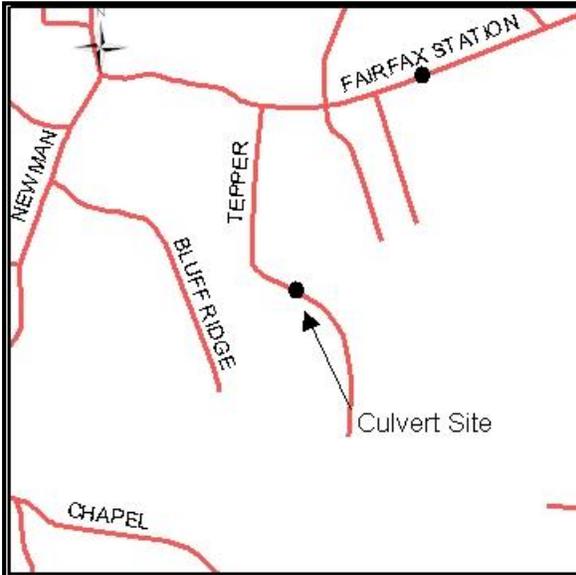


Appendix I: Culvert Retrofit Projects

Tepper Culvert Retrofit

Culvert Location: Tepper Drive.
Project ID: PH9502 (PH3-CR-3)
Ownership:
Type of Culvert: 18" Concrete Pipe.



Vicinity Map.



Culvert Overview.



Upstream View.

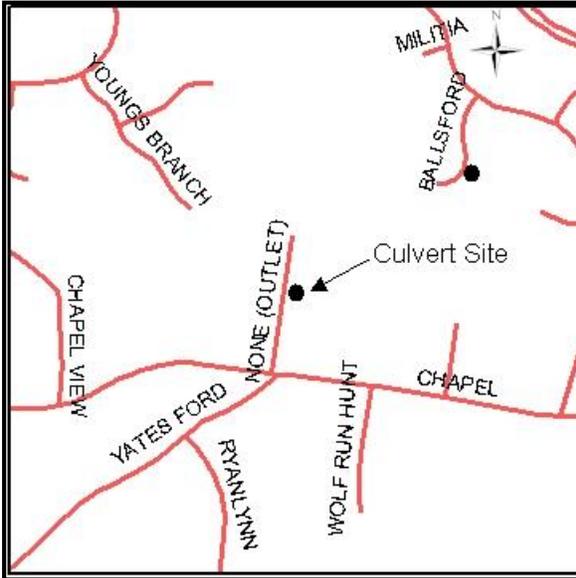


Downstream View.

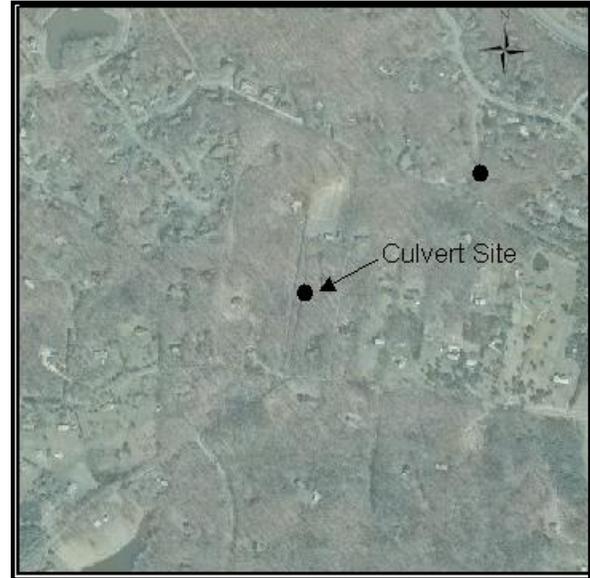
Drainage Area: 9 acres.
Retrofit Possibilities: Install a 2 foot tall gabion dam upstream of the culvert. This will create a micro-pool in the shallow swale in the upstream wooded area.
Benefit: Stormwater quality control.
Estimated Cost: \$40,000.

Yates Ford Road Culvert Retrofit

Culvert Location: Private Driveway.
Project ID: PH9504 (PH3-CR-4)
Ownership: Private.
Type of Culvert: 30" corrugated metal pipe.



Vicinity Map.



Culvert Overview.



Upstream View.

