

**Table 4-4**  
**Estimated Emissions Reductions Resulting from the Projects**

| Project                         | Total Annual Reductions<br>(tons/year) <sup>1</sup> |                                      |                                       |
|---------------------------------|---|--------------------------------------|---------------------------------------|
|                                 | Carbon dioxide<br>(CO <sub>2</sub> )                | Sulfur dioxide<br>(SO <sub>2</sub> ) | Nitrogen oxides<br>(NO <sub>x</sub> ) |
| St. Lawrence Windpower Project  | 73,085.4  | 313.4                                | 86.7                                  |
| Cape Vincent Wind Power Project | 193,055.9   | 827.8                                | 229.0                                 |
| Hounsfield Wind Farm            | 247,111.6   | 1,059.6                              | 293.2                                 |
| Horse Creek Wind Power Project  | 121,349.4   | 520.3                                | 144.0                                 |
| Wolfe Island Wind Project       | 181,840.3   | 779.7                                | 215.7                                 |
| Total                           | 816,442.6   | 3,500.9                              | 968.6                                 |

<sup>1</sup> Based on USEPA's Emissions and Generation Resource Integrated Database (EPA eGRID), assumes average output emission rates for upstate New York power generators are approximately equal to: SO<sub>2</sub> at 3.00 pounds (lbs)/MWh, NO<sub>x</sub> at 0.83 lb/MWh, and CO<sub>2</sub> at 699.63 lbs/MWh (EPA eGRID 2007 Version 1.0 Year 2005 Summary Tables).

The cumulative modeling analysis (Appendix L) demonstrates that a number of turbines in the adjacent Cape Vincent Wind Project are close enough that the sound levels at some residences between the two projects are likely to experience slightly higher sound levels than they otherwise would if the St. Lawrence Project existed in isolation. However, the predicted cumulative sound levels are expected to be in the order of 1-2 dBA which is essentially a negligible increase in terms of increased cumulative sound impacts.

While addition of the BP turbines would clearly reshape the area within the 42 dBA impact threshold in many places, only a few non-participating residences that were formerly close to, but outside of, the 42 dBA contour would be inside of this area if the BP project were added. These residences or groups of residences are properties that are primarily affected by the St. Lawrence Project and where the noise from the adjacent project would be secondary. The actual change in sound exposure at these locations would be small due to this cumulative affect. The following table summarizes the predicted sound levels with the St. Lawrence Windpower Project alone and with both projects at these four locations and are also depicted in Exhibit 3.10.4 in Section 3.10.