

September 20, 2011 2011-MEP-F3COLA-0071

Ms. Kate Lederle
Michigan Department of Environmental Quality
Water Resources Division - Permit Consolidation Unit
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, MI 48909-7973

Reference:

Letter from Randall D. Westmoreland (Detroit Edison) to Michigan Department of

Environmental Quality, "Joint Permit Application for Detroit Edison, Fermi 3 Nuclear Power Plant," 2011-MEP-F3COLA-0041, dated June 17, 2011

Subject:

Proposed Fermi 3 Mitigation Site Information for Review and Comment (File

Number 10-58-011-P)

Dear Ms. Lederle:

In the referenced letter, Detroit Edison Submitted a Joint Permit Application (JPA) and supporting documentation to the Michigan Department of Environmental Quality (MDEQ) for the proposed construction of a nuclear power plant and ancillary facilities (Fermi 3) on the site of the existing Enrico Fermi Atomic Power Plant (Fermi 2). As part of the JPA review process, a meeting was conducted at the Monroe Activity Center on August 9, 2011 to discuss the design of the proposed Fermi 3 mitigation site located near the Monroe power plant. At that meeting, the MDEQ requested that Detroit Edison provide information pertaining to the proposed Monroe mitigation site for review and comment.

The requested information is provided in the attachments to this letter. Attachment 1 contains a Request for Reduction in Mitigation Requirement, Attachment 2 contains a Request for Mitigation Credit for Restoration of Impaired Wetlands, and Attachment 3 contains a Proposed Mitigation Site Plan for the Monroe mitigation site.

The Proposed Mitigation Site Plan incorporates changes discussed during the August 9, 2011 meeting. Additional open water areas were included in the proposed mitigation plan to compensate for impacts to the open water component of Wetlands U and H. The proposed

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concept for introducing water from the Davis Drain to the mitigation site is depicted on the revised plan. The existing transmission line and the limits of the transmission easement along the northern edge of the mitigation site are also shown on the revised plan. The remainder of the property proposed for use in the mitigation is owned by Detroit Edison.

As was discussed with the MDEQ staff, a meeting to discuss comments on the proposed mitigation site strategy has been scheduled for September 28, 2011. Detroit Edison requests that the MDEQ provide formal comments on the attached documents by October 28, 2011 for incorporation into the final design for the Monroe mitigation site.

If you have any questions, or need additional information, please contact me at (313) 235-3341.

Sincerely,

Peter W. Smith, Director

Nuclear Development – Licensing and Engineering

Detroit Edison Company

Attachments: 1) Request for Reduction in Mitigation Requirement

2) Request for Mitigation Credit for Restoration of Impaired Wetlands

3) Proposed Mitigation Site Plan

cc: Ms. Katherine David, MDEQ – Jackson

Mr. Joseph Robison, MDEQ - Rockwood

Mr. James Francis, MDEQ - Southfield

Ms. Colette Luff, USACE

Attachment 1

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Request for Reduction in Mitigation Requirement

(3 Pages)

Request for Reduction in Mitigation Requirement

Proposed impacts associated with Fermi 3 construction activities, ratios and required mitigation are summarized in the table below:

Wetland Type - Emergent Marsh	Fermi 3 Impacted Areas (Acres)	Mitigation Ratio for Wetland Type	Required Mitigation (Acres)
Great Lakes marsh (rare/imperiled)	10.90	5:1	54.50
Great Lakes marsh (rare/imperiled) ^a	2.29	0:0	0.00
Palustrine emergent (coastal)	0.80	2:1	1.60
Palustrine emergent (other)	10.53	1.5:1	15.80
Emergent Marsh Totals	24.52		71.90
Wetland Type - Forested Wetland	Fermi 3 Impacted Areas (Acres)	Mitigation Ratio for Wetland Type	Required Mitigation (Acres)
Southern hardwood swamp (rare/imperiled)	3.15	5:1	15.75
Palustrine forested (coastal and other)	4.89	2:1	9.78
Forested Wetland Totals	8.04		25.53
Wetland Type - Scrub Shrub Wetland	Fermi 3 Impacted Areas (Acres)	Mitigation Ratio for Wetland Type	Required Mitigation (Acres)
Southern shrub carr (coastal)	3.91	2:1	7.82
Palustrine scrub shrub (other)	1.37	1.5:1	2.06
Shrub/Scrub Wetland			
Totals	5.28		9.88
Total Wetlands	Fermi 3 Impacted Areas Requiring Mitigation (Acres) ^b	Combined Mitigation Ratio for All Wetland Types	Required Mitigation (Acres)
Wetland Totals	35.55	3:1	107.30

^a 2.29 acres of temporary impact associated with transmission line construction must be permitted but will be restored immediately after construction and does not require additional mitigation as per regulatory guidance

A total of 87 acres of wetland restoration is proposed as mitigation for the 35.55 acres of proposed impacts in the table above. This acreage of proposed mitigation reflects the requested 20% reduction in mitigation requirement, reducing required acres from 107.30 to 85.84, for the following reasons:

^b Total impacts minus 2.29 acres of temporary impacts described in note (a) above.

