greywater or sullage, the residues of washing processes." How many of the storage ponds at Hillbex Dairy hold will "blackwater", meaning water that contains cow waste/fecal matters and urine? Where will the "blackwater" be distributed?

How will the "blackwater" be distributed? Does the ODA have any restrictions or regulations on the application and safe handling of "blackwater"? What protections are contained in the Hillbex Dairy permit to insure that "blackwater" does not contaminate surface water or ground water? Will "blackwater" be removed from the pond(s) and transported by a dragline? On whose property will the dragline be placed? Where will the dragline be placed? Will "blackwater" be dumped into the ditches surrounding Hillbex Dairy? How will Hillbex Dairy dispose of its "blackwater"? Does the ODA consider "blackwater" to be the same thing as "liquid manure" which is defined in 901: 10-1-01 of the Ohio Administrative Code as "manure containing more than or equal to eighty percent liquid"?"

Response:
ODA's governing statutes in Chapter 903 of the Revised Code contain the following relevant definitions. Section 903.01(O) of the Ohio Revised Code defines manure as follows: "Manure" means any of the following wastes used in or resulting from the production of agricultural animals or direct agricultural products such as milk or eggs: animal excreta, discarded products, bedding, process waste water, process generated waste water, waste feed, silage drainage, and compost products resulting from mortality composting or the composting of animal excreta.

Section 903.01(Y) defines "process generated waste water" as water that is directly or indirectly used in the operation of an animal feeding facility for any of the following:

(1) Spillage or overflow from animal watering systems;

(2) Washing, cleaning, or flushing pens, barns, manure pits, or other areas of an animal feeding facility;

(3) Direct contact swimming, washing, or spray cooling of animals;

(4) Dust control.

Section 903.01(Z) defines "process waste water" as any process generated waste water and any precipitation, including rain or snow, that comes into contact with manure, litter, bedding, or any other raw material or intermediate or final material or product used in or resulting from the production of animals or direct products such as milk or eggs.

Under Ohio law, that which the commenter refers to as "blackwater," "greywater," and "sullage" will be regulated as "manure." This manure will be land applied as described in the Manure Management Plan.

9. Bedding
"I didn't understand how they are going to be able to reuse some of the separated manure as a bedding, could you explain that process and how it could be healthy for the animals?"

Response:
A number of facilities have been successful in separating the solids (fiber) from the liquid manure stream by using a mechanical separation device. The separated material is

usually composted or heated up and then that material is placed back into the freestalls for bedding. This process has been researched by various universities and has been approved for use. There have been facilities doing this probably for over 20 years.

10. Anaerobic Digesters
"Were anaerobic digesters considered to reduce environmental impacts?"

"A more environmentally safe method to dispose of this immense amount of cow manure would be to require the use of an electric-generating methane digester. The facts show that there could be adequate electricity produced to operate the entire dairy operation. Economic factors should not be the only factor used in approving the Hillbex Dairy permit."

Response:
Installation of digesters are not required by ODA rules, although as technologies and renewable energy continue to become more of a priority in the State of Ohio, the consideration of digesters increases on the minds of CAFF owners and operators. However, a liquid and solid product are still present after the operation of most digestion processes and a majority of the original nutrients in the manure will still need to be handled after passing through the digestion system.

11. Bio-Digester
"What will happen to the ODA MMP if the Hillbex Dairy is required to use a bio-digester?"

Response:
Depending on the extent of change to the final waste product(s) from the digester, the MMP would more than likely require revisions to reflect any additional manure storage structures that may be proposed with the digester system and the estimated nutrient content of the remaining products to be land applied.

12. Wastewater Treatment Plant Requirements Versus Permitted Dairy Farm
"The EPA is now mandating even the smallest villages, such as nearby Helena, to build wastewater treatment plants. This is causing much unrest within these small village governments and busting the budgets of the residents who live there. Yet these mega farm industries are under permit consideration to locate in the area with little to no treatment of their sewage."

"Why should liquid cow manure, which is full of contaminants, be applied to fields <u>untreated</u> whereas, human waste/sludge requires extensive treatment before being applied to land?"

"No village, town, or city in Ohio can store their sewage in an open pit or lagoon. Yet Hillbex Dairy is going to be permitted to do exactly this. Every municipality in Ohio is required to operate and maintain a sewage treatment plant. Hillbex Dairy will not be required to construct and maintain such a sewage treatment plant."

Response:
A Permit to Install and a Permit to Operate are required for any dairy facility that will house more than 700 mature dairy cows and these permits do provide for infrastructure for waste management. Unlike sewers serving a human population, waste treatment/storage for dairy cows requires design and construction of facilities with no discharge or zero discharge, except in the case of either a 25-year, 24-hour storm event, or as is the case with Hillbex Dairy, only in the event of a 100-year, 24-hour storm event. All manure nutrients are required to be applied to crop land replacing commercial fertilizer.

By contrast, public sewers and related infrastructure are designed for treatment (solid/liquid separation followed by chemical or biological treatment) followed by discharge to waters of the State. In that treatment, nutrients are lost to volatilization to the atmosphere by means of open lagoons and liquid waste is subsequently allowed to be discharged in allowable amounts to streams. Human waste is also converted to a solid waste that is generated at publicly owned sewage treatment works and is land applied in accordance with Ohio EPA rules for sewage sludge in OAC Chapter 3745-40. This requires agronomic land application and land application restrictions, for sewage sludge is similar to manure. Just as composted manure may be used for lawn care and gardens, so may exceptional quality bio-solids from sewage plants be used for homes and gardens.

Many communities still have combined sanitary and storm sewers that overflow during storm events. While many of these are being corrected, some municipal storm sewers such as Gibsonburg still bypass treatment during storm events. Gibsonburg discharged 4,738,000 gallons of untreated sewage into the Lake Erie Basin from January 1, 2005 through December 31, 2005 alone. From a 2005 partial list of communities with combined sanitary and storm sewers, over 10.9 billion gallons of untreated sewage flowed into the Lake Erie Basin (information from OEPA's website data). Ohio permitted farms are designed for zero discharge and held to that standard even during the flooding that occurred this past summer.

13. Manure Waste
"What are the chemicals contained in the manure waste & what effect will they have on the environment, now & 10 & 20 years from first application?"

Response:
Manure, which includes urine, feces, waste feed, wash water from the facility and contaminated runoff, is a source of organic nutrients. It is no different in consistency from any other manure from permitted or nonpermitted facilities. Any detergents, disinfectants and pesticides must be used and disposed of according to required labels and approvals from USEPA, FDA and USDA.

14. Siting Criteria
"What is the distance allowed from the dairy farm to the nearest resident? What is the difference between distance to a school and distance to a house with children?"

