**AmerenIP Exhibit 24.0**

**ILLINOIS COMMERCE COMMISSION**

**DOCKET NO. 06-0706**

# SUPPLEMENTAL TESTIMONY

**OF**

**TERRY J. VANDEWALLE**

**SUBMITTED ON BEHALF**

**OF**

**ILLINOIS POWER COMPANY d/b/a AmerenIP**
**and**
**AMEREN ILLINOIS TRANSMISSION COMPANY**

**November 30, 2007**

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## I. WITNESS IDENTIFICATION

**Q1. Please state your name, business address, and your place of employment,.**

**A.** My name is Terry Jon VanDeWalle. My business address is 2300 Swan Lake Blvd, Suite 200, Independence, IA 50644. I am employed by Natural Resources Consulting, Inc. ("NRC") as a Senior Environmental Scientist.

**Q2. What is NRC?**

**A.** NRC is a specialized environmental consulting firm founded in 1998 and is headquartered in Cottage Grove, WI. NRC specializes in wetland, biological, soil, restoration, and environmental permitting services. NRC has more than 40 employees with expertise in natural resources and environmental policy in areas such as wetlands, water resources, soil science, wildlife ecology, plant taxonomy, environmental planning, Geographic Information Systems, and forestry. Our clients include utility companies; private developers of recreational, residential, and commercial projects; and federal, state, and local units of government.

**Q3. Please summarize your educational background and professional experience.**

**A.** I earned an Associate of Science degree in Fisheries and Wildlife Biology from Kirkwood Community College in 1984, a Bachelor of Science in Animal Ecology from Iowa State University in 1986, and a Master of Arts in Biology from Drake University in 1993. Since the end of my formal educational career I have also completed numerous continuing educations courses in wetland ecology along with specialized training related

to the National Environmental Policy Act and Endangered Species Act Section 7 Consultation.

Prior to joining NRC in 2006, I was employed for 13 years by Earth Tech, Inc. as a biologist where I specialized in animal and natural areas surveys, threatened and endangered species surveys, wetland delineation, wetland mitigation design and monitoring, and coordination of environmental impact statements and assessments. I worked with a variety of clients including state agencies, energy providers and private developers. I also taught biology and environmental conservation for five years as an adjunct instructor at Des Moines Area Community College. Prior to these positions, I attended graduate school. Prior to entering graduate school I was employed by the Clayton County Conservation Board (Iowa) as a naturalist and the Iowa Department of Natural Resources as a Conservation Aide.

**Q4. What are your duties and responsibilities in your present position?**

**A.** As a Senior Environmental Scientist with NRC, I manage projects; complete technical and QA/QC review of reports and studies; prepare permit applications, impact evaluation, and environmental reports for review under the Endangered Species Act (ESA), the Clean Water Act (CWA) and the National Environmental Policy Act (NEPA); design and conduct surveys for and studies of rare, threatened or endangered plants and animals, conduct wetland delineations, prepare wetland restoration and mitigation plans; and complete fieldwork within my areas of expertise such as herpetology, mammology, wildlife habitat analysis, wildlife population analysis, wetland delineations, wetland mitigation site searches and evaluations, and restoration and management plans. I have prepared and presented numerous presentations at national scientific meetings on wildlife

and wetland research I have conducted. A large part of my position at NRC is working with clients and staff on identifying ways to avoid, minimize, and mitigate for environmental impacts on large scale and complex projects. In addition, I manage NRC's Independence, Iowa office including day-to-day operations and staff.

In my position at NRC I often rely upon fieldwork, data gathering, and data analysis conducted by other qualified employees and professionals when drawing my professional opinions and conclusions.

**Q5. What is the purpose of your Supplemental Testimony?**

**A.** The purpose of my supplemental testimony is discuss the environmental impacts of the proposed route from LaSalle to I-39 that is shown on AmerenIP Exhibit 9.6 as the Y1, Y2 and Y3 route sections, and which I will refer to as the Yellow Route.

## II. ENVIRONMENTAL IMPACTS OF THE YELLOW ROUTE

**Q6. Have you evaluated the environmental impacts of the Yellow Route?**

**A.** Yes. I have also reviewed, for comparison purposes, the likely environmental impacts of Ameren's primary Green route from the LaSalle substation to I-39.

