

SUBJECT ENGLISH STATION - 510 GRAND AVE.SHEET NO. 6 OF 7PROJECT NO. 263 951DATE 12-20-2018BY CMA

CHK'D _____

CATCH BASIN (CB-2) EXISTINGSOUTHWEST CORNER OF
MAIN BUILDING

EXISTING DRAINAGE AREA = 0.22 ACRES

RUNOFF COEFFICIENT (C)PAVED AREA = 0.1 ACRES $C = 0.80$ GRASS AREA = 0.12 ACRES $C = 0.15$ COMPOSITE C

$$C_{COMP} = \frac{0.80(0.1) + 0.15(0.12)}{0.22} = 0.45$$

TIME OF CONCENTRATION (T_c)THE DRAINAGE AREA IS RELATIVELY SMALL AND THE
TRAVEL DISTANCE IS 75 FT OVERLAND ON GRASS SURFACE (SLOPE = 1%)

$$T_c = \frac{(0.007(0.24 \times 75))^{0.8}}{(3.42)^{0.5} (0.01)^{0.4}} = 0.24 \text{ HR} = 14.5 \text{ MIN}$$

USE $T_c = 10 \text{ MIN}$

$$Q_{2YR} = 0.45(3.52)(0.22) = 0.35 \text{ cfs}$$

$$Q_{10YR} = 0.45(5.33)(0.22) = 0.52 \text{ cfs}$$

$$Q_{25YR} = 0.45(6.45)(0.22) = 0.70 \text{ cfs}$$

$$Q_{50YR} = 0.45(7.32)(0.22) = 0.87 \text{ cfs}$$

$$Q_{100YR} = 0.45(8.19)(0.22) = 1.01 \text{ cfs}$$

DETERMINE DEPTH OVER GRATE (TYPE C-L) FOR 10YR STORM
WEIR EQUATION

$$d_{10YR} = \left(\frac{0.52 \times 1.25}{3.0 \times 7.33} \right)^{2/3} = 0.1 \text{ FT} \quad \therefore \text{GRATE OPERATES AS A WEIR } (< 0.4 \text{ FT})$$

PONDING DEPTH IS ACCEPTABLE

CB-2 PROPOSED CONDITIONS

THE PROPOSED DRAINAGE AREA WILL BE SLIGHTLY LARGER DUE TO THE REMOVAL OF THE LARGE CONCRETE ABOVE GROUND STORAGE TANK CONTAINMENTS EAST OF CB-2

PROPOSED DRAINAGE AREA = 0.27 ACRES

RUNOFF COEFFICIENT (C)

PAVED AREA = 0 ACRES

GRASS AREA = 0.27 AC. $C = 0.15$ $\therefore C = 0.15$

TIME OF CONCENTRATION (T_c) WILL REMAIN THE SAME AS EXISTING. $\therefore T_c = 10$ MIN.

$$Q_{24H} = 0.15(3.52)(0.27) = 0.14 \text{ cfs}$$

$$Q_{10YR} = 0.15(5.33)(0.27) = 0.22 \text{ cfs}$$

$$Q_{25YR} = 0.15(6.45)(0.27)(1.1) = 0.28 \text{ cfs}$$

$$Q_{50YR} = 0.15(7.32)(1.2)(0.27) = 0.36 \text{ cfs}$$

$$Q_{100YR} = 0.15(8.19)(1.25)(0.27) = 0.41 \text{ cfs}$$

DETERMINE DEPTH OVER GRATE FOR 10 YR STORM WEIR EQUATION

$$d_{10YR} = \left(\frac{0.22 \times 1.25}{3.0 \times 7.33} \right)^{2/3} = 0.05 \text{ FT} \quad \therefore \text{GRATE OPERATES AS A WEIR (40.4 FT)}$$

PONDING DEPTH IS ACCEPTABLE

TWEED AP

Station ID: 06-5273

Location name: East Haven, Connecticut, USA*

Latitude: 41.2639°, Longitude: -72.8872°

Elevation:

Elevation (station metadata): 3 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

