Subcatchment 2Yr: Proposed Davis Moore 2 Yr

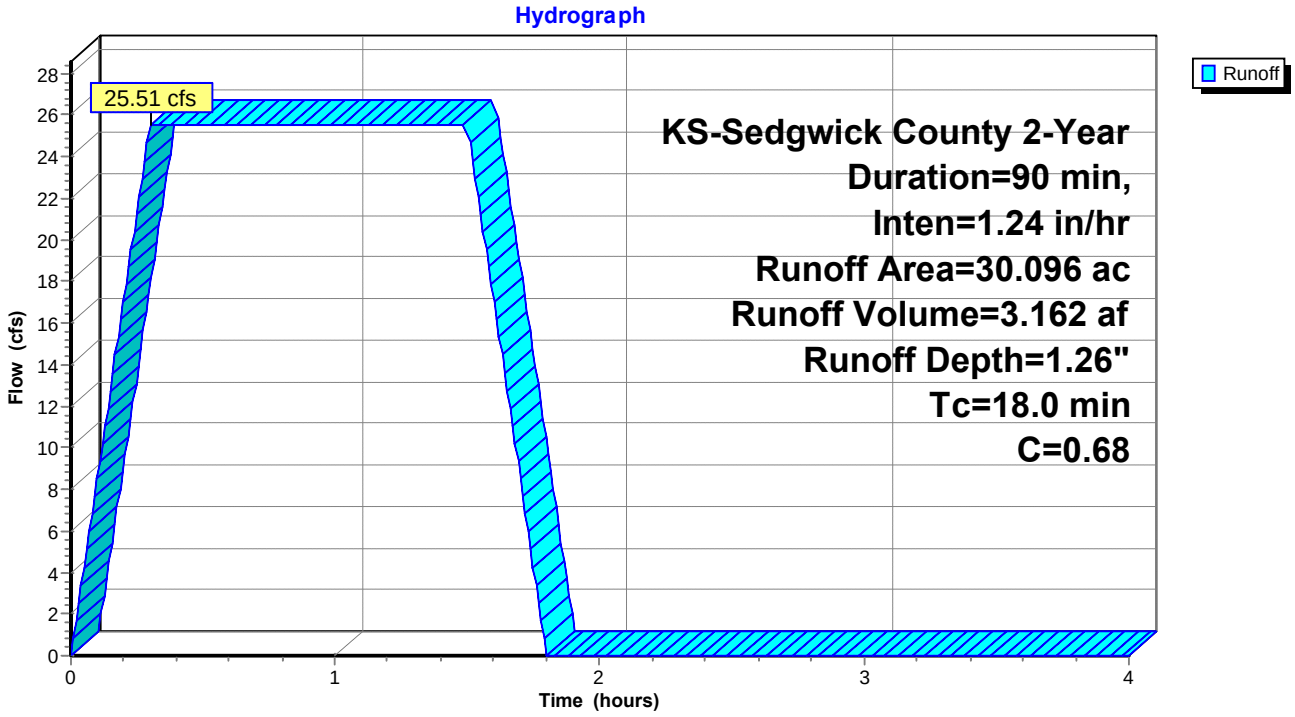
Runoff = 25.51 cfs @ 0.30 hrs, Volume= 3.162 af, Depth= 1.26"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-4.00 hrs, dt= 0.01 hrs
KS-Sedgwick County 2-Year Duration=90 min, Inten=1.24 in/hr

Area (ac)	C	Description
30.096	0.68	Developed
30.096	0.68	Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0					**Direct Entry,**

Subcatchment 2Yr: Proposed Davis Moore 2 Yr



Pond 15P: (new Pond)

Inflow Area = 30.096 ac, Inflow Depth = 1.26" for 2-Year event
Inflow = 25.51 cfs @ 0.30 hrs, Volume= 3.162 af
Outflow = 18.49 cfs @ 1.58 hrs, Volume= 1.442 af, Atten= 28%, Lag= 77.0 min
Primary = 18.49 cfs @ 1.58 hrs, Volume= 1.442 af

Routing by Stor-Ind method, Time Span= 0.00-4.00 hrs, dt= 0.01 hrs
Peak Elev= 1,352.70' @ 1.58 hrs Surf.Area= 1.460 ac Storage= 2.299 af

Plug-Flow detention time= 67.7 min calculated for 1.442 af (46% of inflow)
Center-of-Mass det. time= 42.8 min (96.8 - 54.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,351.00'	6.004 af	**600.00'W x 90.00'L x 4.00'H Prismatoid Z=4.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	1,353.00'	**8.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 4.0' Crest Height
#2	Primary	1,351.00'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 3.5' Crest Height

Primary OutFlow Max=18.49 cfs @ 1.58 hrs HW=1,352.70' TW=1,352.30' (Fixed TW Elev= 1,352.30')
└─**1=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
└─**2=Sharp-Crested Rectangular Weir** (Weir Controls 18.49 cfs @ 2.97 fps)

Pond 15P: (new Pond)