

# Modelación SWMM - Sistematización cuenca Las Mellizas

## Project data

[TITLE]

[OPTIONS]

```
FLOW_UNITS          CMS
INFILTRATION        CURVE_NUMBER
FLOW_ROUTING        DYNWAVE
START_DATE           03/18/2023
START_TIME           00:00:00
REPORT_START_DATE    03/18/2023
REPORT_START_TIME    00:00:00
END_DATE             03/18/2023
END_TIME             16:00:00
SWEEP_START          01/01
SWEEP_END            12/31
DRY_DAYS             0
REPORT_STEP          00:10:00
WET_STEP             00:10:00
DRY_STEP             01:00:00
ROUTING_STEP         0:00:01
ALLOW_PONDING        YES
INERTIAL_DAMPING      FULL
VARIABLE_STEP        0.75
LENGTHENING_STEP    0
MIN_SURFAREA         0
NORMAL_FLOW_LIMITED  BOTH
SKIP_STEADY_STATE    NO
FORCE_MAIN_EQUATION   H-W
LINK_OFFSETS         DEPTH
MIN_SLOPE            0.1
```

[EVAPORATION]

```
;;Type      Parameters
;;-----
CONSTANT     0.0
DRY_ONLY     NO
```

[RAINGAGES]

```
;;      Rain      Time      Snow      Data
;;Name   Type      Intrvl  Catch  Source
;;-----
Gage1    CUMULATIVE 0:10    1.0    TIMESERIES Tr25_4h_110
```

[SUBCATCHMENTS]

;;	;;Name	Raingage	Outlet	Total Area	Pcnt. Imperv	Width	Pcnt. Slope	Curb Length	Snow Pack
;;	S1	Gage1	J1	148.05	5	700	1	0	
	S22	Gage1	J5	13.73	5	138	1.7	0	
	S2	Gage1	J7	13.73	5	138	1.7	0	
	S33	Gage1	J9	25	8	250	1.3	0	
	S3	Gage1	J11	51.2	8	300	1.3	0	
	S4	Gage1	J13	28.42	10	220	0.86	0	
	S5	Gage1	J33	74.2	4	590	1.29	0	
	S6	Gage1	J42	39	5	280	1.09	0	
	S7	Gage1	J42	31.7	25	180	0.7	0	

[SUBAREAS]

;;	;;Subcatchment	N-Imperv	N-Perv	S-Imperv	S-Perv	PctZero	RouteTo	PctRouted
;;	S1	0.013	0.06	1	4.5	50	OUTLET	
	S22	0.013	0.06	1	4.5	25	OUTLET	
	S2	0.013	0.06	1	4.5	25	OUTLET	
	S33	0.01	0.06	1	4.5	25	OUTLET	
	S3	0.01	0.06	1	4.5	25	OUTLET	
	S4	0.013	0.06	1	4.5	25	OUTLET	
	S5	0.013	0.06	1	4.5	25	OUTLET	
	S6	0.013	0.06	1	4.5	25	OUTLET	
	S7	0.013	0.06	1	4.5	25	OUTLET	

[INFILTRATION]

;;	;;Subcatchment	CurveNum	HydCon	DryTime
;;	S1	76	0.5	7
	S22	75	0.5	7
	S2	75	0.5	7
	S33	75	0.5	7
	S3	75	0.5	7
	S4	75	0.5	7

S5	75	0.5	7
S6	75	0.5	7
S7	75	0.5	7

```
[JUNCTIONS]
;;
;;Name      Invert      Max.      Init.      Surcharge      Pondered
;;          Elev.       Depth     Depth     Depth         Area
;;-----
J1          19.80       4         0         0             0
J2          19.6       4         0         0             0
J3          18.25      4         0         0             0
J4          18.05      4         0         0             0
J5          17.25      4         0         0             0
J6          17.05      4         0         0             0
J7          15.80      4         0         0             0
J8          15.65      4         0         0             0
J9          16.3       4         0         0             0
J10         16.15      4         0         0             0
J11         15.6       4         0         0             0
J12         14.65      4         0         0             0
J13         14.15      4         0         0             0
J14         13.70      4         0         0             0
J15         12.4       4         0         0             0
J25         12.2       4         0         0             0
J26         10.8       4         0         0             0
J27         10.75      4         0         0             0
J28         10.65      4         0         0             0
J29         10.25      4         0         0             0
J30         10.20      4         0         0             0
J31         10.2       4         0         0             0
J32         10.25      4         0         0             0
J33         10.75      4         0         0             0
J35         10        4         0         0             0
J36         10.15      4         0         0             0
J37         10.0       4         0         0             0
J38         9.9        4         0         0             0
J39         9.70       4         0         0             0
J40         9.65       4         0         0             0
J41         9.55       4         0         0             0
J42         9.50       4         0         0             0
J43         9.2        4         0         0             0
J44         9.1        4         0         0             0
J45         7.6        4         0         0             0
J46         7.5        4         0         0             0
```

```
[OUTFALLS]
;;
;;Name      Invert      Outfall      Stage/Table      Tide
;;          Elev.       Type         Time Series     Gate
;;-----
Out15       6.7        NORMAL      NO              NO
```

```
[CONDUITS]
;;
;;Name      Inlet      Outlet      Length      Manning      Inlet      Outlet      Init.      Max
;;          Node      Node              N            Offset      Offset      Flow      Flo
;;-----
C1          J1          J2          195         0.028       0          0          0          0
C2          J2          J3          11          0.013       0          1.25       0          0
C3          J3          J4          164         0.028       0          0          0          0
C4          J4          J5          11          0.013       0          0.7        0          0
C5          J5          J6          215         0.028       0          0          0          0
C6          J6          J7          11          0.013       0          1.15       0          0
C7          J7          J8          178         0.028       0          0          0          0
C8          J8          J11         11          0.013       0          0          0          0
C9          J9          J10         118         0.028       0          0          0          0
C10         J10         J7          11          0.013       0          0.25       0          0
C11         J11         J12         133         0.028       0          0.5        0          0
C12         J12         J13         11          0.013       0          0.4        0          0
C13         J13         J14         45          0.028       0          0          0          0
C14         J14         J15         11          0.013       0          1.2        0          0
C15         J15         J25         175         0.028       0          0          0          0
C16         J25         J26         11          0.013       0          1.3        0          0
C17         J26         J27         220         0.028       0          0          0          0
C18         J27         J28         11          0.013       0          0          0          0
C19         J28         J29         90          0.028       0          0          0          0
C20         J29         J30         11          0.013       0          0          0          0
C220        J30         J35         20          0.013       0          0.15       0          0
C21         J35         J36         11          0.013       0.2        0          0          0
C22         J33         J32         90          0.028       0          0          0          0
```

C23	J32	J31	11	0.013	0	0	0	0
C223	J31	J35	20	0.013	0	0.15	0	0
C24	J36	J37	140	0.028	0	0	0	0
C25	J37	J38	20	0.013	0	0	0	0
C26	J38	J39	90	0.028	0	0	0	0
C27	J39	J40	11	0.013	0	0	0	0
C28	J40	J41	80	0.028	0	0	0	0
C29	J41	J42	11	0.013	0	0	0	0
C69	J42	J43	165	0.028	0	0	0	0
C70	J43	J44	11	0.013	0	0	0	0
C71	J44	J45	522	0.028	0	0	0	0
C72	J45	J46	11	0.013	0	0	0	0
C73	J46	Out15	100	0.028	0	0	0	0
C101	J2	J3	20	0.013	1	1	0	0
C102	J4	J5	20	0.013	1	1	0	0
C103	J6	J7	20	0.013	1	1	0	0
C104	J8	J11	20	0.013	1	1	0	0
C105	J10	J7	20	0.013	1	1	0	0
C106	J12	J13	20	0.013	1.5	1.5	0	0
C107	J14	J15	20	0.013	1.8	1	0	0
C108	J25	J26	20	0.013	1	1	0	0
C109	J27	J28	10	0.01	1.3	1.3	0	0
C110	J29	J30	10	0.01	1.3	1.3	0	0
C111	J32	J31	10	0.01	1.3	1.3	0	0
C112	J35	J36	10	0.01	1.5	1.3	0	0
C113	J37	J38	10	0.01	1.3	1.3	0	0
C114	J39	J40	10	0.01	1.3	1.3	0	0
C115	J41	J42	10	0.013	1.3	1.3	0	0
C116	J43	J44	10	0.013	1	1	0	0
C117	J45	J46	10	0.013	1	1	0	0

