



## PROJECT NAME

Bel Air Impoundment

## CLIENT

Maryland American  
Water

## ENGINEER

Gannett Fleming

## LOCATION

Bel Air, MD, USA



## PRODUCT

COLETANCHE® ES4  
HFA

## SURFACE

67,600 m<sup>2</sup>  
727,640 ft<sup>2</sup>

## INSTALLATION DATE

2018



## BACKGROUND

Water supply capacity has historically been and continues to be a problem for the entire Maryland region. A raw water impoundment fulfills all of Maryland American Water's critical needs by providing a long-term, sustainable water supply. A new impoundment is an environmentally-sound option that will only to be filled when stream flows are high.

The site has ample fill to construct the reservoir, however the in-situ soils were not conducive to retaining water. A geomembrane system was therefore required for both the interior embankment slopes and the reservoir bottom.

## SOLUTION

As a result of the life-cycle cost analysis for the Bel Air Impoundment and the evaluation and criteria of geomembranes established, the owner selected the COLETANCHE® bituminous geomembrane as the highest scoring geomembrane system, as it presents strong technical and economic results. For the client, the durability, strength, seepage control, constructability and appearance are the most important criteria.

COLETANCHE® has many other benefits for this project such as NSF/ANSI 61 certification for potable water use, a high friction angle to protect the possible falls of wildlife, UV resistance and no cover material required.





## REASONS OF CHOICE

The COLETANCHE® geomembrane in this project, promotes:

- Long life expectancy
- Continuous waterproofing quality over the entire surface of the structure
- Superior puncture and tear resistance
- Excellent weathering resistance even when exposed
- Easy to install and to repair
- High friction angle for the environmentally safe
- Connection to concrete
- NSF/ANSI 61 certified for potable water use.



## About COLETANCHE® :

COLETANCHE® bituminous geomembranes have been developed 40 years ago. This durable composite is an effective waterproof and gas-impermeable separation layer with significant properties: UV resistance, workability at temperatures -40 to 40°C (-40 to 104°F), mechanical / puncture resistance, harsh chemical resistance, dimensional stability and mechanical workability, easily installed, welded and repaired by local crews or maintenance people of any client.

COLETANCHE® offers value to all civil engineering projects: effective for solid and liquid waste storage, heap leach pads, tailings ponds, dams, reservoirs, containment basins, canals, & ditches. The COLETANCHE® geomembrane, an efficient alternative, takes the place of two or more layers in geo-profiles reducing material and labor costs.



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