SENECA COUNTY DRAINAGE PLAN

PREPARED FOR
SENECA COUNTY
SOIL AND WATER CONSERVATION DISTRICT

BY
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WATERLOO, N. Y.

1969

SENECA COUNTY SOIL AND WATER CONSERVATION DISTRICT

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CONTENTS

EXPLANATION OF

SOIL ASSOCIATIONS AND DEGREE OF DRAINAGE NEEDED

nation of Columns

Map Number in this publication

Watershed number assigned to the stream

Name of stream, if any

Soil Association. For example AE-00-LO would be Arkport-Elnora, Ontario-Ovid and Lakemont-Odessa. The legend on the General Soil Map at the end of this chapter gives the important soils of the county and a brief description of each association.

Percent of each association. This column shows the percent of each association of the previous column which is in the watershed shown in column 2. For example, Pond Brook has a drainage area with 60% AE (Arkport-Elnora); 20% 00 (Ontario-Ovid) and 20% LO Lakemont-Odessa).

, 8, 9 These four columns give the percent of the particular drainage area in the following classes:

WELL - Well drained soils have drainage adequate for all crops. There are usually small wet spots with soils of a lesser degree of natural drainage within the well drained soil area. Normally 50 to 100 feet of tile are required per acre to eleminate these small wet spots.

MOD. WELL - "Moderately Well Drained" soils require a moderate amount of drainage for most farm crops. One hundred to two hundred feet of random tile lines per acre are needed for efficient general crop production.

SOMEWHAT POORLY - This soil requires a rather intensive random system or a pattern system of tile. The lines of the pattern system are spaced 80 to 100 feet apart. Two hundred to four hundred feet of tile per acre are needed for adequate drainage for general crop production. Surface crusting and plow sole compaction are often serious on these soils.

POOR - Poorly drained soils require an intensive pattern system of tile. The lines are spaced 40 to 60 feet apart for the efficient production of general crops. Surface crusting and plow sole compaction are usually serious on most soils in this class.

More detailed soil information may be obtained from the Seneca County Soil Conservation District.

SOIL ASSOCIATION (4)

1 Name	2 Number	3 Map No.	4 Soil Association	5 % of each in Association	6 Well	7 Mod. Well	8 Somewhat Poorly	9 Poor
CAYUGA LAKE, P 296 (continued)								
	148	8	HL-DA	80-20	40	25	30	5
	149	8	HL-DA	50-50	25	15	50	10
Red Creek, East of 414	150	8	HL	100	50	30	15	5
Red Creek, West of 414	150	8	DA	100	5		85	10
Schuyler Creek	151	8	HL-SO	40-60	25	40	30	5
	152	7	HL-SO-DA	40-40-20	20	30	45	5
	160	7	HL-SO	20-80	15	45	35	5
Canoga Creek	162	7	HL-DF-SO	5-15-80	20	40	35	5
BLACK LAKE, P 293a								
	1	5	OO-SO	75-25	55	10	20	15

Seneca County is entirely within the Oswego River Basin which is a tributary to Lake Ontario. Therefore the word "Ontario" will be the first part of each stream number.

The Oswego River is stream No. 66 into Lake Ontario or shown as "Ontario 66."

The Seneca River is stream No. 12 tributary to Oswego River. It becomes "Ontario 66-12."

The Clyde River is tributary No. 52 to Seneca River. Clyde River will have the number "Ontario 66-12-52."

Black Brook, in Seneca County, is tributary No. 1 to the Clyde River. Its number would be "Ontario 66-12-52-1;" White Brook is "Ontario 66-12-52-2," etc.

The Seneca River flows from Seneca Lake easterly through Seneca Falls. It is known locally as part of the canal system. Kendig Creek which flows into the canal will be numbered "Ontario 66-12-70."

Each Lake has a separate number which starts with the letter "P". Cayuga Lake is "P 296" and Seneca Lake is "P 369." A different series of numbers is used for the tributaries of the lakes than that used for the streams. Thus Sheldrake Creek which empties into Cayuga Lake is numbered "P 296-133."