[XSECTIONS]						
;;Link	Shape	Geom1	Geom2	Geom3	Geom4	Barrels
C1	TRAPEZOIDAL	1.5	76	3	3	1
C2	CIRCULAR	1	0	0	0	1
C3	TRAPEZOIDAL	1.5	73.5	3	3	1
C4	CIRCULAR	1	0	0	0	1
C5	TRAPEZOIDAL	1.5	22	3	3	1
C6	CIRCULAR	0.8	0	0	0	1
C7	TRAPEZOIDAL	1.5	20	3	3	1
C8	CIRCULAR	0.8	0	0	0	2
C9	TRAPEZOIDAL	1.5	66	3	3	1
C10	CIRCULAR	0.6	0	0	0	1
C11	TRAPEZOIDAL	1.5	42	3	3	1
C12	CIRCULAR	0.8	0	0	0	2
C13	TRAPEZOIDAL	1.8	3	1.5	1.5	1
C14	CIRCULAR	1	0	0	0	1
C15	TRAPEZOIDAL	1.5	18	3	3	1
C16	CIRCULAR	1	0	0	0	2
C17	TRAPEZOIDAL	1.3	6	3	3	1
C18	CIRCULAR	0.8	0	0	0	3
C19	TRAPEZOIDAL	1.3	6	3	3	1
C20	CIRCULAR	1	0	0	0	3
C220	TRAPEZOIDAL	1.3	6	3	3	1
C21	CIRCULAR	1	0	0	0	3
C22	TRAPEZOIDAL	1.3	6	3	3	1
C23	CIRCULAR	1	0	0	0	1
C223	TRAPEZOIDAL	1.3	6	3	3	1
C24	TRAPEZOIDAL	1.3	6	3	3	1
C25	CIRCULAR	1	0	0	0	3
C26	TRAPEZOIDAL	1.3	6	3	3	1
C27	CIRCULAR	1	0	0	0	3
C28	TRAPEZOIDAL	1.3	6	3	3	1
C29	CIRCULAR	1	0	0	0	3
C69	TRAPEZOIDAL	1.3	6	3	3	1
C70	CIRCULAR	1	0	0	0	3
C71	TRAPEZOIDAL	1	6	3	3	1
C72	RECT_CLOSED	2	3.9	0	0	2
C73	TRAPEZOIDAL	1	6	3	3	1
C101	RECT_OPEN	.5	20	0	0	1
C102	RECT_OPEN	.5	20	0	0	1
C103	RECT_OPEN	.5	20	0	0	1
C104	RECT_OPEN	.5	20	0	0	1
C105	RECT_OPEN	.5	20	0	0	1
C106	RECT_OPEN	.5	20	0	0	1
C107	RECT_OPEN	.5	20	0	0	1
C108	RECT_OPEN	.5	20	0	0	1

C109	RECT_OPEN	.5	20	0	0	1
C110	RECT_OPEN	.5	20	0	0	1
C111	RECT_OPEN	.5	20	0	0	1
C112	RECT_OPEN	.5	20	0	0	1
C113	RECT_OPEN	.5	20	0	0	1
C114	RECT_OPEN	.5	20	0	0	1
C115	RECT_OPEN	.5	20	0	0	1
C116	RECT_OPEN	.5	20	0	0	1
C117	RECT_OPEN	.5	20	0	0	1

```
[LOSSES]
;;Link      Inlet      Outlet      Average      Flap Gate
;;-----
```

C2	0.3	0	0	NO
C4	0.3	0	0	NO
C6	0.3	0	0	NO
C8	0.3	0	0	NO
C10	0.3	0	0	NO
C12	0.3	0	0	NO
C14	0.3	0	0	NO
C16	0.3	0	0	NO
C18	0.3	0	0	NO
C20	0.3	0	0	NO
C21	0.3	0	0	NO
C23	0.3	0	0	NO
C25	0.3	0	0	NO
C27	0.3	0	0	NO
C29	0.3	0	0	NO
C70	0.3	0	0	NO
C72	0.3	0	0	NO

```
[TIMESERIES]
;;Name      Date      Time      Value
;;-----
```

Tr5_4h_88mm		0:00	0
Tr5_4h_88mm		0:10	11
Tr5_4h_88mm		0:20	22
Tr5_4h_88mm		0:30	33
Tr5_4h_88mm		0:40	44
Tr5_4h_88mm		0:50	48.84
Tr5_4h_88mm		1:00	53.68
Tr5_4h_88mm		1:10	58.52
Tr5_4h_88mm		1:20	63.36
Tr5_4h_88mm		1:30	66.22
Tr5_4h_88mm		1:40	69.08
Tr5_4h_88mm		1:50	71.94
Tr5_4h_88mm		2:00	74.8
Tr5_4h_88mm		2:10	76.56
Tr5_4h_88mm		2:20	78.32
Tr5_4h_88mm		2:30	80.08
Tr5_4h_88mm		2:40	81.84
Tr5_4h_88mm		2:50	82.94
Tr5_4h_88mm		3:00	84.04
Tr5_4h_88mm		3:10	85.14
Tr5_4h_88mm		3:20	86.24
Tr5_4h_88mm		3:30	86.68
Tr5_4h_88mm		3:40	87.12
Tr5_4h_88mm		3:50	87.56
Tr5_4h_88mm		4:00	88
Tr10_4h_94mm		0:00	0
Tr10_4h_94mm		0:10	11.75
Tr10_4h_94mm		0:20	23.5
Tr10_4h_94mm		0:30	35.25
Tr10_4h_94mm		0:40	47
Tr10_4h_94mm		0:50	52.17
Tr10_4h_94mm		1:00	57.34
Tr10_4h_94mm		1:10	62.51
Tr10_4h_94mm		1:20	67.68
Tr10_4h_94mm		1:30	70.735
Tr10_4h_94mm		1:40	73.79
Tr10_4h_94mm		1:50	76.845
Tr10_4h_94mm		2:00	79.9
Tr10_4h_94mm		2:10	81.78
Tr10_4h_94mm		2:20	83.66
Tr10_4h_94mm		2:30	85.54
Tr10_4h_94mm		2:40	87.42
Tr10_4h_94mm		2:50	88.595

Tr10_4h_94mm	3:00	89.77
Tr10_4h_94mm	3:10	90.945
Tr10_4h_94mm	3:20	92.12
Tr10_4h_94mm	3:30	92.59
Tr10_4h_94mm	3:40	93.06
Tr10_4h_94mm	3:50	93.53
Tr10_4h_94mm	4:00	94
Tr25_4h_110	0:00	0
Tr25_4h_110	0:10	13.75
Tr25_4h_110	0:20	27.5
Tr25_4h_110	0:30	41.25
Tr25_4h_110	0:40	55
Tr25_4h_110	0:50	61.05
Tr25_4h_110	1:00	67.1
Tr25_4h_110	1:10	73.15
Tr25_4h_110	1:20	79.2
Tr25_4h_110	1:30	82.775
Tr25_4h_110	1:40	86.35
Tr25_4h_110	1:50	89.925
Tr25_4h_110	2:00	93.5
Tr25_4h_110	2:10	95.7
Tr25_4h_110	2:20	97.9
Tr25_4h_110	2:30	100.1
Tr25_4h_110	2:40	102.3
Tr25_4h_110	2:50	103.675
Tr25_4h_110	3:00	105.05
Tr25_4h_110	3:10	106.425
Tr25_4h_110	3:20	107.8
Tr25_4h_110	3:30	108.35
Tr25_4h_110	3:40	108.9
Tr25_4h_110	3:50	109.45
Tr25_4h_110	4:00	110
Tr50_4h_128mm	00:00	0
Tr50_4h_128mm	00:10	16
Tr50_4h_128mm	00:20	32
Tr50_4h_128mm	00:30	48
Tr50_4h_128mm	00:40	64
Tr50_4h_128mm	00:50	71.04
Tr50_4h_128mm	01:00	78.08
Tr50_4h_128mm	01:10	85.12
Tr50_4h_128mm	01:20	92.16
Tr50_4h_128mm	01:30	96.32
Tr50_4h_128mm	01:40	100.48
Tr50_4h_128mm	01:50	104.64
Tr50_4h_128mm	02:00	108.8
Tr50_4h_128mm	02:10	111.36
Tr50_4h_128mm	02:20	113.92
Tr50_4h_128mm	02:30	116.48
Tr50_4h_128mm	02:40	119.04
Tr50_4h_128mm	02:50	120.64
Tr50_4h_128mm	03:00	122.24
Tr50_4h_128mm	03:10	123.84
Tr50_4h_128mm	03:20	125.44
Tr50_4h_128mm	03:30	126.08
Tr50_4h_128mm	03:40	126.72
Tr50_4h_128mm	03:50	127.36
Tr50_4h_128mm	04:00	128

[REPORT]  
INPUT NO  
CONTROLS NO  
SUBCATCHMENTS ALL  
NODES ALL  
LINKS ALL

[TAGS]		
Subcatch	S1	SC1
Node	J1	InR1
Node	J2	InD1
Node	J3	OutD1
Node	J4	InD2
Node	J5	OutD2
Node	J6	InD3
Node	J7	OutD3
Node	J8	InD4
Node	J9	InR5

Node	J10	InD5
Node	J11	OutD4
Node	J12	InAlc4
Node	J13	OutAlc4
Node	J14	InAlc5
Node	J15	InR7
Link	C1	R1
Link	C2	DF1
Link	C3	R2
Link	C4	DF2
Link	C5	R3
Link	C6	DF3
Link	C7	R4
Link	C8	DF4
Link	C9	R5
Link	C10	DF5
Link	C11	R6
Link	C12	DF6
Link	C13	C1
Link	C14	DF6.1
Link	C15	R7
Link	C16	DF7
Link	C17	C2
Link	C18	Alc1
Link	C19	C3
Link	C20	Alc2
Link	C21	Alc4
Link	C22	C4
Link	C23	Alc3
Link	C24	C5
Link	C25	Alc5
Link	C26	C6
Link	C27	Alc6
Link	C28	C7
Link	C29	Alc7
Link	C69	C8
Link	C70	Alc8
Link	C71	C9
Link	C72	Alc9
Link	C101	VDF1
Link	C102	VDF2
Link	C103	VDF3
Link	C104	VDF4
Link	C105	VDF5
Link	C106	VDF6
Link	C107	VDF6.1
Link	C108	V8
Link	C109	VA1
Link	C110	VA2
Link	C111	VA3
Link	C112	VA4
Link	C113	VA5
Link	C114	VA6
Link	C115	VA7
Link	C116	VA8
Link	C117	VA9

[MAP]  
 DIMENSIONS 6375921.155 6403871.071 6380318.268 6406608.838  
 Units None

[COORDINATES]		
;Node	X-Coord	Y-Coord
;;	-----	-----
J1	6377809.112	6405487.968
J2	6377978.546	6405493.666
J3	6378009.539	6405489.226
J4	6378162.343	6405497.153
J5	6378197.212	6405496.604
J6	6378393.245	6405498.169
J7	6378416.698	6405495.538
J8	6378604.185	6405499.665
J9	6378602.351	6405698.883
J10	6378602.351	6405578.613
J11	6378641.737	6405495.583
J12	6378775.534	6405486.669
J13	6378777.250	6405452.350
J14	6378839.022	6405430.044

