BF 07592 Local Road Over Little Egg Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.005 (in ravine)
B = 4 m, h = 1.5 m, T_h = 10 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 1.4 m/s, Q = 15 cms
At Channel Capacity : Y = 2.3 m, V = 2.0 m/s, Q = 35 cms

Historical Highwater Data :

HW was noted in 1974 (2.4m pipe ran with 0.6m ponding upstream). A 1956 report notes a HWM with Y = 1.8m. The 1974 AENV upstream channel design was based on Q = 19cms. The 2006 design was based on Y = 3.6m and Q = 29cms.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1974, 1982, and 1997. The largest storms in the storm database are 160mm of rainfall in July 1953, and about 100mm in 1937, 1952, 1965, and 1986.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 266 km^2 (133km^2 u/s of Manawan Lake)
Q_p = 145 cms.
Q limited to 35cms by u/s AENV enhanced channel.

Conclusion :

The channel capacity estimate is consistent with historic observations, matches the upstream enhanced channel capacity, and is within the basin runoff potential.

Recommended parameters : Y = 2.3 m, V = 2.0 m/s, Q = 35 cms.