

# Pigeon Lake



## - Weed Study -

Name  
Pigeon Lake Assoc.  
Manitowoc County

prepared by:  
PIGEON LAKE  
WATER QUALITY COMMITTEE  
September 1, 2005

# Pigeon Lake Wisconsin

## WATER QUALITY COMMITTEE

October 17, 2005

Mary Gansberg  
Department of Nat. Resources  
P. O. Box 10448  
Green Bay, WI 54307

Dear Mary,

Subject: PIGEON LAKE AQUATIC PLANT SURVEY

### PURPOSE:

To determine the extent, type and location of invasive aquatic plants growing in Pigeon Lake. Several property owners especially on the north side of the lake have requested help in removing Eurasian Water Milfoil (EWM) which is hindering boat navigation and use of their property for swimming and water activities.

### METHODS:

Mapping aided with the use of aerial photographs and GPS. The weed beds were located and the size, depth and location of each were noted. Samples of aquatic plants were taken, identified, and photographed and a determination of the percent concentration of each species was documented.

### RESULTS:

The survey indicated seventeen areas where EWM composed at least 98% of the aquatic plants and no Northern Milfoil was observed in these areas. The other plant was primarily Curly Pond Weed (< 2%). The EWM totaled 3.7 acres. The water depth in the EWM areas ranged from 3 to 10 feet. A second look at the EWM locations indicated that the Northern Milfoil was located on the deep side of EWM at depths of 10 to 24 feet and was not visible from the surface. Secchi disk readings indicated water clarity of 8 feet. No Northern Milfoil was found growing to the surface in any location and existed as a dense mat 3 - 4 feet thick.

Including the area covered by the Northern Milfoil would increase the area to 9 - 10 acres. It is not our intention to remove more than half of the Northern Milfoil. There are smaller areas of EWM in Pigeon Lake but these are minor infestations and at present do not cause any major problem and could be treated at another time if necessary.

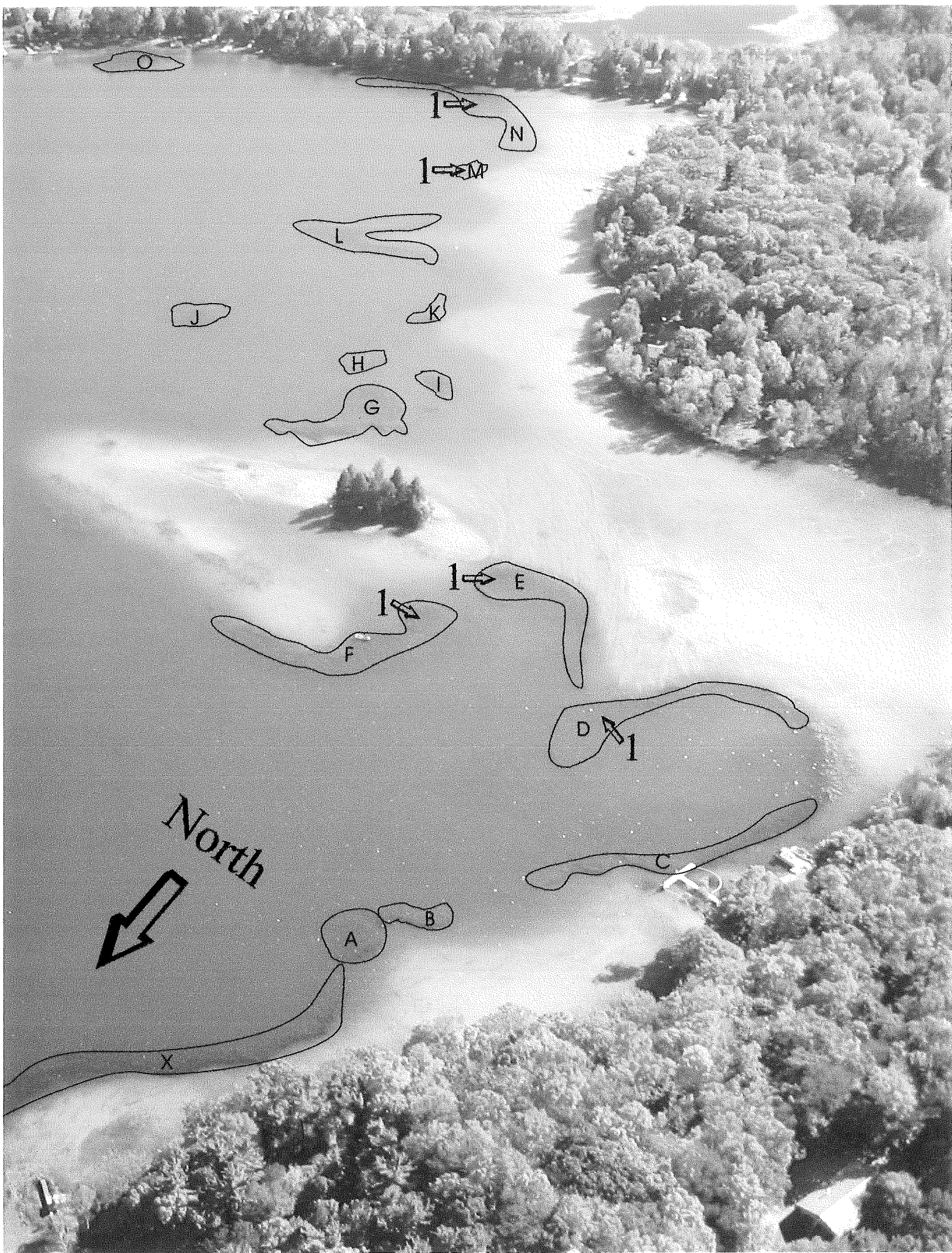
(Over)

