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## **Runoff Curve Number Calculations**

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## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS CB-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			0.30	25.20
B	OPEN SPACE - GOOD	61			14.40	878.40
B	2 AC RESIDENTIAL	60			7.40	444.00
C	IMPERVIOUS PAVED	90			11.60	1,044.00
C	OPEN SPACE - GOOD	74			2.30	170.20
C	1 AC RESIDENTIAL	75			27.00	2,025.00
C	2 AC RESIDENTIAL	74			90.70	6,711.80
C	WOODS GOOD	50			0.50	25.00
D	IMPERVIOUS PAVED	92			0.50	46.00
D	OPEN SPACE - GOOD	80			3.80	304.00
D	1 AC RESIDENTIAL	80			5.60	448.00
D	2 AC RESIDENTIAL	79			15.00	1,185.00
Totals =					179.10	13,306.60
					( 0.27984	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{13,306.60}{179.10} \text{ Use CN} = \boxed{74}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS CB-20

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			0.30	25.20
B	OPEN SPACE GOOD	61			14.40	878.40
B	2 AC RESIDENTIAL	60			7.40	444.00
C	IMPERVIOUS PAVED	90			11.60	1,044.00
C	OPEN SPACE GOOD	74			2.30	170.20
C	1 AC RESIDENTIAL	76			27.00	2,052.00
C	2 AC RESIDENTIAL	73			90.70	6,621.10
C	WOODS GOOD	60			0.50	30.00
D	IMPERVIOUS PAVED	92			0.50	46.00
D	OPEN SPACE GOOD	80			3.80	304.00
D	1 AC RESIDENTIAL	80			5.60	448.00
D	2 AC RESIDENTIAL	79			15.00	1,185.00
Totals =					179.10	13,247.90
					( 0.27984	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{13,247.90}{179.10} \text{ Use CN} = \boxed{74}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04)  
Location: Darien & New Canaan  
Circle one: **Present**    Developed

By: WNM      Date: 01/12/08  
Checked: \_\_\_\_\_      Date: \_\_\_\_\_  
Watershed: WS CB-30

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <u>Acres</u> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			1.39	116.76
B	1 AC RESIDENTIAL	62			11.58	717.96
C	IMPERVIOUS PAVED	90			3.07	276.30
C	1 AC RESIDENTIAL	76			14.48	1,100.48
C	2 AC RESIDENTIAL	73			8.60	627.80
D	IMPERVIOUS PAVED	92			0.90	82.80
D	1 AC RESIDENTIAL	80			4.40	352.00
D	1/2 AC RESIDENTIAL	82			0.02	1.64

<sup>1.</sup> Use only one CN value source per line.

Totals = 44.44      3,275.74  
( 0.06944 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{3,275.74}{44.44} \quad \text{Use CN} = \boxed{74}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS CB-40

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			5.51	462.84
B	OPEN SPACE- GOOD	61			0.36	21.96
B	1 AC RESIDENTIAL	62			32.01	1,984.62
B	1/2 AC RESIDENTIAL	64			12.88	824.32
B	1/3 AC RESIDENTIAL	66			0.02	1.32
D	IMPERVIOUS PAVED	92			2.91	267.72
D	OPEN SPACE- GOOD	80			0.35	28.00
D	1 AC RESIDENTIAL	80			15.12	1,209.60
D	1/2 AC RESIDENTIAL	82			11.66	956.12
Totals =					80.82	5,756.50

<sup>1.</sup> Use only one CN value source per line.  
 ( 0.12628 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{5,756.50}{80.82} \text{ Use CN} = \boxed{71}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS CB-50