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PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.343 (0.281-0.417)	0.414 (0.339-0.504)	0.530 (0.432-0.647)	0.626 (0.507-0.769)	0.759 (0.589-0.973)	0.861 (0.652-1.13)	0.964 (0.703-1.31)	1.09 (0.746-1.52)	1.26 (0.823-1.81)	1.39 (0.881-2.04)
10-min	0.486 (0.398-0.590)	0.586 (0.480-0.713)	0.751 (0.612-0.917)	0.888 (0.718-1.09)	1.08 (0.835-1.38)	1.22 (0.923-1.60)	1.37 (0.995-1.85)	1.55 (1.06-2.15)	1.79 (1.17-2.57)	1.97 (1.25-2.89)
15-min	0.571 (0.468-0.695)	0.690 (0.564-0.839)	0.883 (0.720-1.08)	1.04 (0.844-1.28)	1.26 (0.982-1.62)	1.44 (1.09-1.88)	1.61 (1.17-2.18)	1.82 (1.24-2.53)	2.11 (1.37-3.02)	2.32 (1.47-3.40)
30-min	0.786 (0.644-0.955)	0.949 (0.776-1.15)	1.22 (0.990-1.48)	1.44 (1.16-1.76)	1.74 (1.35-2.23)	1.97 (1.49-2.58)	2.21 (1.61-3.00)	2.50 (1.71-3.47)	2.89 (1.89-4.15)	3.19 (2.02-4.67)
60-min	1.00 (0.819-1.22)	1.21 (0.988-1.47)	1.55 (1.26-1.89)	1.83 (1.48-2.24)	2.21 (1.72-2.84)	2.51 (1.90-3.29)	2.81 (2.05-3.82)	3.19 (2.18-4.42)	3.68 (2.40-5.28)	4.06 (2.57-5.93)
2-hr	1.30 (1.07-1.57)	1.58 (1.30-1.91)	2.03 (1.66-2.46)	2.40 (1.96-2.93)	2.92 (2.28-3.72)	3.32 (2.53-4.32)	3.71 (2.73-5.03)	4.24 (2.91-5.84)	4.94 (3.23-7.04)	5.47 (3.47-7.95)
3-hr	1.51 (1.25-1.81)	1.83 (1.51-2.20)	2.35 (1.94-2.84)	2.79 (2.28-3.39)	3.39 (2.66-4.31)	3.85 (2.95-5.01)	4.32 (3.18-5.83)	4.94 (3.40-6.78)	5.77 (3.78-8.19)	6.40 (4.07-9.26)
6-hr	1.92 (1.60-2.30)	2.33 (1.93-2.78)	2.98 (2.47-3.58)	3.53 (2.90-4.26)	4.28 (3.38-5.41)	4.87 (3.74-6.28)	5.45 (4.04-7.32)	6.24 (4.31-8.51)	7.30 (4.80-10.3)	8.10 (5.17-11.6)
12-hr	2.40 (2.01-2.84)	2.89 (2.42-3.43)	3.69 (3.08-4.40)	4.36 (3.60-5.22)	5.27 (4.18-6.62)	5.98 (4.63-7.67)	6.69 (4.98-8.92)	7.66 (5.30-10.4)	8.95 (5.90-12.5)	9.92 (6.35-14.2)
24-hr	2.82 (2.38-3.32)	3.42 (2.88-4.04)	4.40 (3.69-5.21)	5.22 (4.34-6.21)	6.34 (5.06-7.91)	7.20 (5.61-9.20)	8.07 (6.06-10.7)	9.31 (6.47-12.5)	10.9 (7.24-15.2)	12.2 (7.82-17.3)
2-day	3.15 (2.68-3.69)	3.89 (3.30-4.56)	5.09 (4.30-5.99)	6.09 (5.10-7.20)	7.46 (6.01-9.28)	8.52 (6.69-10.9)	9.58 (7.27-12.7)	11.2 (7.81-15.0)	13.4 (8.86-18.5)	15.0 (9.65-21.1)
3-day	3.41 (2.91-3.98)	4.22 (3.60-4.93)	5.55 (4.70-6.50)	6.64 (5.59-7.82)	8.15 (6.59-10.1)	9.32 (7.34-11.8)	10.5 (7.98-13.9)	12.3 (8.58-16.4)	14.7 (9.75-20.2)	16.5 (10.6-23.1)
4-day	3.66 (3.13-4.25)	4.51 (3.85-5.25)	5.91 (5.02-6.90)	7.07 (5.96-8.30)	8.66 (7.01-10.7)	9.89 (7.81-12.5)	11.1 (8.47-14.7)	13.0 (9.10-17.3)	15.5 (10.3-21.3)	17.4 (11.2-24.3)
7-day	4.34 (3.73-5.02)	5.26 (4.52-6.09)	6.78 (5.79-7.87)	8.03 (6.81-9.38)	9.76 (7.93-12.0)	11.1 (8.78-13.9)	12.4 (9.47-16.2)	14.4 (10.1-19.0)	16.9 (11.3-23.1)	18.9 (12.2-26.2)
10-day	5.01 (4.32-5.77)	5.97 (5.14-6.89)	7.55 (6.47-8.74)	8.86 (7.54-10.3)	10.7 (8.68-13.0)	12.1 (9.54-15.0)	13.4 (10.2-17.4)	15.4 (10.8-20.2)	17.9 (12.0-24.3)	19.8 (12.8-27.5)
20-day	7.07 (6.14-8.08)	8.11 (7.03-9.29)	9.81 (8.47-11.3)	11.2 (9.61-13.0)	13.2 (10.8-15.8)	14.7 (11.6-18.0)	16.2 (12.3-20.6)	18.0 (12.8-23.4)	20.4 (13.7-27.5)	22.2 (14.4-30.6)
30-day	8.80 (7.67-10.0)	9.88 (8.61-11.3)	11.7 (10.1-13.3)	13.1 (11.3-15.1)	15.2 (12.4-18.1)	16.7 (13.3-20.4)	18.3 (13.9-23.0)	20.0 (14.2-25.9)	22.3 (15.0-29.9)	24.0 (15.6-32.8)
45-day	11.0 (9.59-12.4)	12.1 (10.6-13.7)	13.9 (12.1-15.9)	15.5 (13.3-17.7)	17.6 (14.4-20.8)	19.2 (15.3-23.2)	20.8 (15.8-25.9)	22.4 (16.0-28.9)	24.4 (16.6-32.6)	26.0 (17.0-35.5)
60-day	12.8 (11.2-14.4)	13.9 (12.2-15.8)	15.8 (13.8-18.0)	17.4 (15.0-19.9)	19.5 (16.1-23.1)	21.2 (16.9-25.5)	22.9 (17.3-28.2)	24.3 (17.4-31.2)	26.2 (17.8-34.8)	27.6 (18.0-37.6)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