- The offsite mitigation action is proposed at a location approximately 7 miles south of the impact site within the coastal zone of Western Lake Erie (Monroe site). This site is highly suitable in terms of geographic location, landscape setting and ecological restoration opportunity to restore rare and imperiled coastal wetland communities. This site is identified in the State of Michigan's online Wetlands Map Viewer as one of only three areas in the coastal zone of Western Lake Erie of suitable size and restoration potential. The Monroe site was historically coastal wetland prior to agricultural development which included construction of a flood control dike, ditching and tiles. The Monroe site provides a high likelihood of successful ecological restoration compared with creating a new wetland on an upland site.
- Restoration of 87 acres of a rare and imperiled wetland community (Great Lakes Marsh) is proposed at the Monroe site to compensate for all 35.55 acres of wetland impacts, even those that are not rare and imperiled wetland types. Restoration design includes reconnection of Lake Erie hydrology to the site by removal of segments of the flood control dike, removing agricultural drainage tile, creating channels and grading to restore hydroperiods that support the development of all zones associated with Great Lakes Marsh communities: open water submerged aquatic habitat, floating leaved and weak-stemmed emergent, robust emergent, scrub-shrub, and hardwood swamp and/or wet prairie communities.
- Mitigation at the Monroe site will restore a complete, functional, high quality coastal wetland to compensate for impacts to wetland acres comprised predominantly of low quality edges and fragments of a much larger, intact wetland system at the Fermi site. The vast majority of functions and services currently provided by wetlands at the Fermi site will not be influenced or permanently affected by construction activities associated with Fermi 3. Some functions may, in fact, be improved with the eventual restoration of the 21 acres of wetland edges and fragmented wetland areas used temporarily for construction support.
- The 174 acre Monroe site contains approximately 74 acres of existing wetland. The majority of these wetlands are either farmed or impaired by altered hydrology, invasive species and adjacent land use activity. In addition to the restoration of 87 acres of coastal wetlands at the Monroe site, approximately 35 acres of the existing wetlands at the Monroe site will be enhanced by restoring adjacent area to wetland, restoring Lake Erie hydrology, cessation of farming, and eradicating, controlling and managing invasive species. Detroit Edison requests that an additional 39 acres of these delineated wetlands be considered eligible for credit toward satisfying the mitigation requirement (See Attachment 2).
- Of the 35.55 acres of impacted wetlands at the Fermi site for which offsite compensation is described above, 19.5 acres will ultimately be restored to wetlands and monitored to ensure that restoration activities result in similar or higher quality wetlands than what currently exists. The proposed offsite mitigation is designed to fully replace the functions of these impacted wetlands as though they were permanently lost. The eventual restoration of these wetlands will further increase the overall compensation proposed for the Fermi 3 project.

Attachment 2

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Request for Mitigation Credit for Restoration of Impaired Wetlands

(2 Pages)

Request for Mitigation Credit for Restoration of Impaired Wetlands

Approximately 74 acres of existing wetlands have been delineated at the Monroe mitigation site. Several of these wetlands are currently farmed. Two of the farmed wetlands (Wetlands W14 and W16) are located on the east side of the Monroe mitigation site adjacent to the flood control dike in an area where most of the active mitigation is to occur (See Attachment 3). Detroit Edison requests that these two wetlands, totaling approximately 39 acres, be counted toward restoration/mitigation credit for the following reasons:

- Wetlands W14 and W16 are not in their natural condition due to a variety of factors from altered hydrology (isolation from Lake Erie, agricultural drainage tiles, ditching) to ongoing agricultural activity. These two wetlands are in an area of the Monroe mitigation site targeted for active mitigation measures.
- The altered hydrology, mowing, discing, planting and harvesting of these wetlands have severely degraded the original coastal wetland functions and services they once provided. Active farming eliminates the majority of wetland functions. Invasive species colonization (Canada thistle), after only one year of no farming, degrades what little public benefit these two wetlands would provide even with the cessation of farming activity. While Wetland W14 had a relatively high diversity of wetland vegetation, it is not reflective of the historical wetland community. The presence of invasive species in and adjacent to Wetland W14, after just a short time of being fallow, indicates that this wetland would also be degraded by a monoculture of invasive species, minimizing public benefit. Without active restoration, these wetlands will continue to provide little to no public benefits (other than agricultural).
- The wetland restoration design will include active mitigation measures such as establishing a direct connection to Lake Erie by removing portions of the flood control dike, removing agricultural drain tile, and establishing Great Lakes Marsh zonation via constructed channels, grading and planting.
- Mitigation at the Monroe site will replace the current agricultural field with a complete, functional, high quality coastal wetland of rare and imperiled status. The restored wetland, including Wetlands W14 and W16, will provide significant ecological value to the associated wetlands and adjacent areas at the Monroe mitigation site and to the coastal zone of Western Lake Erie as a whole.

Attachment 3

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Proposed Mitigation Site Plan

(2 Pages)

Elevations Table Elevations Table Minimum Elevation | Maximum Elevation | Color Category Minimum Elevation Maximum Elevation Color Open Water Open Water 569.00 571.5 569.00 571.5 Emergent Marsh Emergent Marsh 573.50 571.50 571.00 572.00 Shrub Wetland Shrub 574.00 573.50 572.50 572.00 Wetland Forested Forested 574.00 574.50 572.50 573.00 Wetland Wetland Upland 574.50 NA 573.00 NA Upland OVERFLOW — WEIR TO SITE DAVIS DRAIN \neg TRANSMISSION TOWER HIGH RATE OVERFLOW TO CONSTRUCT LOW FLOW 12" CULVERT CONSUMERS POWER COMPANY CORRIDOR (I.T.C. EASEMENT) CONSTRUCT BRIDGE OR 3-SIDED CULVERT FOR DAVIS DRAIN OVERFLOW BASE FLOW IN DAVIS DRAIN CONTINUES ALONG PRESENT PATH PROPOSED BERM - WATER CONTROL STRUCTURE - PROPOSED OPEN WATER CHANNEL LEGEND LAKE WETLAND LIMITS ERIE APPROXIMATE BOUNDARY LINE FOR MITIGATION TRANSMISSION CORRIDOR EASEMENT

ELEV DATUM: IGLD 1985

West of Berm

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