Proposed Wetland Mitigation Plan

Marble River Wind Farm

Marble River, LLC incorporated a plan to compensate for the discharge of fill material into waters of the United States, and The New York State Department of Environmental Conservation (NYSDEC) wetlands and adjacent areas. The plan includes compensation for the loss of functions and values associated with the permanent alteration of forested wetland canopy removal as a result of maintaining an overhead electric collection line. Marble River, LLC proposes to develop their mitigation sites over 5 areas, which include the McNeil Property, Matthews Property, Clookey Farm, Cole Property, and the Spoor property.

Marble River Mitigation Allocations							
Total Mitigation Available	Impacted	Mitigation					
404 Permanent Fill to Wetlands	8.94 acres	11.59 acres					
404 Permanent Fill to Surface Waterbodies	1,171 (linear feet)	2,243 (linear feet)					
Tree Canopy Removal	24.81 acres	10.00 acres					
Future Modification Mitigation	Not Applicable	3.85 acres					
Total Mitigation Available		25.44 acres and 2,243 linear feet					

404 Permanent Fill to Wetlands:

Proposed activities requiring US Army Corps of Engineers authorization would result in permanent impacts to a total of approximately 8.94 acres of wetlands and 1,171 linear feet of streams. In addition, the project would result in temporary impacts to a total of approximately 65.5 acres of wetlands and 5,000.2 linear feet of streams. Temporary impacts will be mitigated for onsite and impacts replaced in kind.

Marble River, LLC conducted a functional assessment of the impacted wetlands and calculated the compensatory mitigation acreage compared to the typical standard compensatory mitigation ratios, and believes that 11.60AC of mitigation broken out into the following cover types is acceptable.

Cowardin	Affected	Mitigation Acreage Needed			
Cover Type	Permanent Acreage	(Standard Ratios)	(Wetland Quality Ratios)		
PEM	3.21	3.21	3.09		
PSS	2.61	3.92	3.49		
PFO	3.11	6.23	5.02		
Total	8.94	13.36	11.60		

404 Permanent Fill to Surface Waterbodies:

Proposed activities requiring US Army Corps of Engineers authorization would result in permanent impacts to a total of 1,171. linear feet of streams, and temporary impact 5,000.2 linear feet of streams. Marble River, LLC proposes to offset permanent impacts by installing environmentally friendly culvert types (i.e. bottomless or oversized culverts with a gravel base) in 1,728 linear feet of currently affected surface waterbodies that have inadequately sized culverts or areas where surface water flows over existing seasonal or year round dirt access roads. In addition, two degraded stream banks along the English River (125 feet) and an unnamed tributary to Brandy Brook (400 feet) will be restored, and a cattle crossing and watering areas would be constructed across the Hinchinbrook Brook and English River, respectively.

Tree Canopy Removal

Project related activities requiring additional New York State Department of Environmental Protection (NYSDEC) authorization and compensatory mitigation would result in the alteration of forested wetlands by tree canopy removal of approximately 24.8 acres. Marble River, LLC performed a functional assessment, and determined that for mitigation of the tree canopy removal, would require 10.00AC of forested wetlands. Exhibit N provides a detailed analysis of this assessment.

NYSDEC Adjacent Area Impacts:

Project related activities requiring additional NYSDEC authorization would result in the utilization of approximately 24.2 acres of NYSDEC adjacent areas. A majority of the adjacent areas encompass existing disturbed land such as agricultural hay fields, existing roadways, logging roads, recreational trails, second growth forests, and fully cleared forest. Marble River, LLC determined that 15 AC of the impacted adjacent areas are already degraded and functionally limited by existing practices and the lack of proper BMP considerations in place. In addition the remaining undisturbed 9.2 AC are of marginal quality and have limited functions. None of the adjacent areas are located within a mature or climax or virgin forested community. For all impacted areas within the adjacent area Marble River, LLC will utilize best management construction practices (BMP), incorporate NYDEC "Blue Book: guidelines for erosion and sedimentation controls", and the project staff will include an environmental monitor to ensure environmental controls are properly installed and maintained, and ensure that Project contractors are fully informed of the environmental sensitivity of the region.

Future Modification Mitigation:

Marble River, LLC is proposing additional mitigation in their design (3.85 acres) to be utilized for any potential changes to the project that may require a permit modification. Although it is not anticipated that significant changes to the project will be required, past experiences in other wind farm developments indicate that minor project modifications and improvements are inevitable.

Summary of Mitigation Areas:

Below is a summary of the location, cover types, and mitigation goal for the Marble River Wind Farm.

Mitigation	Enhancement		Restoration		Creation					
Area	PEM	PSS	PFO	PEM	PSS	PFO	PEM	PSS	PFO	Total
Clookey	0.65			1.56			2.32	4.22		8.75
Matthews						1.31			4.38	5.70
Cole			1.48			2.31				3.79
Spoor			0.48						2.45	2.93
McNeil			0.69						3.59	4.28
	0.65	0	2.65	1.56	0	3.62	2.32	4.22	10.42	
Total		3.30			5.18			16.96		25.44

All areas of mitigation will be placed into legally binding conservation easements set into perpetuity, to be protected from logging, cattle grazing, and other traditional degradations that occur within the region.