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <u>Acres</u> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS GRAVEL	85			1.40	119.00
B	IMPERVIOUS PAVED	84			1.00	84.00
B	OPEN SPACE FAIR	69			0.39	26.91
B	1/2 AC RESIDENTIAL	64			2.21	141.44
B	1/3 AC RESIDENTIAL	66			7.69	507.54
B	1/5 AC RESIDENTIAL	68			1.34	91.12
D	IMPERVIOUS GRAVEL	91			0.62	56.42
D	IMPERVIOUS PAVED	92			0.12	11.04
D	OPEN SPACE FAIR	84			0.56	47.04
D	1/2 AC RESIDENTIAL	82			1.00	82.00
D	1/3 AC RESIDENTIAL	83			0.98	81.34
D	1/5 AC RESIDENTIAL	85			0.78	66.30
Totals =					18.09	1,314.15
					( 0.02827	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{1,314.15}{18.09} \text{ Use CN} = \boxed{73}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS CB-60

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS GRAVEL	85			1.46	124.10
B	IMPERVIOUS PAVED	84			4.54	381.36
B	OPEN SPACE-FAIR	69			0.55	37.95
B	OPEN SPACE-GOOD	61			0.82	50.02
B	1/3 AC RESIDENTIAL	66			7.91	522.06
B	URBAN-COMMERCIAL	92			0.70	64.40
B	URBAN-INDUSTRIAL	88			10.59	931.92
B	WOODS - GOOD	50			2.58	129.00
B	WOODS-FAIR	60			0.64	38.40
D	IMPERVIOUS GRAVEL	91			0.41	37.31
D	IMPERVIOUS PAVED	92			0.65	59.80
D	OPEN SPACE FAIR	84			0.07	5.88
D	1/3 AC RESIDENTIAL	83			5.03	417.49
D	URBAN INDUSTRIAL	93			11.00	1,023.00
D	WOODS-GOOD	67			1.49	99.83

<sup>1.</sup> Use only one CN value source per line.

Totals = 48.44      3,922.52  
 ( 0.07569 sq mi)

CN (weighted) =  $\frac{\text{total product}}{\text{total area}}$  =  $\frac{3,922.52}{48.44}$       Use CN = 81

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAAVED	84			17.97	1,509.48
B	OPEN SPACE- FAIR	69			6.30	434.70
B	1 AC RESIDENTIAL	62			1.45	89.90
B	2 AC RESIDENTIAL	60			1.03	61.80
B	WOODS - GOOD	50			0.90	45.00
C	IMPERVIOUS PAVED	90			15.93	1,433.70
C	OPEN SPACE- FAIR	79			11.74	927.46
C	OPEN SPACE- GOOD	74			11.40	843.60
C	1 AC RESIDENTIAL	76			5.48	416.48
C	2 AC RESIDENTIAL	73			29.72	2,169.56
C	WOODS - GOOD	60			85.25	5,115.00
D	IMPERVIOUS PAVED	92			2.25	207.00
D	OPEN SPACE- FAIR	84			5.28	443.52
D	OPEN SPACE- GOOD	80			1.05	84.00
D	2 AC RESIDENTIAL	79			2.75	217.25
D	WOODS - GOOD	67			63.12	4,229.04
Totals =					261.62	18,227.49
					( 0.40878	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{18,227.49}{261.62} \text{ Use CN} = \boxed{70}$$



## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-20

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
C	IMPERVIOUS PAVED	90			11.09	998.10
C	2 AC RESIDENTIAL	73			130.82	9,549.86
C	WATER	98			0.15	14.70
C	WOODS - GOOD	60			3.67	220.20
D	IMPERVIOUS PAVED	92			2.10	193.20
D	2 AC RESIDENTIAL	79			53.47	4,224.13
D	WATER	98			0.84	82.32
D	WOODS - GOOD	67			4.18	280.06
Totals =					206.32	15,562.57
					( 0.32238	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{15,562.57}{206.32} \text{ Use CN} = \boxed{75}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-31

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <u>Acres</u> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			0.03	2.52
B	2 AC RESIDENTIAL	60			6.60	396.00
C	IMPERVIOUS PAVED	90			2.52	226.80
C	2 AC RESIDENTIAL	73			50.81	3,709.13
C	WATER	98			0.12	11.76
C	WOODS GOOD	60			4.69	281.40
D	IMPERVIOUS PAVED	92			1.97	181.24
D	2 AC RESIDENTIAL	79			22.83	1,803.57
D	WATER	98			0.12	11.76
D	WOODS GOOD	67			2.47	165.49
Totals =					92.16	6,789.67
					( 0.14400	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{6,789.67}{92.16} \text{ Use CN} = \boxed{74}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-35