TABLE 1 *Values of Runoff Coefficient C*

<u>URBAN AREAS:</u>	
Type of drainage area	Runoff coefficient C
Lawns:	0.05 - 0.10
Sandy soil, flat 2%	
Sandy soil, average, 2 - 7%	0.10 - 0.15
Sandy soil, steep, 7%	0.15 - 0.20
Heavy soil, flat, 2%	0.13-0.17
Heavy soil, average, 2 - 7%	
Heavy soil, steep, 7%	0.18 - 0.22
	0.25 - 0.35
Business:	0.70 - 0.95
Downtown areas Neighborhood areas	0.50.0.70
Residential:	0.30 - 0.50
Single-family areas	0.40 - 0.60
Multi units, detached Multi units,	0.60 - 0.75
attached Suburban	0.25 - 0.40
Apartment dwelling areas	0.50 - 0.70
Industrial:	
Light areas	0.50 - 0.80
Heavy areas	0.60 - 0.90
Parks, cemeteries	0.10 - 0.25
Playgrounds	0.20 - 0.35
Railroad yard areas	0.20 - 0.40
Unimproved areas	0.10 - 0.30
Streets:	0.70 - 0.95
Asphaltic	0.80 - 0.95
Concrete	0.70 - 0.85
Brick	
Drives and walks	0.75 - 0.85
Roofs	0.75 - 0.95

AGRICULTURAL AREAS:

Topography and Vegetation	<u>Runoff Coefficient C Soil Texture</u>		
	Soil Texture		
	Open Sandy Loam	Clay and Silt Loam	Tight Clay
Woodland			
Flat 0 - 5% Slope	0.10	0.30	0.40
Rolling 5 - 10% Slope	0.25	0.35	0.50
Hilly 10 - 30% Slope	0.30	0.50	0.60
Pasture			
Flat	0.10	0.30	0.40
Rolling	0.16	0.36	0.55
Hilly	0.22	0.42	0.60
Cultivated			
Flat	0.30	0.50	0.60
Rolling	0.40	0.60	0.70
Hilly	0.52	0.72	0.82