"Why are these farms being considered for such a populated area?
There are homes surrounding this farm. Plus many homes in a one mile radius."

Response:
OAC 901:10-2-02(L) sets forth the siting criteria for "Neighboring residences" and makes a distinction between facilities such as Hillbex Dairy, which is not a Major concentrated animal feeding facility, and larger facilities that are "MCAFFs." Also, the rule distinguishes between liquid and solid manure storage and treatment facilities.

The relevant part of OAC 901:10-2-02(L) that applies to Hillbex Dairy is as follows:

(1) A manure storage or treatment facility for solid manure at a concentrated animal feeding facility shall be no closer than five hundred horizontal feet from a neighboring residence. . . .

(2) A manure storage or treatment facility for liquid manure at a concentrated animal feeding facility shall be no closer than one thousand horizontal feet from a neighboring residence. . . .

ODA rules do not have siting criteria from schools or other public places.

15. Mortality Management Plan
Comments concerning the mortality management plan. Some examples are:

"What do the dairies do with the disposing of dead cows?"

"The provisions of the permit allow cows that die in the dairy to be composted. In other words rot on the premises. To the average citizen this does not sound healthy or sound environmentally safe."

"The mortality management plan appears inadequate. The estimated 7-15 dead cows each month must be disposed of in a safe and healthy manner. Disposing of the dead cows by composting will return sick cows to the food chain. This method of mortality management does not appear to comply with management best practices."

"Another concern is the dead cows. They said that they are going to grind up the cows and use it for compost. What about all of the antibiotics in the cows. Are they going to leach into the soil?"

"Who checks the cause of death in the cows for a public health concern?"

Response:
As described in the Mortality Management Plan, the normal disposal method for mortality chosen by the Hillbex Dairy is rendering. For a catastrophic mortality event, the rendering service will also be utilized for disposal. The Emergency Response Plan describes the catastrophic mortality response plan, while the Mortality Management Plan is intended to explain normal mortality loss.

Although the Hillbex Dairy does not initially intend to use mortality composting, it proposes to construct a separate concrete pad that could be used specifically for mortality composting in the future.

Use of mortality composting has increased by the livestock industry due to the disappearance of rendering plants, concerns over potential ground water pollution from burial, and the economic and environmental issues associated with incineration. Composting of dead animals is an option that is available to all Ohio livestock producers. Composting is a natural process in which the animal carcass is bio-degraded by bacteria to avoid pollution of air and water.

The process of composting dead animals allows bacteria and fungi to decompose the animal carcasses in an aerobic environment. By providing oxygen to this environment, the microbes are able to decompose the animal without the production of objectionable odors and gases. When done properly, composting destroys disease causing bacteria and viruses and limits problems associated with flies, vermin, and scavenging animals at the composting site.

Before beginning to compost livestock mortalities in Ohio you must meet the following requirements:

1. Adhere to all federal, state, and local laws, rules and regulations.
2. Secure any permits necessary to install structures and for proper management of the facility.
3. Attend a Certification Course offered by Ohio State University Extension.

See also an OSU paper reviewing mortality composting at: http://www.oardc.ohio-state.edu/ocamm/Keener-Maine%20Mortality%20Paper%205-24-05.pdf

Also see response to comment 7 above.

16. Insect and Rodent Control

Concerns that insects and rodents are going to be a problem and that the insects will carry diseases.

"I have some specific concerns and questions of section 901:10-2-19. The specific sections and my concerns and questions are outlined below:"
"What are the scientific references that the department has made available to the owner/ operators for monitoring & recommendations for control of insects & rodent populations?"

"How do you ensure conflict of interest is not taking place when regular inspections are to be conducted by the owner/operator?
What are the intervals of inspection defined by the operators and owners?"

"What is the moisture level manure should be maintained to minimize & reduce the presence of insects & rodents?
There is mention of management of moisture levels but it does not make leak detection & repair mandatory. It says it may include ... Why isn't this mandatory?"

"How do the scientific methods for controlling insect & rodent population mentioned previously, compare to manure storage ponds and treatment lagoons of a mega dairy?"

"What are the 'appropriate control actions' to be undertaken prior to removal of manure to minimize the activity and reduce the presence of insects & rodents?
Does the owner operator have this defined and if so, is it in compliance with your definition?"

"(b)This section states that "Management actions are required but do not require record keeping ..."
How do you make something a requirement without records to show it was done? For example, sanitation procedures to minimize insect & rodents."

"What are acceptable levels & types of chemical controls for insect & rodent control?"

" Manure stockpiled over 1 week-
How do you make something a requirement without records to show this was done?"

"The Director determines insect & rodent activity by evaluation records ..."
How can the Director do this evaluation if record keeping isn't required? {ref. section (b)}"

"As far as spraying every 30 days, what about the other 29 days? How do they control the flies?"

Response:
An Insect and Rodent Control Plan is required as part of the draft Permit to Operate to minimize the presence and negative effects of insects and rodents. OAC 901:10-2-19 sets forth all of the elements that may included as part of any Plan along with all of the actions and the suggested frequency of actions to be taken to implement the Plan. Once the applicant chooses elements, actions, and action frequency (intervals) from the rule to be part of the Plan, then those choices are now considered officially part of the Plan, as enforceable requirements of the Plan and the Permit to Operate. Put another way, the rule serves as a sort of "menu," but once the entrée on the menu is ordered, the entrée is the meal and the diner cannot make changes to the meal without review and approval.

Rules for insect and rodent control at concentrated animal feeding facilities are fairly unique to Ohio. For the scientific sources of this rule, ODA examined ORC Chapter 921 for pesticides use; OAC Chapter 901:3 for Sanitary Regulations for Foods, Dairies, and Drugs; Natural Resource Conservation Service Pest Management, March 2001; and recommendations from Richard L. Berry, Ph.D., BCE, in his position with the Vector-borne Disease Program, Ohio Department of Health. Dr. Berry and his colleagues gained considerable expertise on pest control at concentrated animal feeding facilities due to mismanagement at the former Buckeye Egg Farm, which gave rise to enforcement proceedings that required ODH's expertise.

All environmental regulatory programs rely on self-reporting by the owner or operator of any facility. The penalties for lying on required reporting can often be greater than penalties for pollution. These sanctions can include the suspension or revocation of the permits. Inspectors ensure that reporting is reliable by surprise investigation, complaint investigations, and by relying on the inspector's expertise to determine that records are unreliable. ODA inspectors routinely include on their inspection reports a comparison

between the inspector's evaluation of insect populations and the results reported by the operator.

