

TK
1/79Site No. 19050002-155

UNDEVELOPED HYDROELECTRIC SITE

State ALASKA County _____ Site Wells
 Location Sec's 28-29, T28N R 1E Seward Meridian Stream TALKEETNA
 Planned by (date) USGS 1952
 Reference TALKEETNA Mtns (B-S) Alaska Quad 44B-1952 Date 1952 Edition
 Quadrangle coverage TALKEETNA Mtns (B-S) ALASKA
 Land: Public _____ Private _____ Use: P, I, FC, MI, R

WS Alt = 1110' ✓	
Dam: Height <u>390'</u> Length _____	Undeveloped capacity <u>$Q_{50} = 19.2 \text{ MW}$ 55.721 MW theoretical</u>
Normal pool altitude <u>1500 feet</u>	Percent efficiency _____
Reservoir area <u>2806.44 acres</u>	Annual generation _____
Storage capacity <u>312,644.8 ac-ft</u>	Plant factor _____
Drainage area <u>825.2 square miles</u> <small>2.037 cfs/mi²</small>	Mean flow <u>1680.89 cfs = 1,216,962 ac-ft/yr</u>
Gross head <u>1500-1020 = 480 feet (2 mi diversion?)</u>	Period of record <u>11 yrs (1975) gage 15292700, gage ratio</u>

Remarks: I don't see any advantage in diverting to elev. 1020' - fall doesn't seem to increase below site. Unless there is upstream storage a 312,600 ac-ft reservoir wouldn't regulate flow - use Q_{50} flows?

$$Q_{50} = 1681 / 2.9 = 580 \text{ cfs}$$

Prepared by TK Date 12/78
5120 8/78