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			1.57	131.88
B	OPEN SPACE - GOOD	61			5.15	314.15
B	1 AC RESIDENTIAL	62			1.06	65.72
B	2 AC RESIDENTIAL	60			10.11	606.60
B	WOODS - GOOD	50			0.34	17.00
C	IMPERVIOUS PAVED	90			2.04	183.60
C	OPEN SPACE - GOOD	74			0.48	35.52
C	2 AC RESIDENTIAL	73			15.59	1,138.07
C	WOODS - GOOD	60			0.77	46.20
D	IMPERVIOUS PAVED	92			1.77	162.84
D	OPEN SPACE - GOOD	80			4.50	360.00
D	1 AC RESIDENTIAL	81			0.51	41.31
D	2 AC RESIDENTIAL	79			11.08	875.32
D	WOODS - GOOD	67			0.03	2.01
Totals =					55.00	3,980.22
					( 0.08594	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{3,980.22}{55.00} \text{ Use CN} = \boxed{72}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-38

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
A	OPEN SPACE - GOOD	80			3.31	264.80
A	WATER	98			0.07	6.86
B	IMPERVIOUS PAVED	84			0.01	0.84
B	OPEN SPACE - GOOD	61			27.74	1,692.14
B	2 AC RESIDENTIAL	60			3.80	228.00
B	WOODS - GOOD	50			2.00	100.00
D	OPEN SPACE - GOOD	80			4.75	380.00
D	2 AC RESIDENTIAL	79			1.44	113.76
D	WATER	98			3.18	311.64
1. Use only one CN value source per line.				Totals =	46.30	3,098.04
					( 0.07234	sq mi)

CN (weighted) =  $\frac{\text{total product}}{\text{total area}}$  =  $\frac{3,098.04}{46.30}$  Use CN = 67

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-40

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
A	IMPERVIOUS PAVED	76			0.14	10.64
A	OPEN SPACE- GOOD	80			0.06	4.80
A	2 AC RESIDENTIAL	41			3.97	162.77
A	WATER	98			0.07	6.86
B	IMPERVIOUS PAVED	84			0.48	40.32
B	OPEN SPACE- GOOD	61			0.08	4.88
B	2 AC RESIDENTIAL	60			1.75	105.00
D	IMPERVIOUS PAVED	92			0.29	26.68
D	2 AC RESIDENTIAL	79			8.58	677.82
D	WATER	98			0.48	47.04
						0.00
						0.00
						0.00
Totals =					15.90	1,086.81
					( 0.02484	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{1,086.81}{15.90} \text{ Use CN} = \boxed{68}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-50

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
A	IMPERVIOUS PAVED	76			2.05	155.80
A	OPEN SPACE- GOOD	80			0.22	17.60
A	2 AC RESIDENTIAL	41			7.55	309.55
A	WOODS - GOOD	30			0.11	3.30
B	IMPERVIOUS PAVED	84			1.67	140.28
B	OPEN SPACE- GOOD	61			19.12	1,166.32
B	1 AC RESIDENTIAL	62			8.55	530.10
B	2 AC RESIDENTIAL	60			1.82	109.20
B	URBAN-COMMERCIAL	92			16.13	1,483.96
B	URBAN-INDUSTRIAL	88			1.07	94.16
B	WOODS - GOOD	50			0.52	26.00
C	IMPERVIOUS PAVED	90			1.55	139.50
C	1 AC RESIDENTIAL	76			4.47	339.72
C	2 AC RESIDENTIAL	73			6.62	483.26
C	URBAN INDUSTRIAL	91			0.76	69.16
D	IMPERVIOUS PAVED	92			1.02	93.84
D	OPEN SPACE- GOOD	80			2.31	184.80
D	1 AC RESIDENTIAL	80			7.27	581.60
D	2 AC RESIDENTIAL	79			6.60	521.40
D	URBAN-COMMERCIAL	95			0.03	2.85
D	URBAN-INDUSTRIAL	93			0.98	91.14
D	WATER	98			0.30	29.40
D	WOODS - GOOD	67			8.45	566.15
Totals =					99.17	7,139.09

<sup>1.</sup> Use only one CN value source per line.