**Q7. Describe the nature of your evaluation and the resources you used.**

**A.** The first step of the analysis involved identification of the environmental resources present within each route. I participated in a field bat habitat and wetland assessment of the Illinois Cement and Carus Corp properties in July 2006. I completed field assessments of several of the route segments under consideration by Ameren during that time. Specifically, I completed surveys within the vicinity of route segments SG3, SM1, SM2, SG4, and SG5 that are contained within the Illinois Cement and Carus Corp properties as illustrated on Ameren IP Exhibit 9.6 I also reviewed information regarding

the presence of sensitive environmental resources compiled by NRC primarily in regards to wetlands, waterways, threatened and endangered species, nature preserves; and natural areas. My review of the presence and extent of these environmental features was based on a variety of resources including: aerial photography; the Natural Heritage Inventory Database provided by the IDNR which provides information on the location of threatened and endangered species, nature preserves, and natural communities; National Wetlands Inventory mapping; USGS waterway mapping; IL GAP analysis data which identifies potentially suitable Indiana bat habitat; information collected during field completed wetland delineations and Indiana bat habitat assessments within Ameren's primary route; aerial identified wetland locations and potentially suitable Indiana bat habitat locations within the yellow route; information contained within the Biological Assessment which I co-authored; information conveyed in a meeting I attended with USFWS, IDNR, and Ameren on 08/21/06 regarding Indiana bat habitat impacts between the N. LaSalle Substation and I-39; and general knowledge of the project area based on the field work I completed within Ameren's primary route.

**Q8. As a result of your evaluation, what are your conclusions regarding the environmental impacts of the proposed Yellow Route?**

**A.** It is my opinion that the construction of a 138 kV line along the Yellow Route will result in environmental impacts, and these impacts are of a significantly greater magnitude than the environmental impacts resulting from the construction of the 138 kV line along Ameren's proposed primary (Green) route from the N. LaSalle Substation to I-39. The environmental impacts along the Yellow Route include clearing potentially suitable Indiana bat habitat, clearing of floodplain forest wetlands, forest fragmentation, and

potential water quality impacts. I directed the preparation of a map, identified as AmerenIP Exhibit 24.1, which gives a general illustration of the location of environmental resources and impacts to such resources within the Yellow Route. (I note that the aerial photographs used for the map in AmerenIP Exhibit 24.1, and AmerenIP Exhibit 24.2 referenced below, were taken in 2007.)

**Q9. Describe the impacts to potentially suitable Indiana bat habitat within in the Yellow Route.**

**A.** Since NRC was not able to gain access along the Yellow Route to complete a field habitat assessment, we identified the extent of potentially suitable Indiana bat habitat based on review of aerial photography, Illinois GAP data and field observations in adjacent areas. This large forest complex along the Little Vermilion River ("LVR") almost certainly contains suitable Indiana bat habitat, and based on field evaluations in similar forested areas adjacent to the LVR in the vicinity of the Yellow Route, this area likely contains relatively high quality habitat. Based on the criteria and methods used by NRC to designate Indiana bat habitat quality for purposes of the Biological Assessment and the assumption that there are a moderate to high number of high quality potential roost trees present (see page 14 of the Biological Assessment, which can be found as IL 71 Resistors Ex. 3.11), this habitat area would meet the criteria for high quality bat habitat. Field assessments in other portions of this large forest complex adjacent to the LVR support this assumption. These surveys indicate that this forest is a mature woodland dominated by tree species such as bur, white oak and shagbark hickory in the upland and cottonwood in the floodplains, with numerous dead standing trees present throughout. NRC identified high quality Indiana bat habitat both south and north of

Ameren's primary route, and it is reasonable to assume that similar quality habitat extends into the area of the Yellow Route (see Figure 6, page 2 of 5 in Attachment I of the Biological Assessment). Although there is an existing transmission ROW, it is narrow and contains an average cleared width of 30 to 35 feet. As described by Mr. Emmons, the existing ROW would have to be expanded to a combined (existing and new), cleared ROW width of 100 to 110 feet accommodate a 138 kV line. This expansion would require clearing of up to approximately 7.5 acres of forest within suitable Indiana bat habitat. The combined cleared ROW would occupy an approximate total of 10.5 acres through this forested complex.

**Q10. Would the Yellow Route have a greater impact on potential bat habitat than the green route from LaSalle to I-39?**

**A.** Potentially, yes. NRC completed field Indiana bat habitat assessments of Ameren's primary route from the N. LaSalle Substation to I-39. Based on this evaluation, Ameren's primary route would require tree clearing through slightly more suitable bat habitat as compared to the Yellow Route (see map of environmental features attached as AmerenIP Exhibit 24.2). However, bat habitat is of higher quality along the Yellow Route. Although the acreage of tree clearing within suitable Indiana bat habitat is similar for both route segments, it is my professional opinion that the overall impacts on Indiana bat habitat will be more significant along the Yellow Route because the habitat quality is superior within this area and the cumulative impacts of the existing cleared ROW and the additional clearing required would result in more total habitat impacts (10.5 acres) within an otherwise large, intact forested complex.

