March 8, 2005

(AR-18J)

Janet M. Smith, Field Supervisor
Green Bay ES Field Office
U.S. Fish and Wildlife Service
2662 Scott Tower Drive
New Franken, Wisconsin 54229-9565

Dear Ms. Smith:

Pursuant to Section 7 of the Endangered Species Act (ESA), (16 U.S.C. §§ 1531 et seq.), the United States Environmental Protection Agency (USEPA), Region 5 has reviewed the biological information and analysis related to a Prevention of Significant Deterioration (PSD) permit for JM Products, Inc., to determine what impact there may be to any threatened or endangered species in the area around the proposed facility. The purpose of this letter is to seek concurrence from the U.S. Fish and Wildlife Service (FWS) on our determination that the proposed project is not likely to adversely affect any federally listed species in relation to the proposed air quality permit for JM Products.

Project Description

JM Products, Inc., proposes to build a facility within the exterior boundaries of the Lac du Flambeau Indian Reservation, Vilas County, Wisconsin, consisting of a sand-and-gravel pit, rock crusher, and hot-mix asphalt plant. The project will be on three parcels of land, all within a quarter-mile of each other, in an area that is currently compliant with all National Ambient Air Quality Standards. This type of project is fairly common in northern Wisconsin; other rock crushers and asphalt plants are located in this area of the State, and there is nothing to suggest any adverse effects on local species.

Parcel 1: This 10-acre plot is located in the NE ¼ of the SW ¼ of Section 19 T41N, R6E of the Reservation. It contains a borrow pit which is currently used to produce

pit run sand for various construction projects. Once the pit is cleared, it will serve as a staging area for a wood chipping operation. The wood chipping operation will involve chipping logs, tops, brush, and stumps for sale and use as hogging fuel for local power generators.

The Revised Environmental Assessment submitted by the applicant dated January 2004 states that approximately 5 acres of the parcel have been cleared, grubbed, and stripped of topsoil for later reclamation. It does not state whether further portions of the parcel will be cleared.

When the borrow pit is ready to accommodate the wood chipping operation, the applicant will have to obtain a PSD permit from USEPA before constructing the new facilities. Because the wood chipping operation will not be built for at least several years, the pending PSD permit does not contain requirements for Parcel 1.

Parcel 2: This is a 40-acre plot located in the NW ¼ of the NW ¼ of Section 30 T41N, R6E of the Reservation. It will contain a pit for the production of sand and gravel aggregates. Rock crushing equipment at the gravel pit, consisting of jaw and cone crushers and conveyers, will crush stone into different materials, such as gravel for road base and construction fill. The equipment will be powered by three onsite diesel-fired internal combustion engines.

Aggregate production and crushing processes will occur during the construction season of April/May through October/November. The permit application specifies a maximum throughput for crushed stone of 500 tons per hour, and a potential to produce up to 25,000 cubic yards of sand and gravel aggregates per year.

The gravel pit operation will involve clearing and grubbing a 5-8 acre area and stripping its topsoil for use as reclamation cover soil after the sand and gravel resources are mined. Once this 5-8 acre area is mined, another 5-8 acre area in Parcel 2 will be mined, and so on. The permit application does not specify how much of Parcel 2 will be mined, but that only one 5-8 acre area will be worked at a time.

The Revised Environmental Assessment specifies the construction of a 50-foot wide strip of conifer and hardwood trees and a topsoil berm at the perimeter of the developed area to provide visual and sound screening and to ensure that the pit is internally drained.

Parcel 2 will also contain a hot-mix asphalt plant of counter-flow drum mix configuration with a maximum throughput of 400 tons per hour, including the potential use of reclaimed asphalt pavement, and consisting of a drum mixer, asphalt cement heater, and silo.

Parcel 3: This 40-acre plot located in the SE ¼ of the SW ¼ of Section 19, T41N, R6E is adjacent to Parcel 2. It contains a large wetland, but no development of the parcel is planned. A 30-foot length within the parcel will be used as secondary (emergency) access to Parcel 2. There will be a 50-foot buffer between the project and the wetland.

