

## **Fort Drum Mitigation Banking Project**

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The Fort Drum Army Post, located near Watertown, NY, is used extensively for National defense training. Approximately 20% of the 107,267 acre Post is jurisdictional wetlands, and, despite strict avoidance and minimization practices, some wetland impacts are unavoidable during the course of ongoing facility upgrades to meet mandated training goals. To streamline Section 404 permitting requirements and provide environmentally sound mitigation for these unavoidable impacts, the Fort Drum Public Works, Environmental Division has initiated a Mitigation Banking Project.

The concept of a Mitigation Bank is to generate a pool of wetland impact compensation “credits” by creating, restoring, enhancing, or preserving wetlands prior to any impacts. In this case, the Bank credits will be valued based on both aerial extent of mitigation activities and functional value assessment. A Mitigation Bank helps to expedite the regulatory review process for wetland impact permits by providing up-front wetland mitigation. Credits are debited from the Bank equal to the valuation of each permitted impact, until such time as all credits have been exhausted. Administration of a Mitigation Bank is governed by a Mitigation Banking Instrument and overseen by a Mitigation Bank Review Team consisting of, but not limited to, representatives from the regulatory agencies having jurisdiction over wetlands in the Bank Service Area. In addition to their regulatory advantages, Mitigation Banks provide greater environmental benefits than small, piecemeal mitigation activities by preserving large, contiguous areas of habitat.

The Fort Drum Mitigation Bank will consist of approximately 27 hectares (68 acres) of wetland creation and enhancement, plus another 81 hectares (199 acres) of wetland and upland habitat preservation. These mitigation activities will be located on five sites within the Post. Newly created wetlands will consist primarily of emergent vegetation with scrub/shrub fringes, with succession of woody vegetation expected to occur over time. Other wetlands will be enhanced or restored by the hydrologic modifications of the created wetlands. Each mitigation site will be permanently protected by a buffer of preserved wetland and upland habitat, within which additional enhancement activities will be conducted, including tree planting and construction of earthen and vegetated visual screens.

Multiple construction and enhancement techniques will be employed for the Fort Drum Mitigation Banking Project. Wetland creation will be primarily by excavation and seasonal diversion and retention of waters from existing surface water courses. Creation areas will receive a blended growth substrate with high organic content. Emergent grasses, rushes, and sedges will be seeded in the created wetland interiors. A mixture of indigenous scrub/shrub

plantings will be placed along the created wetland fringe. Upland perimeter slopes will receive additional tree plantings for habitat diversity and visual quality. Structures will be designed for seasonal retention of waters during high flow periods, rather than creation of permanent open water bodies. This seasonal inundation will result in hydrologic enhancement of existing wetlands in areas where they are adjacent to creation areas. Boundaries of the overall habitat preservation buffers will receive earth mounds and tree plantings to isolate the wetland habitats from roads or other high traffic areas. Access to all completed mitigation sites will be restricted except for recreational, educational, and scientific purposes.

**PROJECT SITE STATISTICS**

<b>Mitigation Activity</b>	<b>Range 37 Borrow Pit</b> hectares (acres)	<b>Site B North Corner</b> hectares (acres)	<b>Site B LZ &amp; Skeet Range</b> hectares (acres)	<b>Site G Antwerp</b> hectares (acres)	<b>TOTALS</b>
<b>Net Wetland Creation</b>	2.52 (6.23)	2.68 (6.63)	14.85 (36.69)	1.72 (4.26)	<b>21.78</b> <b>(53.81)</b>
<b>Wetland Enhancement</b>		3.75 (9.27)	0.66 (1.62)	1.30 (3.22)	<b>5.71</b> <b>(14.11)</b>
<b>Wetland Preservation</b>	2.34 (5.78)	2.17 (5.35)	2.65 (6.56)	5.41 (13.36)	<b>12.57</b> <b>(31.05)</b>
<b>Upland Enhancement</b>	7.00 (17.29)	0.27 (0.66)	3.64 (8.99)	0.96 (2.37)	<b>11.86</b> <b>(29.31)</b>
<b>Habitat Buffer</b>	12.75 (31.51)	9.38 (23.18)	16.69 (41.24)	17.38 (42.94)	<b>56.20</b> <b>(138.87)</b>
<b>Totals</b>	<b>24.61</b> <b>(60.81)</b>	<b>18.25</b> <b>(45.09)</b>	<b>38.49</b> <b>(95.10)</b>	<b>26.77</b> <b>(66.15)</b>	<b>108.11</b> <b>(267.15)</b>