



Illinois Department of Natural Resources

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<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

August 3, 2012

Mr. James Bateman
Village of Holiday Hills
c/o Bateman Law Offices
800 Hart Road
Suite 311
Barrington, IL 60010

**Re: Don Roberts Zoning Petitions for Rezoning and Special Uses – Village of Holiday Hills
Endangered Species Consultation Program
Project Number(s): 1211397
County: McHenry**

Dear Mr. Bateman:

The Department received your submission, via the Department's Ecological Compliance Assessment Tool (EcoCAT) website, on behalf of the Village of Holiday Hills, regarding this project in Sections 7 & 18, Township 44 North, Range 9 East for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The special use/rezoning request involves a 240-acre parcel located north of Sunset Drive, west of Lily Lake Road South, and east of South Fernwood Lane, with South River Road transecting the east and west sections of the property. The project involves applications for:

- Rezoning from R-1 to B-3 and R-1 to I-2 for Mr. Robert's parcels (parcels 2,3 and 5);
- Special uses for proposed recycling facilities (wood [parcel 2] and general construction debris [parcels 2,3,4,5,6, &7]);
- Special uses for continued recycling facilities (concrete and asphalt)(parcels 6 & 7);
- Special uses for the use of Clean Construction and Demolition Debris (CCDD) fill within parcels 2,3,4,5,6 and 7;
- Special uses for continuance and expansion of Paintball facilities (H2 Paintball)(parcel1);
- Special uses for existing Paintball, Batting Cages, Miniature Golf, and Rockwall (parcel 5); and
- Special uses for Speedway Track Operation of (parcels 2 & 5):
 - Remote Control Vehicles, Aircraft and Watercraft;
 - Wakeboarding across lake via cable lines; and
 - Motocross (motorcycles), BMX (bicycle motocross), Go-carts, and ATVs on off-road course.

Recycling activities will be ongoing year round and hunting is allowed during the fall and winter months. Reclamation of mined areas, and concrete and asphalt recycling operations, will be ongoing. All other activities on site will be operational from April to October, which corresponds to when the listed species (noted below) are most active.

The property is within the vicinity of numerous protected resources, including **Black-Crown Marsh Illinois Natural Area Inventory (INAI) Site and Land and Water Reserve (LWR), Macbrough Marsh LWR, Stickney Run Conservation Area INAI Site, and Kettle Moraine INAI Site and Nature Preserve**. Black-Crown Marsh LWR and Kettle Moraine Nature Preserve are owned by the Department of Natural Resources as is acreage adjacent to the proposed actions on the east, north, and west sides, some of which is included within the project's footprint as drawn in the EcoCAT submittal.

The request is also within the vicinity of several listed species, including the State-listed endangered **Blanding's Turtle**, *Emydoidea blandingii*; **American Bittern**, *Botaurus lentiginosus*; **Black Tern**, *Chlidonias niger*; **Black-Crowned Night Heron**, *Nycticorax nycticorax*; **Common Moorhen**, *Gallinula chloropus*; **Yellow-Headed Blackbird**, *Xanthocephalus xanthocephalus*; and **Small Bladderwort**, *Utricularia minor*. Threatened species include the **Least Bittern**, *Ixobrychus exilis*; **Starhead Topminnow**, *Fundulus dispar*; and **Flat-leaved Bladderwort**, *Utricularia intermedia*.

According to the Department's natural heritage database, the parcel also contains a large wetland complex of high quality wetlands, including several ADID wetlands, and is adjacent to McHenry County Natural Area NUN17.

The Department has completed its review of the project and determined that the proposed zoning actions will have an adverse impact on Kettle Moraine Nature Preserve (Pike Marsh Unit) and several listed bird species, including Least Bitterns, Common Moorhens, Yellow-Headed Blackbirds, and American Bitterns that nest within the vicinity of this project's boundaries. It is also very likely to result in the prohibited incidental taking of Blanding's Turtles during construction and operation. The Department has concerns regarding:

- additional noise and increased activity levels that will result from an increase in Paintball shotgun activities and Speedway Track operations and how these may impact listed species that are nesting closest to the parcel and traversing the parcel.
- the potential for thousands of additional paintball pellets to accumulate on land and have the potential to wash into high quality wetlands and streams. Basic ingredients for paintballs involve water soluble paint, mineral oils, food coloring, calcium, ethylene glycol, and iodine, which cumulatively could impact downstream aquatic resources. These pellets may also be ingested by terrestrial or aquatic wildlife, of which the impacts from ingestion of pellets are not fully understood;
- erosion, sedimentation, and compaction issues, in uplands and within wetlands, from an increase in participant and vehicle use on site;
- the potential for surface and groundwater contamination, and hydrological impacts to Kettle Moraine Nature Preserve, from recycling operations and use of CCDD as fill; and
- the potential to take a listed species. Take, in reference to animals, is defined by the Illinois Endangered Species Protection Act as to harm, hunt, shoot, pursue, lure, wound, kill, destroy, harass, gig, spear, ensnare, trap, capture, collect, or to attempt to engage in such conduct.