( 0.15495 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{7,139.09}{99.17} \text{ Use CN} = \boxed{72}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-60

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	85			18.61	1,581.85
B	OPEN SPACE- FAIR	69			0.78	53.82
B	1 AC RESIDENTIAL	62			65.48	4,059.76
B	1/2 AC RESIDENTIAL	64			3.91	250.24
B	1/3 AC RESIDENTIAL	66			31.63	2,087.58
B	1/5 AC RESIDENTIAL	68			7.93	539.24
B	2 AC RESIDENTIAL	60			5.09	305.40
B	URBAN-COMMERCIAL	92			0.19	17.48
C	IMPERVIOUS PAVED	90			1.04	93.60
C	1 AC RESIDENTIAL	76			5.20	395.20
C	1/3 AC RESIDENTIAL	78			0.01	0.78
C	2 AC RESIDENTIAL	73			2.15	156.95
D	IMPERVIOUS PAVED	92			1.95	179.40
D	1 AC RESIDENTIAL	80			15.02	1,201.60
D	1/2 AC RESIDENTIAL	82			1.10	90.20
Totals =					160.09	11,013.10

<sup>1.</sup> Use only one CN value source per line.

( 0.25014 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{11,013.10}{160.09} \text{ Use CN} = \boxed{69}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-70

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS GRAVEL	85			5.90	501.50
B	IMPERVIOUS PAVED	84			7.44	624.96
B	OPEN SPACE -FAIR	69			0.91	62.79
B	1/2 AC RESIDENTIAL	64			0.31	19.84
B	1/3 AC RESIDENTIAL	66			4.32	285.12
B	1/5 AC RESIDENTIAL	68			0.94	63.92
B	URBAN COMMERCIAL	92			1.76	161.92
B	URBAN INDUSTRIAL	88			0.40	35.20
B	WOODS - GOOD	50			3.02	151.00
D	IMPERVIOUS GRAVEL	91			0.65	59.15
D	IMPERVIOUS PAVEMENT	92			0.06	5.52
D	OPEN SPACE -FAIR	84			1.12	94.08
D	1/2 AC RESIDENTIAL	82			0.40	32.80
D	1/3 AC RESIDENTIAL	83			1.25	103.75
D	URBAN COMMERCIAL	95			0.18	17.10
D	URBAN INDUSTRIAL	93			0.20	18.60
D	WOODS - GOOD	67			3.90	261.30

<sup>1.</sup> Use only one CN value source per line.

Totals = 32.76      2,498.55  
 ( 0.05119 sq mi)

CN (weighted) =  $\frac{\text{total product}}{\text{total area}}$  =  $\frac{2,498.55}{32.76}$       Use CN = 76



## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-80

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS GRAVEL	85			0.03	2.55
B	IMPERVIOUS PAVED	84			35.93	3,018.12
B	OPEN SPACE - FAIR	69			1.51	104.19
B	OPEN SPACE - GOOD	61			7.28	444.08
B	1 AC RESIDENTIAL	62			0.03	1.86
B	1/2 AC RESIDENTIAL	64			6.29	402.56
B	1/3 AC RESIDENTIAL	66			5.49	362.34
B	1/5 AC RESIDENTIAL	68			9.52	647.36
B	URBAN COMMERCIAL	92			9.46	870.32
B	URBAN INDUSTRIAL	88			15.27	1,343.76
B	WOODS - GOOD	50			16.09	804.50
B	WOODS - FAIR	60			1.85	111.00
D	IMPERVIOUS PAVED	92			0.17	15.64
D	OPEN SPACE FAIR	84			0.16	13.44
D	URBAN COMMERCIAL	95			0.22	20.90
D	WOODS GOOD	67			0.58	38.86
D	WOODS FAIR	79			0.10	7.90
Totals =					109.98	8,209.38

<sup>1.</sup> Use only one CN value source per line.