A tributary of a stream will be numbered starting at 1, but sometimes using the letters a, b, c etc. in the place of numbers. When it is necessary to number an additional tributary between those already numbered, a series of letters will be used after the last number ahead of the tributary being numbered. This if there were a tributary to be numbered between 69 and 70, it would become 69a.

Branches of tributaries are numbered starting again with the number 1. Thus there could be a tributary to Kendig Creek numbered "Ontario 66-12-70-1-1."

Note: Only the last number denoting the streams and tributaries have been shown on the maps. Therefore, only the number 133 would be shown on the map at the mouth of Sheldrake Creek.

Example - Map 1 - Pond Brook is ONT-66-12-52-18. The number 18 is shown at the mouth of Pond Brook while ONT-66-12-52, the number of Clyde River is shown elsewhere on the sheet. Branch 2 is Dublin Brook shown by the circled 2. Following up Dublin Brook, Branch 4 is shown. Following up Branch 4, Branch 1 flows in from the east. This becomes Branch 4-1. Further up Branch 1 there is Branch 1 flowing in from the South. This is Branch 4-1-1. Just north of Route N.Y. 96 another Branch 1 flows in from the west. This would be indicated as Branch 4-1-1-1. If it were desired to indicate this final Branch in a communication to another agency it would be known as ONT 66-12-52-18-4-1-1-1.

EXPLANATION OF COLUMN HEADINGS OF DATA SHEETS

LOCATION - This is the point for which the data is given. It is usually at a road culvert or where a branch enters the stream. The data shown will be from the point of this LOCATION to the next LOCATION upstream.

Road names and numbers were taken from the Seneca County map, a copy of which is a part of this report. Names and numbers are given where a road has a name commonly used and has been assigned a number by the county or the state highway department.

D.A.- SQ.MI. - This is the drainage area in square miles (640 acres = 1 sq. mi.) which drains to this point or LOCATION.

LENGTH-FEET - This shows the distance from this LOCATION to the next LOCATION upstream.

SLOPE-FT/FT - This term expresses the proposed channel slope in feet of fall per foot of length.