performed by THE PLA WATER QUALITY COMMITTEE

DATE:	AUGUST 31, 2005			
SITE:	WIDTH	LENGTH	AREA	DEPTH
A.	40	75	3000	8'
B.	20	30	600	9'
C.	30	300	9000	8'
D. ✓	30	100	3000	9'
E. ✓	30	200	6000	8'
F. ✓	30	280	8400	10'
G.	30	100	3000	9'
H.	30	40	1200	9'
I.	30	140	4200	8'
J.	30	60	1800	9'
K.	10	25	250	8'
L.	30	360	10800	8'
M. ✓	15	80	1200	9'
N. ✓	30	500	15000	10'
O.	20	180	3600	10'
P.	25	440	11000	9'
Q. ✓	60	150	9000	9'
R. ✓	20	30	600	9'
S. ✓	60	150	9000	6'
T. ✓	30	200	6000	9'
U. ✓	35	340	11900	8'
V. ✓	40	20	800	8'
W. ✓	60	600	36000	8'
X. ✓	30	150	4500	9'
			<b>159850</b>	<i>right</i>
SQ MILE	5280	5280	27878400	WEED BEDS
SQ MILE	ACRES=	640		3.7
1 ACRE	SQ FEET=	<b>43560</b>		ACRES

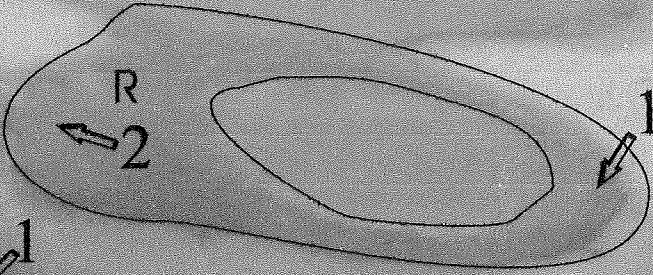
$$\frac{159,850}{43,560} = 3.7 \text{ acres total}$$

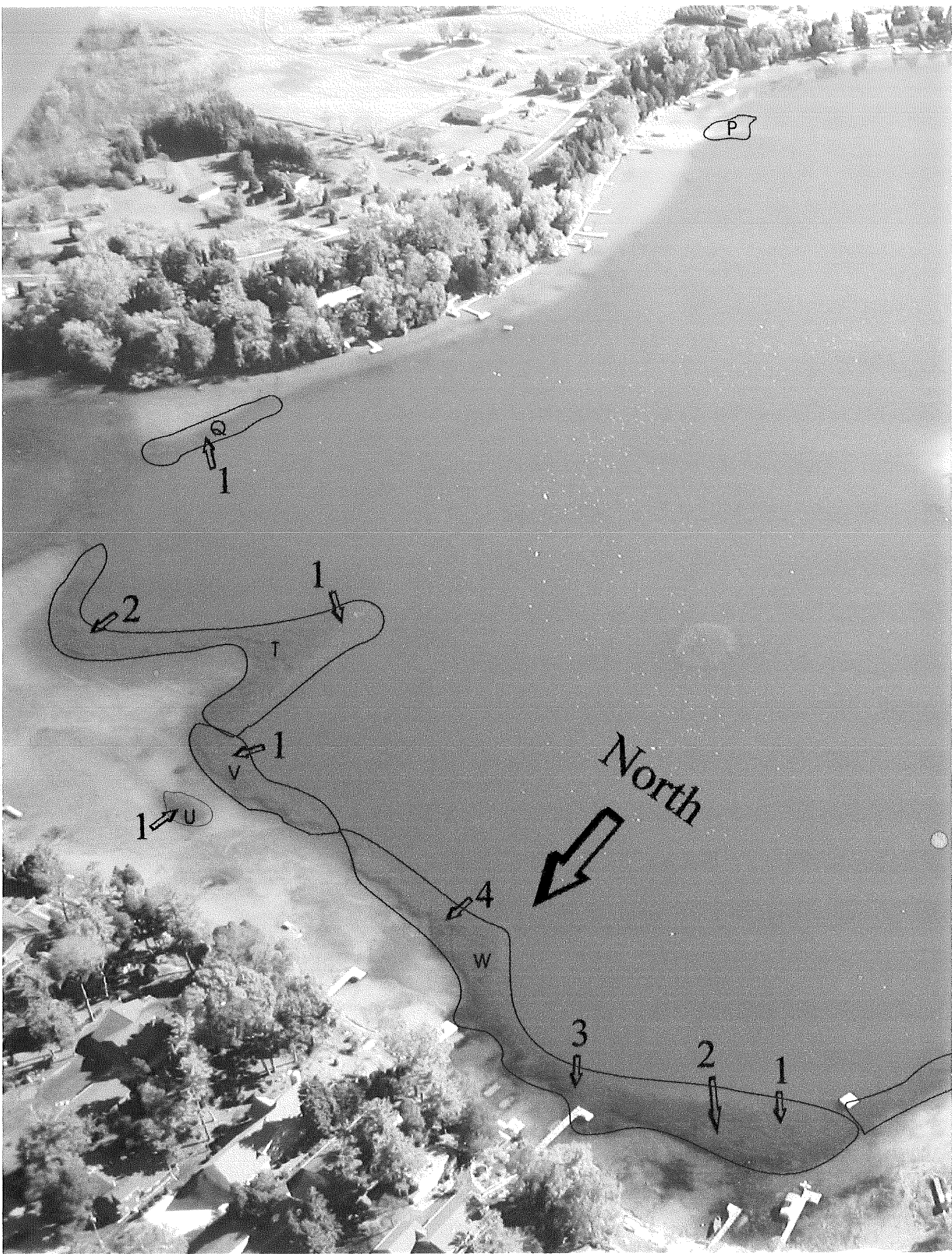
$$\frac{11,400}{43,560} = 2.6 \text{ acres proposed treatment of EWM}$$





