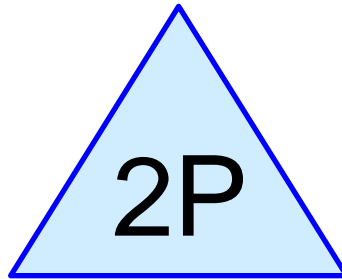
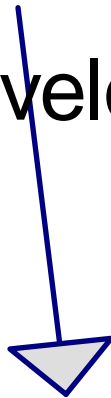
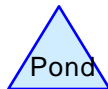
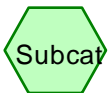


Total developed



(new Pond)



Prop to north 5yr

KS-Sedgwick County 5-Year Duration=24 min, Inten=3.64 in/hr

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Time span=0.00-12.00 hrs, dt=0.01 hrs, 1201 points

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc

Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: Total developed

Runoff Area=17.400 ac Runoff Depth=1.06"

FlowLength=1,850 Tc=23.7 min C=0.73 Runoff=46.62 cfs 1.540 af

Pond 2P: (new Pond)

Peak Elev=1,316.14' Storage=1.191 af Inflow=46.62 cfs 1.540 af

24.0' x 50.0' Culvert Outflow=15.07 cfs 0.802 af

Total Runoff Area = 17.400 ac Runoff Volume = 1.540 af Average Runoff Depth = 1.06"

Prop to north 5yr

KS-Sedgwick County 5-Year Duration=24 min, Inten=3.64 in/hr

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Subcatchment 1S: Total developed

Runoff = 46.62 cfs @ 0.40 hrs, Volume= 1.540 af, Depth= 1.06"

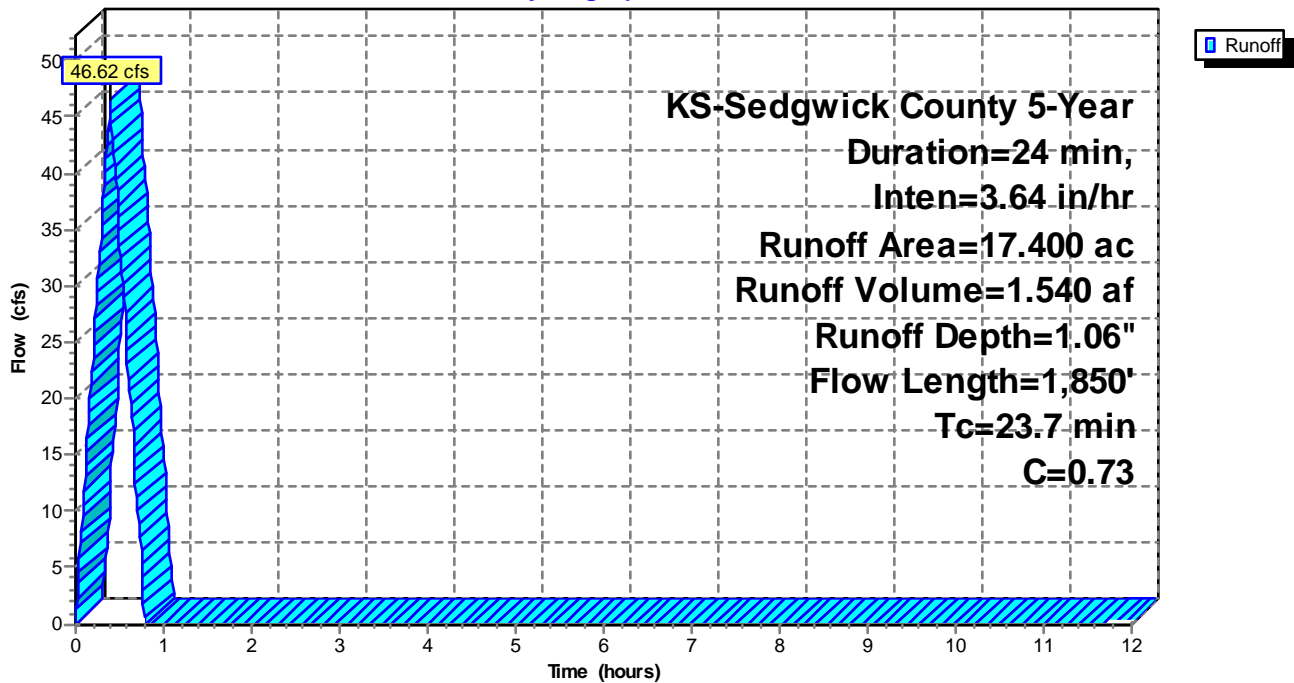
Runoff by Rational method, Rise/Fall=1.0/1.0 x Tc, Time Span= 0.00-12.00 hrs, dt= 0.01 hrs
 KS-Sedgwick County 5-Year Duration=24 min, Inten=3.64 in/hr

Area (ac)	C	Description
17.400	0.73	Industrial Heavy

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	300		1.4		Direct Entry, paved surface
20.1	1,550	0.0040	1.3		Shallow Concentrated Flow, Paved Kv= 20.3 fps
23.7	1,850	Total			

Subcatchment 1S: Total developed

Hydrograph



Prop to north 5yr

KS-Sedgwick County 5-Year Duration=24 min, Inten=3.64 in/hr

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Pond 2P: (new Pond)

Inflow Area = 17.400 ac, Inflow Depth = 1.06" for 5-Year event
 Inflow = 46.62 cfs @ 0.40 hrs, Volume= 1.540 af
 Outflow = 15.07 cfs @ 0.67 hrs, Volume= 0.802 af, Atten= 68%, Lag= 16.1 min
 Primary = 15.07 cfs @ 0.67 hrs, Volume= 0.802 af

Routing by Stor-Ind method, Time Span= 0.00-12.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,316.14' @ 0.67 hrs Surf.Area= 0.789 ac Storage= 1.191 af
 Plug-Flow detention time= 32.5 min calculated for 0.801 af (52% of inflow)
 Center-of-Mass det. time= 24.9 min (48.8 - 23.9)

#	Invert	Avail.Storage	Storage Description
1	1,313.60'	5.195 af	Custom Stage Data (Prismatic) Listed below

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
1,313.60	0.005	0.000	0.000
1,314.00	0.233	0.048	0.048
1,314.50	0.446	0.170	0.217
1,315.00	0.513	0.240	0.457
1,315.50	0.612	0.281	0.738
1,316.00	0.742	0.339	1.077
1,316.50	0.912	0.414	1.490
1,317.00	1.127	0.510	2.000
1,317.50	1.394	0.630	2.630
1,318.00	1.621	0.754	3.384
1,319.00	2.000	1.811	5.195

#	Routing	Invert	Outlet Devices
1	Primary	1,313.60'	24.0" x 50.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 1,313.48' S= 0.0024 '/' n= 0.013 Cc= 0.900

Primary OutFlow Max=15.07 cfs @ 0.67 hrs HW=1,316.14' TW=1,315.50' (Fixed TW Elev= 1,315.50')
 ↑-1=Culvert (Barrel Controls 15.07 cfs @ 4.9 fps)

Pond 2P: (new Pond)

Hydrograph