J15	6378830.059	6405387.058
J25	6378823.819	6405228.565
J26	6378821.901	6405207.469
J27	6378951.922	6405030.293
J28	6378951.277	6405013.503
J29	6378947.402	6404947.634
J30	6378947.402	6404937.302
J31	6378946.756	6404912.763
J32	6378946.110	6404903.076
J33	6378942.236	6404850.769
J35	6378946.551	6404926.934
J36	6378978.170	6404927.055
J37	6379096.575	6404915.992
J38	6379108.198	6404915.346
J39	6379214.750	6404908.242
J40	6379225.082	6404906.951
J41	6379291.597	6404902.430
J42	6379316.937	6404897.394
J43	6379457.442	6404830.564
J44	6379475.019	6404829.465
J45	6379800.205	6404558.111
J46	6379827.977	6404554.111
Out15	6379941.924	6404536.139

```
[VERTICES]
;;Link      X-Coord      Y-Coord
;;-----
```

C71	6379600.260	6404818.479
C101	6377987.445	6405531.238
C101	6378007.219	6405531.238
C102	6378164.424	6405538.159
C102	6378197.052	6405538.159
C103	6378400.009	6405517.775
C103	6378418.544	6405517.775
C103	6378417.702	6405495.869
C104	6378605.391	6405545.080
C104	6378645.928	6405542.113
C105	6378514.123	6405591.094
C105	6378473.641	6405569.353
C106	6378825.295	6405486.669
C106	6378828.727	6405450.635
C107	6378892.216	6405412.885
C107	6378887.068	6405371.703
C108	6378890.747	6405234.599
C108	6378892.308	6405195.571
C109	6379012.515	6405028.529
C109	6379014.077	6405006.673
C110	6378904.797	6404953.595
C110	6378903.236	6404936.422
C111	6378887.624	6404897.394
C111	6378889.186	6404913.005
C112	6378985.976	6404888.027
C112	6379004.710	6404889.588
C113	6379092.133	6404958.278
C113	6379112.428	6404956.717
C114	6379202.974	6404955.156
C114	6379232.636	6404955.156
C115	6379284.153	6404959.839
C115	6379307.570	6404962.961
C116	6379458.714	6404857.162
C116	6379482.703	6404856.413
C117	6379790.819	6404528.055
C117	6379813.310	6404525.806

```
[Polygons]
;;Subcatchment X-Coord      Y-Coord
;;-----
```

S1	6377956.967	6405814.419
S1	6377956.967	6405814.419
S1	6377956.967	6405621.779
S1	6377675.775	6405606.245
S1	6377669.595	6405814.419
S1	6377960.057	6405817.525
S22	6377994.546	6405805.708
S22	6377994.546	6405805.708
S22	6378006.561	6405661.530
S22	6378167.560	6405668.739
S22	6378150.739	6405817.723

S22	6377992.143	6405803.305
S2	6378203.648	6405651.671
S2	6378351.970	6405648.564
S2	6378355.060	6405803.917
S2	6378194.378	6405803.917
S33	6378524.830	6405761.332
S33	6378639.214	6405770.131
S33	6378632.175	6405866.918
S33	6378512.511	6405854.599
S3	6378787.877	6405666.756
S3	6378979.458	6405657.434
S3	6378982.549	6405862.502
S3	6378787.877	6405862.502
S4	6377903.401	6405133.538
S4	6378104.253	6405133.538
S4	6378110.433	6405335.498
S4	6377903.401	6405338.605
S5	6378651.527	6404651.275
S5	6378836.929	6404648.167
S5	6378840.018	6404819.057
S5	6378666.977	6404828.378
S6	6379252.891	6404549.646
S6	6379422.843	6404543.432
S6	6379429.023	6404683.251
S6	6379243.621	6404689.465
S7	6379381.989	6404935.462
S7	6379524.130	6404929.247
S7	6379527.220	6405087.708
S7	6379385.078	6405093.922

```
[SYMBOLS]
;;Gage      X-Coord      Y-Coord
;;-----
Gage1      6376322.859    6405646.981
```

```
[BACKDROP]
FILE      "C:\Users\germa\Desktop\Drenaje Urbano\CONCEPCION DEL URUGUAY\Antecedentes Municipio\PARA PROYECTO
DIMENSIONS 6375951.232 6403818.541 6380010.088 6406556.307
```

```
[PROFILES]
;;Name      Links
;;-----
"           " C1 C2 C3 C4 C5
"           " C6 C7 C8 C11 C12
"           " C13 C14 C15 C16
"DFdoReserv1-7 " C1 C2 C3 C4 C5
"DFdoReserv1-7 " C6 C7 C8 C11 C12
"DFdoReserv1-7 " C13 C14 C15 C16
"Res5DF       " C9 C10
"VertReserv1-7 " C1 C101 C3 C102 C5
"VertReserv1-7 " C103 C7 C104 C11 C106
"VertReserv1-7 " C13 C107 C15 C108
"AlcTramo1    " C17 C18 C19 C20 C220
"AlcTramo1    " C21 C24 C25 C26 C27
"AlcTramo1    " C28 C29
"Alc Scca5    " C22 C23 C223 C21
"VertTramo1   " C17 C109 C19 C110 C220
"VertTramo1   " C112 C24 C113 C26 C114
"VertTramo1   " C28 C115
"AlcTramo2    " C29 C69 C70 C71 C72
"AlcTramo2    " C73
```



# Resultados

## Tr5\_4hs\_88mm

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

-----

\*\*\*\*\*

NOTE: The summary statistics displayed in this report are  
based on results found at every computational time step,  
not just on results from each reporting time step.

\*\*\*\*\*

\*\*\*\*\*

### Analysis Options

\*\*\*\*\*

Flow Units ..... CMS

Process Models:

Rainfall/Runoff ..... YES

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... YES

Water Quality ..... NO

Infiltration Method ..... CURVE\_NUMBER

Flow Routing Method ..... DYNWAVE

Starting Date ..... MAR-18-2023 00:00:00

Ending Date ..... MAR-18-2023 16:00:00

Antecedent Dry Days ..... 0.0

Report Time Step ..... 00:10:00

Wet Time Step ..... 00:10:00

Dry Time Step ..... 01:00:00

Routing Time Step ..... 1.00 sec

WARNING 05: minimum slope used for Conduit C5

WARNING 05: minimum slope used for Conduit C7

WARNING 05: minimum slope used for Conduit C17

	Volume	Depth
Runoff Quantity Continuity	hectare-m	mm
	-----	-----
Total Precipitation .....	37.403	88.000
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	19.809	46.606
Surface Runoff .....	16.074	37.818
Final Surface Storage ....	1.572	3.698
Continuity Error (%) .....	-0.139	

	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	16.072	160.726
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	0.000	0.000
External Outflow .....	15.547	155.471
Internal Outflow .....	0.000	0.000
Storage Losses .....	0.000	0.000
Initial Stored Volume ....	0.000	0.002

Final Stored Volume .....	0.521	5.210
Continuity Error (%) .....	0.029	

\*\*\*\*\*

#### Highest Continuity Errors

\*\*\*\*\*

Node J4 (2.05%)

Node J2 (1.78%)

Node J10 (1.62%)

\*\*\*\*\*

#### Time-Step Critical Elements

\*\*\*\*\*

Link C14 (11.75%)

\*\*\*\*\*

#### Highest Flow Instability Indexes

\*\*\*\*\*

Link C8 (38)

Link C11 (16)

Link C7 (2)

Link C2 (2)

Link C14 (1)

\*\*\*\*\*

#### Routing Time Step Summary

\*\*\*\*\*

Minimum Time Step : 0.85 sec  
Average Time Step : 0.99 sec  
Maximum Time Step : 1.00 sec  
Percent in Steady State : 0.00  
Average Iterations per Step : 2.00

\*\*\*\*\*

#### Subcatchment Runoff Summary

\*\*\*\*\*

	Total	Total	Total	Total	Total	Total	Peak	Runoff
	Precip	Runon	Evap	Infil	Runoff	Runoff	Runoff	Coeff
Subcatchment	mm	mm	mm	mm	mm	mm	10^6 ltr	CMS
S1	88.00	0.00	0.00	46.73	35.99	53.28	2.94	0.409
S22	88.00	0.00	0.00	48.25	38.44	5.28	0.43	0.437
S2	88.00	0.00	0.00	48.25	38.44	5.28	0.43	0.437
S33	88.00	0.00	0.00	46.72	39.73	9.93	0.76	0.452
S3	88.00	0.00	0.00	46.72	37.97	19.44	1.25	0.431
S4	88.00	0.00	0.00	45.71	39.39	11.20	0.74	0.448
S5	88.00	0.00	0.00	48.76	36.71	27.24	1.97	0.417
S6	88.00	0.00	0.00	48.25	36.63	14.29	0.96	0.416
S7	88.00	0.00	0.00	38.09	46.70	14.81	1.51	0.531

