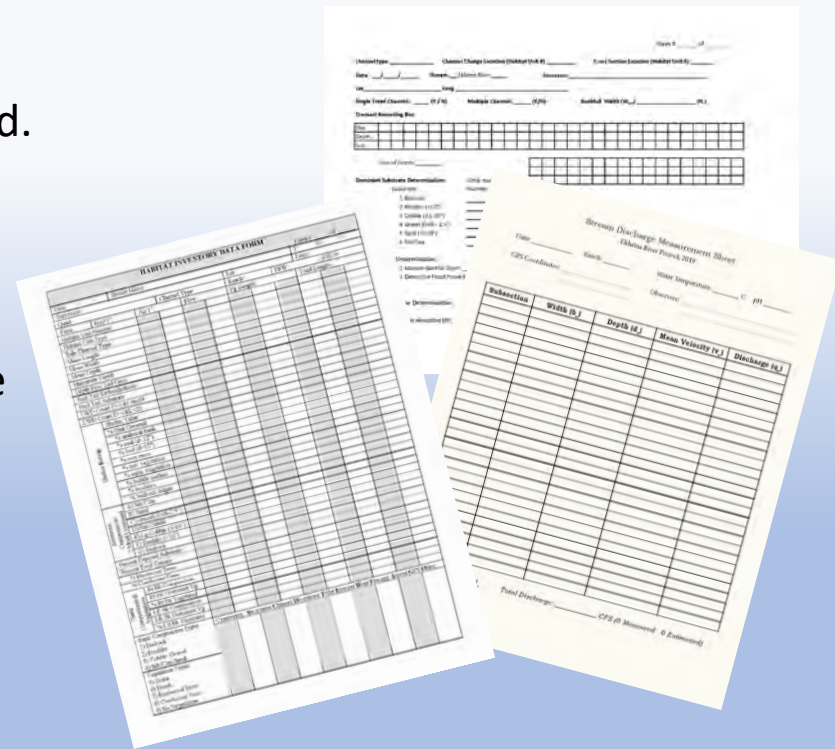




Eklutna River Habitat Characterization Study



- Habitat assessment followed the *California Salmonid Stream Habitat Restoration Manual (CSSHRM)* (Flosi et al., 2010).
 - A previous study in 2007 used the same method (*CSSHRM, 1998*) for the river from the mouth to Thunderbird Falls. It was decided to use the same methods for the whole river so that data could be compared.
- Substrate and vegetation were surveyed to determine reaches.
- In each reach, flow data and water temperature were recorded
- Photos were taken of each reach





Overview



Mouth of Eklutna River, looking upriver



Eklutna Lake Dam, looking upriver

- 11.85 miles of river
- 11 reaches
- 125 units
- Average Depth • 12 inches (0'' - 96'')
- Average Width • 19 feet (2' - >200')
- Average water temp • 8° C
- 16% of in-stream shelter
- 61% canopy cover
- 75% banks are vegetated



Reach 1

Avg. Depth (in)	13.43
Avg. Width (ft)	34.83
Approx. Length (ft)	1813.00
Approx. Length (miles)	0.34
continuous water flow	y
% watered	100
CFS	32.46
Flood Prone Width (ft)	54.1
Dominate Substrate	Cobble
current bankfulls (in)	28
max bankfull depth (in)	14
Instream shelter (%)	10.7
Total canopy (%)	0

Reach 2

Avg. Depth (in)	20.80
Avg. Width (ft)	74.00
Approx. Length (ft)	2882
Approx. Length (miles)	0.55
continuous water flow	Y
% watered	100
CFS	24.30
Flood Prone Width (ft)	400
Dominate Substrate	Silt/Clay
current bankfulls (in)	60
max bankfull depth (in)	30
Instream shelter (%)	43.3
Total canopy (%)	0



Reach 3

Avg. Depth (in)	12.75
Avg. Width (ft)	15.25
Approx. Length (ft)	3778
Approx. Length (miles)	0.72
continuous water flow	Y
% watered	100
CFS	19.1
Flood Prone Width (ft)	n/a
Dominate Substrate	gravel
current bankfulls (in)	24
max bankfull depth (in)	12
Instream shelter (%)	10.6
Total canopy (%)	50



Reach 4

Avg. Depth (in)	20.70
Avg. Width (ft)	33.44
Approx. Length (ft)	4025
Approx. Length (miles)	0.76
continuous water flow	Y
% watered	100
CFS	55.03
Flood Prone Width (ft)	n/a
Dominate Substrate	n/a
current bankfulls (in)	24
max bankfull depth (in)	12
Instream shelter (%)	21.5
Total canopy (%)	74.4





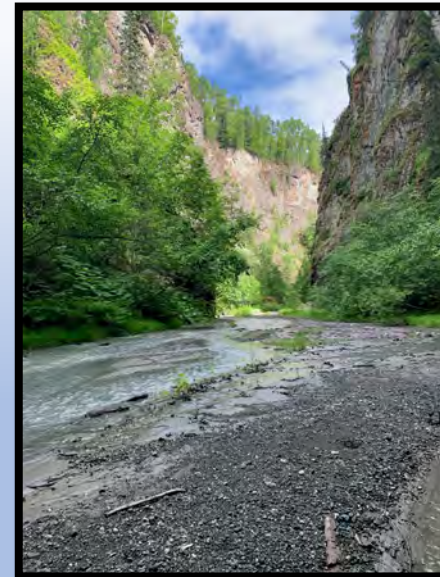
Reach 5

Avg. Depth (in)	18.75
Avg. Width (ft)	33.67
Approx. Length (ft)	3780.7
Approx. Length (miles)	0.72
continuous water flow	Y
% watered	100
CFS	37.1
Flood Prone Width (ft)	n/a
Dominate Substrate	Cobble
current bankfulls (in)	36
max bankfull depth (in)	18
Instream shelter (%)	20.6
Total canopy (%)	74.4