U.S. EPA recognizes that successful manure management is dependant upon tracking water levels and moisture levels, including leak detection and leak repairs. ODA includes these federal rules in OAC 901:10-2-08(A)(4):

(4) At a minimum, the following must be inspected, performed, monitored or maintained at the manure storage or treatment facility and documented in the operating record:

* * * *

(f) Inspect liquid manure volume weekly and note in the operating record the level of liquid manure in manure storage or treatment facilities by the depth marker required in paragraph (A)(4)(o) of this rule.

* * * *

(i) Conduct weekly inspections of stormwater or diversion devices, runoff diversion structures, devices channeling contaminated stormwater to the manure storage pond or manure treatment lagoon and note proper operation and maintenance in the operating record.

* * * *

(n) Inspect drinking water lines daily, including drinking water or cooling water lines that are located above ground, readily visible or accessible for daily inspections, and record in the operating record.

* * * *

(q) Actions to be taken means actions to correct any deficiencies found as a result of the inspections conducted under this rule. Deficiencies are to be corrected as soon as possible and listed in the operating record in accordance with rule 901:10-2-16 of the Administrative Code.

ODA thus requires farms, in their operating records, to keep track of these items and also of any actions taken to correct any deficiencies.

The Insect and Rodent Control Plan for Hillbex Dairy includes weekly monitoring and recording of flies using 4 note cards and responding when there are more than 50 fly specs per card, with treatment consisting of increased spraying frequency. A commercial pest control firm will assist to provide fly control and inspections, generally during the spring and summer months. Rodent bait stations will be monitored monthly for increased activity and refilled, if necessary.

The draft Permit to Operate contains the complete Insect and Rodent Control Plan. Actions taken – monitoring, spraying, baiting, and inspections – must be documented by the dairy in its Operating Record. The Insect and Rodent Control Plan would be subject

to routine and complaint inspections by ODA. Inspectors would determine if the plan was being followed as documented in the Operating Record, determine the levels of insect or rodent populations at the farm, and inspect the facility. If the permits are not followed, the farm could be subject to an enforcement action by ODA. Additional control measures could be required if problem levels occur.

17. Odors
Many comments received concerning the amount of odors that would come from the site.

Response:
Odor minimization is required by ODA rules in the Permit to Install and the Permit to Operate. In the Manure Management Plan of the draft Permit to Operate, Hillbex Dairy has identified specific best management practices listed in Ohio Administrative Code Rule 901:10-2-12 to minimize odor, including removal, transfer, and application of manure when wind direction is less likely to affect neighboring residences and injecting and incorporating manure when at all possible (i.e.: not on a growing crop, etc.).

Odor is something that will be evaluated during routine inspections and complaint investigations. Inspectors would determine if the permit was being followed and if the odor was occurring as a result of the producer not following best management practices. If the permits are not followed, the farm could be subject to an enforcement action by ODA.

18. Background Checks
"Vreba-Hoff Dairy Development, a person in control of Hillbex Dairy, is unable to demonstrate compliance in this or any other state. While everyone is aware of the repeated violations identified by the DEQ in Michigan, Vreba-Hoff's recent violations in the State of Ohio were outlined by Ohio Attorney General Marc Dann in a Complaint filed against Vreba-Hoff Dairy Development, LLC and Vreba-Hoff Dairy Leasing, LLC in the Fulton County Court of Common Pleas on July 20, 2007. The Complaint alleges violations of the National Pollutant Discharge Elimination System General Permit for storm water discharges associated with construction and Ohio Revised Code 6111 (Surface water). In total, the Complaint alleges permit violations relating to construction activities at twenty dairies located in the following counties: Defiance; Fulton; Hardin; Henry; Madison; Marion; Paulding; Putnam; Van Wert; Williams and Wood. Each count relates to violations at a different dairy where Vreba-Hoff has either failed to obtain the required storm water permits prior to engaging in construction, failed to install measures to control or prevent construction storm water discharge to streams, or failed to comply with the permits once coverage was granted. Such violations are pending administrative enforcement actions or civil suits which must result in denial of the permit pursuant to OAC 901:10-1-03(B)(l)(a)(ii). How can the ODA issue a permit to Hillbex Dairy when Vreba Hoff Dairy Development, a person in control of Hillbex Dairy is unable to demonstrate compliance?"

"*Pursuant to the provisions of Ohio Administrative Code 901:10-1-02(A)(4)(a), the Hillbex Dairy application shall include "information on ownership and background ... " which includes the name and address of "any other person who has a right to control or in fact controls management of the applicant ... " It is clear from the Hillbex application and the documentation in the ODA's file on such application, that Vreba-Hoff Dairy Development, LLC is in control of Hillbex Dairy and Petrus J.A. Van den Heuvel and Miranda C.F. Bex-*

Van den Heuvel but is not disclosed as a party in control. There are numerous direct correspondences between the LEPP and Vreba-Hoff and Vreba-Hoff's attorney. Such non-disclosure of the control of Vreba Hoff Dairy Development is misleading therefore the permit should be denied pursuant to 901:10-1-03(A)(l). How can the ODA authorize a permit to install or operate to Hillbex Dairy when Vreba Hoff Dairy Development is clearly a person in control and is not disclosed as a person in control on the application?"

"The Vreba-Hoff organization has obvious ties to the Hillbex operation (testing, consulting, etc.) and from my understanding is well documented in the records of ODA. Vreba-Hoff has a record of many violations of the law and a reputation for skirting and doing the least possible to get by. Why is this not documented in the permit?"

"Hillbex Dairy is being designed and built by Vreba-Hoff. They have a bad history of violations in all of their dairy mega farms. They have been repeatedly cited and still fail to correct the problems. This leads me to believe that the same thing will happen here."

"Please explain how the ODA Director can possibly state that Vreba-Hoff's appalling environmental record does not amount "to a history of substantial noncompliance."

"Are there current violations for non-compliance of permit regulations in Ohio pertaining to dairy farms with over 700 head, - are any of these violations involving dairy farm operations that have mailing addresses of Vredeweg 6; 5816 AK Vredepeel, The Netherlands, or Vreba-Hoff, 1290 Shoop Ave. #140, Wauseon, Oh. 43567 US?"

Response:
The applicable law is Section 903.05(B) of the Ohio Revised Code:

> If the applicant for a permit to install or permit to operate has been involved in any prior activity involving the operation of an animal feeding facility, the director of agriculture may deny the application if the director finds from the application, the information submitted under divisions (A)(1) to (3) of this section, pertinent information submitted to the director, and other pertinent information obtained by the director at the director's discretion that the applicant and persons associated with the applicant, in the operation of animal feeding facilities, have a history of substantial noncompliance with the Federal Water Pollution Control Act, the "Safe Drinking Water Act," as defined in section 6109.01 of the Revised Code, any other applicable state laws pertaining to environmental protection, or the environmental laws of another country that indicates that the applicant lacks sufficient reliability, expertise, and competence to operate the proposed new or modified concentrated animal feeding facility in substantial compliance with this chapter and rules adopted under it.