\*\*\*\*\*

#### Node Depth Summary

\*\*\*\*\*

-----					
Average Maximum Maximum Time of Max					
Depth Depth HGL Occurrence					
Node	Type	Meters	Meters	Meters	days hr:min
-----					
J1	JUNCTION	0.29	0.77	20.57	0 03:55
J2	JUNCTION	0.47	0.97	20.57	0 03:57
J3	JUNCTION	0.28	0.66	18.91	0 05:05
J4	JUNCTION	0.46	0.86	18.91	0 05:06
J5	JUNCTION	0.40	0.82	18.07	0 04:52
J6	JUNCTION	0.58	1.02	18.07	0 04:53
J7	JUNCTION	0.32	0.62	16.42	0 04:19
J8	JUNCTION	0.45	0.76	16.41	0 04:36
J9	JUNCTION	0.10	0.35	16.65	0 03:22
J10	JUNCTION	0.22	0.50	16.65	0 03:22
J11	JUNCTION	0.10	0.14	15.74	0 04:22
J12	JUNCTION	0.52	1.00	15.65	0 04:30
J13	JUNCTION	0.47	1.08	15.23	0 04:27
J14	JUNCTION	0.79	1.51	15.21	0 04:27
J15	JUNCTION	0.30	0.60	13.00	0 04:35
J25	JUNCTION	0.46	0.78	12.98	0 04:36
J26	JUNCTION	0.48	0.76	11.56	0 04:36
J27	JUNCTION	0.38	0.66	11.41	0 03:40
J28	JUNCTION	0.28	0.56	11.21	0 03:35
J29	JUNCTION	0.50	0.90	11.15	0 03:33
J30	JUNCTION	0.49	0.89	11.09	0 03:31
J31	JUNCTION	0.49	0.89	11.09	0 03:31
J32	JUNCTION	0.48	0.97	11.22	0 02:51
J33	JUNCTION	0.14	0.48	11.23	0 02:50
J35	JUNCTION	0.68	1.09	11.09	0 03:31
J36	JUNCTION	0.44	0.81	10.96	0 03:31

J37	JUNCTION	0.46	0.85	10.85	0 03:32
J38	JUNCTION	0.40	0.77	10.67	0 03:31
J39	JUNCTION	0.49	0.90	10.60	0 03:09
J40	JUNCTION	0.45	0.82	10.47	0 03:02
J41	JUNCTION	0.48	0.87	10.42	0 02:59
J42	JUNCTION	0.42	0.79	10.29	0 02:52
J43	JUNCTION	0.48	0.88	10.08	0 02:54
J44	JUNCTION	0.45	0.75	9.85	0 02:55
J45	JUNCTION	0.23	0.47	8.07	0 02:58
J46	JUNCTION	0.27	0.50	8.00	0 02:58
Out15	OUTFALL	0.27	0.50	7.20	0 02:58

\*\*\*\*\*

#### Node Inflow Summary

\*\*\*\*\*

Node	Type	Maximum	Maximum	Lateral		Total
		Lateral	Total	Time of Max	Inflow	Inflow
		Inflow	Inflow	Occurrence	Volume	Volume
		CMS	CMS	days hr:min	10^6 ltr	10^6 ltr
J1	JUNCTION	2.937	2.937	0 02:10	53.271	53.271
J2	JUNCTION	0.000	2.517	0 02:50	0.000	53.223
J3	JUNCTION	0.000	2.299	0 03:53	0.000	52.278
J4	JUNCTION	0.000	2.159	0 04:27	0.000	52.194
J5	JUNCTION	0.427	2.193	0 04:51	5.278	56.403
J6	JUNCTION	0.000	2.193	0 04:52	0.000	56.298
J7	JUNCTION	0.427	2.824	0 04:11	5.278	70.817
J8	JUNCTION	0.000	2.828	0 04:11	0.000	70.717

J9	JUNCTION	0.762	0.762	0 02:10	9.933	9.933
J10	JUNCTION	0.000	0.597	0 02:10	0.000	9.933
J11	JUNCTION	1.247	4.248	0 04:19	19.440	89.776
J12	JUNCTION	0.000	3.488	0 04:22	0.000	89.566
J13	JUNCTION	0.738	3.739	0 04:25	11.196	100.779
J14	JUNCTION	0.000	3.738	0 04:26	0.000	100.772
J15	JUNCTION	0.000	3.738	0 04:27	0.000	100.753
J25	JUNCTION	0.000	3.720	0 04:30	0.000	100.652
J26	JUNCTION	0.000	3.713	0 04:36	0.000	100.375
J27	JUNCTION	0.000	3.713	0 04:38	0.000	100.238
J28	JUNCTION	0.000	3.718	0 04:40	0.000	100.130
J29	JUNCTION	0.000	3.722	0 04:41	0.000	100.159
J30	JUNCTION	0.000	3.729	0 04:41	0.000	100.189
J31	JUNCTION	0.000	1.920	0 02:11	0.000	27.208
J32	JUNCTION	0.000	1.946	0 02:10	0.000	27.244
J33	JUNCTION	1.968	1.968	0 02:10	27.239	27.239
J35	JUNCTION	0.000	5.061	0 03:30	0.000	127.315
J36	JUNCTION	0.000	5.061	0 03:31	0.000	127.210
J37	JUNCTION	0.000	5.060	0 03:31	0.000	127.149
J38	JUNCTION	0.000	5.061	0 03:33	0.000	127.074
J39	JUNCTION	0.000	5.062	0 03:34	0.000	127.050
J40	JUNCTION	0.000	5.065	0 03:35	0.000	127.053
J41	JUNCTION	0.000	5.069	0 03:36	0.000	127.128
J42	JUNCTION	2.101	6.572	0 02:50	29.090	156.126
J43	JUNCTION	0.000	6.570	0 02:51	0.000	155.943
J44	JUNCTION	0.000	6.567	0 02:53	0.000	155.857
J45	JUNCTION	0.000	6.566	0 02:56	0.000	155.579
J46	JUNCTION	0.000	6.565	0 02:58	0.000	155.500
Out15	OUTFALL	0.000	6.565	0 02:58	0.000	155.471

\*\*\*\*\*

### Node Surcharge Summary

\*\*\*\*\*

No nodes were surcharged.

\*\*\*\*\*

### Node Flooding Summary

\*\*\*\*\*

No nodes were flooded.

\*\*\*\*\*

### Outfall Loading Summary

\*\*\*\*\*

-----				
	Flow	Avg.	Max.	Total
	Freq.	Flow	Flow	Volume
Outfall Node	Pcnt.	CMS	CMS	10^6 ltr
-----				
Out15	97.54	2.793	6.565	155.471
-----				
System	97.54	2.793	6.565	155.471

\*\*\*\*\*

### Link Flow Summary

\*\*\*\*\*



-----							
		Maximum Time of Max		Maximum	Max/	Max/	
		Flow	Occurrence	Veloc	Full	Full	
Link	Type	CMS	days hr:min	m/sec	Flow	Depth	
-----							
C1	CONDUIT	2.517	0 02:50	0.23	0.01	0.58	
C2	CONDUIT	2.299	0 03:53	3.12	1.01	0.91	
C3	CONDUIT	2.159	0 04:27	0.16	0.01	0.51	
C4	CONDUIT	2.090	0 05:06	3.08	0.91	0.81	
C5	CONDUIT	2.193	0 04:52	0.17	0.04	0.61	
C6	CONDUIT	1.743	0 04:53	3.50	1.38	0.97	
C7	CONDUIT	2.828	0 04:11	0.19	0.06	0.46	
C8	CONDUIT	3.575	0 04:36	6.16	2.00	0.56	
C9	CONDUIT	0.597	0 02:10	0.16	0.00	0.28	
C10	CONDUIT	0.529	0 03:22	2.21	0.90	0.79	
C11	CONDUIT	3.488	0 04:22	0.49	0.02	0.21	
C12	CONDUIT	3.400	0 04:30	3.42	1.35	0.97	
C13	CONDUIT	3.738	0 04:26	0.83	0.10	0.72	
C14	CONDUIT	3.738	0 04:27	4.76	1.63	1.00	
C15	CONDUIT	3.720	0 04:30	0.34	0.08	0.46	
C16	CONDUIT	3.713	0 04:36	3.01	0.81	0.73	
C17	CONDUIT	3.713	0 04:38	0.65	0.27	0.55	
C18	CONDUIT	3.718	0 04:40	3.26	0.98	0.76	
C19	CONDUIT	3.722	0 04:41	0.71	0.13	0.56	
C20	CONDUIT	3.729	0 04:41	1.80	0.77	0.90	
C220	CONDUIT	3.731	0 04:41	0.54	0.08	0.70	
C21	CONDUIT	5.061	0 03:31	2.37	1.04	0.85	
C22	CONDUIT	1.946	0 02:10	0.53	0.06	0.56	
C23	CONDUIT	1.920	0 02:11	2.73	1.19	0.92	
C223	CONDUIT	1.915	0 02:11	0.41	0.04	0.70	

C24	CONDUIT	5.060	0	03:31	0.72	0.36	0.64
C25	CONDUIT	5.061	0	03:33	2.48	0.99	0.81
C26	CONDUIT	5.062	0	03:34	0.73	0.25	0.64
C27	CONDUIT	5.065	0	03:35	2.35	1.04	0.86
C28	CONDUIT	5.069	0	03:36	0.73	0.33	0.65
C29	CONDUIT	5.074	0	03:36	2.48	1.05	0.83
C69	CONDUIT	6.570	0	02:51	0.93	0.36	0.64
C70	CONDUIT	6.567	0	02:53	3.41	0.96	0.81
C71	CONDUIT	6.566	0	02:56	1.38	0.47	0.61
C72	CONDUIT	6.565	0	02:58	1.74	0.08	0.24
C73	CONDUIT	6.565	0	02:58	1.76	0.28	0.50
C101	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C102	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C103	CONDUIT	0.450	0	04:53	1.29	0.00	0.03
C104	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C105	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C106	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C107	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C108	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C109	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C110	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C111	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C112	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C113	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C114	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C115	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C116	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C117	CONDUIT	0.000	0	00:00	0.00	0.00	0.00

