

# Cumberland Marsh Preserve

## New Kent County, Virginia

### Wetland and Stream Restoration in the York River Watershed

The Cumberland Marsh Preserve is located in New Kent County, VA in the York River basin and contains an unnamed tributary to Holt's Creek. The Nature Conservancy (TNC) has managed the land since purchasing it in 1993. In total, the preserve consists of 1,094 acres, including freshwater tidal marsh, streams, non-tidal wetlands, open water, wooded upland areas, and agricultural fields.

### Existing Conditions

One of the nation's largest populations of the federally-threatened sensitive joint vetch (*Aeschynomene virginica*), a warm season annual legume plant, is located at Cumberland Marsh. This rare species occurs in tidal river systems with high plant diversity, and is at risk due to a number of threats, including competition from non-native species, dams, and habitat loss/alteration. Prior to removal, two earthen dams on site restricted water flow and contributed to sediment build up. Failure of dams, especially during heavy rains, threatened wetlands and the sensitive joint vetch population.

In February 2007, the Virginia Aquatic Resources Trust Fund received approval for funding for the Cumberland Marsh restoration project.

### Quick Facts

- Restored 1,730 linear feet of stream.
- Created 3.15 acres of new freshwater tidal wetland and 4.38 acres of palustrine wetlands.
- Increased the area of suitable habitat for sensitive joint vetch.
- Enhanced existing wooded buffers along Holt's Creek and the Pamunkey River.
- Returned unnamed tributary on site to free-flowing condition.

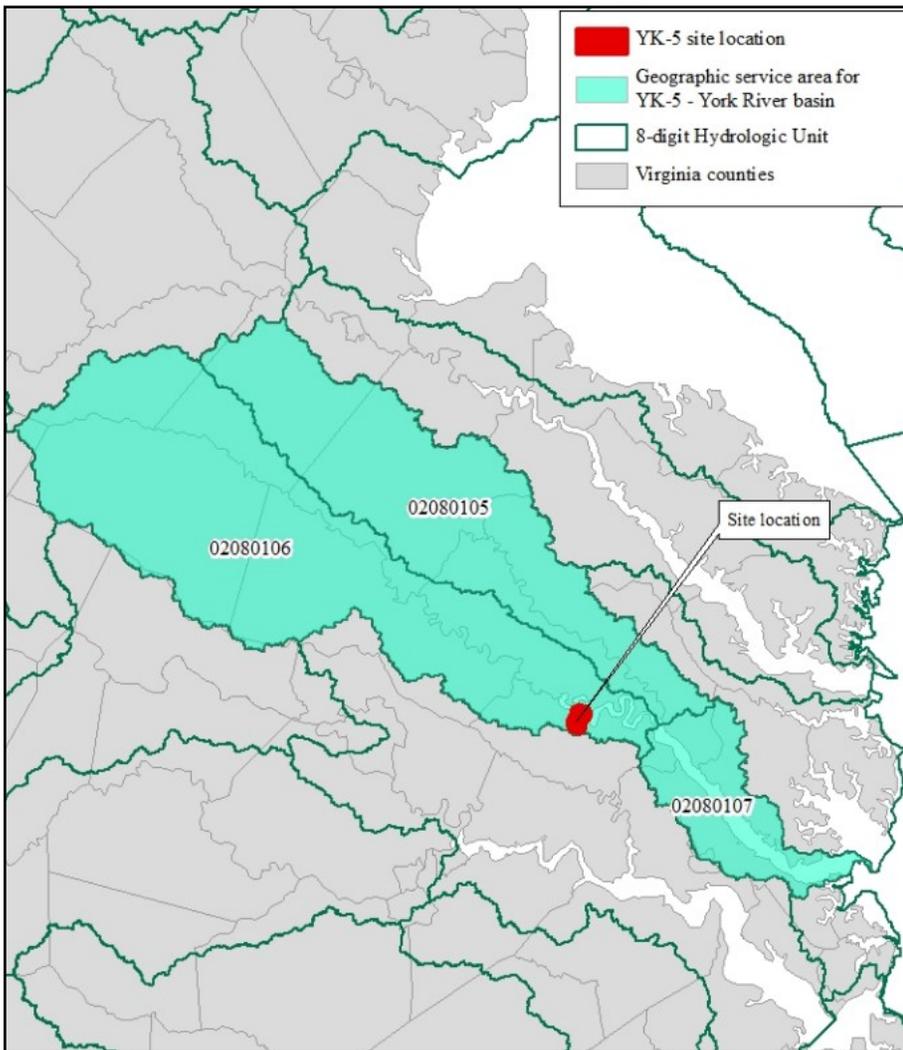


*Sensitive joint vetch at Cumberland Marsh*



*February 2007: Initial site conditions*





## Restoration Activities

In August 2010, the U.S. Army Corps of Engineers granted TNC a permit for the removal of two earthen dams within the Cumberland Marsh Preserve. To begin, TNC removed the upper dam and conducted inspections of exposed sediments before beginning to reintroduce indigenous plant species to the site. These species were intended to reinforce the riparian buffer as they grew in. The process was repeated after the removal of the lower dam. Grading and stabilization were applied along the channel of the unnamed tributary on site.

## Benefits of the restoration include:

1. A stable system preventing erosion and sedimentation.
2. Preservation of the maximum possible acreage of existing wetland.
3. Restoring maximum acres of tidal and non-tidal wetlands and reconnecting the tributary to Holt's Creek.
4. Increasing the area of suitable habitat for sensitive joint vetch.

### **YK-5 Cumberland Marsh Service Area**

Cumberland Marsh contains an unnamed tributary to Holt's Creek in the York River watershed. The project is expected to generate 3.44 tidal wetland credits and 4.58 non-tidal wetland credits.

## Project Status

Today, tidal and non-tidal wetlands are re-establishing, a stable unrestricted stream channel has developed, and the sensitive joint vetch population is expanding and healthy. Year 10 monitoring of the restoration occurred in 2020, and the final credit release is expected in 2022. The site will be maintained in perpetuity to ensure its continued success and stability.



*August 2016: Unrestricted stream flow through re-establishing tidal wetlands.*