

Watershed Condition Summary for [Dividing Creek](#)

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The following summary comes from this document:

“The Magothy River Watershed Restoration Strategy.” Prepared by the Anne Arundel County Office of Environmental & Cultural Resources in cooperation with the Magothy River Association and the Maryland Department of Natural Resources. July 2005. 146 pp, plus Appendixes. This excerpt is found on pp. 95 to 100 of this report.

Dividing Creek Subwatershed

Located in the south central portion of the Magothy River, Dividing Creek is roughly bordered on the southwest by Old County Road, on the northwest by Manhattan Beach Road, and on the east by Peninsula Farm Road. It has a drainage area of 862 acres.

Land Use

Dividing Creek has land use patterns typical of other subwatersheds in the Magothy River. It is dominated by Single Family Residential with lesser amounts of Vacant Land area. The large percentage of area attributed to school usage represents the area occupied by Anne Arundel Community College (AACC). At nearly 18%, this represents the highest percentage of land area devoted to educational facilities found in any of the assessed subwatersheds. Current subwatershed impervious surface coverage is estimated at 36%.

Land Use	Acres	% of Area
Single Family Residential	465.0	54.0
Townhome	0.2	0.0
Retail	16.7	1.9
Office	9.6	1.1
Industrial	9.6	1.1
Utility/Roadway ROW	28.1	3.3
School	154.0	17.9
Recreational	42.5	4.9
Open Space	33.6	3.9
Vacant Land	102.3	11.9
Agriculture	0.0	0.0
Water	0.0	0.0
Total	861.6	100.0

Natural Resources

Dividing Creek is a third order tributary to the Magothy River and has a total of 2.9 miles of stream channel.

Forest cover is fragmented and loosely concentrated in the middle of the watershed on AACC property. Additional forested areas are found along Ritchie Highway and in the Belleview Estates, Dividing Creek, and Terrace Gardens neighborhoods.

The NWI has mapped approximately 12 acres of wetlands in Dividing Creek subwatershed. Around 80% of the documented wetlands are freshwater-forested wetlands, concentrated mostly along the stream corridor. No bogs have been identified in the Dividing Creek subwatershed. The most recent County soil survey mapped only 3.47 acres of hydric soils in this subwatershed.

Summary of Subwatershed Conditions

Dividing Creek received an overall subwatershed condition score of poor. High levels of current (36%) and potential future (41%) imperviousness, fish passage blockages, forest fragmentation, floodplain encroachment, moderate water quality impairments and low acreages of protected lands are some of the environmental concerns in this subwatershed.

Metric Group	Metric Group Score	Condition Rating
Water Quality & Hydrology Conditions	38	Poor
Habitat & Living Resource Conditions	80	Fair
Landscape Conditions	112	Very Poor
<i>Overall Condition Score</i>	<i>230</i>	<i>Poor</i>

The Maryland Biological Stream Survey's Streamwaders Program assessed Dividing Creek at two different locations in 2002 and 2003. On both occasions, Dividing Creek was received a poor rating because the required minimum number of aquatic benthic insects (100) for a sample

was not collected. Of the insect groups collected, pollutant tolerant organisms were dominant during both sampling years.

Results of the synoptic water quality assessment indicate only moderate impairment in Dividing Creek. Orthophosphate concentration was below the laboratory detection limit and the estimated loading rate of 0.005 lbs/ac/yr was in the lower third of computed values. Nitrate–nitrogen concentration was measured at 0.52 mg/L, while load was computed to be 0.50 lbs/ac/yr, with both nitrate values in the lower third of values measured in this study.

The SCA identified 17 environmental concerns of moderate severity or greater, the majority of which are pipe outfalls. Two erosion sites, one fish blockage, and one inadequate buffer make up the remainder of the project list. The Tidal Shoreline Survey identified 15 potential environmental concerns, primarily associated with altered shorelines and inadequate riparian buffer areas.

The following general recommendations are made for the Dividing Creek subwatershed, based on land use, water quality, and observed natural habitat:

- Investigate opportunities to retrofit existing stormwater management facilities with current technology.
- Investigate opportunities to coordinate with Anne Arundel Community College to perform stream and habitat improvement and monitoring activities in this subwatershed.

Table 31 lists the specific projects identified during the SCA and the Shoreline Survey. Project locations are illustrated in Figure 23.