North





**PIGEON LAKE WEED BED MEASUREMENTS & AQUATIC PLANTS**

performed by THE PLA WATER QUALITY COMMITTEE - (Jack Clarke, Julian Jetzer, John Kocourek)

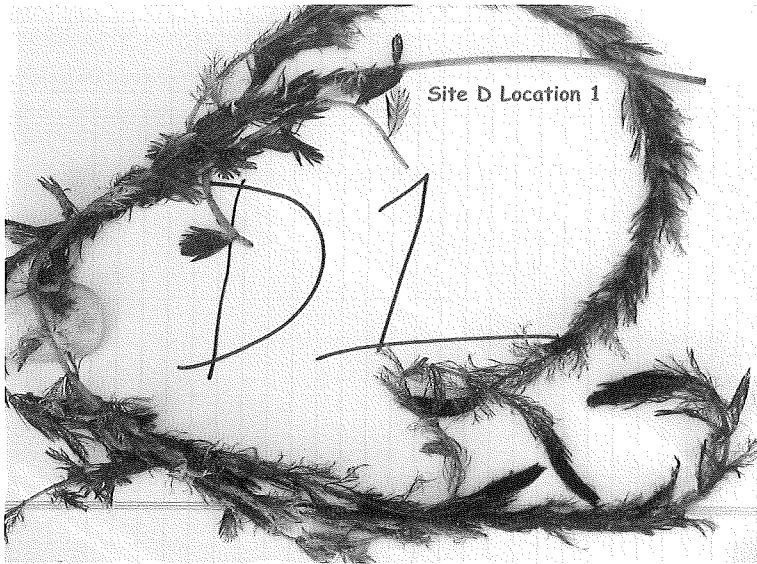
**DATE: SEPTEMBER 03, 2005 - 10:AM - 2:00PM**

SITE:	WIDTH	LENGTH	AREA-SQ.FT	AQUATIC PLANTS:	DENSITY:	G.P.S.	G.P.S.
						NORTH-LAT	WEST- LON
A.	40	75	3000				
B.	20	30	600				
C.	30	300	9000				
D.	30	100	3000				
D1				EURASIAN MILFOIL	97%	N43.59.287	W87.52.615
				GURLY LEAF PONDWEED	3%		
E.	30	200	6000				
E1				EURASIAN MILFOIL	100%	N43.59.242	W87.52.595
F.	30	280	8400				
F1				EURASIAN MILFOIL	98%	N43.59.285	W87.52.281
				CURLY LEAF PONDWEED	2%		
G.	30	100	3000				
H.	30	40	1200				
I.	30	140	4200				
J.	30	60	1800				
K.	10	25	250				
L.	30	360	10800				
M.	15	80	1200				
M1				EURASIAN MILFOIL	100%	N43.59.058	W87.52.484
N.	30	500	15000				
N1				EURASIAN MILFOIL	99%	N43.59.036	W87.52.497
				CURLY LEAF PONDWEED	1%		
O.	20	180	3600				
P.	25	440	11000				
Q.	60	150	9000				
Q1				EURASIAN MILFOIL	99%	N43.59.285	W87.52.281
				CURLY LEAF PONDWEED	1%		
R.	20	30	600				
R1				EURASIAN MILFOIL	95%	N43.59.362	W87.52.259
				CURLY LEAF PONDWEED	5%		
R2				EURASIAN MILFOIL	80%	N43.59.307	W87.52.228
				CURLY LEAF PONDWEED	20%		
S.	60	150	9000				
S1				EURASIAN MILFOIL	97%	N43.59.311	W87.52.197
				FLOATING PONDWEED	2%		
				HORNED PONDWEED	1%		
T.	30	200	6000				
T1				EURASIAN MILFOIL	97%	N43.59.337	W87.52.370
				CURLY LEAF PONDWEED	3%		
T2				EURASIAN MILFOIL	99%	N43.59.351	W87.52.318
				CURLY LEAF PONDWEED	1%		
U.	35	340	11900				
U1				EURASIAN MILFOIL	95%	N43.59.373	W87.52.387
				CURLY LEAF PONDWEED	5%		
				CHARA			
V.	40	20	800				
V1				EURASIAN MILFOIL	95%	N43.59.364	W87.52.377
				CURLY LEAF PONDWEED	2%		
				HORNED PONDWEED	1%		
				WATERSTAR GRASS	1%		
W.	60	600	36000				
W1				EURASIAN MILFOIL	99%	N43.59.570	W87.52.542
				CURLY LEAF PONDWEED	1%		
W2				EURASIAN MILFOIL	99%	N43.59.379	W87.52.520

