



State of Idaho

DEPARTMENT OF WATER RESOURCES

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WESTERN REGION

C. L. "BUTCH" OTTER
Governor

DAVID R. TUTHILL, JR.
Interim Director

February 16, 2007

Darwin Vander Stelt
16931 Star Rd
Nampa ID 83687

RE: De Ruyter Application For Transfer

Dear Darwin:

Processing of the above referenced application for transfer that you filed on behalf of your client, Nick De Ruyter, has been suspended until the Owyhee County approves Mr. De Ruyter's conditional use permit for the dairy expansion. Without county approval, the department would likely deny the transfer because the proposed dairy expansion may not be in the local public's interest.

Please contact me when the applicant has county approval so that processing of the transfer application can proceed.

Sincerely,

A handwritten signature in black ink, appearing to read "Lori Graves", is written over a horizontal line.

Lori Graves
Sr. Water Resource Agent

Graves, Lori

From: Harrington, Helen
Sent: Thursday, February 15, 2007 9:43 AM
To: Graves, Lori
Subject: RE: DeRuyter Assessment

That's a good question. As you may know, Gooding County has apparently adopted a policy that any rating higher than a low won't be approved. The team is concerned that the counties seem to use the rating as the sole determining factor. I haven't heard what Owyhee County's attitude is. However, the location really does have some risk to it. Some of the risk can be mitigated through management, but the team, under new IDA leadership of Craig Tesch, leans towards actually evaluating the site characteristics and not using management as an assumed elimination of the risk. If you want more discussion, give me a call.

Helen

-----Original Message-----

From: Graves, Lori
Sent: Thursday, February 15, 2007 9:32 AM
To: Harrington, Helen
Subject: RE: DeRuyter Assessment

Helen, what do you think a "high risk" rating will do regarding county approval?

-----Original Message-----

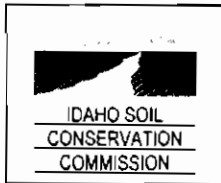
From: Harrington, Helen
Sent: Thursday, February 15, 2007 8:46 AM
To: Graves, Lori
Subject: DeRuyter Assessment

Hi, Lori.

Yes. Here is a copy of the draft letter that went to the County. I don't have a final copy, but this will give you the gist of the issues.

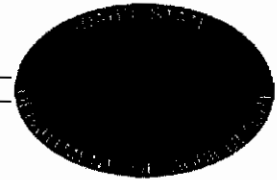
Helen

<< File: deruyter2.doc >>



IDAHO STATE DEPARTMENT
OF AGRICULTURE

ENGINEERING SERVICES



January 8, 2007

Ms. Suzanne Nixon
Owyhee County
Planning & Zoning
Po Box 128
Murphy, Id 83650

RE: Proposed DeRuyter Dairy Facility Expansion, Owyhee County, CAFO Siting Team Suitability Determination

Dear Ms. Nixon:

The Idaho State CAFO Siting Team has completed its review of the application for the proposed expansion of the DeRuyter Dairy located at 4699 Buntrock Rd, Marsing, Idaho, Owyhee County. The review was completed in response to a request made by the Owyhee County Commissioners in accordance with IDAPA 02.04.18.

The Team, consisting of representatives from the Idaho Department of Environmental Quality (IDEQ), Idaho Department of Water Resources (IDWR) and the Idaho State Department of Agriculture (ISDA) performed a site evaluation on January 3, 2007. A final review meeting was conducted the same day.

The information evaluated for this facility included the application package provided by Owyhee County, IDWR ground water information and water right records, IDWR State-wide Ambient Ground Water Quality Monitoring Program network data, IDEQ map and data, ISDA Regional Agricultural Ground Water Quality Monitoring Program data, ISDA Northwest Owyhee County CAFO Monitoring Project data, Monks Hydro-Geoscience data and area reports, well driller reports, and discussion with the owner's consultant during the site visit.

The following technical factors contributed in determination of the rating:

- The proposed expansion is for an additional 4,800 cows composed of 2,000 milking cows, 600 dry cows, and 2,200 heifers. Currently there are 9,600 cows composed of 4,000 milking cows, 600 dry cows, and 5,000 heifers. There would be 14,400 total cows after the expansion.
- According to the preliminary Nutrient Management Plan (NMP), total acreage required for waste management is 7,232 acres. The facility has 1,152 acres of their own farmland available within the Prime Agricultural Zone for application of manure. Remaining manure will be exported.
- The facility will use both an open lot corral and freestall system with vacuum transport of waste.
- Wastewater generated from the dairy facility will be collected and stored in wastewater storage ponds after passing through mechanical and gravity separators.
- Average precipitation is 10-13 inches per year. Ground water recharge is primarily from precipitation and irrigation.

