



Failed Wetland? We Think Not.

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In 1986, the Illinois State Toll Highway Authority constructed over 17 miles of Interstate highway (I-355) through the western suburbs of Chicago. During construction, 80 acres of wetlands were impacted, requiring creation of 120 acres of mitigated wetlands as compensation. One location chosen for mitigation was Greene Valley Forest Preserve.

Creation of 11 acres of mitigated wetland at Greene Valley was completed by 1989 and a 5-year period of vegetation monitoring commenced. The constructed pond contained vegetated slide slopes and was connected to the East Branch of the DuPage River, allowing back water to flow into the pond during high-water events. However, unexpected water fluctuations restricted the planted aquatic vegetation from becoming established. Salt loading, goose herbivory, and extended flooding further impacted wetland vegetation. In 1994, at the end of the 5-year monitoring period, the U.S. Army Corps of Engineers concluded that this constructed pond had not successfully met the Corps' criteria for wetland mitigation. Adjustments to the original design and reconstruction of the pond were cost-prohibitive; the pond was considered a failure, and an alternative mitigation site was sought.



Lesser Yellowlegs



Location of Greene Valley's "fluddle"

Twenty years since original construction, current conditions at this "failed wetland" continue to fluctuate with the ebb and flow of the river, and aquatic vegetation is sparse to non-existent. However, during times of low water, a muddy bottom is exposed, enticing migrating shorebirds to rest and forage. During ideal shorebird conditions, hundreds of sandpipers and plovers can be observed. Over the past years, birders have "flocked" to this pond to witness the diversity of migrants with the hopes of spotting something unique. In 2008 alone, the state-endangered Wilson's phalarope was observed along with three species considered in "greatest need of conservation" by the Illinois Department of Natural Resources: Greater yellowlegs, Short-billed dowitcher, and Stilt sandpiper. Additionally, a vagrant Curlew sandpiper was confirmed in August 2008. Additional observations from 2008 are noted in Table I. Other notable species observed at this wetland prior to 2008 include: Dunlin (2007), Long-billed dowitcher (2005), White-rumped sandpiper (2005, 2007), and Wilson's snipe (2004, 2006, 2007). Besides



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shorebirds, other guilds can commonly be observed including ducks, gulls, terns, swallows, and an occasional marshbird.

When a wetland is impacted by development, a mitigated wetland is often required to “replace or restore the benefits of a resource” that is lost. Most people understand that there are many physical components of a functioning wetland including vegetation, vertebrate wildlife, invertebrates, water quality and chemistry, nutrients, hydroperiod, substrate, etc.

However, many regulatory agencies measure ecosystem value based on vegetative quality since it is relatively

easy to evaluate. The Greene Valley “fluddle”, as it is affectionately called by local birders, can be one of the best places in northeastern Illinois to view migrating shorebirds. Though the quantity of shorebirds observed here does not compare to other locations in Illinois, the quality of species attracted to this 11-acre wetland is noteworthy. Despite the Army Corps’ dissatisfaction in the “performance” of this constructed pond is a success. Migratory stopover habitat is essential to the preservation of any species. Though the quality of wetland habitat destroyed by the I-355 development is unknown, the created Greene Valley fluddle most likely restored the benefits of a lost resource -- at least to our migratory shorebird friends.



This wetland was constructed to replace wetlands lost during the construction of I-355.

It failed to comply with Army Corp of Engineers’ criteria for a “successful” mitigation. It’s now a haven for migrating shorebirds that rest and forage in the exposed mudflats.

Table 1. Maximum number of shorebirds observed during one of 12 visits from July - October 2008 at Greene Valley Forest Preserve (DuPage County).

Baird's Sandpiper	1
Curlew Sandpiper	1
Greater Yellowlegs	1
Killdeer	150
Least Sandpiper	33
Lesser Yellowlegs	12
Pectoral Sandpiper	6
Red-necked Phalarope	1
Short-billed Dowitcher	9
Semi-palmated Plover	1
Semi-palmated Sandpiper	7
Solitary Sandpiper	14
Spotted Sandpiper	28
Stilt Sandpiper	3
Wilson's Phalarope	1