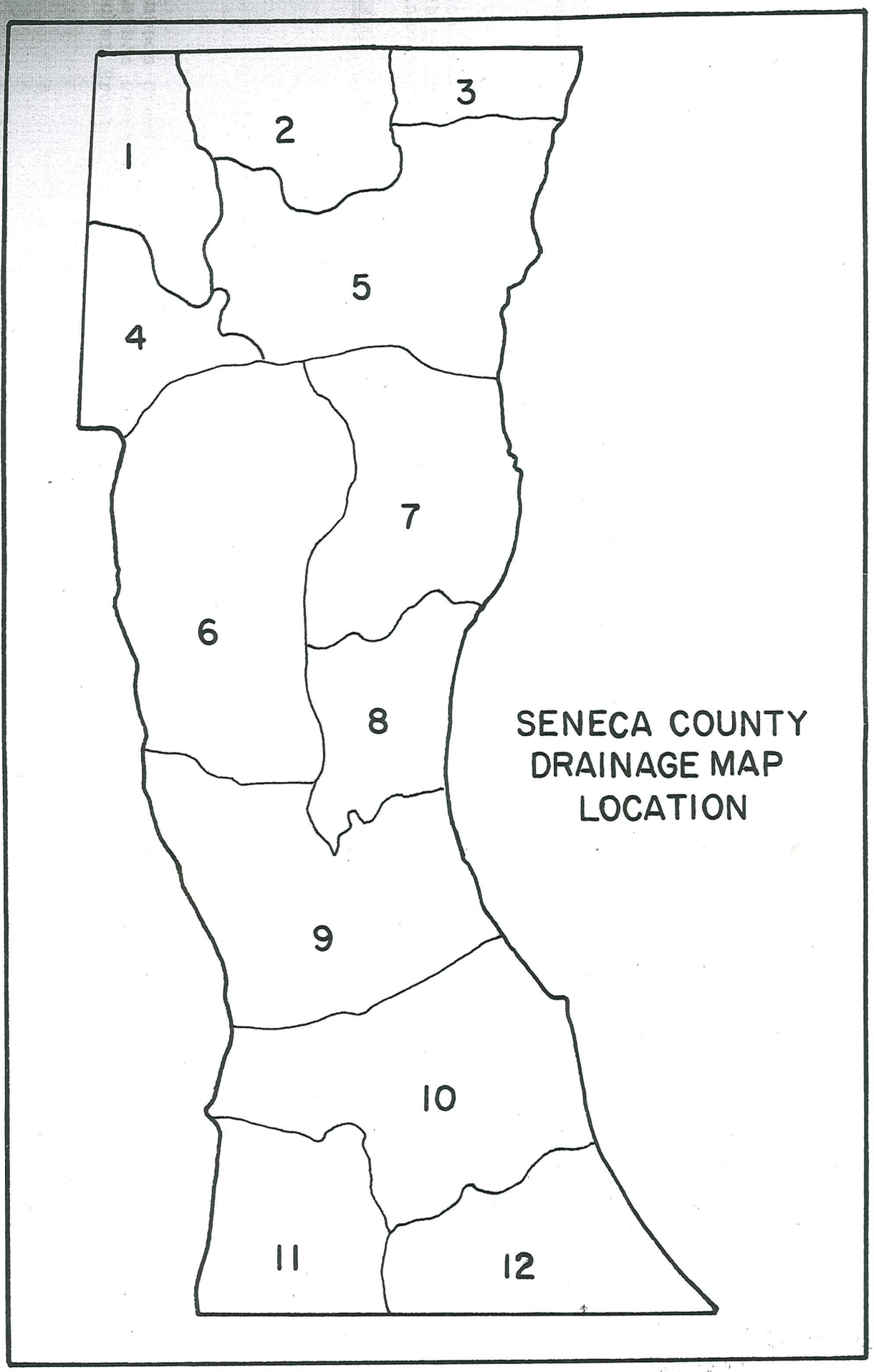
RUNOFF-C.F.S. - This is the cubic feet of water which will run off the land in one second. It is based on drainage runoff curves set up for this project. These curves were adapted from John Sutton's curves for drainage of areas over two square miles and U.S. Soil Conservation curves for areas of less than two square miles. Generally, in this report, areas of over four square miles are assumed to contribute 1" depth in 24 hours; areas from one to four square miles contribute 1½ inches and areas under 1 square mile contribute 3 inches of depth in 24 hours. The lesser per square mile runoff from the larger areas is accounted for by temporary storage. A major part of this storage is in the drainage channels. It should be understood that the quantities of runoff shown are for drainage purposes only and do not show flow of water to be expected in major storms. These major storms will give much higher runoff.

REQUIRED DITCH SIZE - The bottom width is given first and the depth last. Thus 3 x 4 indicates a ditch 3 feet wide on the bottom and 4 feet deep. All side slopes are assumed to be 1½:1 or 1½ feet horizontal for each foot of vertical rise. Channels in muck may be steeper if the channel is enlarged to have the same carrying capacity. In some cases flatter slopes may be preferred. Channels of different dimensions and side slopes which will carry a given flow will not vary much in the number of cubic yards of earth necessary to be moved to construct the channel.

CUBIC YARDS - This is the number of cubic yards which it is estimated that it will be necessary to move to construct this reach of the channel.