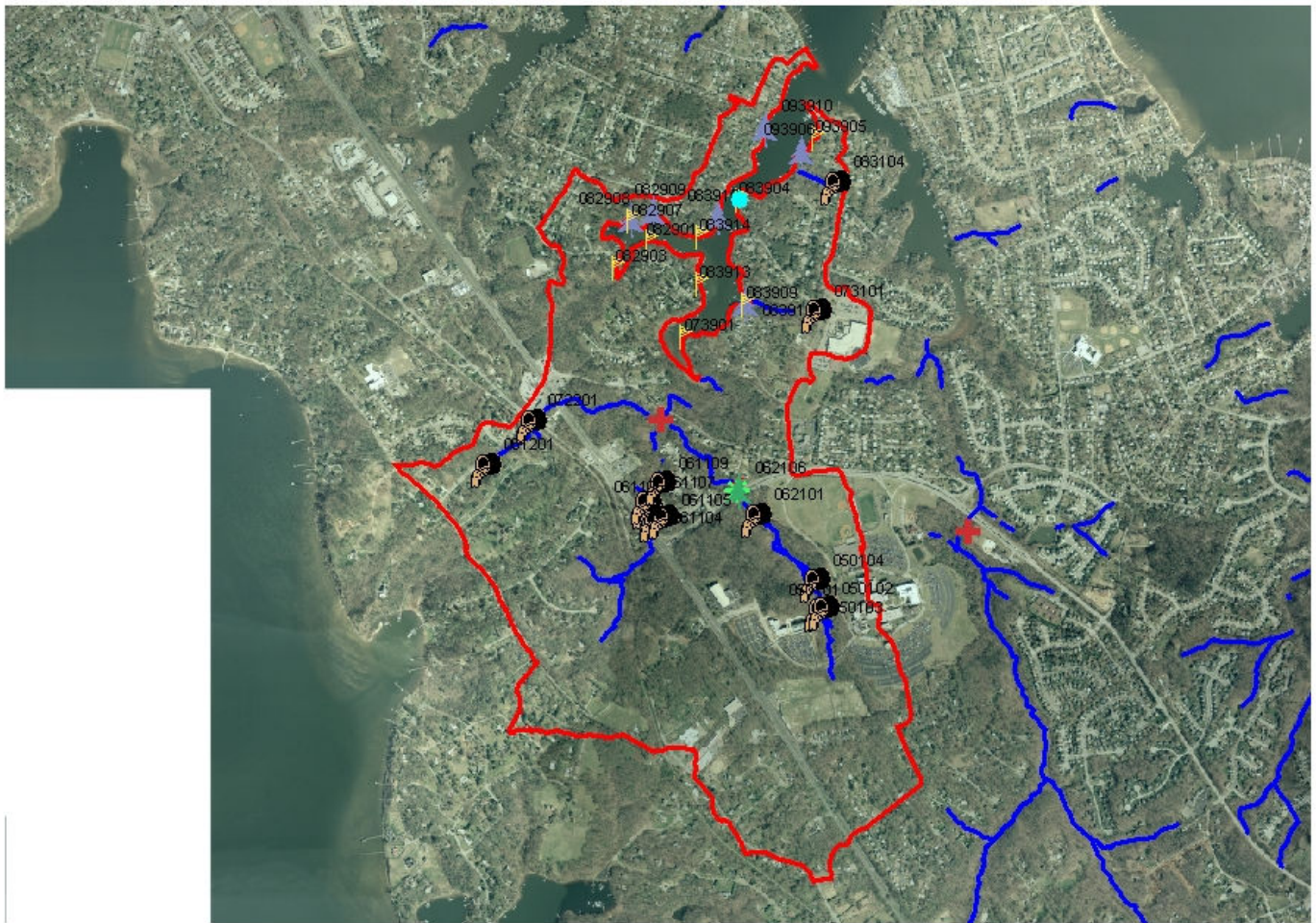
Table 31. Description and Ranking of Restoration Projects in Dividing Creek Subwatershed (#103)

SCA Site Number	Project Type	Project Description	Subwatershed Priority Ranking	Notes
83104	PO	36 in. concrete pipe at head of stream	1	Drains residential area. Additional assessment necessary for possible retrofit.
61107	PO	4 in. corrugated plastic pipe	1	Unknown source. Apparent minor problem. Ease of access, correctability led to high score.
62104	ES	3 foot high, 380 foot long reach	3	Likely associated with crossing at College Parkway. Need additional info for restoration feasibility determination.