\*\*\*\*\*

## Flow Classification Summary

\*\*\*\*\*

-----										
Adjusted		--- Fraction of Time in Flow Class ----								Avg. Avg.
/Actual		Up	Down	Sub	Sup	Up	Down	Froude	Flow	
Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Number	Change
-----										
C1	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.02	0.0000
C2	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.26	0.0001
C3	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.03	0.0000
C4	1.00	0.04	0.00	0.00	0.00	0.00	0.00	0.96	1.25	0.0000
C5	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.05	0.0000
C6	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	1.09	0.0001
C7	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.08	0.0000
C8	1.00	0.01	0.00	0.00	0.03	0.95	0.00	0.00	2.39	0.1608
C9	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.0000
C10	1.00	0.01	0.00	0.00	0.05	0.15	0.00	0.79	1.18	0.0000
C11	1.00	0.01	0.00	0.00	0.43	0.00	0.00	0.56	0.34	0.0000
C12	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.14	0.0001
C13	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.32	0.0000
C14	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.00	0.0001
C15	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.12	0.0000
C16	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	1.30	0.0001
C17	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.24	0.0000
C18	1.00	0.03	0.00	0.00	0.00	0.97	0.00	0.00	1.73	0.0001
C19	1.00	0.02	0.01	0.00	0.97	0.00	0.00	0.00	0.30	0.0000
C20	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.73	0.0001
C220	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.19	0.0000
C21	1.00	0.02	0.00	0.00	0.52	0.46	0.00	0.00	0.97	0.0001
C22	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.07	0.0000

[illegible]

\*\*\*\*\*

### Conduit Surcharge Summary

\*\*\*\*\*

-----					
		Hours		Hours	
		----- Hours Full -----		Above Full	Capacity
Conduit	Both Ends	Upstream	Dnstream	Normal Flow	Limited
-----					
C2	0.01	0.01	0.01	0.43	0.01
C6	0.01	0.01	0.01	5.69	0.01
C8	0.01	0.01	0.01	8.77	0.01
C12	0.01	0.01	0.01	8.46	0.01
C14	2.33	2.33	2.38	5.76	2.33
C16	0.01	0.01	0.01	5.74	0.01
C18	0.01	0.01	0.01	9.14	0.01
C20	0.01	0.01	0.01	7.66	0.01
C21	0.01	0.01	0.01	8.53	0.01
C23	0.01	0.01	0.01	1.71	0.01
C25	0.01	0.01	0.01	8.27	0.01
C27	0.01	0.01	0.01	8.52	0.01
C29	0.01	0.01	0.01	8.53	0.01
C70	0.01	0.01	0.01	7.53	0.01

Analysis begun on: Sun Jun 25 13:27:19 2023

Analysis ended on: Sun Jun 25 13:27:21 2023

Total elapsed time: 00:00:02

# Resultados

## Tr10\_4hs\_94mm

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

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\*\*\*\*\*

NOTE: The summary statistics displayed in this report are  
based on results found at every computational time step,  
not just on results from each reporting time step.

\*\*\*\*\*

\*\*\*\*\*

### Analysis Options

\*\*\*\*\*

Flow Units ..... CMS

Process Models:

Rainfall/Runoff ..... YES

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... YES

Water Quality ..... NO

Infiltration Method ..... CURVE\_NUMBER

Flow Routing Method ..... DYNWAVE

Starting Date ..... MAR-18-2023 00:00:00

Ending Date ..... MAR-18-2023 16:00:00

Antecedent Dry Days ..... 0.0

Report Time Step ..... 00:10:00

Wet Time Step ..... 00:10:00

Dry Time Step ..... 01:00:00

Routing Time Step ..... 1.00 sec

WARNING 05: minimum slope used for Conduit C5

WARNING 05: minimum slope used for Conduit C7

WARNING 05: minimum slope used for Conduit C17

	Volume	Depth
Runoff Quantity Continuity	hectare-m	mm
*****	-----	-----
Total Precipitation .....	39.953	94.000
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	20.339	47.854
Surface Runoff .....	18.045	42.457
Final Surface Storage ....	1.624	3.821
Continuity Error (%) .....	-0.141	

	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
*****	-----	-----
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	18.044	180.439
Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	0.000	0.000
External Outflow .....	17.492	174.924
Internal Outflow .....	0.000	0.000

Storage Losses .....	0.000	0.000
Initial Stored Volume ....	0.000	0.002
Final Stored Volume .....	0.548	5.480
Continuity Error (%) .....	0.020	

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#### Highest Continuity Errors

\*\*\*\*\*

Node J4 (1.91%)

Node J2 (1.65%)

Node J10 (1.49%)

\*\*\*\*\*

#### Time-Step Critical Elements

\*\*\*\*\*

Link C14 (9.52%)

Link C12 (3.92%)

Link C20 (3.66%)

Link C23 (2.65%)

\*\*\*\*\*

#### Highest Flow Instability Indexes

\*\*\*\*\*

Link C8 (34)

Link C11 (15)

Link C4 (4)

Link C7 (3)

Link C2 (2)



\*\*\*\*\*

### Routing Time Step Summary

\*\*\*\*\*

Minimum Time Step : 0.50 sec

Average Time Step : 0.96 sec

Maximum Time Step : 1.00 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.00

\*\*\*\*\*

### Subcatchment Runoff Summary

\*\*\*\*\*

-----								
	Total	Total	Total	Total	Total	Total	Peak	Runoff
	Precip	Runon	Evap	Infil	Runoff	Runoff	Runoff	Coeff
Subcatchment	mm	mm	mm	mm	mm	mm	10^6 ltr	CMS
-----								
S1	94.00	0.00	0.00	47.95	40.61	60.12	3.40	0.432
S22	94.00	0.00	0.00	49.56	43.07	5.91	0.48	0.458
S2	94.00	0.00	0.00	49.56	43.07	5.91	0.48	0.458
S33	94.00	0.00	0.00	47.99	44.40	11.10	0.87	0.472
S3	94.00	0.00	0.00	47.99	42.60	21.81	1.43	0.453
S4	94.00	0.00	0.00	46.95	44.07	12.52	0.84	0.469
S5	94.00	0.00	0.00	50.08	41.30	30.64	2.26	0.439
S6	94.00	0.00	0.00	49.56	41.22	16.08	1.10	0.439
S7	94.00	0.00	0.00	39.12	51.59	16.35	1.64	0.549

\*\*\*\*\*

# Node Depth Summary

\*\*\*\*\*

-----					
Average Maximum Maximum Time of Max					
Depth Depth HGL Occurrence					
Node	Type	Meters	Meters	Meters	days hr:min
-----					
J1	JUNCTION	0.33	0.82	20.62	0 03:15
J2	JUNCTION	0.51	1.02	20.62	0 03:16
J3	JUNCTION	0.33	0.77	19.02	0 04:39
J4	JUNCTION	0.51	0.97	19.02	0 04:40
J5	JUNCTION	0.44	0.83	18.08	0 04:02
J6	JUNCTION	0.62	1.02	18.07	0 04:03
J7	JUNCTION	0.35	0.63	16.43	0 03:42
J8	JUNCTION	0.48	0.77	16.42	0 03:44
J9	JUNCTION	0.13	0.40	16.70	0 03:21
J10	JUNCTION	0.24	0.55	16.70	0 03:21
J11	JUNCTION	0.11	0.31	15.91	0 04:20
J12	JUNCTION	0.59	1.26	15.91	0 04:21
J13	JUNCTION	0.56	1.28	15.43	0 04:16
J14	JUNCTION	0.89	1.72	15.42	0 04:16
J15	JUNCTION	0.35	0.70	13.10	0 04:29
J25	JUNCTION	0.50	0.89	13.09	0 04:29
J26	JUNCTION	0.52	0.86	11.66	0 04:22
J27	JUNCTION	0.43	0.79	11.54	0 04:19
J28	JUNCTION	0.33	0.67	11.32	0 03:23
J29	JUNCTION	0.55	1.03	11.28	0 03:19
J30	JUNCTION	0.54	1.01	11.21	0 03:14

J31	JUNCTION	0.54	1.01	11.21	0 03:14
J32	JUNCTION	0.54	1.11	11.36	0 02:54
J33	JUNCTION	0.18	0.62	11.37	0 02:53
J35	JUNCTION	0.74	1.21	11.21	0 03:14
J36	JUNCTION	0.49	0.90	11.05	0 03:14
J37	JUNCTION	0.51	0.97	10.97	0 03:14
J38	JUNCTION	0.45	0.86	10.76	0 03:12
J39	JUNCTION	0.54	1.01	10.71	0 03:12
J40	JUNCTION	0.49	0.90	10.55	0 03:07
J41	JUNCTION	0.52	0.95	10.50	0 03:04
J42	JUNCTION	0.46	0.85	10.35	0 02:54
J43	JUNCTION	0.53	0.96	10.16	0 02:55
J44	JUNCTION	0.48	0.79	9.89	0 02:56
J45	JUNCTION	0.25	0.51	8.11	0 02:59
J46	JUNCTION	0.30	0.53	8.03	0 02:59
Out15	OUTFALL	0.30	0.53	7.23	0 02:59

\*\*\*\*\*

# Node Inflow Summary

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-----						
Node	Type	Maximum	Maximum	Lateral		Total
		Lateral	Total	Time of Max	Inflow	Inflow
		Inflow	Inflow	Occurrence	Volume	Volume
		CMS	CMS	days hr:min	10^6 ltr	10^6 ltr
-----						
J1	JUNCTION	3.403	3.403	0 02:10	60.103	60.103
J2	JUNCTION	0.000	3.097	0 03:12	0.000	60.049
J3	JUNCTION	0.000	3.087	0 03:16	0.000	59.057