To minimize potential impacts, the Department recommends the following measures be implemented by owners of Reliable Sand and Gravel and H2 Paintball, and incorporated in the Zoning Board of Appeal's ~Village of Holiday Hill's zoning petition approval.

Kettle Moraine Nature Preserve (including Pike Marsh Unit) Recommendations

1. No impacts shall occur to Kettle Moraine Nature Preserve or to Pike Marsh, including no changes to hydrology.
2. Based on testimony provided by the Illinois Environmental Protection Agency (IEPA) to the Illinois Pollution Control Board (IPCB) during rulemaking related to CCDD and groundwater protection,

parcels 3, 4 and 5 may not be acceptable repositories for CCDD as they are in very close proximity to, and are likely to impact, the high-quality natural area being as close as 330' from project footprint. During testimony, IEPA highlighted Reliable Sand & Gravel as an example of a potential threat to groundwater resources of Kettle Moraine Nature Preserve if CCDD were to be used as fill. The Department and the Illinois Nature Preserves Commission have concerns that groundwater flow direction in this localized area has been redirected due to land alternations such that any potential groundwater contamination from these parcels could impact the Pike Marsh Unit of Kettle Moraine Nature Preserve. For the applicant to prove that the groundwater is not flowing in the direction of this resource, the IEPA and hydrogeologists at the Illinois State Geological Survey have recommended no less than three triangulated wells installed prior to the acceptance of CCDD. They also recommend that water levels be measured, and samples collected, over the course of 6 months to 1 year, again, prior to CCDD fill acceptance in parcels 3, 4, and 5. The Department concurs with these recommendations and requests results from groundwater monitoring efforts be forwarded upon completion to the Department's Impact Assessment Section (IAS).

3. All staging of heavy equipment shall occur away from dedicated Illinois Nature Preserve property, or nature preserve buffer, and remain within project footprint.
4. Use of Best Management Practices to prevent sedimentation and runoff outside of work zones and monitoring them diligently; silt fences, soil stabilization and runoff control measures should be incorporated throughout construction site and during entire construction period.
5. Operation of recycling operations on parcels 3 and 4 should be on a cement apron with provisions for treating any (contaminated and rinse) runoff before being released into settling ponds. Clarification of what type of recycling facility is to be constructed, and what materials will be accepted, should be provided to the IAS.
6. No additional lighting is proposed for the project; if lighting plans change, lighting plans should be submitted to the IAS for review.
7. It is the Department's understanding that a sound level meter (dosimeter) is being utilized to ensure that legally allowable noise levels are not exceeded. Dosimeters are designed to measure impacts to humans, usually within the work environment, and not impacts to wildlife. Therefore, results will only be able to determine whether or not noise levels have increased, not how much increases have potentially impacted wildlife. The Department recommends that dosimeters be located on the north, northeast, and east sides of the parcel to monitor exhaust, recycling, shotgun, motocross, BMX, and ATV noises to ensure levels are not increasing from a baseline set before these operations were/are in place. Annual reports of monitoring results, and a description of which type of dosimeters are used, should be submitted to the IAS for the first five years of operation.

Blanding's Turtles Recommendations

1. The Department recommends the developer seek and obtain Incidental Take Authorization pursuant to Section 5.5 of the Act and Part 1080 of the Illinois Administrative Rules, prior to commencing construction activities. The potential for incidental take is very likely for a project this extensive and of this nature. The project footprint may contain Blanding's Turtle nest sites or routes to nesting sites and it contains numerous wetlands that may be used for breeding, feeding and hibernation since extensive records for this species exist east, north and west. Transiting adult and juvenile turtles are a concern during spring, summer and fall as they travel to and from wetlands and upland areas used for nesting. Turtles could be injured, crushed, or killed by machinery, cars, motocross and BMX vehicles, and ATVs. Turtles could use the area while construction is on-going and after the project is complete.
2. The Department recommends that all construction crews and on-site personnel be educated about Blanding's turtles before any work commences, that personnel receive a copy of the conservation plan, and attend a pre-construction meeting so all crews and staff understand how to recognize adult and juvenile Blanding's and how to legally respond to encounters. Further, an information sheet about Blanding's Turtles should be posted at construction areas and activity sites.