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- Analytical data from area wells indicates the mean ground water nitrate concentration for the upper aquifer is above the State of Idaho's ground water quality standard of 10 mg/L (IDAPA 50.01.11).
- Site-specific data indicates increasing nitrate concentrations in ground water over the past three years with the current concentration at 36.0 mg/L.
- The aquifer system consists of a shallow system of gravels and coarse grained sands overlying a deep system of black sand; the two aquifers are separated from each other by a layer of blue clay.
- Ground water levels from well logs in the area and reports indicate depth to water is less than 25 feet below ground surface in many wells.
- Well logs and geologic cross sections from technical reports indicate there is generally less than 5 feet of clay in the unsaturated zone.
- The facility is located within the boundaries of a nitrate priority area.
- Irrigation drains are adjacent to three sides of proposed corral locations.
- The Snake River (303d listed) is within 1.5 miles downgradient of the facility.
- The facility has had a discharge violation and numerous odor complaints in the past.
- Soil phosphorus concentrations in facility-managed fields generally exceed the phosphorus threshold.
- Facility owned fields will be soil tested on an annual basis to determine phosphorus levels.
- The facility has designed the wastewater storage lagoons to meet the 180-day storage requirement.
- It is anticipated that the proposed facility will require approximately 40-50 employees. The domestic water supply well for this facility will be subject to public drinking water system rules and regulations if 25 or more employees are employed at this facility.
- Odor Control. Maintaining corral areas and lagoons in the spring and summer will be important to reduce odor.
- Pest Control. The facility has developed an integrated pest management plan and is prepared to adjust accordingly throughout the year.

The final facility plans must be submitted to ISDA for approval before construction can commence. ISDA will review and inspect the design, construction, and operation of the facility for compliance with State and Federal requirements. Additionally, ISDA will ensure the waste containment and animal housing activities are a minimum of 100 feet from a well or residence.

Owyhee County may issue "special use conditions" in their permit to the applicant. Special use conditions, if not required by existing State or Federal law, would be the county's responsibility to enforce.

Ground water in the area is susceptible to contamination due to the shallow depth to water and the sands composing both the vadose zone and upper aquifer system. The facility is located in a nitrate priority area with site-specific nitrate data indicating increasing nitrate concentrations over 10 mg/L.

It is important to control runoff in the corral area adjacent to the irrigation canals and drains to prevent impacts to surface water and ground water. The proximity of the Snake River to the site leaves it susceptible to impacts from surface water and ground water influences.

Exceedance of the phosphorus threshold may result in the movement of nitrate into ground water. ISDA recommends growers and agrichemical professionals conduct nutrient and irrigation water management evaluations. Producers should also follow the Natural Resources Conservation Service Nutrient Management Standard 590. Fields that exceed the phosphorus threshold should receive nutrient applications to crop uptake only. Winter applications of waste should follow State rules and regulations.

An application for transfer of a water right has been filed with IDWR. Processing of the application has been suspended until additional information is submitted by the applicant. Issues involving water availability are

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matters to be heard and decided by IDWR in a separate water right process prescribed by law. Upon completion of the water right and transfer process, IDWR will make a final determination.

Any wells either abandoned or never put into full production, should be properly abandoned according to IDWR's rules and regulations.

Facilities that employ chemigation systems must have those systems inspected and approved by ISDA prior to use. Additionally, approved backflow prevention devices should be added to wells used to mix irrigation water and wastewater as this will help prevent back siphoning of lagoon water into the aquifer.

The CAFO Siting team did not:

- Conduct a specific evaluation of air quality concerns, however, the facility is registered as part of the rules governing ammonia emissions established in an MOU between ISDA and DEQ.
- Evaluate any increase in the number of lights or light pollution due to the expansion.
- Evaluate the roads in the local area. For a more specific evaluation, please contact the county highway district or the Idaho State Department of Transportation.

The following determination is based on the information supplied to the team through the owner and site-specific conditions at the time of the evaluation including an approved Nutrient Management Plan. Some information used for evaluating the ground water, geology, and soils is based on regional information and may not fully characterize the local conditions affecting the specific facility. This assessment does not consider practices not contained in the NMP or described during the site visit.

The Suitability Determination, as determined by the Team, is **High Risk**. Any changes or modification in the application or at the site may alter the Suitability Determination.

The following individuals were present at the CAFO Siting Team evaluation. The names depicted in bold type are the individuals responsible for the suitability determination.

1. **Craig Tesch, P.G., ISDA, Hydrogeologist**
2. **Helen Harrington, P.G., IDWR, Technical Hydrogeologist**
3. **Scott Miller, P.G., IDEQ, Hydrogeologist**
4. Dennis Owsley, DEQ, Hydrogeologist
5. Larry Waters, E.I.T., ISDA, Engineer
6. Wayne Downey, Consultant for DeRuyter Dairy
7. Suzanne Nixon, Owyhee County P&Z Administrative Assistant

If you require further information regarding this site determination, please feel free to contact us.

Craig Tesch, P.G., ISDA
(208) 332-8586

Helen Harrington, P.G., IDWR
(208) 287-4848

Scott Miller, P.G., IDEQ
(208) 373-0328

ATTACHMENTS

1. IDEQ produced map (including animal units in the area, public water systems, residential wells, irrigated acres and population)

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