



OFF-SITE STABILITY

Q out from D system 10 year = 1.57 cfs

Scour Hole outflow L = 7.5 ft.

Flow Q_s per linear foot from outflow of Scour Hole:

$$Q_s = \frac{Q_{out}}{L} = \frac{1.57}{7.5} = 0.21 \text{ cfs/ft} < 0.5 \text{ cfs/ft allowable OK}$$

1a. Q₂₅ = 2.49 cfs < 10 cfs allowable OK

2. Over the land velocity:

$$V = \frac{1.49 R^{.63} \times 10^2}{n}$$

n = 0.07 heavy weeds, scattered brush
 S = 11059 - 1059 = 0.0389 = 3.28%
 L = 140
 R = $\frac{A}{P} = \frac{A}{L \times h} = \frac{Q_{out}}{2.8 L \times h} = 0.177 \text{ ft}$
 h = $\frac{V}{2.8} = \frac{1.7}{2.8} = 0.61 \text{ ft}$
 Wp = L + 2h = 7.5 + 0.35 = 7.85
 R = $\frac{1.331}{7.85} = 0.1696 \text{ ft}$
 V = $\frac{1.49 (0.1696)^{.63} (0.0389)^{.63}}{0.07} = 1.17 \text{ ft/s}$

LEVEL POOL ROUTING SUMMARY

HYG Dir = C:\Documents and Settings\Entec\Desktop
 Inflow HYG file = NONE STORED - DS 'D' IN 10
 Outflow HYG file = NONE STORED - DS 'D' OUT 10

Pond Node Data = DS 'D'
 Pond Volume Data = DS 'D'
 Pond Outlet Data = OCS 'D'

Infiltration = .09 cfs

INITIAL CONDITIONS

Starting WS Elev = .00 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltration = .00 cfs
 Starting Total Out = .00 cfs
 Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 4.03 cfs at 12.2000 hrs
 Peak Outflow = 1.57 cfs at 12.5000 hrs
 Peak Infiltration = .09 cfs at 11.4500 hrs
 Peak Elevation = 3.88 ft
 Peak Storage = .107 ac-ft

WBS BALANCE (ac-ft)

+ Initial Vol = .000
 + HYG Vol IN = .288
 - Infiltration = .099
 - HYG Vol OUT = .198
 - Retained Vol = .000
 Unrouted Vol = .000 ac-ft (.000% of Inflow Volume)

LEVEL POOL ROUTING SUMMARY

HYG Dir = C:\Documents and Settings\Entec\Desktop
 Inflow HYG file = NONE STORED - DS 'D' IN 25
 Outflow HYG file = NONE STORED - DS 'D' OUT 25

Pond Node Data = DS 'D'
 Pond Volume Data = DS 'D'
 Pond Outlet Data = OCS 'D'

Infiltration = .09 cfs

INITIAL CONDITIONS

Starting WS Elev = .00 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltration = .00 cfs
 Starting Total Out = .00 cfs
 Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 5.51 cfs at 12.2000 hrs
 Peak Outflow = 2.49 cfs at 12.4500 hrs
 Peak Infiltration = .09 cfs at 10.8000 hrs
 Peak Elevation = 4.86 ft
 Peak Storage = .144 ac-ft

WBS BALANCE (ac-ft)

+ Initial Vol = .000
 + HYG Vol IN = .423
 - Infiltration = .109
 - HYG Vol OUT = .313
 - Retained Vol = .000
 Unrouted Vol = .000 ac-ft (.000% of Inflow Volume)

PROF. BUFFER AVERAGES & ENVIRONMENTAL ESCAPEMENT LINE
 NJDEP LURP #0200-03-00032
 ACTIVITY #FW 07-0003

TRANSITION AREA WAIVER:

TRANSITION AREA REDUCTION = 3,664 S.F.
 TRANSITION AREA COMPENSATION = 3,664 S.F.
 NET = +160 S.F.

NOTE: FOR GENERAL NOTES SEE DRAWING No. 5 of 11

BACKGROUND FOR GENERAL ORIENTATION PURPOSES ONLY. SEE UTILITY & GRADING PLAN DWG. No. 3 of 11 FOR SITE PLAN. THESE PLANS PREPARED FOR PLANNING BOARD AND SOIL CONSERVATION DISTRICT APPROVAL. STRUCTURAL DESIGN REQUIRED PRIOR TO CONSTRUCTION.

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
22	3/29/15	REVISED AS PER MEETING WITH BERGEN COUNTY SOIL CONSERVATION DISTRICT	6	12/17/07	MINOR REVISIONS AS PER NJDEP'S REQUEST
21	1/28/11	REVISED AS PER TOWN ENGINEER'S LETTER DATED 1/14/11	5	12/18/07	MINOR REVISIONS AS PER NJDEP'S REQUEST
20	7/18/10	REVISED AS PER HILLSDALE TOWN ENGINEER'S LETTER DATED 7/1/10	4	12/10/07	REVISED AS PER RECOMMENDATIONS OF U.S. FISH AND WILDLIFE
19	1/10/10	REVISED AS PER BERGEN COUNTY SOIL CONSERVATION DISTRICT REQUEST	3	1/16/08	REVISED AS PER PLANNING BOARD REQUEST & MEETING 9/10/07 & SOIL COMMENTS
18	5/17/09	REVISED AS PER BERGEN COUNTY SOIL CONSERVATION DISTRICT REQUEST	2	1/17/08	REVISED AS PER BERGEN COUNTY SOIL CONSERVATION DISTRICT REQUEST
17	1/17/09	REVISED AS PER BERGEN COUNTY SOIL CONSERVATION DISTRICT REQUEST	1	5/10/08	REVISED AS PER SOIL COMMENTS
16	8/1/08	MINOR REVISIONS PREPARED FOR FINAL SUBMISSION			
15	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
14	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
13	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
12	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
11	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
10	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
9	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
8	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
7	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
6	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
5	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
4	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
3	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
2	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			
1	12/11/07	MINOR REVISIONS AS PER NJDEP'S REQUEST			

SEE DWG. 9 of 11 FOR SOIL EROSION & SEDIMENT CONTROL DETAILS, NOTES, AND CONSTRUCTION SEQUENCE

0 30 60 90
GRAPHIC SCALE

SOIL EROSION & SEDIMENT CONTROL PLAN

GOLDEN ORCHARDS
 AN ACTIVE ADULT COMMUNITY
 LOT 1, BLOCK 506, BOROUGH OF HILLSDALE
 LOT 3 & 7, BLOCK 2101, TOWNSHIP OF WASHINGTON

BERGEN COUNTY NEW JERSEY
 Dwn. by V.L.D./Y.M. Ckd. by A.Z./Y.M. Scale 1" = 30' Date 8/10/07 Dwg. No. 8 of 11 Proj. No. OO-058.6

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MATCH LINE SEE DRAWING No. 7 of 11