( 0.17184 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{8,209.38}{109.98} \text{ Use CN} = \boxed{75}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-90

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
A	OPEN SPACE - GOOD	80			2.23	178.40
A	WATER	98			0.03	2.94
A	WOODS - GOOD	30			0.32	9.60
B	IMPERVIOUS PAVED	84			2.63	220.92
B	OPEN SPACE - GOOD	61			22.77	1,388.97
B	1/3 AC RESIDENTIAL	66			0.06	3.96
B	URBAN COMMERCIAL	92			4.54	417.68
B	WATER	98			1.00	98.00
B	WOODS - GOOD	50			1.13	56.50
D	OPEN SPACE - GOOD	80			0.20	16.00
D	WATER	98			0.95	93.10
Totals =					35.86	2,486.07
					( 0.05603	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{2,486.07}{35.86} \text{ Use CN} = \boxed{69}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: Present Developed Watershed: WS SB-100

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			6.11	513.24
B	OPEN SPACE - FAIR	69			0.10	6.90
B	OPEN SPACE - GOOD	61			0.21	12.81
B	1AC RESIDENTIAL	62			0.26	16.12
B	1/3 AC RESIDENTIAL	66			24.46	1,614.36
B	1/5 AC RESIDENTIAL	68			0.11	7.48
B	URBAN COMMERCIAL	92			0.15	13.80
C	IMPERVIOUS PAVED	90			2.96	266.40
C	1/3 AC RESIDENTIAL	78			5.84	455.52
C	1/5 AC RESIDENTIAL	80			0.49	39.20
C	URBAN COMMERCIAL	94			0.50	47.00
C	URBAN INDUSTRIAL	91			0.69	62.79
D	IMPERVIOUS PAVED	92			0.24	22.08
D	1/3 AC RESIDENTIAL	83			1.98	164.34
Totals =					44.10	3,242.04

<sup>1.</sup> Use only one CN value source per line.

( 0.06891 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{3,242.04}{44.10} \text{ Use CN} = \boxed{74}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SB-110

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			4.95	415.80
B	OPEN SPACE - GOOD	61			0.03	1.83
B	1 AC RESIDENTIAL	62			10.25	635.50
B	1/2 AC RESIDENTIAL	64			11.74	751.36
B	1/3 AC RESIDENTIAL	66			9.91	654.06
B	1/5 AC RESIDENTIAL	68			0.03	2.04
B	2 AC RESIDENTIAL	60			2.59	155.40
B	URBAN COMMERCIAL	92			0.25	23.00
B	WOODS - GOOD	50			0.89	44.50
C	IMPERVIOUS PAVED	90			1.14	102.60
C	1 AC RESIDENTIAL	76			0.55	41.80
C	1/2 AC RESIDENTIAL	76			0.60	45.60
C	1/5 AC RESIDENTIAL	80			0.01	0.80
C	URBAN COMMERCIAL	94			0.13	12.22
C	WOODS - GOOD	60			0.25	15.00
D	IMPERVIOUS PAVED	92			0.79	72.68
D	OPEN SPACE - GOOD	80			0.44	35.20
D	1 AC RESIDENTIAL	80			1.26	100.80
D	1/2 AC RESIDENTIAL	82			2.07	169.74
D	1/3 AC RESIDENTIAL	83			0.50	41.50
D	2 AC RESIDENTIAL	79			1.14	90.06
D	WOODS - GOOD	67			1.33	89.11
Totals =					50.85	3,500.60
					( 0.07945	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{3,500.60}{50.85} \text{ Use CN} = \boxed{69}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT1-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
C	IMPERVIOUS PAVED	90			3.06	275.40
C	OPEN SPACE - GOOD	74			0.28	20.72
C	2 AC RESIDENTIAL	73			15.69	1,145.37
C	WOODS GOOD	60			0.39	23.40
D	IMPERVIOUS PAVED	92			1.15	105.80
D	2 AC RESIDENTIAL	79			11.13	879.27
D	WATER	98			0.55	53.90
D	WOODS GOOD	67			1.81	121.27
Totals =					34.06	2,625.13
					( 0.05322	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{2,625.13}{34.06} \text{ Use CN} = \boxed{77}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT2-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			0.01	0.84
B	OPEN SPACE - GOOD	61			9.07	553.27
B	2 AC RESIDENTIAL	60			5.24	314.40
B	WOODS - GOOD	50			3.04	152.00
C	IMPERVIOUS PAVED	90			1.72	154.80
C	OPEN GOOD	74			0.60	44.40
C	2 AC RESIDENTIAL	73			13.65	996.45
C	WOODS - GOOD	50			2.54	127.00
D	OPEN GOOD	80			1.72	137.60
D	2 AC RESIDENTIAL	79			5.39	425.81
D	WATER	98			0.25	24.50
D	WOODS - GOOD	67			8.14	545.38
Totals =					51.37	3,476.45