According to information made available to ODA, Vreba-Hoff Dairy Development, LLC is a dairy developer and does not intend to own or operate Hillbex Dairy, LLC. Vreba-Hoff Dairy Development, LLC is thus not an applicant on the Hillbex Dairy permit application. Vreba-Hoff Dairy Development, LLC is a wholly owned subsidiary of Vreba-Hoff Holdings, LLC, which is jointly managed by Mr. John Vander Hoff and Mr. Wilhelmus (Willy) Van Bakel. Vreba-Hoff Dairy, LLC, which runs dairies that are the

subject of litigation in Michigan, is also a wholly owned subsidiary of Vreba-Dairy Holdings, LLC.

Willy Van Bakel is a person who has a right to control Vreba-Hoff Holdings, LLC within the meaning of ORC 903.02, 903.03, 903.04, and 903.05 and is a person with a right to control both Vreba-Hoff Dairy, LLC and Vreba-Hoff Dairy Development, LLC through his status as a manager of Vreba-Hoff Holdings, LLC. Therefore the violations of those companies, over which Mr. Van Bakel has possessed a right to control, are relevant in assessing the compliance history of Mr. Van Bakel.

However, Hillbex Dairy's application does not place Mr. Van Bakel in control of the proposed Hillbex Dairy's ownership or operation. Hillbex Dairy is proposed to be operated by Hillbex Dairy, LLC, whose only members are Petrus J.A. Van den Heuvel and Miranda C.F. Bex-Van den Heuvel. Hillbex Dairy, LLC is not affiliated with either Mr. Van Bakel or the Vreba-Hoff companies. Hillbex Dairy would be owned by Hillbex Dairy Leasing, LLC, which is a wholly-owned subsidiary of Ohio Dairy Holdings, LLC.

While Mr. Van Bakel has a minority interest in Ohio Dairy Holdings, LLC through his interests in other companies, that interest is less than 50% of the equity of Ohio Dairy Holdings, LLC, which renders Mr. Van Bakel not an owner under the definition of that term contained in OAC 901:10-1-01(b). Moreover, ODA has received copies of the operating agreements of Ohio Dairy Holdings, LLC and Hillbex Dairy Leasing, LLC, and a copy of the lease between Hillbex Dairy, LLC and Hillbex Dairy Leasing, LLC. The operating agreement documents for Hillbex Dairy Leasing, LLC and Ohio Dairy Holdings, LLC deny Mr. Van Bakel a right to participate in the control of these companies, despite his equity interest in them:

> "Notwithstanding any other provision of this [Operating] Agreement or applicable law to the contrary, in any instance in which action is taken or to be taken or considered by the Member of the Company, whether by vote, by written consent or otherwise, no Restricted Person shall be entitled to vote or provide or withhold such Restricted Person's consent, or otherwise participate, directly or indirectly, in the action of such Member, whether such Restricted Person is a direct or indirect member, shareholder, director officer, employee, agent or representative of any parent entity of such Member, whether a direct or indirect parent entity and however remote. For purposes of this Agreement, "Restricted Person" means (a) Wilhlemus Henrikus Maria (Willy) Van Bakel, and (b) W.H.M. van Bakel Beheer V.V., a Netherlands private company having limited liability.

The lease agreement between Hillbex Dairy, LLC and Hillbex Dairy Leasing, LLC establishes the roles and responsibilities of Hillbex Dairy, LLC as the operator of the dairy and Hillbex Dairy Leasing, LLC as the property owner/landlord.

Because Hillbex Dairy Leasing, LLC and its parent, Ohio Dairy Holdings, LLC have been organized to restrict Mr. Van Bakel from management and day-to-day control of those companies, W.H.M.Van Bakel's background to manage or control Vreba-Hoff Dairy, LLC and Vreba-Hoff Dairy Development, LLC is separated from Ohio Dairy Holdings, LLC and Hillbex Dairy Leasing, LLC, the owner-applicants on the permit. Mr. Van Bakel's background should not be imputed as giving him an ability to manage or

control Ohio Dairy Holdings, LLC or its subsidiaries. None of the people who have a right to control management of the permit applicants have a history of substantial noncompliance with the environmental laws of Ohio, or any other state or country under R.C. 903.05(B) and OAAC 901:10-1-03(B).

19. Permit Compliance
"What happens when they do not comply with the permit? And does the Ohio Department of Agriculture have the authority to fine or shut down the facility?"

"Who will be the responsible party for strictly enforcing these dairy's operations?"

"If the Hillbex Dairy permit becomes a final permit, what steps does the ODA intend to take to enforce compliance of the ODA rules and regulations? Will the ODA impose fines upon Hillbex Dairy if it fails to be in compliance? How will the local community be advised of any non-compliance by Hillbex Dairy?"

Response:
The ODA is responsible for oversight and enforcement at Hillbex Dairy. ODA has authority to enjoin the facility to comply with Ohio law and to obtain civil penalties through referrals to the Ohio Attorney General's Office under R.C. 903.16. ODA can also issue administrative enforcement under R.C. 903.16, which can include demands for administrative penalties if a facility fails to return to compliance after being notified of the violation through a NOD ("Notice of Deficiencies Resulting In Noncompliance"). For minor violations, the enforcement response may begin with a written warning letter from the inspector or the Executive Director of LEPP, notifying the facility of the violation and demanding a return to compliance. Through the permits review process, ODA can deny renewal permit applications or revoke permits under RC 903.09(F) and OAC 901:10-1-03 if the facility is not operated in substantial compliance with environmental laws.

Which type of enforcement action is taken by ODA depends on the nature of the violation, whether it is a repeat violation, and the environmental harm caused. Enforcement actions taken by ODA are part of the public records of the Department. LEPP maintains a list of all enforcement actions taken by this program since its inception.

20. Modifications of Draft Permits
"Why don't the people here get to comment on modifications of the draft permit?"

Response:
Because permits are months and even years in development, ODA has not yet had the experience of modifying draft permits once the permits are presented for public comment and for a public meeting. Changes may be made between draft and final permits in response to public comments or to make technical corrections, but to date these have been changes or revisions that clarify some of the underlying engineering or that substitute one type of equipment for another type of equipment. See *Broering v. Dailey*, 2005 Ohio LEXIS 1. A permit "modification," as this term is defined in OAC 901:10-1-01 would give rise to reopening the public comment period but no "modification" has been proposed in the matter of Hillbex Dairy.

21. Operator Experience
"The listed owners have never run such a large operation and have no record of being qualified to do so. Most of your regulations seem to be 'self-reporting' and I have no faith in them being capable or even willing to do an exemplary job of this."

