

E&R 2012-03 Dyke Marsh Restoration Options

1. WHEREAS, Dyke Marsh is the last major remnant of once extensive freshwater marshes along the upper tidal Potomac River ;
2. WHEREAS, Congress added Dyke Marsh to the National Park Service system in 1959 and directed the Secretary of the Interior to administer the marshlands “. . . so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount” (PL 86-41), and in 1974 mandated that the marsh be restored (PL 93-251);
3. WHEREAS, between 1940 and 1972 Dyke Marsh was dredged for sand and gravel, resulting in the loss of about 100 acres of the 183 acres present in 1937;
4. WHEREAS, dredging removed a southern promontory that protected the marsh from tropical storms, hurricanes, and nor’easters driven up the Potomac River valley, leaving the marsh vulnerable to erosion from storms from the south;
5. WHEREAS, dredging created a deep channel next to the eastern edge of the marsh that acts as a scour channel that further erodes the marsh;
6. WHEREAS, the destabilized marsh is currently losing an estimated 1.5 to 2.0 acres per year¹, and at that rate of erosion will be gone in 40 years;
7. WHEREAS, Dyke Marsh is a source of important and irreplaceable ecological, recreational, educational, and scientific benefits by:
 - a. Providing habitat, nesting, feeding, and refuge areas for migratory and resident waterfowl and other birds (270 species of birds are documented in Dyke Marsh, including 40 that breed there and a state-listed rare species);
 - b. Serving as spawning and nursery grounds for fish (38 species are in Dyke Marsh);
 - c. Providing habitat for other species of plants (300, including three state-listed rare species) and animals (6,000 arthropods, 16 reptiles, 14 amphibians);
 - d. Improving water quality by trapping sediments and nutrients, reducing turbidity, and buffering inland areas from storm and wave energy and flooding;
 - e. Providing recreational opportunities for fishing, boating, nature study in and hunting around the waters of Dyke Marsh and the Potomac River; and
 - f. Providing scientific and educational value.
8. WHEREAS, these ecological, recreational, and educational benefits have been degraded and will be lost entirely if the marsh is allowed to disappear, while the irreplaceable loss of habitat will mean smaller and less diverse populations of fish, waterfowl, and other animals and plants;

¹ Ronald J. Litwin et al., *Analysis of the Deconstruction of Dyke Marsh, George Washington Memorial Parkway, Virginia: Progression, Geologic and Manmade Causes, and Effective Restoration Scenarios*. U.S. Geological Survey, <http://pubs.usgs.gov/of/2010/1269/>.

9. WHEREAS, the National Park Service has offered four options for restoration and long-term management of the marsh (A-No Action, B-Minimum Restoration, C-Moderate Restoration, and D-Full Restoration, which would restore 0, 30, 140, and 180 acres, respectively); and
10. WHEREAS, all three restoration options (B, C and D) depend in large part on donated dredged fill, resulting in significant cost savings;
- A. THEREFORE BE IT RESOLVED, the Mount Vernon Council of Citizens' Associations (MVCCA) supports option D (Full Restoration), with a caveat to retain the marina concession and mooring field. This option would:
 - a. Fully restore the southern promontory that historically protected the marsh from the eroding effect of hurricanes and nor'easters from the south;
 - b. Construct a new tidal gut to discharge in an upstream direction, which would protect the last major tidal creek in the marsh from the effects of tidal surges and storms;
 - c. Place fill in a deep channel caused by dredging, to divert flows back to the Potomac River main channel;
 - d. Construct breaks in the Haul Road, to reestablish hydrologic connections between eastern and western sections of the marsh; and
 - e. Place fill along the main portion of Dyke Marsh out to the historic 1937 boundaries, restoring 130 acres of marsh and constructing tidal guts similar to historical flow paths.