5.0 TYPES OF IMPACTS

The current design for the proposed project would impact waters of the U.S. by dragline mining and subsequent placement of approximately 39,016,572.32 cubic yards of fill material in wetlands, and streams, as well as the construction of the associated facilities which would involve the placement of fill material in wetlands. The impacts to waters from the mining activities are considered temporary due to the fact that the mined area will be replaced with the excavated material and once minerals are extracted restored to preconstruction contours and elevations within 90 days. There will be no net loss of waters of the U.S. in these areas. Associated facilities of the mine that will be constructed will result in permanent impacts to waters of the U.S. These impacts are considered permanent due to the fact that they will last longer than one year.

The following table provides a summary of the proposed mining activity at the project site by property area.

Property	Mining Method	Total Area to be mined (ac)	Average Mining Depth	Total Wetland to be Mined (ac)	Total Upland to be Mined (ac)
TIAA	Excavation	216.045	25	77.28	138.765
Keystone	Dragline	570.862	50	316.874	253.949
Adirondack	Dragline	481.526	50	128.163	353.148
TOTAL		1268.433		522.317	745.862

Table 10: Mining Summary by Property

The following table provides a summary of the proposed mining volumes by property area.

Table 11: Mining Volume Summary

Property	Total Volume to	be Mined	Total Wetland to Be Mined		
	Cubic feet	Cubic yards	Cubic feet	Cubic yards	
TIAA	235,273,005.00	8,713,806.29	84,157,920.00	3,116,956.88	
Keystone	1,243,337,436.00	46,049,488.62	690,151,572.00	25,561,143.77	
Adirondack	1,048,763,628.00	38,843,058.49	279,139,014.00	10,338,471.66	
TOTAL	2,527,374,069.00	93,606,353.39	1,053,448,506.00	39,016,572.32	

The waters proposed to be impacted include wetlands, and intermittent streams. The streams are generally part of the tributary system of the St. Mary's River. Mapped wetlands and streams are shown on Figure 4.1b. The review area contains approximately 1201.189 acres of wetlands and approximately 8,955 linear feet of stream channel. Aquatic resources quantities and proposed impacts are summarized in the tables below. All activities will be performed in a manner to minimize turbidity in the stream.

There will be no oils or other pollutants released from the proposed activities which will reach the stream.

All work performed during construction will be done in a manner to prevent interference with any legitimate water uses.