



## Wilcox Pond Culvert Upgrade

### Full Mitigation Best Practice Story

#### *York County, Maine*



**Biddeford, ME** - During large rain events, West Street, a major road in Biddeford, has had to be shut down. The area of West Street by the Wilcox Pond outflow culvert overtops during these events causing washout and structural damage to the road bed. In addition to the loss of road access, the washout creates a 7 mile detour for public safety vehicles and the potential for threats to the safety and health of the residents.

The City decided that upgrading the drainage capacity of the outflow culvert at Wilcox Pond could reduce the potential for overtopping the roadway. Funds from the Hazard Mitigation Grant Program (HMGP) were awarded for this project in November 1997. In the process of upgrading the culvert, the City reset the culvert angle to permit direct outflow downstream. In addition, the City installed rip-rap on the banks to reduce erosion. The City also changed the slope of the roadway to provide easy runoff.

The project was completed in May 1998. In June 1998, more than 10 inches of heavy rain caused flooding across southern Maine. The Wilcox Pond Culvert area was not damaged and remained open to traffic. Savings in avoided damages from the June 1998 and subsequent flooding events over the life of this mitigation project are estimated to be \$230,000.

Standard Homeowner's insurance policies do not cover flood damage. The National Flood Insurance Program makes Federally backed flood insurance available to homeowners, renters, and business owners in participating communities.

#### Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region I**

State: **Maine**

County: **York County**

City/Community: **Biddeford**

### Key Activity/Project Information

Sector: **Public**  
Hazard Type: **Severe Storm; Flooding**  
Activity/Project Type: **Flood Control**  
Activity/Project Start Date: **11/1997**  
Activity/Project End Date: **05/1998**  
Funding Source: **Hazard Mitigation Grant Program (HMGP); Local Sources**  
Funding Recipient: **Local Government**  
Funding Recipient Name: **City of Biddeford**

### Activity/Project Economic Analysis

Cost: **\$17,795.00 (Actual)**

### Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster? **Unknown**  
Value Tested By Disaster? **Yes**  
Tested By Federal Disaster #: **No Federal Disaster specified**  
Year First Tested: **1998**  
Repetitive Loss Property? **Unknown**

### Reference URLs

Reference URL 1: <http://www.fema.gov/business/nfip/>  
Reference URL 2: <http://www.state.me.us/mema/>

### Main Points

- Upgraded the drainage capacity of the outflow culvert to reduce the potential for overtopping the roadway.
- Reset the culvert angle to permit direct outflow downstream.
- Installed rip-rap on the banks to reduce erosion.
- Changed the slope of the roadway to provide easy runoff.