Action Area

An action area of 3 km radius around the proposed facility was based on air quality modeling performed for the PSD permit and represents the significant impact area for criteria pollutants. More information on this modeling is provided in the ESA Effects Analysis section below.

List of Species

Four federally listed threatened or endangered (T&E) species were identified as possibly located within Vilas County in an August 7, 2003 letter from FWS. The species are the bald eagle (*Haliaeetus leucocephalus*), the gray wolf (*Canis lupus*), the Canada lynx (*Lynx canadensis*) and the Kirtland's warbler (*Dendroica kirtandii*). FWS further indicated in the letter that there were neither federally listed T&E species nor critical habitat present at the project site. These facts were confirmed in a conference call with FWS on January 31, 2005. The following brief descriptions of the species are taken from facts sheets available on the FWS website, unless otherwise indicated.

Bald eagle: The bald eagle has been protected as a threatened species in Wisconsin since its listing under the ESA on February 14, 1978. Due to recovery efforts, the bald eagle population has risen to levels sufficient for

the FWS to propose delisting the bald eagle in July 1999. Bald eagles are large birds of prey that nest and forage along fish-bearing waters. They primarily consume fish, but will also feed on waterfowl and carrion. Bald eagles build large stick nests in conifer trees and occasionally deciduous trees or on cliffs. Nesting activity usually occurs in January and February with hatching occurring in April and May.

In our January 31, 2005, conference call, FWS noted the presence of a bald eagle nest located about 1 mile to the west of the project site boundary. In a February 14, 2005, conference call, FWS updated this information to note that there are actually two bald eagle nests, each located approximately 1¼ miles away from the project site.

Gray wolf: The gray wolf was listed as an endangered species in May 1974, after populations had been decimated by hunting and eradication programs. Wolf packs usually live within specific territories, ranging in size from 50 square miles to more than 1,000 square miles depending on prey availability and seasonal prey movements. Wolf populations are increasing in Wisconsin, likely linked to increasing white-tailed deer populations through the 1980s and early 1990s as well as other Recovery Plan conservation efforts. The Wisconsin/Michigan wolf populations have been above the Recovery Plan target level of 100 since 1994. FWS has indicated there are no known permanent wolf packs in the action area. However, given the large ranges, it is conceivable that individuals may be present in the area as transients, as animals move between packs.

Canada lynx: The Canada lynx was listed as a threatened species throughout the contiguous United States in March 2000, with the range of the lynx including Wisconsin. It is a forest-dwelling, medium-size cat of the northern latitudes. It primarily feeds on snowshoe hares, but will also eat small mammals and birds. In general, lynx and snowshoe hares habitats are moist boreal forests that receive deep snow and cold winters, and lynx populations may fluctuate with the snowshoe hare 10-year cycles. According to the FWS map of the range of the Canada lynx, the northernmost tip of Wisconsin may support occasional dispersers, as opposed to resident, breeding populations, due to habitat conditions. Current lynx populations are elevated, consistent with high snowshoe hare populations, although the likelihood of finding an individual within the

3 km action area would be relatively low but not impossible.

Kirtland's warbler: The Kirtland's warbler is a small blue-gray bird with a bright yellow breast that spends its winters in the Bahama Islands. It nests only in young jack pine forests growing on a special type of sandy soil found in ten Counties on Michigan's northern Lower Peninsula and four in the Upper Peninsula. In our February 14, 2005 conference call, FWS indicated singing males have been spotted at the far eastern edge of Vilas County, and in Douglass County, but the presence of these birds in Wisconsin has been unpredictable and sporadic.

Kirtland's warblers prefer to nest in forests that are 80 acres or larger, with numerous small grassy openings. They require jack pine trees of a certain age (6-20 years) and height (5 to 16 feet tall), and spaced to let sunlight through to the ground. The warblers build nests only on the ground among grass and other plants, protected by the lower branches. As the jack pines age, the lower branches die off due to lack of sunlight, causing the warblers to seek new nesting sites. Forest management, including managed fires and harvesting, along with controlling cowbird parasitism, are the primary recovery strategies.

