PROPOSED CONDITION

POND NORTH

IRREGULAR RETENTION POND: DETERMINATION OF OUTFLOW

Elev, ft	Elev, m	H, m	Base Area, m^2	Top Area, m^2	Top Area, acres
232.94	71.00	0	1292.0	1292.0	0.32
236.22	72.00	1.00	1292.0	1292.0	0.32
242.78	74.00	3.00	1292.0	2079.0	0.51
243.76	74.30	3.30	1292.0	2079.0	0.51

WEIR FLOW

Weir		
C = Weir coefficient	3.28	Breadth of crest=1.0 ft
C = Weir coefficient	3.32	than 3.0 ft; Breadth of crest=1.0 ft
L = Length of weir, ft	22.97	
H = Weir head, ft	See Table	

OVERFLOW

Weir		
C = Weir coefficient	3.28	H equal to 1.6 ft; Breadth of crest=1.0 ft
C = Weir coefficient	3.32	3.0 ft; Breadth of crest=1.0 ft
L = Length of weir, ft	39.37	
H = Weir head, ft	See Table	

(1)	(2)	(3)	(4)	(5)	(6)	(6)
Elev, m	Elev, ft	H,ft	Q,ft^3/s	H,ft	Q,ft^3/s	Q,ft^3/s
71.00	232.94	0	0	-1.00	0	0
72.00	236.22	0.00	0	0.00	0	0
73.00	239.50	0.00	0	0.00	0	0
73.05	239.66	0.16	5	0.00	0	5
73.40	240.81	1.31	113	0.00	0	113
73.60	241.47	1.97	208	0.66	69	277
73.90	242.45	2.95	382	1.64	271	654
74.00	242.78	3.28	448	1.97	357	804
74.30	243.76	4.27	664	2.95	655	1319

POND SOUTH

IRREGULAR RETENTION POND: DETERMINATION OF OUTFLOW

Elev, ft	Elev, m	H, m	Base Area, m^2	Top Area, m^2	Top Area, acres
305.11	93.00	0.00	217.0	1438.0	0.36
321.52	98.00	5.00	217.0	2820.0	0.70

WEIR FLOW

Weir		
C = Weir coefficient	3.28	Breadth of crest=1.0 ft
C = Weir coefficient	3.32	than 3.0 ft; Breadth of crest=1.0 ft
L = Length of weir, ft	21.33	
H = Weir head, ft	See Table	

OVERFLOW

Weir		
C = Weir coefficient	3.28	H equal to 1.6 ft; Breadth of crest=1.0 ft
C = Weir coefficient	3.32	3.0 ft; Breadth of crest=1.0 ft
L = Length of weir, ft	29.53	
H = Weir head, ft	See Table	

(1)	(2)	(3)	(4)	(5)	(6)	(6)
Elev, m	Elev, ft	H,ft	Q,ft^3/s	H,ft	Q,ft^3/s	Q,ft^3/s
93.00	305.11	0.00	0	0.00	0	0
96.70	317.25	0.00	0	0.00	0	0
96.72	317.32	0.07	1	0.00	0	1
97.70	320.53	3.28	416	0.00	0	416
97.85	321.03	3.77	513	0.49	24	537
98.00	321.52	4.27	616	0.98	68	684

APPENDIX D

HEC-HMS INPUT AND OUTPUT DATA

BASIN MODEL EXISTING CONDITION:

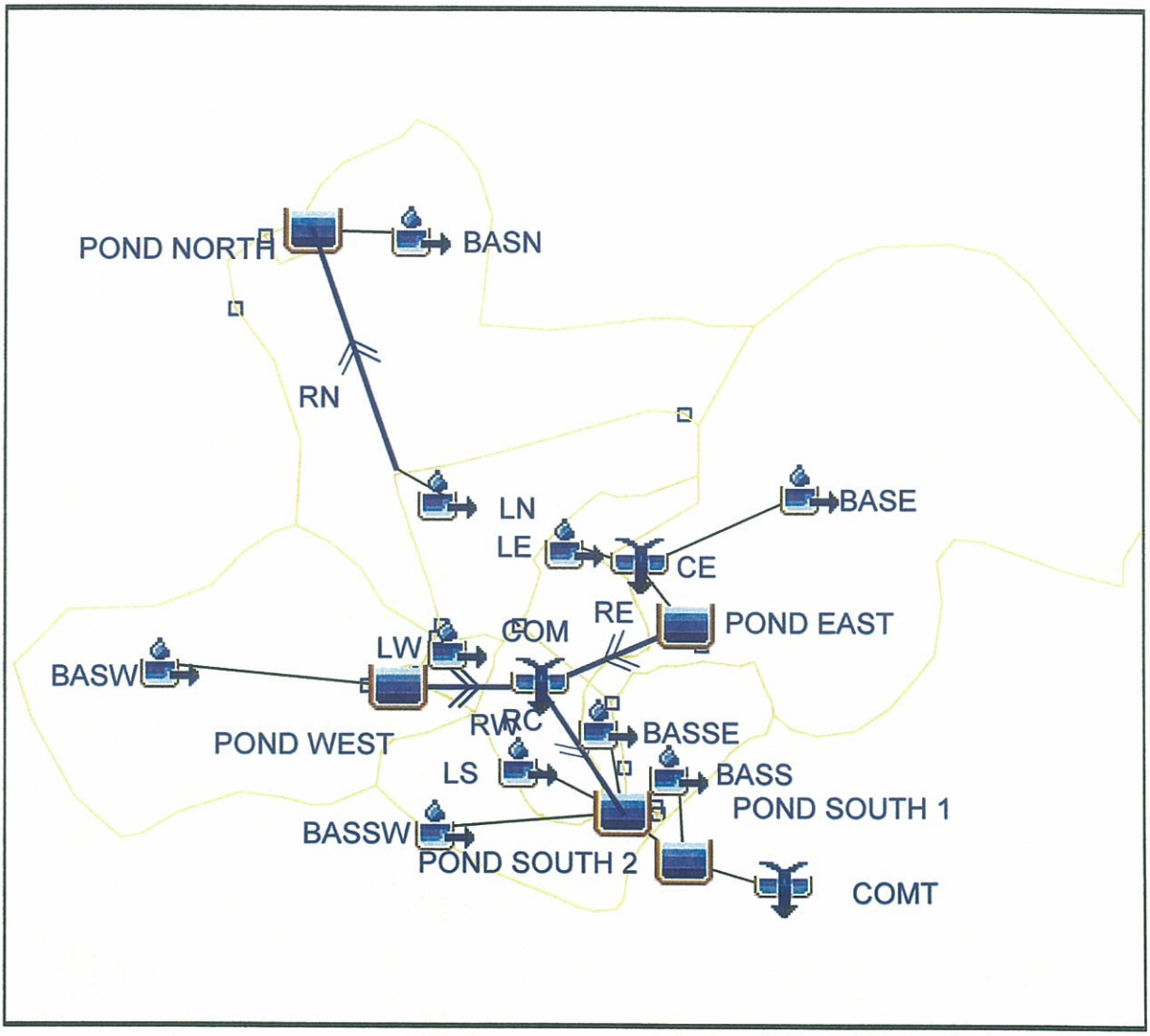
(EXISTING.BASIN)

