

# Quail Meadows Stormwater Management Facility Retrofit

## **Background:**

The Quail Meadows subdivision has a unique stormwater system which consists of a stormwater management facility, and three water quality basins located off of Fox Sedge Court in Eldersburg. These facilities were targeted because of their current condition. Due to the condition of the facility, the County wanted to bring them up to current standards thereby ensuring that they provide stormwater control and can be easily maintained.

## **Scope of Work:**

The site was analyzed by Carroll Land Service to determine if the facilities were capturing the intended drainage area. The investigation concluded that additional drainage area could be diverted into SWM Basin #3 from the stream, and two of the water quality basins could be eliminated. A manhole was set with a diversion structure and a 4" PVC pipe to maintain base flow in the stream channel. All flows over base flow are diverted into the facility for treatment. The embankment of SWM Basin #3 had a clay liner added along with the slopes graded to 4:1 to allow efficient machine mowing. The emergency spillway was re-graded and lined with 19" of Class I rip-rap and then covered with 3" of topsoil, seed, and mulch. WQ Basin #4 was cleaned out and the slopes were graded to 3:1. A weir was placed to allow larger storms to flow into SWM Basin #3. The facility and water quality basins were designed to meet and exceed all current county and state stormwater management regulations.

## **Sequence of Construction:**

The homeowners around the facility were contacted about the retrofit in October of 2009. At that time staff members met with adjoining property owners to discuss the proposed retrofit. The county worked to keep these neighbors and homeowner association informed of the project throughout the design process. The facility went out to bid on September, 2010 with bids due back October 20, 2010.

The job was awarded to Thomas Bennett & Hunter and was slated to begin in the Spring of 2011. The contractor began working in May of 2011. The contractor completed the project in October of 2011 and received its grading completion certificate on March 28, 2012. The as-built was accepted by the County on March 23, 2012. The County hired Red Hill Lawn Service to replace those trees that were removed during construction. The planting occurred October 2012.

## **Project Details:**

Watershed:	Liberty Reservoir
Drainage Area:	55.4 acres
Impervious Surface Treated:	14.5 acres
Costs: Engineering	\$ 38,638.00
Construction	\$ 286,609.00
Landscaping	\$ 2,875.00
Time Frame:	36 Months

## **Submitted By:**

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Watershed Management Specialist



05/31/2011



06/15/2011





12/08/2011



03/16/2012