"Additionally, the State, the ODA requires the permit holder to have some (inaudible) experience. How does their prior experience with 75 cows equate to 2,251 cows? The number may be wrong. This is not comparable."

Response:
The members of Hillbex Dairy, LLC—the operators—must be familiar with ODA rules applicable to their operation including sanitation rules administered by the ODA Dairy Division and the rules administered by the Livestock Environmental Permitting Program. LEPP rules require recordkeeping of daily and weekly inspections in the Operating Record with frequent reference to rules and permit requirements, and the permits are written in such a way that each permit requirement refers to the rule to be followed. ODA does not have legal authority to impose a specific level of experience (such as a number of years of experience) upon a potential operator, but the members of Hillbex Dairy, LLC are required and will be expected to fully comply with the law and their permits to the same level as any other experienced operator.

22. Permit Renewal
"This operating permit is good for 5 years, what if they are not operating as the permit states at the end of 5 years, does the ODA have the right to <u>not</u> give a continuing operation permit?"
"How often after the first 5 years do they need to reapply for an operating permit?"

Response:
The Director may deny, modify, suspend or revoke operating permits provided that such action is supported by facts and law. See RC 903.09(F). This includes applications for renewal permits.

They must apply for renewal of their Permit to Operate every 5 years and if they ever want to expand they must apply for a new Permit to Install and Permit to Operate for the expansion.

23. NPDES Regulations Listed in Permit
"Explain why the Hillbex Permit lists NPDES regulations throughout this Permit but the LEPP regulations do not comply with NPDES regulations."

Response:
It is not clear which parts of the LEPP regulations the commenter believes do not comply with NPDES regulations. At present, ODA seeks but has not been awarded authority to implement the NPDES program in Ohio in place of Ohio EPA. Nevertheless, in developing a regulatory program to satisfy federal NPDES requirements, ODA rules are written so that a facility that has a permit as a concentrated animal feeding facility under Ohio law will also be able to satisfy NPDES requirements for a concentrated animal feeding operation under federal law.

24. Health Department
"Does our local Health Department have any rights to check up on the operation?"

Response:
The local Health Department always has the right to investigate any private water wells or potential public nuisance.

25. Health Department and EPA
"Will the ODA give our local Health Department and the EPA a copy of the permit so they can judge if the dairy is complying with its permit?"

"Is it possible for the ODA to have the EPA and Health Department look at this specific permit to see if they have concerns and suggestions to improve it?"

Response:
Copies of the draft permits were mailed to the Sandusky County Health Department and the Ohio EPA for their review on September 21, 2007. They both have had the opportunity to provide comments.

Both will receive copies of any final permits.

26. Local Notification
Requests that no permits be issued until Madison Township Trustees have had their consultation with the applicants, as provided for under OAC 901:10-1-02.

"OAC rules mandate that the Dairy must '<u>consult with</u>' local county commissioners and township trustees about a new CAFO. My dictionary's definition of 'consult' is 'to talk things over, confer; to seek advice or information from.' Why did the ODA, once again, consider a 'notification' letter to meet this guideline?"

"Pursuant to Gibsonburg Village Resolution No 2-2006 passed August 3, 2006, copy of which is attached hereto, the Village of Gibsonburg urges the Department of Agriculture to withhold issuance of the permit to install and operate to Hillbex Dairy. Pursuant to the provisions of Ohio Administrative Code 901:10-1-02(A)(7), Hillbex Dairy cannot provide documentation or correspondence that verifies it has consulted with the Village of Gibsonburg to address infrastructure needs and financing of that infrastructure. Hillbex Dairy has not consulted with the Village of Gibsonburg. Petrus J. A. Van den Huevel and Miranda C.F.Bex - Van den Huevel have not consulted with the Village of Gibsonburg. Vreba Hoff Dairy Development has not consulted with the Village of Gibsonburg. How can the ODA issue a permit to Hillbex Dairy when the dairy has failed to consult with the Village of Gibsonburg and the Village of Gibsonburg specifically opposes the issuance of permits to establish CAFOs within Sandusky County and supports a moratorium on the issuance of any permit within the State of Ohio?"

Response:
Current Administrative Code rules require permit applications to "contain documentation or correspondence that verifies that the owner or operator has consulted with local officials, including boards of county commissioners or boards of township trustees to

address infrastructure needs and financing of that infrastructure." OAC 901:10-1-02(A)(7). Hillbex Dairy submitted to ODA copies of certified mail letters it sent to the Sandusky County Commissioners and Scott Township Trustees that notified these public officials of plans to build the dairy and of intended travel routes for traffic related to the operation of the dairy farm. The correspondence indicates that the applicant offered to meet with these local officials to discuss issues related to the impact to local infrastructure. The intent of the ODA rule is to open up the lines of communication between the applicant and local governments so that local officials can anticipate and discuss infrastructure needs with the dairy applicant, and so that the applicant can seek advice or information from the local officials. The documentation submitted by the dairy complies with the rule because it verifies that the operator, Hillbex Dairy, LLC, provided notice to, and invited communication from the local county commissioners and township trustees. Hillbex Dairy is not located within the jurisdiction of the Village of Gibsonburg, and ODA does not possess any information that suggests the dairy will be using infrastructure of the Village as part of its operations.

27. Public Information
"And in addition, will this new facility be made, will the findings of this new facility or the information from this be made public knowledge, or is this just going to be behind our backs, and we have sit out there with a videotape camera, watching these folks to make sure they don't mess up."

Response:
Copies of all inspection reports, all investigation reports, and all enforcement actions are part of the public records maintained by ODA. These are available upon request and upon payment of reasonable copying and mailing costs. Since Hillbex Dairy is not built and not operating, no such files are available at this time.

28. Inspections
"How often will these farms be inspected? Will it be surprise inspections? Will these inspections be public knowledge and how would we get copies of these reports?"

Response:
Inspections are at least twice per year. If any violations are discovered, follow-up inspections are performed. Limited inspections are performed as needed: a "limited" inspection may be conducted for a check on construction or inspection records or for insect and rodent control. Surprise inspections may occur in some circumstances. All inspection reports and complaint investigation reports are maintained as public records.

29. Self Reporting?
"What percentage of the testing and monitoring is self-monitoring?"

Response:
There is not a set percentage of self-monitoring versus monitoring conducted by ODA for each facility. Like most environmental programs, ODA relies on a combination of self-reporting obligations imposed by law upon the owner and operator of the dairy, and on ODA data collected through its own routine inspections, follow-up inspections, and complaint investigations. The owner and operator are required to collect and document results about their own facility operations, such as manure analyses, water well tests, and

the performance of routine and maintenance inspections. ODA uses its own inspections and investigations to confirm that each farm's records are being consistently and accurately maintained, and to compare ODA results with the facility's records to see if there are discrepancies. This practice is similar to other environmental programs in the state of Ohio. For example, NPDES permit holders sample their own discharges and self-report the data (including any violations) to Ohio EPA in discharge monitoring reports. Ohio EPA has the authority to conduct its own sampling at any time to confirm the accuracy of the discharger's sampling reports, although it can also bring enforcement against a facility based only on the self-reported data. Likewise, public water systems routinely collect samples from their own water taps for analysis by EPA-certified labs.