3. If turtles are encountered, the Department's District Heritage Biologist (Brad Semel, 630/399-3242) and the McHenry County Conservation District (Sara Denham, 815/728-8307), should be notified immediately and on-site work should cease. On-site personnel should watch the turtle until the proper authority arrives, keeping at a respectable distance. If the turtle moves, crews should mark the spot they first saw the turtle and the last spot it was seen.
4. Any digging or construction-related activities should be conducted in the late fall and winter when this species is not as active. Staff mowing grounds should be aware of the potential presence of Blanding's Turtles on site and use caution each time.
5. Exclusionary, silt fence should be installed in areas where work will be done and heavy machinery and vehicles will be present during construction. Fencing should be in place from early March through early November and checked daily on both sides, for Blanding's Turtles, during the first two weeks and weekly thereafter.
6. The project footprint contains numerous wetlands that may be used for breeding, feeding and hibernation by Blanding's Turtles. The Department recommends biological surveys for Blanding's Turtles be conducted before construction or activities within each parcel begin. The best time to survey transiting adult turtles is between May and July using hoop trapping, visual surveys, and drift fence surveys. Survey results should be forwarded to the IAS.
7. The Department recommends any trenches and excavations be covered each evening and inspected each morning to ensure that no reptiles or amphibians have become trapped. MCCD and the Department should be immediately notified if any listed herptiles are trapped so further instructions can be received.

Least Bitterns, American Bitterns, Common Moorhens, & Yellow-Headed Blackbirds

1. The Department is concerned that actions in Parcels 3, 4, and 5 could degrade surrounding habitat or produce stress for nesting birds north of these parcels. Water quality improvements and additional noise buffers to improve quality of stormwater and lessen or eliminate loud noises produced in these areas is recommended.

General Recommendations

1. No lighting plan was provided, therefore, the Department is not sure what types of lights are used, or their locations. Commercial lighting tends to have a greater impact on natural resources from its fugitive light because its lights are usually larger, brighter, placed on higher standards, and may be left on during all hours of darkness. This can draw night-flying insects in and away from their normal locations (i.e., Moraine Hills State Park), impacting the food availability of nocturnal predators and degrading ecological conditions at the Nature Preserve. Fugitive light can also occur in the daytime from sunlight reflecting off glass, metal or other surfaces; the resulting glare can illuminate areas which normally are not, and can alarm wildlife if the glare is not stationary. Lightwave frequency has a major influence on whether insects are attracted to light sources; manufacturers should have data available on which type of lights minimize insect attraction. Low-pressure sodium-halide in the yellow/orange/pink spectrum is believed to have lower impacts. The Department prefers a standard of no more than one horizontal foot-candle (lumen) at the natural area boundary for lateral lighting. The design of lamp fixtures has a major influence on this characteristic. While the Department is cognizant of the need to provide sufficient lighting to promote human safety and security, it is possible to do so using greater numbers of lights of lesser intensity at a lower elevation than fewer lights of higher intensity at a higher elevation. The Department recommends that all forms of lighting for this project produce minimal lateral illumination by being directed downward vs. outward, and incorporate wave frequencies within the red-orange spectra (as opposed to blue-green spectra) so that insect attraction is minimized.

2. If streams or ADID wetlands need to be crossed, the Department recommends the installation of con-span bridges at several locations to avoid activities within these areas and potential impacts to downstream resources (e.g. Starhead Topminnow). Staff and participants should be prohibited from traversing, playing or shooting paintballs within or near these wetlands.
3. Buffers should be established, and clearly marked (or pointed out during instruction periods to participants), around streams and ADID wetlands to prevent compaction, erosion, sedimentation, paint, and pellet accumulation.
4. It is the Department's understanding that lead shot is not allowed on site; Participants are currently only allowed to use steel shot for hunting. The Department recommends that this statement be verified by the Village.

Consultation on the part of the Department is completed. In accordance with 17 Ill. Adm. Code 1075.40(h), the Village of Holiday Hills must notify the Department of its decision regarding these recommendations, whether they will:

- Allow the action to proceed as originally planned;
- Require the action to be modified per Department recommendations (please specify which measures if not all will be required); or
- Forgo the action.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resources review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected species are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this consultation review.

Cordially,



Kathi Davis
Division of Ecosystems and Environment
Impact Assessment Section
Office of Realty & Environmental Planning
217-785-5500

enclosure

cc: Brad Semel, IDNR/Region II/Natural Heritage
Ray Eisbrener, IDNR/Region II/Wildlife
Greg Kelly, IDNR/Moraine Hills State Park
Bob Szafoni, IDNR/Office of Resource Conservation
Jenny Skufca, Illinois Nature Preserves Commission
Steve Byers, Illinois Nature Preserves Commission
John Nelson, Illinois Nature Preserves Commission
Elizabeth Kessler, McHenry County Conservation District
Denise Mayhew, Reliable Sand and Gravel
Cindy Skrukud, McHenry County Defenders/1075.70
Lisa Haderlein, The Land Conservancy of McHenry County/1075.70