<sup>1.</sup> Use only one CN value source per line.

( 0.08027 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{3,476.45}{51.37} \text{ Use CN} = \boxed{68}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04)      By: WNM      Date: 01/12/08  
 Location: Darien & New Canaan      Checked: \_\_\_\_\_      Date: \_\_\_\_\_  
 Circle one: Present    Developed      Watershed: WS SBT3-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
C	IMPERVIOUS PAVED	90			0.83	74.70
C	OPEN SPACE - GOOD	74			0.55	40.70
C	2 AC RESIDENTIAL	73			20.50	1,496.50
D	IMPERVIOUS PAVED	92			0.76	69.92
D	OPEN SPACE - GOOD	80			0.09	7.20
D	2 AC RESIDENTIAL	79			11.65	920.35
D	WATER	98			0.23	22.54
Totals =					34.61	2,631.91

<sup>1.</sup> Use only one CN value source per line.

( 0.05408 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{2,631.91}{34.61} \text{ Use CN} = \boxed{76}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT3-20

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	OPEN SPACE - GOOD	61			18.90	1,152.90
B	WOODS - GOOD	50			0.92	46.00
C	IMPERVIOUS PAVED	90			5.70	513.00
C	OPEN SPACE - GOOD	74			49.04	3,628.96
C	2 AC RESIDENTIAL	73			53.54	3,908.42
C	URBAN COMMERCIAL	94			8.20	770.80
C	WOODS - GOOD	60			6.15	369.00
D	IMPERVIOUS PAVED	92			1.44	132.48
D	OPEN SPACE - GOOD	80			13.06	1,044.80
D	2 AC RESIDENTIAL	79			18.32	1,447.28
D	URBAN COMMERCIAL	95			2.14	203.30
D	WATER	98			0.90	88.20
D	WOODS - GOOD	67			27.28	1,827.76
Totals =					205.59	15,132.90

<sup>1.</sup> Use only one CN value source per line.

( 0.32123 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{15,132.90}{205.59} \text{ Use CN} = \boxed{74}$$



## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: Present Developed Watershed: WS SBT3-30

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
A	IMPERVIOUS PAVED	76			0.59	44.84
A	2 AC RESIDENTIAL	41			2.17	88.97
B	IMPERVIOUS PAVED	84			1.12	94.08
B	OPEN SPACE - GOOD	61			4.94	301.34
B	1 AC RESIDENTIAL	62			5.50	341.00
B	2 AC RESIDENTIAL	60			9.74	584.40
B	URBAN COMMERCIAL	92			2.48	228.16
B	WATER	98			0.01	0.98
B	WOODS - GOOD	50			0.16	8.00
C	IMPERVIOUS PAVED	90			6.64	597.60
C	OPEN SPACE - GOOD	74			0.28	20.72
C	1 AC RESIDENTIAL	76			23.08	1,754.08
C	2 AC RESIDENTIAL	73			10.84	791.32
C	URBAN COMMERCIAL	94			0.02	1.88
C	WOODS - GOOD	60			2.84	170.40
D	IMPERVIOUS PAVED	92			1.18	108.56
D	OPEN SPACE - GOOD	80			1.31	104.80
D	1 AC RESIDENTIAL	80			3.13	250.40
D	2 AC RESIDENTIAL	79			15.36	1,213.44
D	WATER	98			1.08	105.84
D	WOODS - GOOD	67			5.41	362.47
Totals =					97.88	7,173.28

<sup>1.</sup> Use only one CN value source per line.