30. ODA Inspectors
Concerns that four inspectors will not be adequate to monitor the whole state of Ohio.

"The frequency of inspections to be conducted by the Hillbex Dairy operator does not comply with best management practices as defined by OAC 901: 10-1-01 (0) and is wholly inadequate to minimize water pollution and protection of state waters as it fails to ensure proper management of dead livestock as required by rule 901:10-2-15."

Response:
ODA conducts routine inspections twice per year and will conduct additional inspections if there are compliance violations noted during routine inspections and/or complaints. Prior to ODA oversight, staff at Ohio EPA were only available to investigate complaints on permitted facilities and routine inspections were not performed on a regular basis. All of ODA's inspectors are highly qualified and skilled at what they do, and have education and experience with livestock production, nutrient management, and environmental and water quality training. The four agricultural engineers and the executive director of the Livestock Environmental Permitting Program also can, and sometimes do, inspect farms for routine, compliance, and complaint related issues.

Not only do ODA staff review the farm's records, they visually inspect every aspect of the farm's operation and management that is required in the Permit to Operate. With their education and practical background, erroneous notations and computations in the Operating Records can be detected by the inspectors in the actual operation of the farm. If inspections reveal suspect information in regard to manure application, ODA can perform unannounced inspections at any time, including during periods of manure application.

U.S. EPA published on October 17, 2007, its "Clean Water Act National Pollutant Discharge Elimination System Compliance Monitoring Strategy for the Core Program and Wet Weather Sources." On page 2-6, at 2.D.1 (Large and Medium CAFOs with NPDES permits), "EPA recommends that states and regions inspect at least once every five years to determine compliance with the permit, including terms of the nutrient management plan." ODA's inspection frequency greatly exceeds the frequency specified in this U.S. EPA document.

31. Complaint Investigation
"What is your protocol for dealing with a complaint about a specific CAFO, for example if someone calls the ODA with complaints about flies or odor? What steps do you take at this point?"

Response:
LEPP contacts the inspector by cell phone and/or e-mail to assign the inspection or complaint investigation. As part of an investigation, the inspector will call the local soil and water conservation district and Ohio EPA to begin collecting any information available from those agencies. If ODNR's Division of Wildlife is involved, that Division will be contacted. The inspector will also contact the person filing the complaint directly if they leave their contact information and we will also send them a report on the investigation results if desired.

32. Cow Count
"How often is a cow count conducted for your PTI?"

Response:
The PTI includes the construction of the facility and generally no cows are present on the site until the construction of the PTI is completed. Actual cow numbers during the operation of the facility are generally determined by reviewing the producer's milk production records during each regular inspection. These are made available to not only ODA-LEPP inspectors, but also ODA Dairy inspectors.

33. Clean up Costs
"If clean up is needed who will pay for the clean up? The Dairy owners or the ODA?"

Response:
The dairy owners and their insurance companies are responsible for cleanup costs. If necessary, ODA will use the Livestock Management Fund and then pursue enforcement measures to collect those costs from the farm.

34. Closing Facility
Concern over who pays for the closing and clean up of the facility should they not renew their permit in 5 years.

"CAN THE OHIO DEPARTMENT OF AGRICULTURE HAVE THE CAFO BE BONDED OR SET UP A FUND TO TAKE CARE OF THE FUTURE UNSEEN PROBLEMS THAT MAY HAPPEN? LIKE AN INSURANCE POLICY THAT WOULD PROTECT THE CITIZENS IN THE AFFECTED AREAS."

Response:
Any facility that proposes closing must submit a closure plan as requirement of their permit (OAC 901:10-2-18). This specifies exact requirements to take the facility out of operation and to provide cleaning and closure to protect the environment. If a facility does not close properly or leaves the facility in place with manure still present, ODA has the ability to utilize funds in the Livestock Management Fund to properly address the closure and take enforcement actions on the facility to seek restitution for those funds expended.

ODA HAS NOT RESPONDED TO THE FOLLOWING COMMENTS DUE TO THE FOLLOWING REASONS:

- **THE COMMENTS ARE ON ISSUES THAT ARE NOT UNDER THE REGULATORY CONTROL OF THE DIRECTOR OF AGRICULTURE**
- **COMMENTS ARE ABOUT ODA RULES IN GENERAL NOT SPECIFIC TO DRAFT PERMITS**
- **GENERAL COMMENTS OF NON-SUPPORT**
- **GENERAL COMMENTS OF SUPPORT**

35. Comments Not Under the Regulatory Control of the Director of Agriculture

a. Roads
Many comments concerning the roads and the financing of infrastructure needs.

b. Property Values
Comments that property values will decrease from the dairies coming in.

c. Economics
Many comments concerning who receives the monetary benefits and what are the economic benefits to the communities.

"When you do the math, I believe you will find this a drain on the local economy, not a boost, especially when you factor in potential infrastructure costs that will likely be the responsibility of local government."

"I believe an economic impact study should be done on how groundwater pollution from the Hillbex Dairy CAFO will effect the ONWR complex and the Lake Erie tourist industry."

"Objections might be fewer if the proposed farms were to house 100 cows instead of 2500. Do you realize these two huge proposed Sandusky County milk factories will put all small county dairy farms out of business? Do you have any feelings for the 'little guy?'"

"The use of CAFOS to provide food, side-line industries of fertilizer, manure-generated fuel alternatives, and jobs under the guise of an economy boost to Sandusky County is a wild stretch of the imagination at best."

d. Air Quality
Many comments received requesting that no permits be issued until the air quality studies being conducted by Purdue and others are completed.

"How much methane gas will be given off from these pools? How much methane gas can be in the air before it starts affecting the health of area residents?"

"Besides the much more than an annoying smell, these large mega-farms are known to give off toxic gases, such as hydrogen sulfide, carbon dioxide and ammonia. Will your department, or any other department be monitoring any gases being emitted from this CAFO, and ensuring that we maintain a healthy air quality?"

e. Antibiotics
Concerns over the use of antibiotics to control infections.

f. Hormones
Concerns over the use of growth hormones to increase milk production.

"Milk from the many CAFOs which use growth hormones has been especially condemned for its harmful effects, and there are presently lawsuits dealing with this issue."

g. Pathogens
"Knowing that untreated manure from these industrial dairy farms is full of pathogens, why doesn't the ODA require pathogen treatment or at least monitoring of these dangerous pollutants?"

h. Bacteria
"There is definitely going to be the potential for large amounts of bacteria around these farms, and the bacteria isn't going to stay just in the immediate area."