J4	JUNCTION	0.000	2.559	0 03:33	0.000	58.968
J5	JUNCTION	0.483	2.511	0 04:02	5.913	63.757
J6	JUNCTION	0.000	2.510	0 04:02	0.000	63.639
J7	JUNCTION	0.483	3.304	0 03:51	5.913	79.920
J8	JUNCTION	0.000	3.360	0 03:59	0.000	79.812
J9	JUNCTION	0.868	0.868	0 01:30	11.101	11.101
J10	JUNCTION	0.000	0.679	0 02:10	0.000	11.101
J11	JUNCTION	1.431	4.952	0 03:44	21.811	101.213
J12	JUNCTION	0.000	4.066	0 03:59	0.000	101.003
J13	JUNCTION	0.843	4.331	0 04:13	12.524	113.551
J14	JUNCTION	0.000	4.330	0 04:16	0.000	113.543
J15	JUNCTION	0.000	4.329	0 04:16	0.000	113.523
J25	JUNCTION	0.000	4.311	0 04:23	0.000	113.417
J26	JUNCTION	0.000	4.304	0 04:29	0.000	113.130
J27	JUNCTION	0.000	4.314	0 04:32	0.000	112.987
J28	JUNCTION	0.000	4.334	0 04:36	0.000	112.875
J29	JUNCTION	0.000	4.342	0 04:37	0.000	112.906
J30	JUNCTION	0.000	4.355	0 04:38	0.000	112.939
J31	JUNCTION	0.000	2.190	0 02:11	0.000	30.612
J32	JUNCTION	0.000	2.225	0 02:10	0.000	30.650
J33	JUNCTION	2.257	2.257	0 02:10	30.645	30.645
J35	JUNCTION	0.000	5.709	0 03:12	0.000	143.465
J36	JUNCTION	0.000	5.708	0 03:13	0.000	143.354
J37	JUNCTION	0.000	5.708	0 03:15	0.000	143.291
J38	JUNCTION	0.000	5.709	0 03:18	0.000	143.213
J39	JUNCTION	0.000	5.711	0 03:19	0.000	143.190
J40	JUNCTION	0.000	5.714	0 03:20	0.000	143.199
J41	JUNCTION	0.000	5.716	0 03:20	0.000	143.279
J42	JUNCTION	2.328	7.409	0 02:50	32.429	175.608
J43	JUNCTION	0.000	7.405	0 02:51	0.000	175.414
J44	JUNCTION	0.000	7.401	0 02:54	0.000	175.324

J45	JUNCTION	0.000	7.401	0	02:57	0.000	175.036
J46	JUNCTION	0.000	7.400	0	02:59	0.000	174.954
Out15	OUTFALL	0.000	7.400	0	02:59	0.000	174.923

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#### Node Surcharge Summary

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No nodes were surcharged.

\*\*\*\*\*

#### Node Flooding Summary

\*\*\*\*\*

No nodes were flooded.

\*\*\*\*\*

#### Outfall Loading Summary

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-----				
	Flow	Avg.	Max.	Total
	Freq.	Flow	Flow	Volume
Outfall Node	Pcnt.	CMS	CMS	10^6 ltr
-----				
Out15	97.64	3.245	7.400	174.923
-----				
System	97.64	3.245	7.400	174.923

\*\*\*\*\*

## Link Flow Summary

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-----							
		Maximum Time of Max		Maximum	Max/	Max/	
		Flow	Occurrence	Veloc	Full	Full	
Link	Type	CMS	days hr:min	m/sec	Flow	Depth	
-----							
C1	CONDUIT	3.097	0 03:12	0.23	0.02	0.61	
C2	CONDUIT	2.394	0 03:16	3.13	1.05	0.94	
C3	CONDUIT	2.559	0 03:33	0.17	0.01	0.58	
C4	CONDUIT	2.299	0 04:31	3.12	1.01	0.91	
C5	CONDUIT	2.510	0 04:02	0.18	0.05	0.62	
C6	CONDUIT	1.755	0 04:03	3.53	1.39	0.97	
C7	CONDUIT	3.360	0 03:59	0.22	0.07	0.47	
C8	CONDUIT	3.978	0 03:45	6.36	2.23	0.67	
C9	CONDUIT	0.679	0 02:10	0.16	0.00	0.32	
C10	CONDUIT	0.585	0 03:21	2.24	1.00	0.87	
C11	CONDUIT	4.066	0 03:59	0.51	0.02	0.36	
C12	CONDUIT	3.933	0 04:32	3.91	1.56	1.00	
C13	CONDUIT	4.330	0 04:16	0.83	0.11	0.84	
C14	CONDUIT	4.329	0 04:16	5.51	1.89	1.00	
C15	CONDUIT	4.311	0 04:23	0.35	0.09	0.53	
C16	CONDUIT	4.304	0 04:29	3.09	0.94	0.83	
C17	CONDUIT	4.314	0 04:32	0.65	0.32	0.63	
C18	CONDUIT	4.334	0 04:36	3.26	1.15	0.91	
C19	CONDUIT	4.342	0 04:37	0.72	0.15	0.65	
C20	CONDUIT	4.355	0 04:38	1.91	0.90	1.00	

C220	CONDUIT	4.358	0 04:38	0.55	0.09	0.79
C21	CONDUIT	5.708	0 03:13	2.47	1.18	0.95
C22	CONDUIT	2.225	0 02:10	0.54	0.07	0.67
C23	CONDUIT	2.190	0 02:11	2.87	1.35	1.00
C223	CONDUIT	2.183	0 02:11	0.42	0.05	0.79
C24	CONDUIT	5.708	0 03:15	0.73	0.41	0.72
C25	CONDUIT	5.709	0 03:18	2.54	1.12	0.91
C26	CONDUIT	5.711	0 03:19	0.74	0.28	0.72
C27	CONDUIT	5.714	0 03:20	2.47	1.18	0.95
C28	CONDUIT	5.716	0 03:20	0.75	0.38	0.71
C29	CONDUIT	5.719	0 03:21	2.62	1.18	0.90
C69	CONDUIT	7.405	0 02:51	0.94	0.40	0.70
C70	CONDUIT	7.401	0 02:54	3.48	1.08	0.88
C71	CONDUIT	7.401	0 02:57	1.43	0.53	0.65
C72	CONDUIT	7.400	0 02:59	1.82	0.09	0.26
C73	CONDUIT	7.400	0 02:59	1.83	0.32	0.53
C101	CONDUIT	0.694	0 03:16	1.57	0.01	0.04
C102	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C103	CONDUIT	0.754	0 04:03	1.59	0.01	0.05
C104	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C105	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C106	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C107	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C108	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C109	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C110	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C111	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C112	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C113	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C114	CONDUIT	0.000	0 00:00	0.00	0.00	0.00
C115	CONDUIT	0.000	0 00:00	0.00	0.00	0.00

C116	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C117	CONDUIT	0.000	0	00:00	0.00	0.00	0.00

\*\*\*\*\*

# Flow Classification Summary

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-----											
		Adjusted --- Fraction of Time in Flow Class ---- Avg. Avg.									
		/Actual	Up	Down	Sub	Sup	Up	Down	Froude	Flow	
Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Number	Change	
-----											
C1	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.02	0.0000	
C2	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.22	0.0001	
C3	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.02	0.0000	
C4	1.00	0.03	0.00	0.00	0.00	0.00	0.00	0.97	1.20	0.0001	
C5	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.05	0.0000	
C6	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	1.06	0.0001	
C7	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.08	0.0000	
C8	1.00	0.01	0.00	0.00	0.03	0.95	0.00	0.00	2.37	0.1630	
C9	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.0000	
C10	1.00	0.01	0.00	0.00	0.10	0.11	0.00	0.78	1.13	0.0000	
C11	1.00	0.01	0.00	0.00	0.48	0.00	0.00	0.51	0.32	0.0000	
C12	1.00	0.01	0.00	0.00	0.18	0.00	0.00	0.81	1.02	0.0001	
C13	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.31	0.0000	
C14	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.89	0.0001	
C15	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.12	0.0000	
C16	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	1.27	0.0001	
C17	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.24	0.0000	
C18	1.00	0.03	0.00	0.00	0.13	0.84	0.00	0.00	1.63	0.0002	



[illegible]

C114	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
C115	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
C116	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
C117	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000

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### Conduit Surcharge Summary

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Conduit	Hours				
	Hours Full		Above Full		Capacity
	Both Ends	Upstream	Dnstream	Normal Flow	Limited
C2	0.01	0.01	0.01	2.10	0.01
C4	0.01	0.01	0.01	0.95	0.01
C6	0.01	0.01	0.01	6.34	0.01
C8	0.01	0.01	0.01	9.25	0.01
C12	1.43	1.43	1.43	8.94	1.43
C14	3.56	3.56	3.60	6.32	3.56
C16	0.01	0.01	0.01	6.34	0.01
C18	0.01	0.01	0.01	9.53	0.01
C20	0.59	0.59	0.59	8.34	0.59
C21	0.01	0.01	0.01	8.87	0.01
C23	0.56	0.56	0.56	2.30	0.56
C25	0.01	0.01	0.01	8.62	0.01
C27	0.01	0.01	0.01	8.87	0.01
C29	0.01	0.01	0.01	8.87	0.01
C70	0.01	0.01	0.01	7.92	0.01

Analysis begun on: Sun Jun 25 13:50:34 2023

Analysis ended on: Sun Jun 25 13:50:36 2023

Total elapsed time: 00:00:02

## Resultados

### Tr25\_4hs\_110mm

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

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NOTE: The summary statistics displayed in this report are  
based on results found at every computational time step,  
not just on results from each reporting time step.

