

Table 3-3
Year 2000 Water Usage Statistics in Jefferson County ¹

Type of Usages	Water Withdrawals ²		
	Groundwater	Surface	Unit
Public supply ³	2.17	8.20	Mgal/d
Domestic, self-supplied withdrawals	0.45	0.00	Mgal/d

¹ Source: <http://water.usgs.gov/watuse/data/2000/index.html>

² 6.39 Mgal/d was industrial use

³ Population (Year 2000) in Jefferson County was approximately 111,740

3.2.1.2 Potential Impact

Construction of the proposed wind energy project will have minimal to no impact to groundwater quality in the Towns of Cape Vincent and Lyme in Jefferson County. Operation of construction equipment and vehicles that require the use of diesel and gasoline fuels, lubricating oils, and cooling fluids may pose a small risk for spills. Spills associated with these sources, should they occur, will likely be small and confined to work sites, thus limiting the potential for infiltration into groundwater or direct flow of contaminants through fissures in karst areas.

While shallow groundwater flow rates and patterns may exhibit some deviation from pre-construction conditions in the immediate area surrounding the foundations of Project facilities, the Project will have minimal impacts on regional groundwater recharge because of the small percentage of added impervious surface. Dewatering of excavated pits for foundations may result in minor and local lowering of the water table, which could affect nearby water wells. Given the minor and highly localized character of these impacts, local water supply wells will not be adversely affected. Each turbine will be located a minimum distance of 1,250 feet from existing residences, and presumably several hundred feet from associated private wells. The routine operation and maintenance of the Project facilities is anticipated to have no significant impacts to groundwater, as most of the Project impacts are attributed to the construction phase.

3.2.1.3 Mitigation Measures

The potential for groundwater contamination resulting from Project construction or operation will be mitigated by: requiring construction contractors to use appropriate best management procedures to prevent spills, limiting quantities of hazardous materials used on site, and the implementation of the Emergency Response Plan (ERP) (see Appendix B) that addresses prevention, containment and removal of spills. The potential for direct flow of contaminants into groundwater through fissures in karst areas will be addressed in the ERP and SWPPP. The Applicant will work with the NYSDEC and the County Soil and Water District prior to construction to develop a plan to survey karst features in the Project Area. The survey will at a minimum identify bedrock fractures and sinkholes within 500 feet of proposed Project activities.