"DAIRY MANURE STORED IN 'LAGOONS' INCUBATES DISEASE MICROBES such as the infamous E. coli 0157:H4, which has hospitalized, killed and permanently maimed people all across the United States and Canada."

"Who would be liable if someone gets sick or dies from E. coli poisoning traced to manure from the Hillbex Dairy?"

i. Health
Comments received concerning general health problems caused by the dairies.
"Pollutants possibly associated with manure-related discharges at CAFOs include antibiotics, pathogens, nutrients, pesticides, hormones, and trace elements."

"Fly infestation alone will certainly change our outdoor enjoyment, but even more than an annoyance, is that these flies may carry many of these diseases with them to surrounding families. Mosquitoes can be a problem in this area due to some low lying ground within less than a mile from this CAFO. Again, as we all know, mosquitoes carry many different diseases with them."

j. Milk Production
"What is the end use of this milk production?"

"Are these farms going to produce grade A or grade B milk? Where will the milk go and how will it be used? Will it go to southern states to be made into powdered milk, to be shipped overseas? We will be the ones stuck with the noise, stench, and pollution."

k. Beef Production
How will this dairy affect the local beef production?

l. Dairy Promotion
"How much money has been contributed by the US Government and the Dutch Government to promote these Mega dairies?"

m. NPDES Permits
"Did the Hillbex Dairy apply for a General and a Discharge NPDES Permits?"

n. Illegal Immigrants
"Does the ODA monitor whether these factory farms use illegal immigrants?"

"What will the national origin of these dairy's work force be & are they citizens of the USA, & will they be checked by U.S. immigrations dept.?"

36. Comments About ODA Rules in General and Not Specific to Draft Permits
"Why is the ODA allowed to have lawyer representation that is paid with our tax dollars while if we want representation we also have to pay?? Is this fair????"

"After reading through the Ohio Administrative Code, chapter 901:10 which states it is updated monthly, I wonder why does it seem that many of the regulations have loopholes written in? For example OAC 901:10-2-02, section H, a fabricated structure, manure storage pond or manure treatment lagoon shall not be located in a karst area without... or in the above referenced OAC 901:10-2-02 section E, aquifer, shall have fifteen vertical feet of low permeability material between the waste placement location and the uppermost aquifer unless ... it seems the rules can change as long as they are approved by the director. Does the director have an engineering degree? Who advises the director? Is it the same engineers who help design the facilities? It just seems that no matter how unfit an area is for this kind of farm, the rules can be changed or amended to make it work on paper."

"After attending several Livestock Advisory Meetings, it was discussed that there should be additional regulations to help county and township trustees with roads. It appears that this suggested revision was not added but instead, the Advisory Committee submitted changes which reduce the protection of local aquifers. It also appears that the ODA's sole aquifer concern is whether it can provide adequate water for the CAFO. Please explain."

"The history of the LEPP shows that the ODA works aggressively in the promoting aspect. This includes the ODA staff, its engineers and its legal department, actively participating in providing suggestions and recommendations to the proposed dairy

operators so that their draft permits to install and operate become ftnal permits to install and operate. History also shows that the ODA has never denied a permit to install and operate. This is why we are here tonight. We need this to change. Give the citizens some voice in this procedure. The zealousness of the ODA in enforcing compliance with the rules and regulations pales in comparison to its zealousness in authorizing permits."

"They are coming here because, from the Netherlands because our laws are lax. We need to change our laws."

"The laws, rules and regulations in Ohio on factory farms and nutrient management should meet or exceed those in the Netherlands."

37. General Comments of Non-Support, Comments Not Specific to the Hillbex Dairy's Draft Permits and how They Comply with ODA Rules.
Received many general comments of non-support for the proposed CAFFs in Sandusky County and the entire state.

Examples that are representative of the comments received: Some of these include:

"*The only reason you have to even consider allowing CAFOS to ruin our fresh air and water supplies is the tax money that will be generated to the State of Ohio*."

"*These CAFOS are not in the public interest, nor do they serve the common good. Government is supposed to protect the Health, Welfare and Safety of the Citizenry, and we pay for this through real estate, personal property and sales taxes*."

"*Send the Norwegians back where they came from, where their own government saw fit to shut them down and appear to be much more intelligent than we are*."

"*These proposed operations are FAR TOO LARGE for adequate management*."

"*These operations have an abysmal record of regulatory compliance both in our state and in surrounding states. Numerous internet articles cite concerns about the pollution problems connected with mega-dairies in California and Michigan*."

"*Your organization is inadequately staffed for proper monitoring of these operations*."

"*This is a very populated area and not suitable for large dairy farms. Why not put these dairies in less populated areas if, indeed, we need to have them at all*."

"*The Toledo Blade published an article October 12, 2007, entitled "Ohio Deemed Top U.S. Polluter." It states, "Ohio ranked first in the nation in the number of times its major factories and cities released an unauthorized amount of harmful chemicals and untreated sewage into waterways according to a report released ... from the nonprofit group Environment Ohio." (Section B, Page 3*)"

"*These mega farms are not agriculture. They are just another industry!"*

"Would you like to have on of these farms in your backyard?"

"A dairy farm of such magnitude will have to be managed very skillfully due to the nature of its mission – to supply a safe milk product for many."

"Vreba-Hoff cannot be trusted either due to arrogance or disregard of laws and public health."

"On August 3, 2006, the Council of the Village of Gibsonburg joined the ranks of other entities and passed Resolution 2-2006 opposing the issuance of permits to establish confined animal feeding operations within Sandusky County, Ohio, and in support of a proposed moratorium on the issuance of permits within the state of Ohio."

"We in agriculture seem to be dropping the ball regularly with all the food recalls and e-coli out breaks. We need to start being smarter about how we take care of things like manure. I'm not against large dairies, but if we are going to dairy like the 20th century we need to handle the whole operation like 20th century and not handle manure like 18th century technology."

"Officials in the State of Ohio, whether elected or appointed, can not hide behind technical interpretations of the law or regulations to evade the responsibility to govern in the best interest of ALL their constituents."

"The ODA seems to approach this whole subject in a very bureaucratic way. They go through the steps. However, that is only to prove that they complied with the law. The decision has been made and the permit has been approved."

"The conflict of interest within the DOA is of considerable concern to residents of this community. On one hand ODA is to promote agri-business and on the other it is to regulate the same. What takes priority?"

"Do people of this area, the land, waterways and water tables mean so little as to expose them to the same hazards that Lenawee County, Hillsdale County (Michigan) and Steuben County (Indiana) suffered?"