SCA Site Number	Project Type	Project Description	Subwatershed Priority Ranking	Notes
62106	IB	580 foot long impacted reach	3	Encroachment by residential development. Small trees and shrubs only. Need additional info to determine restoration feasibility and/or necessity.
50101	PO	36 in. concrete pipe on left bank	3	Drainage from AACC. Source unknown. Gray discharge observed. Additional investigation needed to determine retrofit potential.
50102	PO	36 in. concrete pipe on right bank	3	Drainage from AACC. Source unknown. Gray discharge observed. Additional investigation needed to determine retrofit potential.
61109	PO	12 in. concrete pipe on right bank	3	Drainage from residential area. Additional investigation needed to determine retrofit potential
72201	PO	28 in. concrete pipe outfall	3	Additional assessment needed to determine project necessity and feasibility.
73101	PO	36 in. corrugated metal pipe	3	Additional assessment needed to determine project necessity and feasibility.
62103	FB	Perched culvert	10	24 in. drop at College Parkway crossing.
61201	PO	32 in. corrugated metal pipe at head of stream.	10	Appears to be outfall for existing wet pond. Additional assessment necessary for possible retrofit.
61104	PO	30 in. corrugated metal pipe on left bank	10	Additional assessment needed to determine project necessity and feasibility.

SCA Site Number	Project Type	Project Description	Subwatershed Priority Ranking	Notes
61106	PO	36 in. corrugated metal pipe on left bank	10	Appears to drain residential area. Additional assessment necessary for possible retrofit.
50103	ES	4 foot high, 950 foot long reach	14	Additional assessment needed to determine project necessity and feasibility.
50104	PO	42 in. concrete pipe on right bank	14	Appears to drain tennis courts at AACC. Additional assessment needed to determine project necessity and feasibility.
61105	PO	48 in. metal pipe on head of stream	14	Additional assessment necessary for possible retrofit.
62101	PO	30 in. concrete pipe on left bank	14	Appears to drain AACC property. Additional assessment needed to determine project necessity and feasibility.
Projects listed below are from Tidal Shoreline Survey—all need additional investigation to determine feasibility and severity.				
82908	IB	300 feet of shoreline	1	Bulkhead; lawn area.
82909	IB	200 feet of shoreline	1	Grass area with bulkheads.
83910	IB	280 feet of shoreline	1	Bulkhead; lawn area.
83915	IB	980 feet of shoreline	1	Bulkhead; lawn area.
93906	IB	200 feet of shoreline	1	Bulkhead; forest/shrub area.
93910	IB	1,980 feet of shoreline	6	Bulkhead; lawn area.
83913	AS	710 feet of shoreline	6	Bulkhead; lawn area.
73901	AS	100 feet of shoreline	8	Bulkhead; lawn area.
82903	AS	400 feet of shoreline	8	Rip rap; forest/shrub area.
83909	AS	260 feet of shoreline	8	Bulkhead; grass/forest/shrub area.
82901	AS	500 feet of shoreline	11	Rip rap; grass/forest/shrub area.
83904	AS	300 feet of shoreline	11	Rip rap; forest/shrub area.

SCA Site Number	Project Type	Project Description	Subwatershed Priority Ranking	Notes
82907	AS	650 feet of shoreline	12	Bulkhead; grass area with some trees
83914	AS	500 feet of shoreline	12	Riprap; grass area with some trees.
93905	AS	500 feet of shoreline	12	Bulkhead; grass area with some trees.



Legend

- Subwatershed Boundary
- Streams
- + Water Quality Monitoring Stations
- Channel Alterations
- ⚡ Broken Site
- Exposed Pipe
- Fish Barrier
- Instream Stream Construction
- Inadequate Buffer
- Pipe Outlet
- Trash Dumping
- Unusual Conditions
- Altered Shoreline
- Shoreline Inadequate Buffer
- Shoreline Pipe Outlet
- Shoreline Broken



Figure 23. Overview of Dividing Creek Subwatershed (#103) with Potential Restoration Project Locations