Drainage Area ID	Drainage Area (acres)		
	Bldg/ Pavement	Grass / Vegetation	Total
Run-off Coefficient	0.80	0.15	
CB-01	0.34	0.0	0.34
CB-02	0.1	0.12	0.22
Remainder of Site	6.46	1.67	8.13
Total	6.9	1.79	8.69

Drainage Area ID	Drainage Areas x Runoff Coefficient (acres)		
	Bldg/ Pavement	Grass / Vegetation	Total
CB-01	0.272	0.0	0.272
CB-02	0.08	0.018	0.098
Remainder of Site	5.168	0.251	5.419
Total	5.52	0.269	5.789

Existing Site Runoff Coefficient = $5.789/8.69 = 0.666$

Post-Construction

Drainage	Area Disturbed (acres)	Area Not Disturbed (acres)	Immediate Receiving Water Body	Ultimate Receiving Water Body
CB-01	0.59	0.0	Mill River	Mill River
CB-02	0.27	0.0	Mill River	Mill River
Remainder of Site	5.53	2.3	Mill River	Mill River
Total	6.39	2.3	Mill River	Mill River

Drainage Area ID	Drainage Area (acres)		
	Bldg/ Pavement	Grass / Vegetation	Total
Run-off Coefficient	0.80	0.15	
CB-01	0.35	0.24	0.59
CB-02	0.0	0.27	0.27
Remainder of Site	4.2	3.63	7.83
Total	4.55	4.14	8.69

Drainage Area ID	Drainage Areas x Runoff Coefficient (acres)		
	Bldg/ Pavement	Grass / Vegetation	Total
CB-01	0.28	0.036	0.316
CB-02	0.0	0.041	0.041
Remainder of Site	3.36	0.545	3.905
Total	3.64	0.622	4.262

Post-Construction Site Runoff Coefficient = $4.262/8.69 = 0.490$

Based on the above calculations, the existing site runoff coefficient has been calculated at 0.666 and the post-construction site runoff coefficient at 0.490.

2.4 Soil Cap Area Infiltration Trench

Within the northern portion of the Site a soil mound will be created to render the underlying polluted soil inaccessible. The Soil Cap Area will receive a 6-inch layer of topsoil and then be seeded to establish turf grass. The entire perimeter of the Soil Cap Area will be ringed with a crushed stone filled infiltration trench to induce infiltration of surface runoff from the soil mound and reduce the runoff discharging directly to the Mill River. The stone trench is 4 feet wide by 4 feet deep. The new paved driveway along the west bulkhead is graded inward toward the stone filled infiltration trench.

2.5 Stormwater Discharge Information

Since the total building/asphalt (impervious) area on the site is being reduced from 6.9 acres to 4.55 acres the total runoff from the site will be reduced. Most of the site discharges to the Mill River via direct runoff to the bulkhead to the river. Roof drainage from the main building will continue to discharge to the Mill River via existing drain pipes. There are only two catch basins collecting surface runoff, designated CB-1 and CB-2 on Figures 2 and 3, that discharge directly to the Mill River via pipe outfall. There is a third catch basin in Parcel A along the west bulkhead that discharges to a perforated galvanized pipe infiltration dry well behind the bulkhead. This basin and the drywell will be completely abandoned following the remediation project. CB-1 will be replaced with a new catch basin and pipe outfall through the bulkhead in approximately the same location as the existing outfall. CB-2 will remain.