\*\*\*\*\*

\*\*\*\*\*

#### Analysis Options

\*\*\*\*\*

Flow Units ..... CMS

Process Models:

Rainfall/Runoff ..... YES

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... YES

Water Quality ..... NO

Infiltration Method ..... CURVE\_NUMBER

Flow Routing Method ..... DYNWAVE

Starting Date ..... MAR-18-2023 00:00:00

Ending Date ..... MAR-18-2023 16:00:00

Antecedent Dry Days ..... 0.0

Report Time Step ..... 00:10:00

Wet Time Step ..... 00:10:00

Dry Time Step ..... 01:00:00

Routing Time Step ..... 1.00 sec

WARNING 05: minimum slope used for Conduit C5

WARNING 05: minimum slope used for Conduit C7

WARNING 05: minimum slope used for Conduit C17

	Volume	Depth
Runoff Quantity Continuity	hectare-m	mm
Total Precipitation .....	46.753	110.000
Evaporation Loss .....	0.000	0.000
Infiltration Loss .....	21.568	50.744
Surface Runoff .....	23.505	55.302
Final Surface Storage ....	1.750	4.118
Continuity Error (%) .....	-0.150	

	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
Dry Weather Inflow .....	0.000	0.000
Wet Weather Inflow .....	23.502	235.027

Groundwater Inflow .....	0.000	0.000
RDII Inflow .....	0.000	0.000
External Inflow .....	0.000	0.000
External Outflow .....	22.894	228.938
Internal Outflow .....	0.000	0.000
Storage Losses .....	0.000	0.000
Initial Stored Volume ....	0.000	0.002
Final Stored Volume .....	0.609	6.091
Continuity Error (%) .....	-0.000	

\*\*\*\*\*

#### Highest Continuity Errors

\*\*\*\*\*

Node J4 (1.65%)

Node J2 (1.40%)

Node J10 (1.23%)

\*\*\*\*\*

#### Time-Step Critical Elements

\*\*\*\*\*

Link C29 (7.64%)

Link C14 (5.18%)

Link C27 (2.62%)

Link C70 (1.95%)

Link C21 (1.80%)

\*\*\*\*\*

#### Highest Flow Instability Indexes

\*\*\*\*\*

Link C8 (26)

Link C11 (8)

Link C4 (3)

Link C2 (2)

Link C16 (2)

\*\*\*\*\*

#### Routing Time Step Summary

\*\*\*\*\*

Minimum Time Step : 0.50 sec

Average Time Step : 0.95 sec

Maximum Time Step : 1.00 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.00

\*\*\*\*\*

#### Subcatchment Runoff Summary

\*\*\*\*\*

-----								
	Total	Total	Total	Total	Total	Total	Peak	Runoff
	Precip	Runon	Evap	Infil	Runoff	Runoff	Runoff	Coeff
Subcatchment		mm	mm	mm	mm	mm	10^6 ltr	CMS
-----								
S1	110.00	0.00	0.00	50.78	53.42	79.08	4.75	0.486
S22	110.00	0.00	0.00	52.59	55.87	7.67	0.68	0.508
S2	110.00	0.00	0.00	52.59	55.87	7.67	0.68	0.508
S33	110.00	0.00	0.00	50.93	57.30	14.33	1.21	0.521

S3	110.00	0.00	0.00	50.93	55.42	28.38	1.95	0.504
S4	110.00	0.00	0.00	49.82	56.99	16.20	1.14	0.518
S5	110.00	0.00	0.00	53.14	54.02	40.08	3.07	0.491
S6	110.00	0.00	0.00	52.59	53.95	21.04	1.51	0.490
S7	110.00	0.00	0.00	41.52	65.01	20.61	2.03	0.591

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#### Node Depth Summary

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Average Maximum Maximum Time of Max					
Depth Depth HGL Occurrence					
Node	Type	Meters	Meters	Meters	days hr:min
-----					
J1	JUNCTION	0.38	0.84	20.64	0 02:18
J2	JUNCTION	0.57	1.04	20.64	0 02:18
J3	JUNCTION	0.40	0.85	19.10	0 02:57
J4	JUNCTION	0.58	1.05	19.10	0 02:57
J5	JUNCTION	0.50	0.86	18.11	0 02:57
J6	JUNCTION	0.68	1.06	18.11	0 02:58
J7	JUNCTION	0.43	0.96	16.76	0 03:06
J8	JUNCTION	0.57	1.10	16.75	0 03:07
J9	JUNCTION	0.20	0.62	16.92	0 03:40
J10	JUNCTION	0.32	0.77	16.92	0 03:40
J11	JUNCTION	0.21	0.62	16.22	0 03:08
J12	JUNCTION	0.76	1.57	16.22	0 03:08
J13	JUNCTION	0.69	1.43	15.58	0 03:07
J14	JUNCTION	1.03	1.85	15.55	0 03:08
J15	JUNCTION	0.43	0.88	13.28	0 03:08

J25	JUNCTION	0.59	1.05	13.25	0 03:09
J26	JUNCTION	0.66	1.41	12.21	0 03:09
J27	JUNCTION	0.59	1.38	12.13	0 03:10
J28	JUNCTION	0.45	1.08	11.73	0 03:10
J29	JUNCTION	0.70	1.44	11.69	0 03:11
J30	JUNCTION	0.68	1.44	11.64	0 03:11
J31	JUNCTION	0.68	1.43	11.63	0 03:11
J32	JUNCTION	0.67	1.40	11.65	0 03:11
J33	JUNCTION	0.30	0.90	11.65	0 03:10
J35	JUNCTION	0.88	1.63	11.63	0 03:11
J36	JUNCTION	0.62	1.34	11.49	0 03:11
J37	JUNCTION	0.65	1.41	11.41	0 03:12
J38	JUNCTION	0.56	1.29	11.19	0 03:12
J39	JUNCTION	0.67	1.43	11.13	0 03:13
J40	JUNCTION	0.60	1.34	10.99	0 03:13
J41	JUNCTION	0.63	1.39	10.94	0 03:13
J42	JUNCTION	0.54	1.09	10.59	0 03:14
J43	JUNCTION	0.61	1.14	10.34	0 03:18
J44	JUNCTION	0.54	1.05	10.15	0 03:20
J45	JUNCTION	0.31	0.71	8.31	0 03:24
J46	JUNCTION	0.34	0.71	8.21	0 03:24
Out15	OUTFALL	0.34	0.71	7.41	0 03:24

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# Node Inflow Summary

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	Maximum	Maximum		Lateral	Total
	Lateral	Total	Time of Max	Inflow	Inflow



Node	Inflow		Occurrence		Volume	
	Type	CMS	CMS	days hr:min	10^6 ltr	10^6 ltr
-----						
J1	JUNCTION	4.753	4.753	0 02:10	79.058	79.058
J2	JUNCTION	0.000	4.628	0 02:17	0.000	78.991
J3	JUNCTION	0.000	4.618	0 02:18	0.000	77.885
J4	JUNCTION	0.000	4.443	0 02:55	0.000	77.779
J5	JUNCTION	0.676	4.903	0 02:56	7.671	84.170
J6	JUNCTION	0.000	4.904	0 02:57	0.000	84.016
J7	JUNCTION	0.676	5.979	0 02:54	7.671	105.203
J8	JUNCTION	0.000	5.727	0 03:05	0.000	105.070
J9	JUNCTION	1.210	1.210	0 01:30	14.325	14.325
J10	JUNCTION	0.000	0.891	0 02:10	0.000	14.325
J11	JUNCTION	1.953	7.273	0 03:06	28.378	133.027
J12	JUNCTION	0.000	7.261	0 03:07	0.000	132.781
J13	JUNCTION	1.139	8.124	0 03:08	16.196	149.035
J14	JUNCTION	0.000	8.124	0 03:08	0.000	149.026
J15	JUNCTION	0.000	8.124	0 03:08	0.000	149.005
J25	JUNCTION	0.000	8.127	0 03:08	0.000	148.890
J26	JUNCTION	0.000	8.126	0 03:09	0.000	148.583
J27	JUNCTION	0.000	8.127	0 03:10	0.000	148.428
J28	JUNCTION	0.000	8.127	0 03:10	0.000	148.310
J29	JUNCTION	0.000	8.127	0 03:10	0.000	148.348
J30	JUNCTION	0.000	8.127	0 03:11	0.000	148.391
J31	JUNCTION	0.000	3.042	0 02:10	0.000	40.041
J32	JUNCTION	0.000	3.056	0 02:10	0.000	40.088
J33	JUNCTION	3.066	3.066	0 02:10	40.082	40.082
J35	JUNCTION	0.000	10.425	0 03:11	0.000	188.339
J36	JUNCTION	0.000	10.425	0 03:11	0.000	188.215
J37	JUNCTION	0.000	10.425	0 03:11	0.000	188.147
J38	JUNCTION	0.000	10.423	0 03:12	0.000	188.064

J39	JUNCTION	0.000	10.422	0	03:12	0.000	188.046
J40	JUNCTION	0.000	10.420	0	03:12	0.000	188.068
J41	JUNCTION	0.000	10.417	0	03:13	0.000	188.164
J42	JUNCTION	2.994	12.500	0	03:13	41.646	229.691
J43	JUNCTION	0.000	12.491	0	03:14	0.000	229.466
J44	JUNCTION	0.000	12.455	0	03:14	0.000	229.367
J45	JUNCTION	0.000	12.295	0	03:22	0.000	229.064
J46	JUNCTION	0.000	12.285	0	03:24	0.000	228.971
Out15	OUTFALL	0.000	12.285	0	03:24	0.000	228.937

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#### Node Surcharge Summary

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No nodes were surcharged.

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#### Node Flooding Summary

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No nodes were flooded.