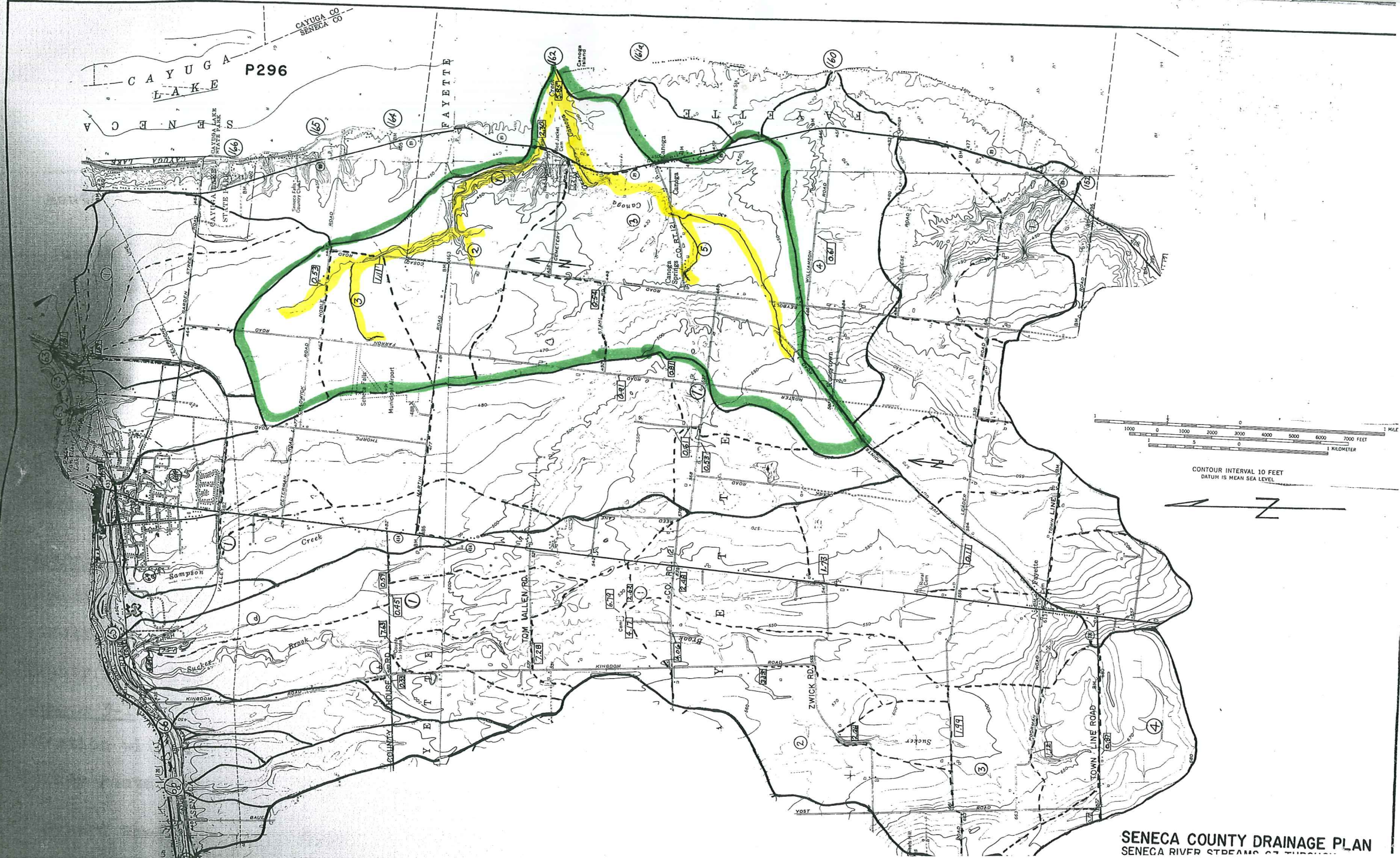
CLEARING-ACRES - It was assumed that an area 100 feet wide would need to be cleared. Clearing was divided into HEAVY which would be comparable to woods; MEDIUM which would be smaller trees and LIGHT which would be brush type or heavier vegetation.

REMARKS - Most items under REMARKS are self explanatory. The number of houses refers to those houses within the reach which are less than 10 feet above the adjacent channel bottom.