HEC-HMS

Project : YAUCO

Basin Model : EXISTING

Oct 07 16:22:39 VET 2008



```
Basin: EXISTING
     Description: EXISTING CONDITION
     Last Modified Date: 25 September 2008
     Last Modified Time: 15:56:33
     Version: 3.2
     Unit System: English
     Missing Flow To Zero: No
     Enable Flow Ratio: No
     Allow Blending: No
     Compute Local Flow At Junctions: No

     Sediment Grade Scale: NONE
     Enable Sediment Routing: No
     Fall Velocity Method: UNSPECIFIED
End:

Subbasin: BASW
     Description: West Basin
     Canvas X: -1391.5570321739215
     Canvas Y: -262.07027442299716
     Label X: -64.0
     Label Y: -5.0
     Area: 0.0576
     Downstream: POND WEST

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 82

     Transform: SCS
     Lag: 3.6

     Baseflow: None

     Erosion: None
End:

Reach: RW
     Description: Combination 1
     Canvas X: -838.5619701496952
     Canvas Y: -292.42859667852747
     From Canvas X: -1026.2915888001062
     From Canvas Y: -293.78622112689663
     Label X: -15.0
     Label Y: -16.0
     Downstream: COM

     Route: Muskingum
     Muskingum K: 0.083
     Muskingum X: 0.3
     Muskingum Steps: 4
     Channel Loss: None

     Route Sediment: No
End:

Subbasin: BASE
     Description: East Basin
     Canvas X: -478.25142431385893
```

```
     Canvas Y: -26.276234973889814
     Label X: -3.0
     Label Y: -4.0
     Area: 0.1109
     Downstream: CE

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 82

     Transform: SCS
     Lag: 4.8

     Baseflow: None

     Erosion: None
End:

Reach: RE
     Description: Combination 1
     Canvas X: -838.5619701496952
     Canvas Y: -292.42859667852747
     From Canvas X: -644.6956503440149
     From Canvas Y: -209.02099397143252
     Label X: -23.0
     Label Y: 18.0
     Downstream: COM

     Route: Muskingum
     Muskingum K: 0.083
     Muskingum X: 0.3
     Muskingum Steps: 4
     Channel Loss: None

     Route Sediment: No
End:

Subbasin: BASSW
     Description: South Basin
     Canvas X: -965.4917648303095
     Canvas Y: -481.05354032027265
     Label X: -73.0
     Label Y: -3.0
     Area: 0.0170
     Downstream: POND SOUTH 1

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 83

     Transform: SCS
     Lag: 3

     Baseflow: None
```

```
     Erosion: None
End:

Junction: COMT
     Description: Combination 1
     Canvas X: -513.5203113894815
     Canvas Y: -564.9852522907381
     Label X: 13.0
     Label Y: -1.0
End:

Reservoir: POND WEST
     Description: West
     Canvas X: -1026.2915888001062
     Canvas Y: -293.78622112689663
     From Canvas X: -24.12
     From Canvas Y: -8.280000000000001
     Label X: -90.0
     Label Y: -24.0
     Downstream: RW

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 377.29
     Elevation-Area Table: Pond West (EXIS)
     Elevation-Outflow Table: Pond West (EXIS)
     Primary Table: Elevation-Outflow
End:

Reservoir: POND SOUTH 1
     Description: South
     Canvas X: -727.7447561743647
     Canvas Y: -462.43099680861314
     Label X: 30.0
     Label Y: 2.0
     Downstream: POND SOUTH 2

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 314.96
     Elevation-Area Table: Pond South 1 (EXIS)
     Elevation-Outflow Table: Pond South 1 (EXIS)
     Primary Table: Elevation-Outflow
End:

Reservoir: POND EAST
     Description: East
     Canvas X: -644.6956503440149
     Canvas Y: -209.02099397143252
     From Canvas X: -137.88295081967215
     From Canvas Y: -89.65770491803279
     Label X: 1.0
     Label Y: 1.0
     Downstream: RE

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 374.01
     Elevation-Area Table: Pond East (EXIS)
     Elevation-Outflow Table: Pond East (EXIS)
     Primary Table: Elevation-Outflow
End:
```

```
Subbasin: BASN
     Description: South Basin
     Canvas X: -996.3601374333883
     Canvas Y: 316.22147713000356
     From Canvas X: -43.50857142857143
     From Canvas Y: 23.45142857142858
     Label X: 2.0
     Label Y: -4.0
     Area: 0.0710
     Downstream: POND NORTH

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 84

     Transform: SCS
     Lag: 4.2

     Baseflow: None

     Erosion: None
End:

Reservoir: POND NORTH
     Description: West
     Canvas X: -1140.6327475213366
     Canvas Y: 318.4757366626277
     From Canvas X: -72.25714285714287
     From Canvas Y: 2.8285714285714363
     Label X: -111.0
     Label Y: -8.0
     Rating Table Name: Pond North (EXIS)

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 236.22
     Elevation-Area Table: Pond North (EXIS)
     Elevation-Outflow Table: Pond North (EXIS)
     Primary Table: Elevation-Outflow
End:

Reservoir: POND SOUTH 2
     Description: South
     Canvas X: -648.9181304353352
     Canvas Y: -526.2783452338404
     From Canvas X: 15.737142857142857