TWEED AP

Station ID: 06-5273

Location name: East Haven, Connecticut, USA*

Latitude: 41.2639°, Longitude: -72.8872°

Elevation:

Elevation (station metadata): 3 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

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NOAA, National Weather Service, Silver Spring, Maryland

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PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	4.12 (3.37-5.00)	4.97 (4.07-6.05)	6.36 (5.18-7.76)	7.51 (6.08-9.23)	9.11 (7.07-11.7)	10.3 (7.82-13.5)	11.6 (8.44-15.7)	13.1 (8.95-18.2)	15.2 (9.88-21.7)	16.7 (10.6-24.4)
10-min	2.92 (2.39-3.54)	3.52 (2.88-4.28)	4.51 (3.67-5.50)	5.33 (4.31-6.53)	6.45 (5.01-8.27)	7.32 (5.54-9.59)	8.19 (5.97-11.1)	9.29 (6.34-12.9)	10.7 (7.00-15.4)	11.8 (7.49-17.3)
15-min	2.28 (1.87-2.78)	2.76 (2.26-3.36)	3.53 (2.88-4.32)	4.18 (3.38-5.13)	5.06 (3.93-6.49)	5.74 (4.34-7.52)	6.42 (4.68-8.72)	7.28 (4.98-10.1)	8.42 (5.49-12.1)	9.28 (5.88-13.6)
30-min	1.57 (1.29-1.91)	1.90 (1.55-2.31)	2.43 (1.98-2.97)	2.87 (2.32-3.52)	3.48 (2.70-4.46)	3.95 (2.99-5.17)	4.42 (3.22-6.00)	5.01 (3.42-6.94)	5.79 (3.77-8.30)	6.38 (4.04-9.33)
60-min	1.00 (0.819-1.22)	1.21 (0.988-1.47)	1.55 (1.26-1.89)	1.83 (1.48-2.24)	2.21 (1.72-2.84)	2.51 (1.90-3.29)	2.81 (2.05-3.82)	3.19 (2.18-4.42)	3.68 (2.40-5.28)	4.06 (2.57-5.93)
2-hr	0.650 (0.536-0.785)	0.788 (0.649-0.953)	1.01 (0.832-1.23)	1.20 (0.978-1.47)	1.46 (1.14-1.86)	1.66 (1.26-2.16)	1.86 (1.36-2.51)	2.12 (1.45-2.92)	2.47 (1.61-3.52)	2.73 (1.74-3.97)
3-hr	0.502 (0.415-0.604)	0.609 (0.503-0.733)	0.784 (0.645-0.947)	0.929 (0.759-1.13)	1.13 (0.885-1.44)	1.28 (0.981-1.67)	1.44 (1.06-1.94)	1.65 (1.13-2.26)	1.92 (1.26-2.73)	2.13 (1.36-3.08)
6-hr	0.321 (0.267-0.383)	0.388 (0.323-0.464)	0.498 (0.413-0.598)	0.590 (0.485-0.712)	0.715 (0.565-0.904)	0.812 (0.625-1.05)	0.909 (0.675-1.22)	1.04 (0.719-1.42)	1.22 (0.801-1.72)	1.35 (0.863-1.94)
12-hr	0.199 (0.167-0.236)	0.240 (0.201-0.285)	0.306 (0.255-0.365)	0.362 (0.299-0.433)	0.438 (0.347-0.549)	0.496 (0.384-0.637)	0.555 (0.414-0.740)	0.636 (0.440-0.861)	0.742 (0.489-1.04)	0.823 (0.527-1.18)
24-hr	0.117 (0.099-0.138)	0.142 (0.120-0.168)	0.183 (0.154-0.217)	0.217 (0.181-0.259)	0.264 (0.211-0.330)	0.300 (0.234-0.383)	0.336 (0.252-0.447)	0.388 (0.269-0.522)	0.456 (0.302-0.635)	0.508 (0.326-0.720)
2-day	0.066 (0.056-0.077)	0.081 (0.069-0.095)	0.106 (0.090-0.125)	0.127 (0.106-0.150)	0.155 (0.125-0.193)	0.178 (0.139-0.226)	0.200 (0.151-0.266)	0.234 (0.163-0.312)	0.278 (0.185-0.385)	0.312 (0.201-0.440)
3-day	0.047 (0.040-0.055)	0.059 (0.050-0.068)	0.077 (0.065-0.090)	0.092 (0.078-0.109)	0.113 (0.091-0.140)	0.129 (0.102-0.164)	0.146 (0.111-0.193)	0.171 (0.119-0.227)	0.204 (0.135-0.281)	0.229 (0.148-0.321)
4-day	0.038 (0.033-0.044)	0.047 (0.040-0.055)	0.062 (0.052-0.072)	0.074 (0.062-0.086)	0.090 (0.073-0.111)	0.103 (0.081-0.130)	0.116 (0.088-0.153)	0.136 (0.095-0.180)	0.162 (0.107-0.222)	0.181 (0.117-0.254)
7-day	0.026 (0.022-0.030)	0.031 (0.027-0.036)	0.040 (0.034-0.047)	0.048 (0.041-0.056)	0.058 (0.047-0.071)	0.066 (0.052-0.083)	0.074 (0.056-0.097)	0.085 (0.060-0.113)	0.101 (0.067-0.138)	0.112 (0.073-0.156)
10-day	0.021 (0.018-0.024)	0.025 (0.021-0.029)	0.031 (0.027-0.036)	0.037 (0.031-0.043)	0.044 (0.036-0.054)	0.050 (0.040-0.063)	0.056 (0.043-0.073)	0.064 (0.045-0.084)	0.075 (0.050-0.101)	0.083 (0.054-0.114)
20-day	0.015 (0.013-0.017)	0.017 (0.015-0.019)	0.020 (0.018-0.023)	0.023 (0.020-0.027)	0.027 (0.022-0.033)	0.031 (0.024-0.038)	0.034 (0.026-0.043)	0.037 (0.027-0.049)	0.042 (0.029-0.057)	0.046 (0.030-0.064)
30-day	0.012 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.014-0.019)	0.018 (0.016-0.021)	0.021 (0.017-0.025)	0.023 (0.018-0.028)	0.025 (0.019-0.032)	0.028 (0.020-0.036)	0.031 (0.021-0.041)	0.033 (0.022-0.046)
45-day	0.010 (0.009-0.012)	0.011 (0.010-0.013)	0.013 (0.011-0.015)	0.014 (0.012-0.016)	0.016 (0.013-0.019)	0.018 (0.014-0.021)	0.019 (0.015-0.024)	0.021 (0.015-0.027)	0.023 (0.015-0.030)	0.024 (0.016-0.033)
60-day	0.009 (0.008-0.010)	0.010 (0.008-0.011)	0.011 (0.010-0.012)	0.012 (0.010-0.014)	0.014 (0.011-0.016)	0.015 (0.012-0.018)	0.016 (0.012-0.020)	0.017 (0.012-0.022)	0.018 (0.012-0.024)	0.019 (0.013-0.026)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