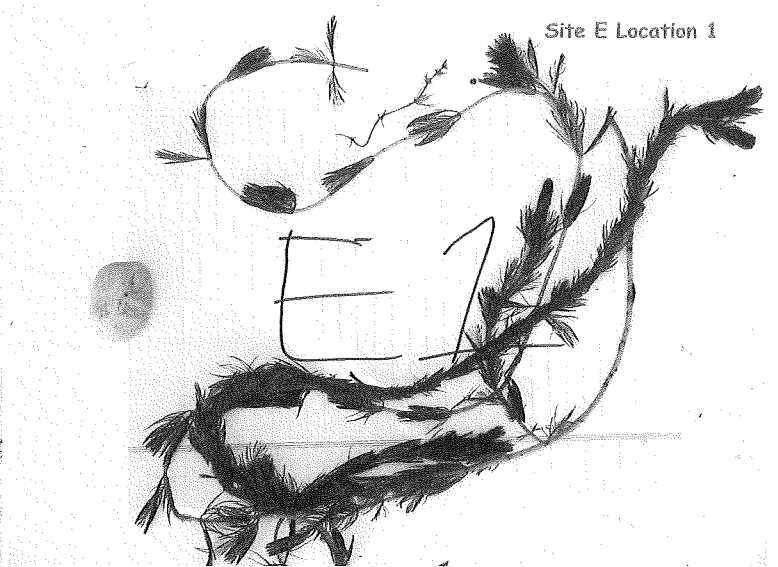
				CURLY LEAF PONDWEED	1%		
W3				EURASIAN MILFOIL	95%	N43.59.383	W87.52.480
				CURLY LEAF PONDWEED	4%		
				WATERSTAR GRASS	1%		
W4				EURASIAN MILFOIL	100%	N43.59.374	W87.52.442
X.	30	150	4500				
			159850				
SQ MILE	5280	5280	27878400				
SQ MILE	ACRES=	640	3.7 acres	TOTAL WEED BED SIZE			
1 ACRE	SQFEET=	43560	92,800 sq ft	11,400			
			2.1 acres	initial treatment plan			