     From Canvas Y: 2.777142857142863
     Label X: -124.0
     Label Y: -1.0
     Downstream: COMT

     Route: Modified Puls
     Routing Curve: Elevation-Area-Outflow
     Initial Elevation: 305.11
     Elevation-Area Table: Pond South 2 (EXIS)
     Elevation-Outflow Table: Pond South 2 (EXIS)
     Primary Table: Elevation-Outflow
End:
```

```
Junction: COM
     Description: Combination 1
     Canvas X: -838.5619701496952
     Canvas Y: -292.42859667852747
     From Canvas X: -50.91428571428571
     From Canvas Y: 23.45142857142858
     Label X: -31.0
     Label Y: 23.0
     Downstream: RC
End:

Reach: RC
     Description: Combination 1
     Canvas X: -727.7447561743647
     Canvas Y: -462.43099680861314
     From Canvas X: -838.5619701496952
     From Canvas Y: -292.42859667852747
     Label X: -48.0
     Label Y: 12.0
     Downstream: POND SOUTH 1

     Route: Muskingum
     Muskingum K: 0.083
     Muskingum X: 0.3
     Muskingum Steps: 4
     Channel Loss: None

     Route Sediment: No
End:

Subbasin: LN
     Description: South Basin
     Canvas X: -960.2010686005145
     Canvas Y: -36.26109069400525
     From Canvas X: 63.603650963870166
     From Canvas Y: -272.8164205991544
     Label X: 6.0
     Label Y: -5.0
     Area: 0.0231
     Downstream: RN

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 88

     Transform: SCS
     Lag: 3

     Baseflow: None

     Erosion: None
End:

Reach: RN
     Description: Combination 1
     Canvas X: -1140.6327475213366
     Canvas Y: 318.4757366626277
     From Canvas X: -1028.5705722552643
     From Canvas Y: 0.20264458852807365
```

```
     Label X: -38.0
     Label Y: -20.0
     Downstream: POND NORTH

     Route: Muskingum
     Muskingum K: 0.083
     Muskingum X: 0.3
     Muskingum Steps: 4
     Channel Loss: None

     Route Sediment: No
End:

Subbasin: LE
     Description: East Basin
     Canvas X: -793.4767794972114
     Canvas Y: -100.81653640547142
     From Canvas X: -238.0984145847142
     From Canvas Y: -30.495706816540405
     Label X: -47.0
     Label Y: -1.0
     Area: 0.0117
     Downstream: CE

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 87

     Transform: SCS
     Lag: 3

     Baseflow: None

     Erosion: None
End:

Subbasin: LS
     Description: South Basin
     Canvas X: -853.619878991484
     Canvas Y: -397.7446891637004
     From Canvas X: -52.41661946864167
     From Canvas Y: 132.1810403991832
     Label X: -50.0
     Label Y: -4.0
     Area: 0.0108
     Downstream: POND SOUTH 1

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 89

     Transform: SCS
     Lag: 3

     Baseflow: None
```

```
     Erosion: None
End:

Subbasin: LW
     Description: West Basin
     Canvas X: -949.0206872482804
     Canvas Y: -238.32636789554692
     From Canvas X: 229.21830876441368
     From Canvas Y: 82.12829061944717
     Label X: -48.0
     Label Y: -1.0
     Area: 0.0030
     Downstream: POND WEST

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 89

     Transform: SCS
     Lag: 3

     Baseflow: None

     Erosion: None
End:

Subbasin: BASSE
     Description: South Basin
     Canvas X: -748.2556072707897
     Canvas Y: -346.2028405955383
     From Canvas X: -385.14820392175795
     From Canvas Y: 499.09737667967454
     Label X: -1.0
     Label Y: -3.0
     Area: 0.0025
     Downstream: POND SOUTH 1

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 82

     Transform: SCS
     Lag: 3

     Baseflow: None

     Erosion: None
End:

Subbasin: BASS
     Description: South Basin
     Canvas X: -653.6786362157108
     Canvas Y: -404.8854478342638
     From Canvas X: 59.25356983411666
```

```
     From Canvas Y: 378.3112535562831
     Label X: 0.0
     Label Y: -1.0
     Area: 0.0119
     Downstream: POND SOUTH 2

     Canopy: None

     Surface: None

     LossRate: SCS
     Percent Impervious Area: 0.0
     Curve Number: 82

     Transform: SCS
     Lag: 3

     Baseflow: None

     Erosion: None
End:

Junction: CE
     Canvas X: -705.560657724868
     Canvas Y: -132.37616986221008
     Downstream: POND EAST
End:

Basin Schematic Properties:
     Last View N: 476.4816022007959
     Last View S: -603.1199183854316
     Last View W: -1548.6537229263147
     Last View E: 27.07369037799333
     Maximum View N: 476.4816022007959
     Maximum View S: -603.1199183854316
     Maximum View W: -1548.6537229263147
     Maximum View E: 27.07369037799333
     Extent Method: Elements Maps
     Buffer: 2
     Draw Icons: Yes
     Draw Icon Labels: Yes
     Draw Gridlines: No
     Draw Flow Direction: Yes
     Fix Element Locations: No
     Map: hec.map.dxf.DxfMap
     Map File Name: C:\PROJ\Yauco\Image\EXISTING.dxf
     Map Shown: Yes
End:
```

BASIN MODEL PROPOSED CONDITION:

(PROPOSED.BASIN)