

### **4.3 Prioritizing the Selected Habitat Restoration Projects**

The sites selected for development of ecological restoration projects exhibit significant, urgent problems that warrant consideration for action in the near future. Field observations conducted prior to 2010 and then later during ERMP field assessments have confirmed the occurrence of extensive stream bank instability, which has resulted in substantial loss of stream bank and riparian vegetation throughout the ERMP focus area. For example, after two combined flood stage and ice out events in early and late February 2011, field observations at some sites suggest that significant stream bank and floodplain soil losses have occurred since the ERMP field assessments were completed in the fall of 2010. Additionally, based on qualitative observations in March of 2011, Seneca Bluffs, Cazenovia Park, and Stiglmeier Park exhibited stream bank losses of approximately 3 to 5 feet from early November 2010 to March 2011 across hundreds of linear feet of stream bank (cumulatively). Land is being lost and the river/creek channels are becoming wider due to undercutting and subsequent collapse of soil and vegetation into the river/stream channel. Review of aerial imagery suggests that soil loss (and therefore riparian loss) on these sites has been accelerating.



**Photo 4.3-1 Cazenovia Park site continual bank failure, observed on February 21, 2011**



**Photo 4.3-2 Cazenovia Park LDB undercutting and failure at Golf Course, observed on April 3, 2011**

The sites that exhibit the most extensive, severe, and active habitat degradation are recommended for the most immediate habitat restoration activities.

#### **Priority Habitat Restoration Sites Upstream of the AOC**

The following seven sites are substantially contributing to the degradation of the Buffalo River and portions of the lower Buffalo River watershed, especially with respect to degrading downstream water quality, increasing sedimentation rates, degrading benthic and other in-stream habitats, and outright habitat loss. These sites have been placed in a priority group for habitat restoration planning and implementation due to: severity and extent of stream bank instability; mass wasting and erosion of stream banks and consequential total area of land; increased sediment loading rates; loss of riparian vegetation; reduction in floodplain function; channel instability; and extensive establishment of monocultures of invasive plant communities, further destabilizing stream banks and site soil profiles, and reducing habitat functions and values.

The following habitat restoration project sites are considered to be high priorities given the conditions summarized above and the consequential impacts those conditions have on the lower Buffalo River watershed.

- West Seneca Development Center;
- Seneca Bluffs;
- West Seneca, Behind Compost Facility;

## 4 Proposed Ecological Restoration Projects

- Erie County Cayuga Creek Overflow;
- Stiglmeier Park;
- LA-7 Wetland Cheektowaga; and
- Thruway to Railway.

### Projects within the AOC

Four project sites proposed for restoration in this ERMP are within the AOC, including Blue Tower Turning Basin, Concrete Central Peninsula, Smith Street Park, and Katherine Street Peninsula Shoreline adjacent to Smith Street Park. These ERMP sites are located along the industrial shipping channel adjacent to a combination of remediated sites, rail corridors, remnant commercial structures, and highly modified stream banks. Although restoration opportunities are limited in these areas, significant nearshore and stream bank habitat recovery is possible. Constructed aquatic habitat features complemented by stream bank and riparian corridor habitat would provide important improvement of fishery and terrestrial habitat in one of the most degraded and habitat-impooverished segments of the watershed.



**Photo 4.3-3 Remedial dredging along Smith Street Park shoreline**

These four sites are also near the federal navigation channel limits and the vicinity of the Buffalo River Habitat Restoration Project. The work planned under this GLLA project includes removal of contaminated sediment by dredging followed by restoration of natural habitat and structural features to support regeneration of native plant communities. Dredging of the navigation channel will begin in 2011 with stream bank stabilization and restoration activities to follow.

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#### **4 Proposed Ecological Restoration Projects**

Due to the remedial dredging schedule, it is recommended that timing of site restoration design and implementation for the aforementioned sites be initiated after the scope and scale of the GLLA remedial activity has been determined.