2.6

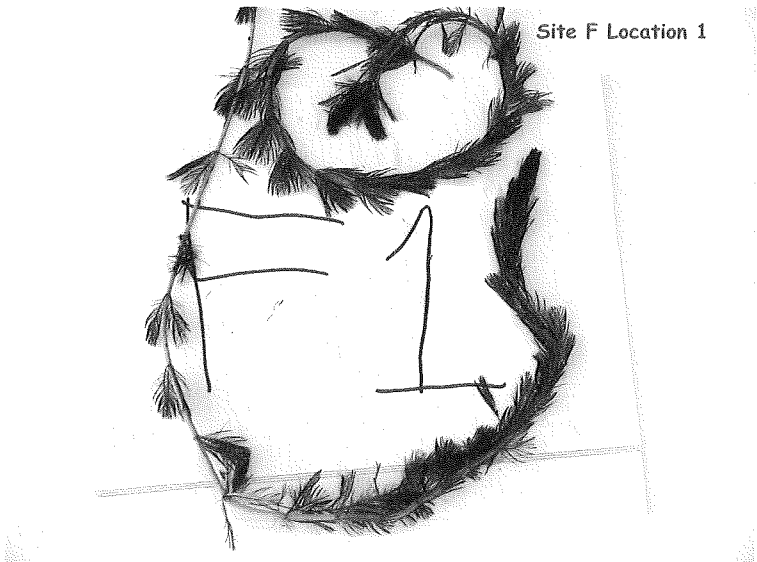




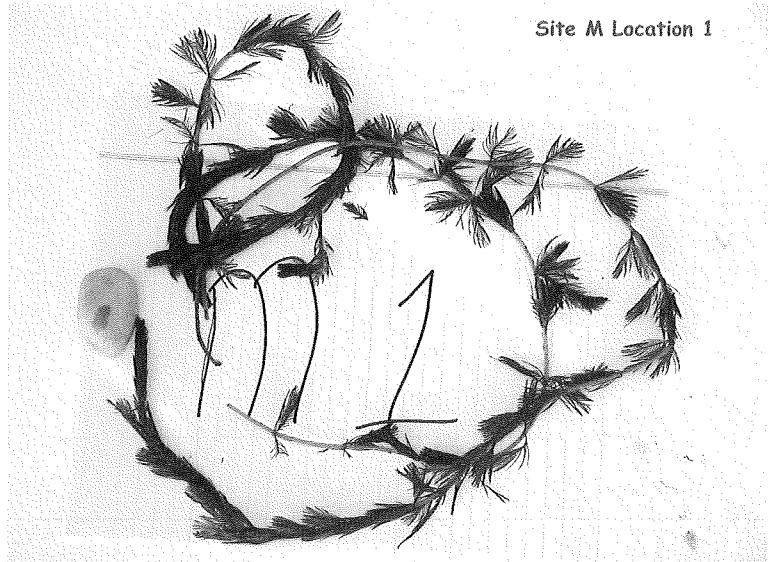
Site D Location 1



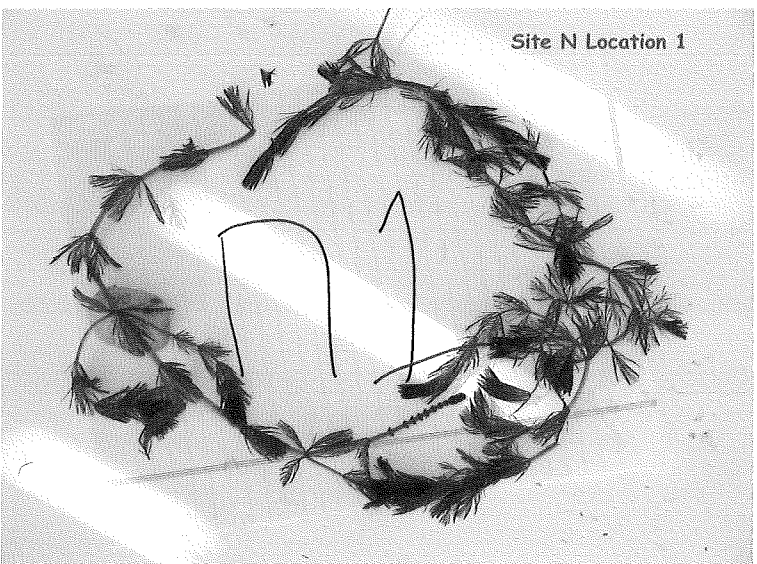
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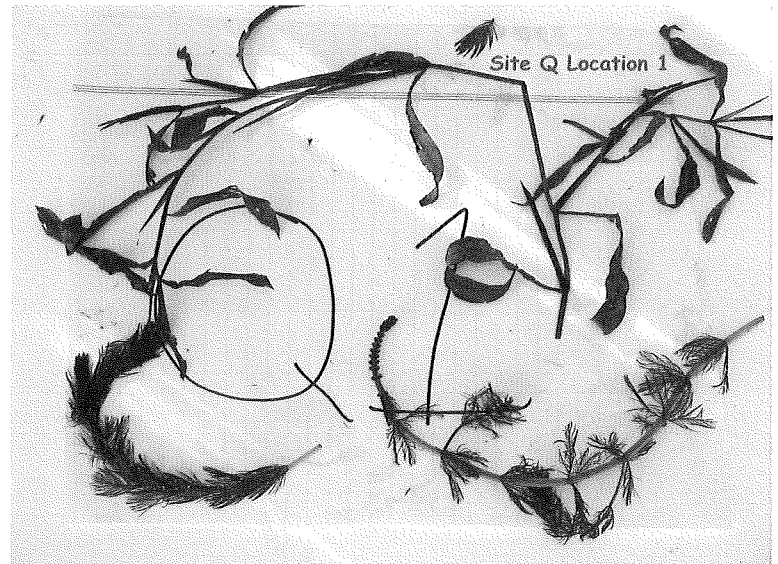
Site F Location 1