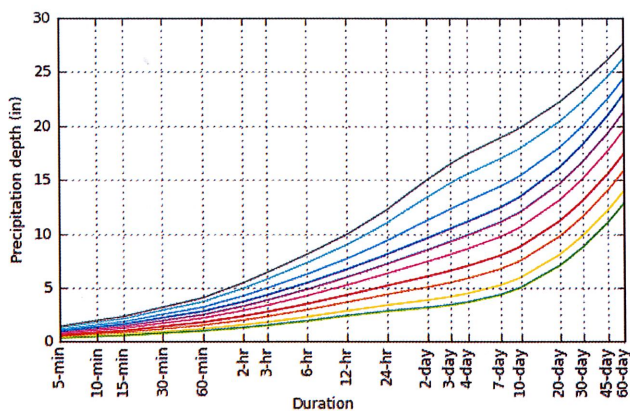
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

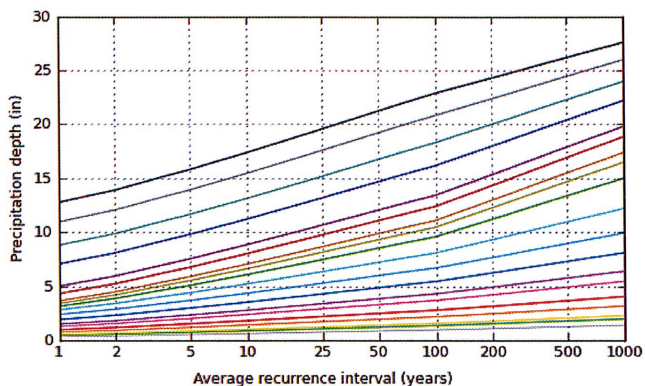
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PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 41.2639°, Longitude: -72.8872°



Average recurrence interval (years)	
1	2
5	10
25	50
100	200
500	1000



Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

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Maps & aerals

Small scale terrain



Large scale terrain



Large scale map