ESA Effects Analysis

The existence of the gray wolf, Canada lynx and Kirtland's warbler in the action area is unclear. During the February 14 call, FWS indicated that, of the four noted species, the gray wolf is most likely to be present. While there are no known permanent wolf packs in the area, individuals may move between pack ranges. The Canada lynx is more difficult to predict because of its transient nature; FWS indicated that the likelihood of its presence at any particular location is low, though it tends to inhabit dense stands of young conifers. As for the Kirtland's warbler, the closest group of Jack pine trees that it has been known to inhabit is 50 miles away from the project site. To the extent individuals of these species may be present at a given time within the action area, they would be considered transient and able to move away from the site if the construction activity or operation noise was disturbing.

The bald eagle's possible presence is evidenced by the two nests identified by FWS located about 1¼ miles away from the project site. According to the Northern States Bald Eagle Recovery Plan (FWS, 1983), a two-zone management system around nest sites is suggested as a practical way to protect bald eagles and the habitats they require. The primary zone is the area directly surrounding an eagle nest, and the secondary zone is the area directly surrounding the primary zone. The recommended primary buffer zone is a minimum of 330 feet from the nest, to be extended up to ¼ - ½ mile where there is extremely sparse timber or other unique situations. Surrounding this, the recommended secondary buffer zone should extend an additional 330 feet from the edge of the primary zone, to be expanded up to ½ mile when nesting occurs in sparse stands of timber, treeless areas, or where activities would occur within view of the nest. The project area does not fit the extreme circumstances for the extended buffer zones, and the nest sites are located beyond even the worst-case scenario recommendation. Based on this information, we would conclude that the bald eagle would not likely be adversely affected by the construction/noise activity related to the project.

Air Quality Impacts

To assess the air quality impacts of the proposed project on individual animals that may be present in the action area, the following PSD modeling analysis is provided. USEPA conducted a Yahoo search of each of the listed species, using the species name and "air pollution" as the key words. No information related to these four species and air pollution impacts was found. Lacking information identifying species-specific effects associated with specific air pollutants, USEPA is relying upon the general protectiveness of the PSD thresholds and the relative size of emissions as compared to background levels in completing its analysis.

The JM Products, Inc., project is considered to be a minor source based on USEPA thresholds, however, because the project is being sited on Tribal lands, the permit must be issued by EPA under PSD regulations as there is no federal minor source permit program. Based on potential to emit, JM Products, Inc. would emit over 250 tons per year (tpy) of carbon monoxide (CO) and particulate matter (PM). However, the source is choosing to take limits on emissions

for all regulated pollutants to below major source thresholds, per the following table:

Process	Emissions (tons per year)						
	NO_x	CO	VOC	SO_2	PM	PM_{10}	HAPs
Rock Crushing	--	--	--	--	2.2	0.81	--
Hot Mix Asphalt	34.7	58.2	21.1	25.1	3.7	3.7	5.1
IC Engines	24.3	5.2	1.98	1.6	1.71	1.71	0.04
Fugitive Dust	--	--	--	--	11.9	5.2	--
TOTAL	58.9	63.4	23.1	26.7	19.5	11.4	5.1

JM Products, Inc. will meet these limits by accepting limits on hours of operations as well as addressing Best Available Control Technology (BACT) requirements. Air pollution controls that will be required in the permit include windscreens and erosion control, enclosures around materials transfer points, enclosed storage bins, a requirement to water down dust-causing operations and limit traffic on unpaved roads, a fabric filter on the asphalt plant and overall good combustion practices. USEPA has identified these as the appropriate BACT controls for this source.

Pursuant to PSD requirements, the source was required to conduct air quality modeling for PM and CO; no other pollutant levels met the threshold to require modeling. The PM and CO emissions from JM Products, Inc. were evaluated with the Industrial Source Complex Dispersion Model (ISC3). This model uses measured meteorological data to calculate the breathable concentrations of pollutants at varying distances from the source. The first step in the PSD modeling process is to evaluate the source’s impact on the surrounding area. In the PSD program, USEPA has set a minimum ambient air concentration level for each criteria pollutant, called the Significant Impact Level (SIL). While SILs are specifically designed to project human health, we are using SILs as a surrogate lacking specific information related to these animal species. This comparison is likely most valid for the Canada lynx and gray wolf, which are large mammals.