1
2
3
4
5
6
7
8
9
10
11
12
SENECA COUNTY
DRAINAGE MAP
LOCATION

INDEX OF STREAMS (2)

Name	Stream No.	Map No.
CAYUGA LAKE, P 296 (continued)		
Trumansburg Creek	102	12
Boardman Creek	102-2	12
	104a	12
	106	12
	107	12
	108	12
	108a	12
	108b	12
	108c	12
	109	12
	112	12
	112a	12
	114	12
	115	12
	116	12
	117	12
Bergen Creek	120	12
	120a	10
	121	10
	121a	10
	122	10
	123	10
Lively Run	126	10
	127	10
	128	10
	129	10
	132	10
	132a	10
Sheldrake Creek	133	10
	134	10
	135	10
Groves Creek	136	10
Powell Creek	136-1	10
	136a	10
Barnum Creek	137	10
	137a	10
	137b	9
Bloomer Creek	138	9
Mack Creek	140	9
	141	9
	142	9
Big Hollow Creek	143	9
	144	9
	144a	9
	144b	9
Hicks Gully	145	8
	146	8
	147	8
	148	8
	149	8
Red Creek	150	8
Schuyler Creek	151	8
	152	7
	160	7
	161a	7
Canoga Creek	162	7
	164	7
	165	7
	166	7
Demont Creek	167	5
BLACK LAKE, P 293a		
	1	5


P296
CAYUGA LAKE
CAYUGA CO
SENECA CO
SENECA
FAYETTE
Canoga
Canoga Falls
Canoga Springs
Creek
Sampson
Brook
Sucker
Sucker Brook
Kingdom Road
Tom Vallen Rd.
Zwick Rd.
Town Line Road
Country House Rd.
Yost Road
Seneca Falls Municipal Airport
Seneca Falls Country Club
Red Jacket Park
Cayuga Lake State Park
Cemetery
Rural Cem.
Pumping Sta.
Creek
Valley
Road
Turnpike
Trail
Line
Drive
Boulevard
Bridge
Dam
Ferry
Landing
Park
Ave.
Rt. 12
Rt. 318
Rt. 414
Rt. 89
Rt. 5
Rt. 20
Rt. 96
Rt. 96A
Rt. 318
Rt. 414
Rt. 89
Rt. 5
Rt. 20
Rt. 96
Rt. 96A
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 MILE
1 0 1 KILOMETER
SENECA COUNTY DRAINAGE PLAN
SENECA RIVER STREAMS 67 THROUGH

CANOGA CREEK
P 296-162

LOCATION	D.A. SQ.MI.	LENGTH FEET	SLOPE FT/FT	RUNOFF C.F.S.	REQ'D DITCH SIZE	CU.YDS.	CLEARING ACRES	REMARKS
Mouth	5.85	2600	Swamp	110	3x4	8580	0.5 heavy	
Junction with 1	3.26	1400	0.001	110	6x4	2520	3.5 heavy	
N.Y.S. Route 89	3.21	1300 900	0.007 0.01	109 109	3x4 3x4	1690 1170	4.25 heavy 2.25 heavy	2 houses
Junction with 3	1.99	1600	0.0025	80	3x4	2080	5.5 medium	
County Route 121	1.57	4300 1200	0.005 0.025	64 64	3x4	5590	3.25 medium,3.0 heavy	1 house
Seybolt Road	0.32	1100	0.04	33			2.75 medium	
Five Points Road	0.26	1200 500 1100	0.04 0.02 0.005	26 26 26				
Hoster Road	0.17			18				
Branch 1 Junction with Main	2.33	1000	0.002	90	3x4	1300	2.0 heavy, 0.5 light	
N.Y.S. Route 89	2.30	8000	0.007	86	3x4	10400	1.0 medium, 19.0 heavy	
Cosad Road	1.11	2500	0.002	48	3x4	3250	0.75 medium	
Noble Road	0.53			36				
Branch 3 Junction with Main	0.89	2500 1700	0.007 0.002	74 74	3x4 3x4	3250 2210		1 house
Seybolt Road	0.54			36				