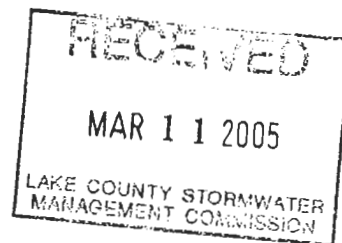


Illinois Nature Preserves



Commission

One Natural Resources Way
Springfield, IL 62702-1271
217/785-8686
March 7, 2005



U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
Attn: Mr. Steven Gagnon
111 North Canal Street, 6th Floor
Chicago, IL 60606-7206

FILE 03-23-176

RE: Permit Application 200400880/Dalitsch Property/Middle Fork Savanna Nature Preserve

Dear Mr. Gagnon:

On behalf of the Illinois Nature Preserves Commission, I reviewed the permit application referenced above for the project site known as the Dalitsch Property, Mettawa, Lake County, Illinois. I also reviewed the most recent site development plans provided by V3 Consultants (dated 12/17/04) and the wetland delineation and assessment report (dated November 17, 2004). I also participated in an on-site meeting with other government agency representatives on November 4, 2004. This letter serves as the INPC initial review of the project proposal and I welcome further opportunities for input as the COE permit application review continues.

Overall, the development plan shows little regard for protecting the natural resources on and off-site. If approved, this plan would allow for the siting of a big box store, associated parking, roads, gas station, and municipal government center and storage facilities. The large scale of this development proposal immediately adjacent to an environmentally sensitive natural area presents challenges that have not been adequately addressed in either wetland mitigation or development design. While the INPC considers many aspects of the proposed development as unacceptable, the comments below are specific to the Section 404 permit application.

- 1 The permit application fails to identify the legally protected status of the Middle Fork Savanna as a state dedicated nature preserve. This fact should be stated in the application and other correspondence. Lands dedicated as nature preserves under the Illinois Natural Areas Preservation Act [525 ILCS 30/] are afforded the highest level of legal protection status of any lands within the State. The fact that the Dalitsch property is directly adjacent to the Middle Fork Savanna Nature Preserve is significant. The potential for negative impacts to the nature preserve are very high due to the large scale of the proposed development, its close proximity, and issues related to stormwater runoff.
- 2 The applicant does not provide any alternatives to avoid or minimize the filling of wetlands. U.S. Jurisdictional wetland impacts on-site could be avoided by reducing the scale of the development. Specifically, the area targeted for a municipal government center will destroy

wetland area 1C. This wetland, while low in floristic quality, is still a functional wetland providing water quality benefits and wildlife habitat values. It has a direct hydrologic connection to the larger high quality wetland complex located within the Middle Fork Savanna Nature Preserve. An alternative to filling wetland 1C should be considered. A conservation design approach would preserve and enhance wetland 1C within a naturalized buffer zone. This strategy would provide the best possible water quality benefits, which are justified to ensure the long term protection of the high quality wetlands located within Middle Fork Savanna. The buffer zone would also preserve wildlife habitat, including potential upland nesting area for the Blanding's turtle, a State threatened species that is likely using the area. The naturalized buffer would also help mitigate for loss of groundwater infiltration elsewhere on the development due to buildings and parking areas. An enlarged buffer zone and enhanced wetland 1C would also help mitigate for disturbances associated with the construction, maintenance and operation of a big box retail development adjacent to a dedicated nature preserve.

- 3 Due to the close proximity of the development parcel to a legally protected nature preserve containing natural communities and species of Statewide significance (see IDNR letter dated February 13, 2004), floristic quality should not be the sole criterion used to evaluate wetland values and mitigation ratios and strategies. The applicant should provide data regarding the functional and biological attributes of the on-site wetlands. These other attributes of wetlands are important to the long term protection and maintenance of the high quality wetlands preserved within the Middle Fork Savanna Nature Preserve. Under section 14 of the Illinois Natural Areas Preservation Act, "Nature preserves are held in trust for...the benefit of the people of the State of present and future generations". As such, it is in the public interest to preserve and enhance adjacent wetlands that are considered important to the long-term sustainability of the Middle Fork Savanna Nature Preserve. This matter of "public interest" is especially true when the subject wetlands are not found in isolation, but rather, are part of the larger adjacent high quality wetland complex. Experience has shown that even artificial wetlands, in the form of excavated ponds and ditches, can provide significant water quality and habitat values.
- 4 Much of the wetland mitigation to compensate for wetland fill is targeted for the large pond on-site identified as WOUS Area 1B. The current plan would modify this pond into a large wet-bottom detention basin with small pockets of deeper water. The INPC objects to the planned modifications of WOUS 1B for the following reasons.
 - 4.1 It is likely that the existing pond, with its large water storage capacity and deep bottom, is acting as a buffer to help minimize some of the negative impacts normally associated with poor water quality - especially as it pertains to chloride from road salts. Currently, stormwater runoff from areas west of the I-94 Tollway flow into WOUS 1B. Potential contaminants, such as chloride, nitrogen, and phosphorus, are likely reduced in concentration after mixing with the large volume of water stored within this pond. The outflow of WOUS 1B is to the Middlefork Savanna Nature Preserve, and as such, the concentration of contaminants within the released stormwater is a major concern. The input of contaminants into WOUS 1B will increase significantly under the current