If a facility’s emissions for an individual pollutant are shown with modeling to be below the SIL, then the source’s air quality impact is considered insignificant for that pollutant, and no further modeling is necessary to support

the approval of the PSD permit application. JM Products, Inc.'s CO impacts were found to be below the SIL for CO everywhere. The source's ambient air impacts from PM, however, exceeded the PM SIL, which is 1 microgram per cubic meter (ug/m3) on an annual average and 5 ug/m3 on a 24-hour average. At 3 kilometers from the source, the modeled concentrations of PM fell below the SIL. This 3-kilometer distance becomes the radius of JM Products, Inc.'s circular Significant Impact Area for PM.

The next step in the PSD modeling process is to evaluate whether the PSD increments are consumed. The PSD program allows pollutant concentrations to increase only up to the pollutant-specific PSD increments. For PM, these increments are 17 ug/m3 on an annual average and 30 ug/m3 on a 24-hour average. The increment modeling must include not only the PM emissions from the proposed source, but also the PM emissions from other new or modified sources located within or having an air quality effect in the Significant Impact Area. In JM Products, Inc.'s case, there were no additional sources to include. Modeling showed that JM Products, Inc.'s PM impacts were below the PM increments.

The final step in the PSD modeling process is to verify that the National Ambient Air Quality Standards (NAAQS) are protected. In some cases, even though the PSD increments are not exceeded within a proposed source's Significant Impact Area, the NAAQS could still be violated in the area. The NAAQS for PM are 50 ug/m3 on an annual average, and 150 ug/m3 on a 24-hour average. Modeling for the PM NAAQS includes the PM emissions from the proposed source and from all nearby PM sources, new or existing, which might have an air quality impact in the area. Background PM concentrations, obtained from local air quality monitors, are also added to the modeled totals, to account for distant PM sources which were not explicitly included in the modeling. The background concentrations for the JM Products, Inc., site were 9.2 ug/m3 on an annual average and 27.4 ug/m3 on a 24-hour average (Trout Lake, Vilas County). The modeling showed that that area's total breathable PM concentrations would be well below the PM NAAQS—less than forty percent of the NAAQS level. The modeled impacts of the proposed source were about equal to the monitored actual background PM concentrations. JM Products, Inc., meets the air quality modeling requirements necessary for approval of its PSD permit.

Conclusion/Determination

The Canada lynx, gray wolf and Kirtland's warbler, should they occur in the action area, would be transient individuals capable of moving away from the site should they be disturbed by the activities. In addition, the location of the known bald eagle nests is beyond the maximum primary and secondary buffer zones recommended for even extreme habitat conditions, based on the FWS Northern States Bald Eagle Recovery Plan. Therefore, the physical activities related to the construction and operation of the proposed project are not likely to adversely effect the listed species.

In addition, USEPA has provided data regarding the air quality modeling conducted as part of the PSD permit application. The permitted emissions levels for JM Products, Inc., will be consistent with a minor source, with limits below significance thresholds for each of the pollutants with the exception of NOx, which is slightly above the threshold value of 40 tpy.

Based on an Internet search and the information made available by FWS on the causes of the species decline and recovery plan strategies, there is no information suggesting sensitivities to air pollutants, and in fact both the gray wolf and bald eagle populations have increased in Wisconsin above the recovery plan targets. For the pollutants whose potential to emit was above the major source threshold (thus triggering air quality modeling), the results demonstrate that the impacts of this project would be insignificant, discountable or not measurable against the background levels.

Considering this analysis in its entirety, USEPA concludes that the proposed construction and operation of this facility may affect, but is not likely to adversely affect, any of the T&E species. USEPA respectfully requests FWS concurrence on this determination.

Sincerely yours,

/s/

Stephen Rothblatt, Director
Air and Radiation Division

cc: Larry Wawronowicz, Deputy Administrator of Natural Resources, Lac du Flambeau Band of Lake Superior Chippewa Indians