( 0.15294 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{7,173.28}{97.88} \text{ Use CN} = \boxed{73}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT4-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
A	2 AC RESIDENTIAL	41			1.21	49.61
A	WATER	98			0.35	34.30
A	WOODS - GOOD	30			0.18	5.40
B	IMPERVIOUS PAVED	84			0.85	71.40
B	2 AC RESIDENTIAL	60			9.57	574.20
C	IMPERVIOUS PAVED	90			4.04	363.60
C	2 AC RESIDENTIAL	73			22.53	1,644.69
D	IMPERVIOUS PAVED	92			0.34	31.28
D	2 AC RESIDENTIAL	79			19.62	1,549.98
D	WATER	98			0.26	25.48
D	WOODS - GOOD	67			0.48	32.16
<b>Totals =</b>					59.43	4,382.10
					( 0.09286	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$CN \text{ (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{4,382.10}{59.43} \text{ Use CN} = \boxed{74}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT5-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			3.70	310.80
B	OPEN SPACE - GOOD	61			0.04	2.44
B	1 AC RESIDENTIAL	62			22.53	1,396.86
B	1/2 AC RESIDENTIAL	66			0.97	64.02
C	IMPERVIOUS PAVED	90			5.57	501.30
C	OPEN SPACE - GOOD	74			0.03	2.22
C	1 AC RESIDENTIAL	76			25.03	1,902.28
C	1/2 AC RESIDENTIAL	76			15.20	1,155.20
C	1/3 AC RESIDENTIAL	78			0.40	31.20
C	WOODS - GOOD	60			0.76	45.60
D	IMPERVIOUS PAVED	92			2.29	210.68
D	OPEN SPACE - GOOD	80			1.00	80.00
D	1 AC RESIDENTIAL	80			17.10	1,368.00
D	WOODS - GOOD	67			0.31	20.77
Totals =					94.93	7,091.37

<sup>1.</sup> Use only one CN value source per line.

( 0.14833 sq mi)

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{7,091.37}{94.93} \text{ Use CN} = \boxed{75}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT6-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group <small>(appendix A)</small>	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <div style="border: 1px solid black; border-radius: 50%; padding: 2px; display: inline-block;">Acres</div> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			6.59	553.56
B	OPEN SPACE - GOOD	61			0.29	17.69
B	1 AC RESIDENTIAL	62			0.03	1.86
B	1/3 AC RESIDENTIAL	66			13.47	889.02
B	1/5 AC RESIDENTIAL	68			7.82	531.76
C	IMPERVIOUS PAVED	90			7.91	711.90
C	OPEN SPACE - FAIR	79			3.13	247.27
C	1 AC RESIDENTIAL	76			5.82	442.32
C	1/2 AC RESIDENTIAL	76			32.24	2,450.24
C	1/3 AC RESIDENTIAL	78			26.72	2,084.16
C	1/5 AC RESIDENTIAL	80			8.91	712.80

<sup>1.</sup> Use only one CN value source per line. Totals = 

112.93	8,642.58
--------	----------

  
( 0.17645 sq mi)

CN (weighted) =  $\frac{\text{total product}}{\text{total area}}$  =  $\frac{8,642.58}{112.93}$  Use CN = 77

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT6-20

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group (appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <u>Acres</u> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS GRAVEL	85			2.51	213.35
B	IMPERVIOUS PAVED	95			32.28	3,066.60
B	OPEN SPACE - FAIR	69			0.94	64.86
B	1/2 AC RESIDENTIAL	64			0.03	1.92
B	1/3 AC RESIDENTIAL	66			1.39	91.74
B	1/5 AC RESIDENTIAL	68			0.86	58.48
B	URBAN COMMERCIAL	92			6.38	586.96
B	URBAN INDUSTRIAL	88			0.15	13.20
B	WOODS GOOD	50			1.20	60.00
C	IMPERVIOUS PAVED	95			0.66	62.70
C	1/5 AC RESIDENTIAL	80			1.21	96.80
C	URBAN COMMERCIAL	94			0.36	33.84
Totals =					47.97	4,350.45
					( 0.07495	sq mi)

<sup>1.</sup> Use only one CN value source per line.