Site M Location 1



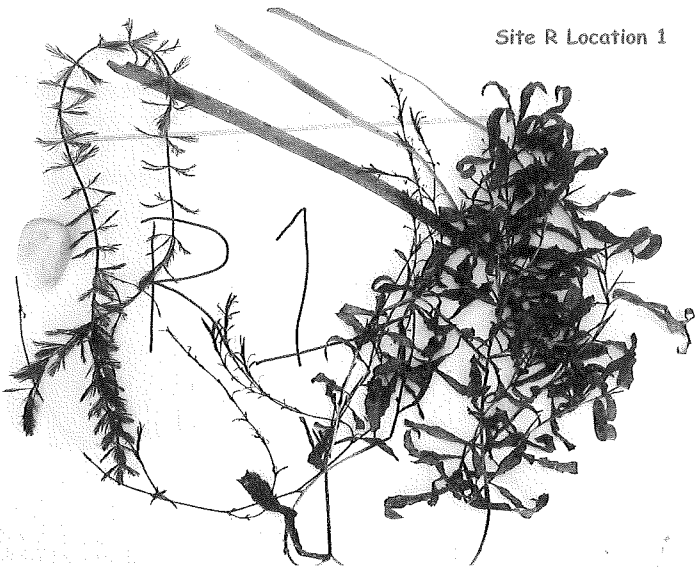
Site N Location 1



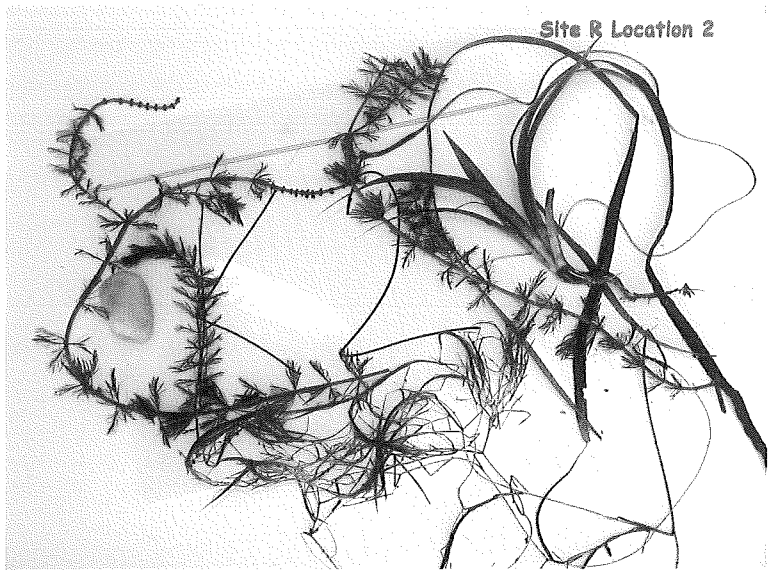
Site Q Location 1

*Pigeon Lake Water Quality Committee Weed Study  
Sept 3, 2005*

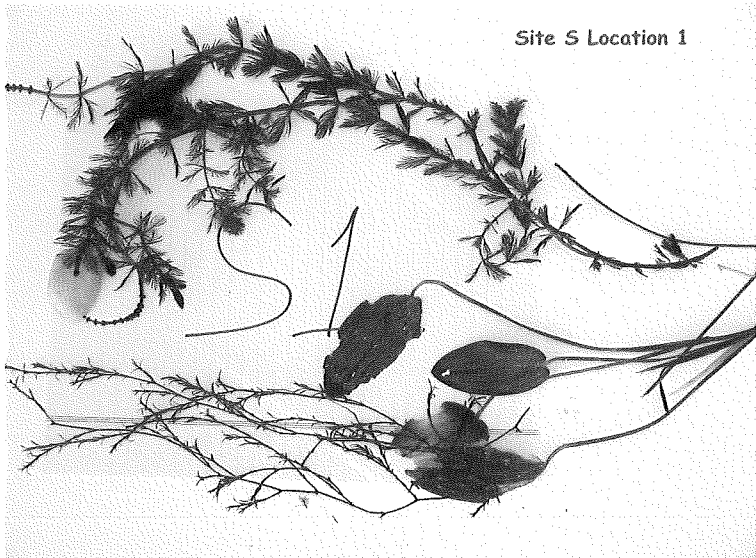