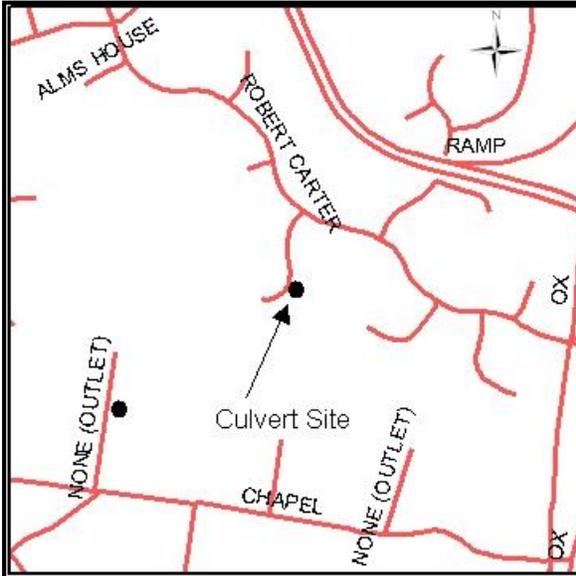


Downstream View.

Drainage Area: 9 acres.
Retrofit Possibilities: Install a 2' high gabion dam upstream to detain and infiltrate the first flush (0.1 – 0.2 inches) of a storm.
Benefit: Stormwater quality control.
Estimated Cost: \$50,000.

Balls Ford Road Culvert Retrofit

Culvert Location: Balls Ford Road.
Project ID PH9505 (PH3-CR-1)
Ownership:
Type of Culvert: 30" concrete pipe.



Vicinity Map.



Culvert Overview.



Upstream View.

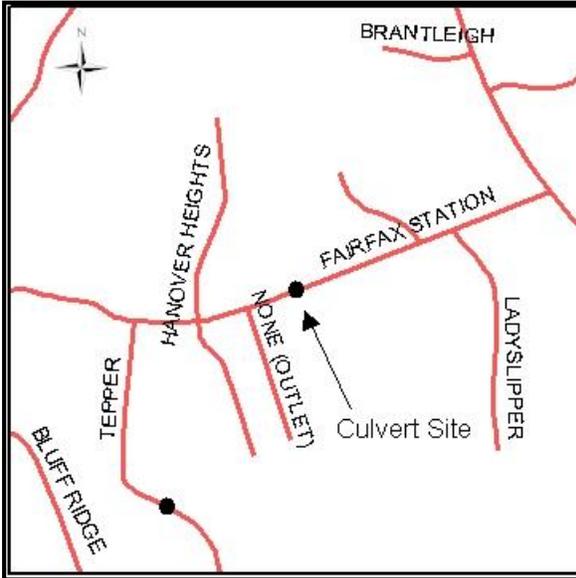


Downstream View.

Drainage Area: 35 acres.
Retrofit Possibilities: Install a 3' high gabion dam upstream to detain and infiltrate the first flush (0.1 – 0.2 inches) of a storm.
Have gabion dam detain flow from concrete "V" ditches from road.
Benefit: Stormwater quality control.
Estimated Cost: \$70,000.

Fairfax Station Culvert Retrofit

Culvert Location: Fairfax Station Road.
Project ID: PH9512 (PH3-CR-2)
Ownership:
Type of Culvert



Vicinity Map.



Culvert Overview.



Upstream View.

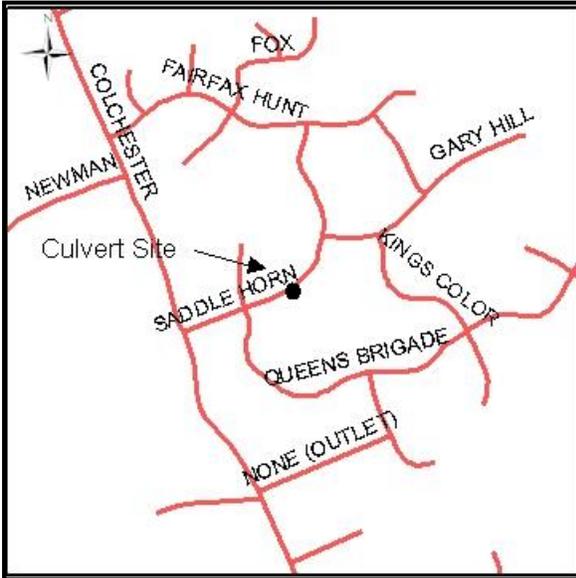


Downstream View.