"While during the permitting process these dairy farm owners and backers attempt to document that they will meet all the required laws to operate such a dairy in the proper manner, all we need to do is look north to the state of Michigan and observe all the problems these very people and the organization supporting them are causing."

"This is a request to place a moratorium on the permitting of factory farms until ODA and other agencies can review the impacts on water withdrawals to an area within five miles of the factory farms, and the impacts of manure land applications on receiving streams, soil content, and crop production."

"Government is for the people by the people, it is not for mega dairies destroying our quality of life. About 99% of the people in Scott Township oppose this dairy. Do we not have a voice in Columbus? How can so many lives be effected unfavorably to favorably effect the owners of this dairy. We are American Citizens and we deserve to be treated fairly!"

“Laying at the intersection of the Mississippi and Atlantic flyways for migratory waterfowl, the Refuge Complex's permanent freshwater marshes, estuary, open water, wooded and coastal wetlands, shrub-lands, and grasslands provide invaluable resting, feeding and wintering habitat for a significant number of species of migratory waterfowl and Neotropical songbirds.”

“If an environmental impact study has not been conducted I request that a moratorium be called for approval of mega farms until such study has been completed and any appropriate action taken.”

“The Dutch families unable to meet standards in the Netherlands are settling here establishing CAFOS. These "factory farms" have been found to do harm to the environment in their homeland.”

“I request that at the very least you not grant any permits to Hillbex Dairy until results of the Water Keepers Decision are finalized by U. S. EP A. What is the harm in at least waiting for this decision?”

“We are against industrial food production (megafarms) in our area.”

“According to the U.S. EPA, over-enrichment of waters by nutrients is the biggest overall source of impairment of the nation's rivers, streams and lakes, B) animal waste is now the main contributor in water pollution caused by agriculture in Ohio, C) manure run-off has been linked to Lake Erie's 6,300 square-mile ‘dead zone’, an oxygen-depleted area full of algae blooms caused by excess phosphorus where fish cannot live. Explain why the ODA believes this is happening.”

“I have one last question for you if you should be so foolish as to permit these Cafos to be built and have our community covered in sewage would it be okay for me and over one hundred thousand and my closest friends to come to your homes and defecate and urinate in your wells because that is how much sewage will be created by these two farms. You can bath and wash your clothes in it and brush your teeth and cook with it. Unless your answer to that last question is yes then your answer to be in favor of building the Cafos should be, NO!”

“Why does it seem, in my opinion, with this entire permitting process, that the local citizens’ rights have been secondary at best to those of corporate businesses? It seems to me to be a case of taxation without representation as we taxpayers foot a majority of the bill without any say in what occurs in our community.”

“What historical data does the ODA have that would lead you to believe that Factory Farms are capable of being good stewards of our environment and my son's health?”

“The Ohio Department of Agriculture must absolutely insist on a more suitable location. Within 20 miles of this proposed site there are dozens if not hundreds of locations that would be suitable for a successful operation of this kind that are not in close proximity to villages and densely populated areas. I appreciate that the ODA is responsible for executing pre-established permitting standards and these standards are closely followed.

However, it is undisputable that the overall mission of the ODA is to represent the people of Ohio in matters relating to agriculture and the people of Ohio have clearly indicated that these facilities, in these locations are not in our best interests."

"On behalf of our 175,000 members and supporters nationwide, and especially the almost 6,000 in Ohio, I urge you to oppose the CAFO applications for Sandusky County. These proposed facilities are bad for the community, the environment, and the animals."

"I realize I'm not the best person to write a letter to you about something as important as this but I'm one person who like Al Gore believes we're doing a great amount of harm to our planet."

"I would rather live next to a nuclear power plant than this. That plant will have more predictability, more reliability, more monitoring than this will ever have."

38. General Comments of Support

Received general comments of support for the proposed Hillbex Dairy. Examples of these comments include:

"*Most of the issues raised by citizens are emotional in nature. The facts exist that other people are residing in agricultural areas*."

"*It has been our observation that the large farms are just as environmentally conscious as any of our other farms*."

"*Across our country the entire dairy industry is experiencing consolidation. We feel Ohio is fortunate to have the opportunity to benefit from it*."

"*In addition to the agriculture community there is another large economic boost due to secondary businesses providing services and products to the farm*."

"*The group here in Sandusky County have been using a scare and fear tactic by using a lot of ifs and coulds. And a lot of people fall for it."*

"I am in favor of the Hillbex Dairy being in operation in Scott Township. I feel that if they follow all the rules and regulations, there will not be a problem with any kind of pollution. I am very confident that the ODA has the personnel and the tools to monitor these livestock operations. I understand the concern from the public about these operations, and I hope the ODA will continually work hard to make sure that their concerns are put to rest."

"I live about two miles from a lagoon that has been in operation for about 20 years and there isn't anybody on Eiler Road that has had any problems and had to drill a new well."

"Another thing I'm concerned about is the gentleman from the Health Department who makes statements about the concern of the manure. I am a little bit concerned about the lack of response that the Health Department does not give to complaints that they receive about the effluent from septic tanks and this has gone on for years. We know who I'm

talking about. I wonder where his concern was about the people in Elmore dumping raw sewage into the Portage River. Maybe we shouldn't bring that up, but I did."

"This manure is not hazardous material. It's a proven fact. Okay. It's a proven fact. It's not hazardous material, it's manure. It's what we've used on farms for years. It's terrible that, you know, we have concerns in this country about a lot of things and you people seem to think that farmers aren't concerned with that what's going on. You've trusted us to take care of the land for years, now all of a sudden we don't know nothing."

"And what I found was even with the number of cattle that are coming with the large dairies, Wood County today, as opposed to 30 years ago, has only about 30 percent of the beef and dairy cattle that the county had in 1977, and that's as far back as the data went. My expectation is if I was able to get data from the 1960's and 1950's, you would find more animals, particularly if you add the hog numbers in. My point being, that some of you here that are little older in age, you can remember when there were animals about every farm with all of the grain silos."

Changes from Draft Permit to Final Permit

1. Additional detail provided on the engineering plans to show where the soil would be borrowed from to build the facility.
2. Added in the Geological Report the ODNR-Division of Geological Survey Oil and Gas Interactive Web Map (Appendix N) and discussion of the map on page 11 of 14 of the report.
3. Added detail to Appendix K of the Groundwater Quality Monitoring and Assessment Program in the Geological Report, which included a Groundwater Assessment Plan.
4. Added condition in the Manure Management Plan (Part B of the Plan, titled "Manure Application Plan") that limits the maximum application rate and method of application on land application areas that are mapped as either Millsdale or Dunbridge. The Manure Application Plan was also revised to show single application rate at 5,000 gallons per acre on those fields identified with those soil types.