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#### Outfall Loading Summary

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Flow	Avg.	Max.	Total
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	Freq.	Flow	Flow	Volume
Outfall Node	Pcnt.	CMS	CMS	10^6 ltr
-----				
Out15	97.77	4.306	12.285	228.937
-----				
System	97.77	4.306	12.285	228.937

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# Link Flow Summary

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-----							
		Maximum	Time of Max	Maximum	Max/	Max/	
		Flow	Occurrence	Veloc	Full	Full	
Link	Type	CMS	days hr:min	m/sec	Flow	Depth	
-----							
C1	CONDUIT	4.628	0 02:17	0.25	0.03	0.63	
C2	CONDUIT	2.457	0 02:18	3.20	1.07	0.94	
C3	CONDUIT	4.443	0 02:55	0.19	0.02	0.63	
C4	CONDUIT	2.471	0 02:57	3.22	1.08	0.94	
C5	CONDUIT	4.904	0 02:57	0.21	0.09	0.64	
C6	CONDUIT	1.816	0 02:58	3.64	1.44	0.97	
C7	CONDUIT	5.727	0 03:05	0.26	0.12	0.68	
C8	CONDUIT	4.064	0 03:01	6.08	2.28	0.89	
C9	CONDUIT	0.891	0 02:10	0.17	0.01	0.46	
C10	CONDUIT	0.739	0 02:52	2.66	1.26	1.00	
C11	CONDUIT	7.261	0 03:07	0.50	0.04	0.56	
C12	CONDUIT	4.552	0 03:50	4.53	1.80	1.00	
C13	CONDUIT	8.124	0 03:08	0.93	0.21	0.90	
C14	CONDUIT	4.654	0 03:08	5.93	2.04	1.00	

C15	CONDUIT	8.127	0	03:08	0.40	0.17	0.65
C16	CONDUIT	4.979	0	03:09	3.24	1.09	0.94
C17	CONDUIT	8.127	0	03:10	0.65	0.60	1.00
C18	CONDUIT	5.515	0	04:24	3.66	1.46	1.00
C19	CONDUIT	8.127	0	03:10	0.72	0.28	0.92
C20	CONDUIT	5.281	0	04:55	2.24	1.09	1.00
C220	CONDUIT	8.128	0	03:11	0.63	0.18	1.00
C21	CONDUIT	6.738	0	02:18	2.86	1.39	1.00
C22	CONDUIT	3.056	0	02:10	0.56	0.10	0.85
C23	CONDUIT	2.740	0	01:39	3.49	1.69	1.00
C223	CONDUIT	3.025	0	02:10	0.43	0.07	1.00
C24	CONDUIT	10.425	0	03:11	0.81	0.74	1.00
C25	CONDUIT	6.951	0	04:32	2.95	1.37	1.00
C26	CONDUIT	10.422	0	03:12	0.82	0.51	1.00
C27	CONDUIT	7.349	0	04:23	3.12	1.52	1.00
C28	CONDUIT	10.417	0	03:13	0.81	0.69	1.00
C29	CONDUIT	8.624	0	03:48	3.66	1.78	1.00
C69	CONDUIT	12.491	0	03:14	1.20	0.68	0.86
C70	CONDUIT	7.775	0	01:36	3.63	1.13	1.00
C71	CONDUIT	12.295	0	03:22	1.69	0.88	0.85
C72	CONDUIT	12.285	0	03:24	2.23	0.14	0.35
C73	CONDUIT	12.285	0	03:24	2.14	0.53	0.71
C101	CONDUIT	2.161	0	02:18	2.47	0.02	0.09
C102	CONDUIT	1.958	0	02:57	2.03	0.02	0.10
C103	CONDUIT	3.087	0	02:58	2.79	0.03	0.11
C104	CONDUIT	1.659	0	03:07	0.89	0.07	0.19
C105	CONDUIT	0.000	0	00:00	0.00	0.00	0.00
C106	CONDUIT	2.715	0	03:08	2.01	0.04	0.14
C107	CONDUIT	3.470	0	03:08	3.41	0.02	0.10
C108	CONDUIT	3.148	0	03:09	0.69	0.03	0.46
C109	CONDUIT	2.749	0	03:10	1.79	0.05	0.15

C110	CONDUIT	4.952	0	03:11	1.83	0.11	0.27
C111	CONDUIT	1.765	0	03:11	1.14	0.04	0.23
C112	CONDUIT	4.943	0	03:11	1.84	0.11	0.27
C113	CONDUIT	4.686	0	03:12	2.22	0.08	0.21
C114	CONDUIT	4.922	0	03:13	1.84	0.11	0.27
C115	CONDUIT	1.951	0	03:14	1.09	0.06	0.18
C116	CONDUIT	5.989	0	03:18	2.09	0.13	0.29
C117	CONDUIT	0.000	0	00:00	0.00	0.00	0.00

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# Flow Classification Summary

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-----										
		Adjusted --- Fraction of Time in Flow Class ---- Avg. Avg.								
		/Actual	Up	Down	Sub	Sup	Up	Down	Froude	Flow
Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Number	Change
-----										
C1	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.02	0.0000
C2	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.18	0.0001
C3	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.02	0.0000
C4	1.00	0.03	0.00	0.00	0.00	0.00	0.00	0.97	1.13	0.0001
C5	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.05	0.0000
C6	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.03	0.0001
C7	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.08	0.0000
C8	1.00	0.01	0.00	0.00	0.03	0.96	0.00	0.00	2.15	0.1094
C9	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.0000
C10	1.00	0.01	0.00	0.00	0.21	0.11	0.00	0.66	0.98	0.0001
C11	1.00	0.01	0.00	0.00	0.54	0.00	0.00	0.45	0.28	0.0000
C12	1.00	0.01	0.00	0.00	0.32	0.00	0.00	0.67	0.83	0.0001

C13	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.30	0.0000
C14	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.76	0.0001
C15	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.11	0.0000
C16	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.17	0.0002
C17	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.22	0.0000
C18	1.00	0.03	0.00	0.00	0.30	0.68	0.00	0.00	1.30	0.0003
C19	1.00	0.02	0.01	0.00	0.97	0.00	0.00	0.00	0.27	0.0000
C20	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.55	0.0001
C220	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.19	0.0000
C21	1.00	0.02	0.00	0.00	0.60	0.38	0.00	0.00	0.74	0.0002
C22	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.05	0.0000
C23	1.00	0.01	0.00	0.00	0.94	0.05	0.00	0.00	0.18	0.0003
C223	1.00	0.01	0.00	0.00	0.98	0.00	0.00	0.00	0.04	0.0000
C24	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.27	0.0000
C25	1.00	0.02	0.00	0.00	0.41	0.58	0.00	0.00	0.92	0.0002
C26	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.28	0.0000
C27	1.00	0.02	0.00	0.00	0.58	0.40	0.00	0.00	0.74	0.0002
C28	1.00	0.01	0.01	0.00	0.98	0.00	0.00	0.00	0.27	0.0000
C29	1.00	0.01	0.00	0.00	0.42	0.57	0.00	0.00	0.92	0.0002
C69	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.35	0.0000
C70	1.00	0.01	0.00	0.00	0.24	0.75	0.00	0.00	1.02	0.0001
C71	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.55	0.0000
C72	1.00	0.02	0.00	0.00	0.97	0.01	0.00	0.00	0.78	0.0000
C73	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00	0.79	0.0000
C101	1.00	0.80	0.00	0.00	0.00	0.00	0.00	0.20	0.68	0.0000
C102	1.00	0.81	0.00	0.00	0.00	0.00	0.00	0.19	0.48	0.0000
C103	1.00	0.64	0.00	0.00	0.00	0.00	0.00	0.36	1.19	0.0000
C104	1.00	0.88	0.00	0.00	0.00	0.00	0.00	0.12	0.10	0.0000
C105	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
C106	1.00	0.86	0.00	0.00	0.00	0.00	0.00	0.14	0.30	0.0000
C107	1.00	0.79	0.00	0.00	0.00	0.00	0.00	0.21	0.88	0.0000

C108	1.00	0.78	0.04	0.00	0.18	0.00	0.00	0.00	0.05	0.0000
C109	1.00	0.89	0.00	0.00	0.00	0.00	0.00	0.11	0.20	0.0000
C110	1.00	0.81	0.00	0.00	0.00	0.01	0.00	0.17	0.27	0.0000
C111	1.00	0.79	0.00	0.00	0.11	0.01	0.00	0.09	0.22	0.0000
C112	1.00	0.84	0.00	0.00	0.00	0.00	0.00	0.16	0.23	0.0000
C113	1.00	0.86	0.00	0.00	0.00	0.00	0.00	0.14	0.27	0.0000
C114	1.00	0.89	0.00	0.00	0.00	0.00	0.00	0.11	0.16	0.0000
C115	1.00	0.94	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.0000
C116	1.00	0.77	0.00	0.00	0.00	0.00	0.00	0.23	0.35	0.0000
C117	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000

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#### Conduit Surcharge Summary

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Conduit	Hours				
	Hours Full		Above Full		Capacity
	Both Ends	Upstream	Dnstream	Normal Flow	Limited
-----					
C2	0.01	0.01	0.01	3.41	0.01
C4	0.01	0.01	0.01	3.66	0.01
C6	0.01	0.01	0.01	7.45	0.01
C8	0.01	0.01	0.01	10.08	0.01
C10	1.78	1.78	1.78	2.93	1.78
C12	4.21	4.21	4.21	9.85	4.21
C14	5.21	5.21	5.24	7.43	5.21
C16	0.01	0.01	0.01	7.40	0.01
C17	1.43	1.43	1.43	0.01	0.01
C18	3.29	3.29	3.29	10.16	3.29

C20	3.90	3.90	3.90	9.00	3.62
C220	2.41	2.41	2.41	0.01	0.01
C21	3.24	3.24	3.24	9.44	3.24
C23	3.83	3.83	3.83	1.44	1.50
C223	2.40	2.40	2.40	0.01	0.01
C24	0.61	0.61	0.61	0.01	0.01
C25	2.76	2.76	2.76	9.20	2.76
C27	2.84	2.84	2.84	9.44	2.84
C28	0.49	0.49	0.49	0.01	0.01
C29	0.85	0.85	0.85	9.44	0.85
C70	0.36	0.36	0.36	8.53	0.36

Analysis begun on: Sun Jun 25 13:51:17 2023

Analysis ended on: Sun Jun 25 13:51:19 2023

Total elapsed time: 00:00:02