Site R Location 1



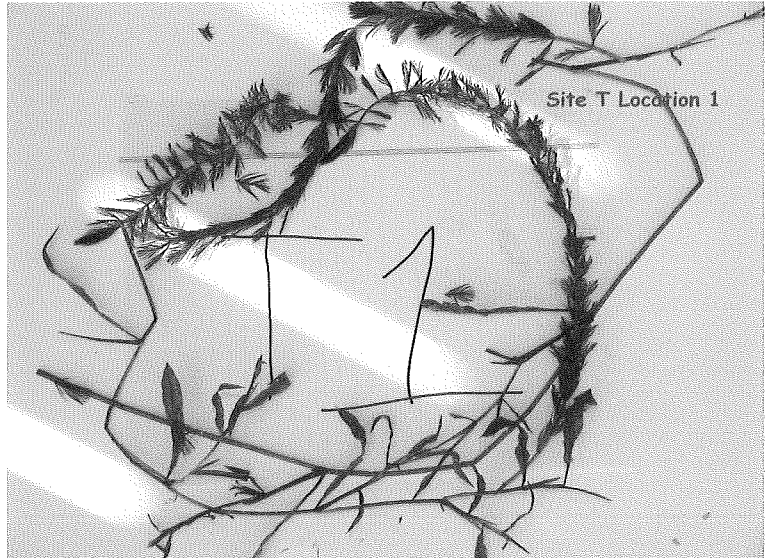
Site R Location 2



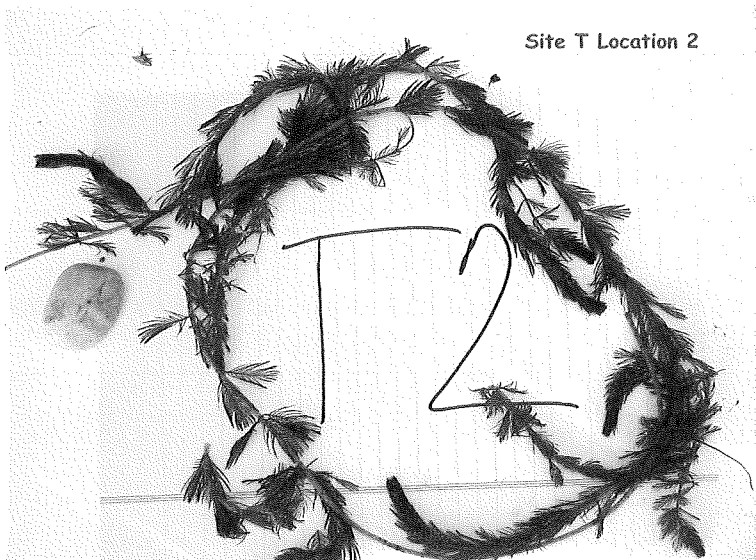
Site S Location 1



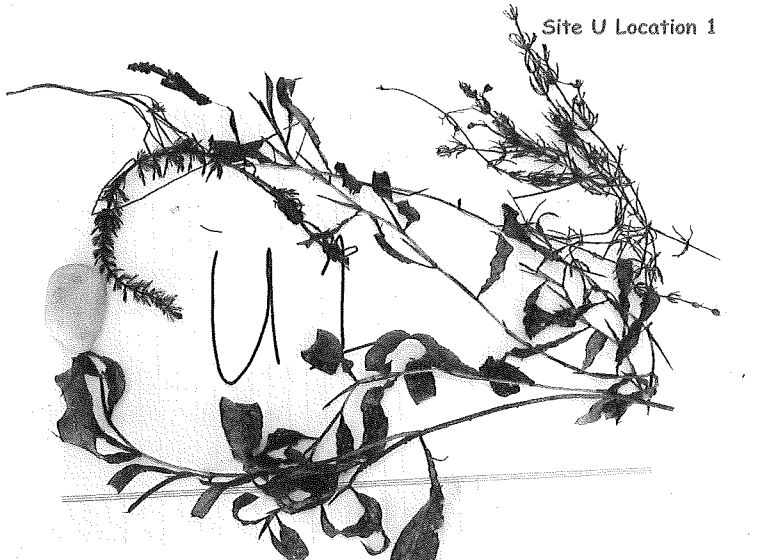
Site T Location 1



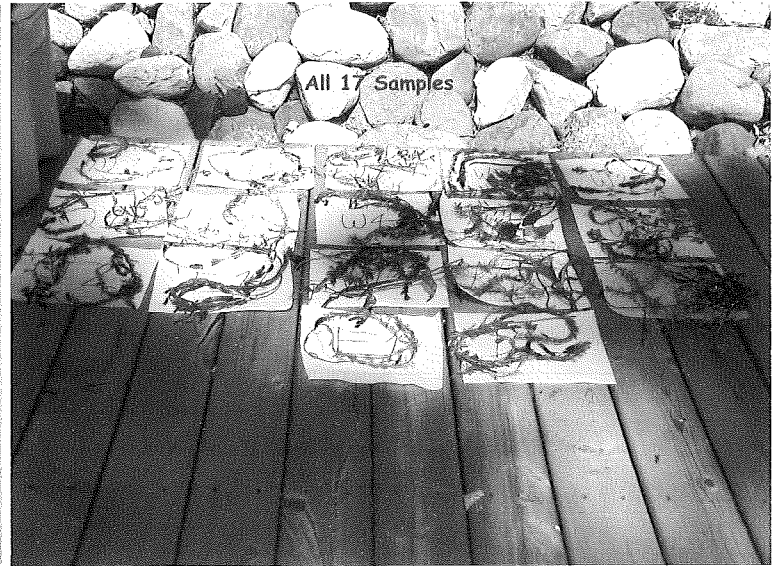