proposal, including introduction of petroleum chemicals associated with a gas station and large parking facilities. Of particular concern is chloride inputs from de-icing activities and from the salt dome facility planned as part of the proposed Village Municipal Center. High chloride concentrations in stormwater runoff are responsible for conversion of many biologically rich wetlands to low quality monocultures dominated by salt tolerant plants. These wetland conversions are evident throughout the Chicagoland area in places where development was not carefully planned or scrutinized. Modification of WOUS 1B into a shallow bottom detention basin will reduce the dilution capacity of the current water body and diminish the buffering capacity of the existing water body. The shallow bottom detention basin could also become a "haven" for salt tolerant species, such as phragmites and narrow-leaved cattail. These are aggressive species the INPC and Forest Preserve District of Lake County are trying to prevent from establishing within the Middle Fork Savanna. A good stormwater management design would include pre-treatment of stormwater within smaller wet-bottom detention basins and vegetated swales before discharge to WOUS 1B.

- 4.2 The INPC questions whether the proposed conversion of WOUS 1B will indeed benefit the Blanding's turtle. The current plan reduces the amount of over-wintering habitat, but the applicant requests 100% mitigation credit for creating deep water habitat that already exists - this does not make sense. Aquatic habitat improvements for the Blanding's turtle could be better accomplished with shoreline enhancements and island creation - complete with emergent vegetation and logs for sun basking. Upland nesting opportunities for the Blanding's turtle should be preserved and enhanced within an appropriately sized buffer area. These design elements should be provided as mitigation to off-set the negative impacts associated with development as it pertains to the State threatened Blanding's turtle.
- 4.3 The proposed conversion of WOUS 1B into a large detention basin will destroy a significant portion of an oak woodland located on the northwest portion of the development parcel. This oak woodland could be preserved through a more environmentally sensitive stormwater management design and approach. Compensatory storage requirements could be met using other smaller detention basins located on other portions of the development site. These detention basins could be designed as conventional wet-bottom detention to pre-treat stormwater runoff prior to release into WOUS 1B.
- 4.4 The proposed conversion of WOUS 1B includes stormwater conveyance via two linear vegetated swales located on the east side of the basin. The northern swale empties directly adjacent to the outflow from WOUS 1B. This design greatly diminishes the residence time of stormwater entering from the northern swale and will result in high contaminant loading to the Middle Fork Savanna. The contaminant loading will be especially severe if a municipal government center is built in its proposed location, complete with salt dome. An improved stormwater management design would slow the movement of water, promote groundwater infiltration, increase residence time, and use more than one large detention basin for the treatment of stormwater.

- 4.5 The sediment traps located at stormwater outflows within WOUS 1B are good design features, however, other BMPs should be implemented along the two drainage ditches that convey surface water runoff to and from the basin (inflow from along I-94 and outflow to Middle Fork Savanna).
- 5 Due to the location of environmentally sensitive wetland resources down gradient of the development parcel, long term water quality monitoring should be a requirement of any COE permit. Monitoring should include establishment of a baseline representing existing conditions so change in water quality due to this development can be accurately quantified in the future.
- 6 While the development will be designed to adhere to all local stormwater ordinances, these ordinances are all too often inadequate in protecting high quality natural areas. To help evaluate potential impacts, the applicant should provide a preconstruction and post-construction water budget for the site. The INPC is particularly interested to know how much additional water volume will be discharged to the Middle Fork Savanna Nature Preserve as a result of this development. The applicant should attempt to mitigate for additional water volume generated as a result of impervious surfaces and structures.

Thank you for the opportunity to comment on this permit application. If you have any questions or concerns, please do not hesitate to contact me at (815) 385-1573.

Sincerely,



John C. Nelson
NE Illinois Threats Coordinator
1510 South River Road
McHenry, IL 60051

cc. Hahn (LCFPD)
Anderson (LCFPD)
Bartram (OpenLands)
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DenBleyker (V3)
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