Drainage Area (ac): 26 acres.
Retrofit Possibilities: Remove blockage within culvert.
Install a 3' high gabion dam upstream to detain and infiltrate the first flush (0.1 – 0.2 inches) of a storm.
Benefit: Stormwater quality control.
Estimated Cost: \$70,000.

Saddle Horn Culvert Retrofit

Culvert Location: Saddle Horn Road.
Project ID PH9530 (CC-CR-1)
Ownership:
Type of Culvert 24" round concrete pipe.



Vicinity Map.



Culvert Overview.



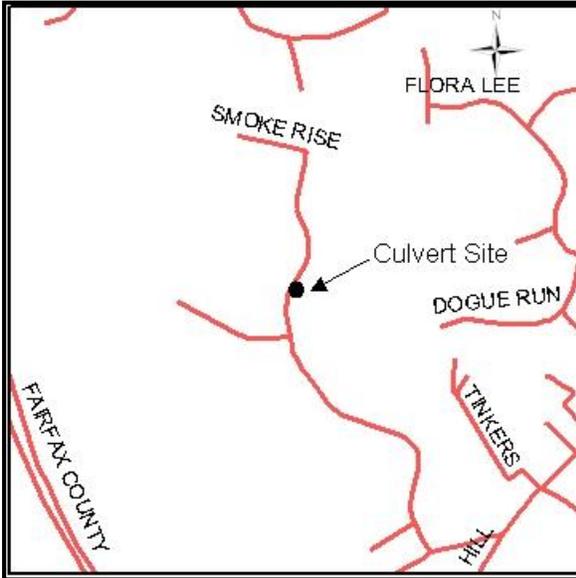
Upstream View.

Downstream View.

Drainage Area: 15 acres.
Retrofit Possibilities: Install a 3' high gabion dam upstream to detain and infiltrate the first flush (0.1 – 0.2 inches) of a storm.
Remove invasive/exotic plants and replant with native vegetation.
Benefit: Stormwater quality control.
Estimated Cost: \$60,000.

Smoke Rise Road Culvert Retrofit

Culvert Location: Smoke Rise Road.
Project ID: PH9540 (PB2-CR-1)
Ownership:
Type of Culvert: 48" corrugated metal pipe.



Vicinity Map.



Culvert Overview.



Upstream View.

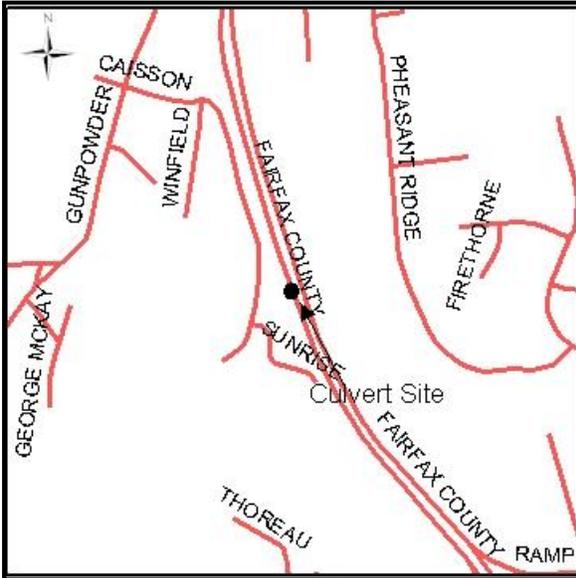


Downstream View.

Drainage Area: 24 acres.
Retrofit Possibilities: Install a 3' high gabion dam upstream to detain and infiltrate the first flush (0.1 – 0.2 inches) of a storm.
Benefit: Stormwater quality control.
Estimated Cost: \$60,000.

Fairfax County Parkway Culvert Retrofit

Culvert Location: Fairfax County Parkway.
Project ID: PH9580 (PB-CR-1)
Ownership: Public.
Type of Culvert: 36" x 48" concrete elliptical pipe.



Vicinity Map.



Culvert Overview.



Upstream View.



Downstream View.

Drainage Area: 50 acres.
Retrofit Possibilities: Install a 4' high gabion dam upstream of Caisson Road to detain and infiltrate the first flush (0.1 – 0.2 inches) of a storm.
Benefit: Stormwater quality control.
Estimated Cost: \$90,000.