CN (weighted) =  $\frac{\text{total product}}{\text{total area}}$  =  $\frac{4,350.45}{47.97}$  Use CN = 91

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04)                      By: WNM                      Date: 01/12/08  
 Location: Darien & New Canaan                      Checked: \_\_\_\_\_                      Date: \_\_\_\_\_  
 Circle one: **Present**    Developed                      Watershed: WS SBT6-30

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  Acres Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			12.23	1,027.32
B	OPEN SPACE - FAIR	69			0.05	3.45
B	OPEN SPACE - GOOD	61			3.75	228.75
B	1 AC RESIDENTIAL	62			0.01	0.62
B	1/2 AC RESIDENTIAL	64			0.80	51.20
B	1/3 AC RESIDENTIAL	66			15.25	1,006.50
B	1/5 AC RESIDENTIAL	68			31.56	2,146.08
B	URBAN COMMERCIAL	92			0.28	25.76
B	WOODS GOOD	50			12.09	604.50
C	1/3 AC RESIDENTIAL	78			0.03	2.34
Totals =					76.05	5,096.52
					( 0.11883	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{5,096.52}{76.05} \text{ Use CN} = \boxed{67}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT6-40

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <u>Acres</u> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS GRAVEL	85			3.55	301.75
B	IMPERVIOUS PAVED	84			14.35	1,205.40
B	OPEN SPACE - FAIR	69			2.04	140.76
B	OPEN SPACE - GOOD	61			3.27	199.47
B	1 AC RESIDENTIAL	62			1.21	75.02
B	1/2 AC RESIDENTIAL	64			0.27	17.28
B	1/3 AC RESIDENTIAL	66			30.09	1,985.94
B	1/5 AC RESIDENTIAL	68			14.02	953.36
B	URBAN COMMERCIAL	92			6.24	574.08
B	WOODS GOOD	50			4.60	230.00
Totals =					79.64	5,683.06
					( 0.12444	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{5,683.06}{79.64} \text{ Use CN} = \boxed{71}$$

## Worksheet 2: Runoff curve number and runoff

Project: Stony Brook (1581-04-01-04) By: WNM Date: 01/12/08  
 Location: Darien & New Canaan Checked: \_\_\_\_\_ Date: \_\_\_\_\_  
 Circle one: **Present** Developed Watershed: WS SBT7-10

### 1.) Runoff curve number (CN)

Soil Name and Hydrologic Group  (appendix A)	Cover Description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN Value <sup>1.</sup>			Area  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Acres</span> Sq. Ft. %	Product of CN x Area
		Table 2-2	Figure 2-3	Figure 2-4		
B	IMPERVIOUS PAVED	84			0.94	78.96
B	1 AC RESIDENTIAL	62			10.47	649.14
B	2 AC RESIDENTIAL	60			0.09	5.40
C	IMPERVIOUS PAVED	90			0.66	59.40
C	1 AC RESIDENTIAL	76			4.22	320.72
C	2 AC RESIDENTIAL	73			29.15	2,127.95
C	WATER	98			0.08	7.84
D	IMPERVIOUS PAVED	92			1.75	161.00
D	1 AC RESIDENTIAL	80			4.87	389.60
D	2 AC RESIDENTIAL	79			4.72	372.88
D	WATER	98			2.05	200.90
Totals =					59.00	4,373.79
					( 0.09219	sq mi)

<sup>1.</sup> Use only one CN value source per line.

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{4,373.79}{59.00} \text{ Use CN} = \boxed{74}$$