Reach 6

Avg. Depth (in)	9.92
Avg. Width (ft)	16.07
Approx. Length (ft)	6040
Approx. Length (miles)	1.14
continuous water flow	Y
% watered	100
CFS	3.8
Flood Prone Width (ft)	28
Dominate Substrate	Gravel and silt/clay
current bankfulls (in)	12
max bankfull depth (in)	6
Instream shelter (%)	4.6
Total canopy (%)	52.9





Where the lower dam once stood:

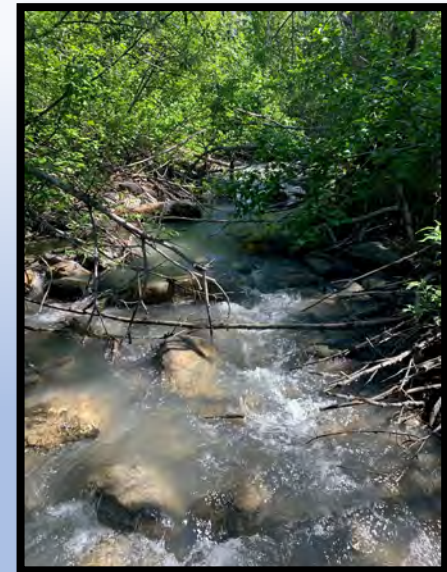
Reach 7

Avg. Depth (in)	11.91
Avg. Width (ft)	17.35
Approx. Length (ft)	4441
Approx. Length (miles)	0.84
continuous water flow	Y
% watered	100
CFS	10.8
Flood Prone Width (ft)	80
Dominate Substrate	gravel
current bankfulls (in)	20
max bankfull depth (in)	10
Instream shelter (%)	10.4
Total canopy (%)	50



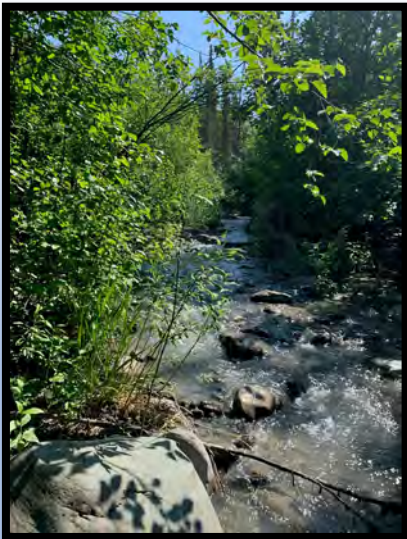
Reach 8

Avg. Depth (in)	7.45
Avg. Width (ft)	9.55
Approx. Length (ft)	4781
Approx. Length (miles)	0.91
continuous water flow	Y
% watered	100
CFS	6.8
Flood Prone Width (ft)	49
Dominate Substrate	sand
current bankfulls (in)	20
max bankfull depth (in)	10
Instream shelter (%)	21.4
Total canopy (%)	95.9



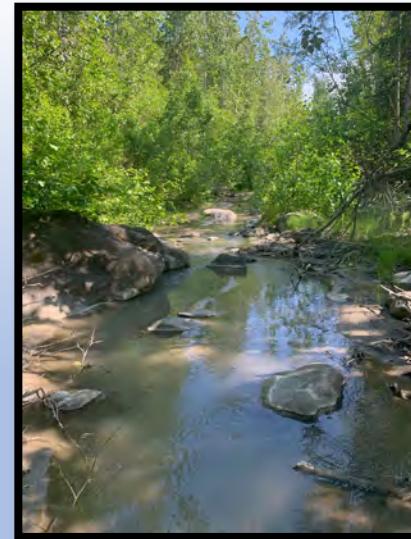
Reach 9

Avg. Depth (in)	6.21
Avg. Width (ft)	6.36
Approx. Length (ft)	4308
Approx. Length (miles)	0.82
continuous water flow	N
% watered	100
CFS	2.6
Flood Prone Width (ft)	67
Dominate Substrate	sand
current bankfulls (in)	10
max bankfull depth (in)	12
Instream shelter (%)	18.9
Total canopy (%)	86



Reach 10

Avg. Depth (in)	9.24
Avg. Width (ft)	13.65
Approx. Length (ft)	10994
Approx. Length (miles)	2.08
continuous water flow	N
% watered	100
CFS	2.76
Flood Prone Width (ft)	35
Dominate Substrate	cobble
current bankfulls (in)	12
max bankfull depth (in)	6
Instream shelter (%)	16.8
Total canopy (%)	73.6



Reach 11

Avg. Depth (in)	11.00
Avg. Width (ft)	17.33
Approx. Length (ft)	15744.78
Approx. Length (miles)	2.98
continuous water flow	N
% watered	0.55
CFS	-
Flood Prone Width (ft)	-
Dominate Substrate	-
current bankfulls (in)	-
max bankfull depth (in)	-
Instream shelter (%)	17.9
Total canopy (%)	68.3





Reach 2, beaver dam



Reach 10, beaver dam



Reach 7, rafting though a flooded area in the canyon

Łiq'a nagh qinqtudet

We are hopeful the salmon will return to us.