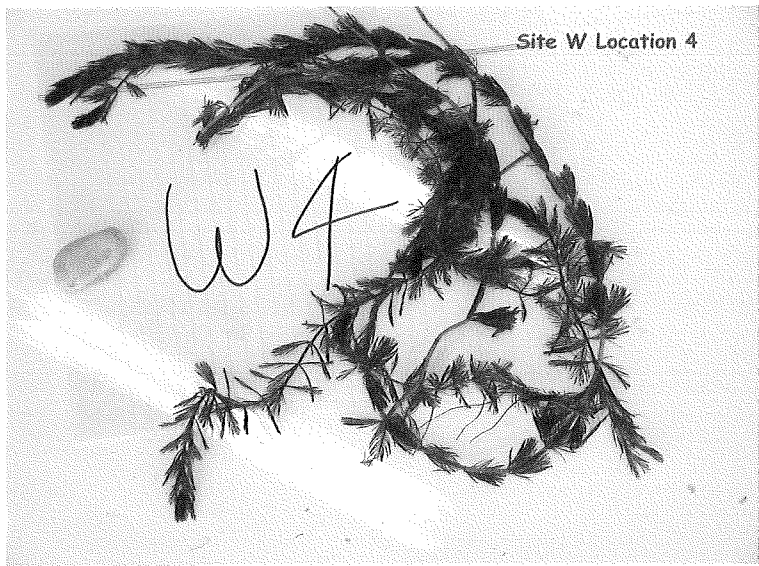
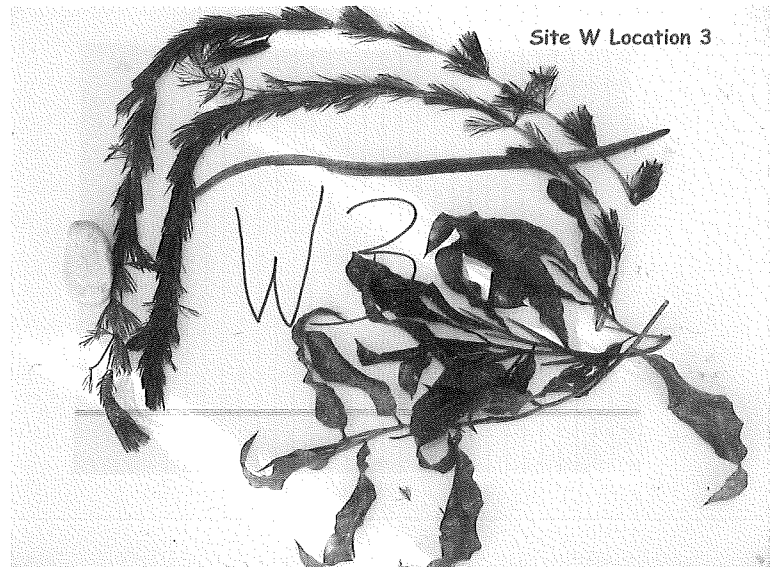
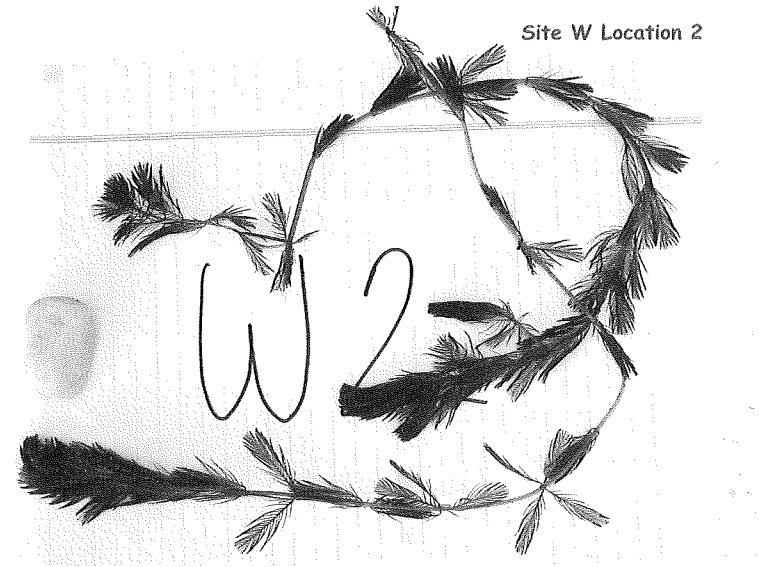
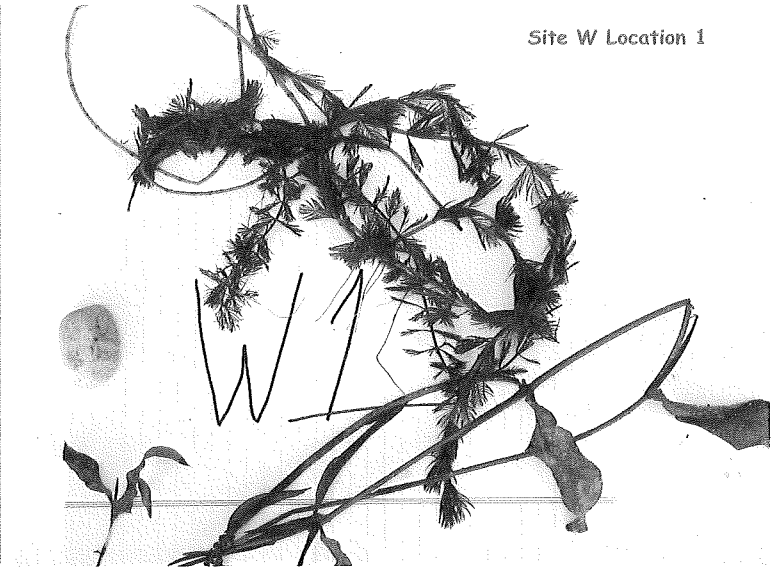
Site T Location 2



Site U Location 1



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