**Q11. Describe the potential wetland impacts within the Yellow Route.**

**A.** Based on my review of the wetland locations and extent within the areas of the Yellow Route, as identified by aerial photograph interpretation and prepared by NRC (illustrated on Ameren Exhibit 24.1), approximately 2.5 acres of forested wetlands will require clearing for expansion of the ROW. The cumulative forested wetland impacts of the existing cleared ROW and the expanded ROW total approximately 4 acres.

Although a field survey and evaluation of the wetlands within the Yellow route has not been conducted, based on aerial map review and my knowledge based on field surveys of the types and quality of wetlands in adjacent, similarly well developed woodland areas along the LVR, it is my professional opinion that the wetlands within the Yellow Route are of moderate to high quality, well developed floodplain forests. In addition, there appear to be a number of tributaries that are present within the Yellow Route that also contain adjacent floodplain forest wetlands. Clearing the trees within a floodplain forest wetland will permanently impact these wetlands by converting them to a different wetland type, specifically to a non-forested wetland. According to the federal Clean Water Act, conversion of a floodplain forest wetland to a different wetland type is considered a permanent wetland impact.

**Q12. How does the wetland impact of the Yellow Route compare with the Green Route?**

**A.** It is my opinion that impacts to wetlands will be more significant along the Yellow Route than within Ameren's primary route from N. LaSalle substation to I-39. Ameren's primary route from the N. LaSalle substation to I-39 does not impact well developed floodplain forest; the wetlands that were evaluated are primarily of low quality and have been historically disturbed by the existing quarry operation and the old railroad bed. Based on field conducted wetland evaluations, there is a small amount of wetland present

within the proposed ROW of this primary route segment (less than 1/2 acre). In addition, Ameren's primary route crosses over the LVR in an area that has been heavily impacted by the existing quarry operation and contains only a narrow fringe of forested corridor.

**Q12. Would construction of a 138 kV line along the Yellow Route result in forest fragmentation?**

**A.** Yes, it is my opinion that there would be some forest fragmentation, particularly if the ROW is expanded for a 138 kV line. Both the Yellow route and Ameren's primary route (from N. LaSalle to I-39) would be located along existing corridors within forested areas; and both routes would require expansion and additional tree clearing to construct the 138 kV transmission line. It is my professional opinion that the forest fragmentation caused from construction of the Yellow Route will result in more significant environmental impacts than any forest fragmentation cause by Ameren's primary route. The basis for my position is that the forest complex in which the Yellow Route traverses is relatively large, undisturbed forest, especially for this portion of LaSalle County where the landscape is heavily fragmented. In comparison, Ameren's primary route traverses through narrow, degraded woodland which I would consider to already be a fragmented forest (see AmerenIP Exhibit 24.2).

**Q13. Are there likely to be impacts to water quality of the LVR with construction of the Yellow route?**

**A.** Yes. The Yellow Route is located within a very steep portion of the LVR valley that is susceptible to erosion. Additional clearing of trees could lead to increased erosion and sedimentation within the LVR. The LVR is listed as an impaired water on the IEPA 303d List, partially due to sedimentation loads. Section 303(d) of the Clean Water Act

requires states to submit to USEPA a list of water quality limited waters (i.e. waters where uses are impaired) and the pollutants causing impairment to those waters. This list is often called the 303(d) List. A watershed management plan is implemented for impaired waters to achieve the goal of eventual removal from the 303(d) List.

**Q14. Would Ameren's proposed primary route have similar water quality impacts on the LVR?**

**A.** No. I believe that water quality impacts present a higher risk with construction of the Yellow Route as compared to Ameren's primary route. Ameren's primary route crosses over the LVR within an area that has already been heavily impact by the quarry operation and the surrounding landscape has been graded and stabilized. Limited tree clearing will be required adjacent to the LVR along Ameren's primary route, therefore water quality impacts due to erosion and sedimentation are significantly less likely to occur.

**Q15. In your opinion, from an environmental standpoint, is Ameren's proposed primary Green route from the LaSalle Substation to I-39 superior to the Yellow Route?**

**A.** Yes, Ameren's primary route from the N. LaSalle Substation to I-39 is superior from an environmental standpoint. The Yellow route will result on greater impacts to suitable Indiana bat habitat, wetlands, and forest fragmentation. Additionally, construction of the Yellow route will increase the risk of impacting water quality within the LVR.

**Q16. Does this conclude your Supplemental Testimony?**

**A.** Yes.